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CITY OF LEEDS

REPORT

ON THE

Health & Sanitary
Administration

OF THE CITY

FOR THE YEAR 1934

By J. JOHNSTONE JERVIS, M.D., D.P.H.,

Medical Officer of Health.

TABLE OF CONTENTS.

NATURAL AND SOCIAL CONDITIONS.

	PAGE
AREA AND POPULATION	18
DWELLING HOUSES	18
RATEABLE VALUE	18
PRINCIPAL INDUSTRIES	18
METEOROLOGICAL CONDITIONS	18
NATIONAL HEALTH INSURANCE ACTS	21
VITAL STATISTICS—	
Marriages	21
Births	22
Births in Wards	26
Birth-rate in Quarters	23
Excess of Births over Deaths	26
Births into Families	26
Illegitimate Births	26
Stillbirths	27
Deaths	28
Death-rate in Quarters	29
Death-rate in Wards	30
Causes of Death	30
Deaths from Street Accidents	31
Deaths in Age Groups	31
Infantile Mortality	31
Comparison with Other Towns	32
CREMATION	32

INFECTIOUS AND OTHER DISEASES.

SMALLPOX	42
VACCINATION	43
DIPHTHERIA	44
SCARLET FEVER	48
MEASLES	49
WHOOPING COUGH	51
ERYSIPELAS	52
ENCEPHALITIS LETHARGICA	52
MALARIA AND DYSENTERY	52
ACUTE ANTERIOR POLIOMYELITIS	52
CEREBRO-SPINAL MENINGITIS	52
PUERPERAL FEVER AND PUERPERAL PYREXIA	53
OPHTHALMIA NEONATORUM	53
ENTERIC FEVER	55
INFLUENZA	57
DIARRHŒA AND ENTERITIS	59
PNEUMONIA	60
BRONCHITIS	60
CANCER	61
FOOD POISONING	65
EPIDEMIC CATARRHAL JAUNDICE	65
HANDLING OF FOOD, &c., BY INFECTED PERSONS CARRYING ON	
BUSINESS	65
AMBULANCE WORK	66
DISINFECTION	66
VERMINOUS PERSONS	66
BACTERIOLOGICAL WORK	69
INFECTIOUS DISEASE HOSPITAL (SEACROFT)	70

INFECTIOUS AND OTHER DISEASES—continued.**PAGE**

VENEREAL DISEASES	89
Statistics	89
Work of Treatment Centre	89
Institutions.. .. .	90
Supply of Salvarsan Substitutes	90
Pathological Work	91

MUNICIPAL HOSPITALS	96
-----------------------------	----

TUBERCULOSIS.

Statistics	128
Institutional Accommodation for Tuberculosis	134
Public Health Act, 1925, Section 62	134
Dispensary and Sanatoria	138 and 150
Care Work	146
Factory-in-the-Field	146

MATERNITY AND CHILD WELFARE.

STATISTICS	158
Causes of Infant Death	158
Deaths in Age Groups	159
Neo-natal Death-rate	162
Illegitimate Death-rate	162
Death-rate in Quarters	163
MATERNAL MORTALITY.. .. .	163 and 182
SUPERVISION OF MIDWIVES—	
Number of Midwives	169
Inspection of Midwives	170
Advising Medical Help	170
Midwives' Emergencies	171
Puerperal Fever Cases	171
Ophthalmia Neonatorum.. .. .	172
Pemphigus Neonatorum	172
Municipal Midwives	172
Handywomen	173
ANTE-NATAL WORK	173
CONSULTATIVE ANTE-NATAL CLINIC AT HOLBECK	179
NATAL WORK	180
SPECIALIST SERVICE	181
MATERNITY AND NURSING HOMES	181
STILL-BIRTHS AND NEO-NATAL MORTALITY	183
POST-NATAL SUPERVISION	185
Home Visiting	185
Infant Protection Visits	186
Infant Welfare Centres (" Welcomes ")	186
Infant Consultations	188
Medical Findings at Welcomes	191
Leeds Babies' Welcome Association	198
Artificial Sunlight Clinics	198
Orthopædic Clinic	199
Dental Clinic	200
Venereal Diseases Clinic	201
MILK DISTRIBUTION	201
THE INFANTS' HOSPITAL, WYTHAM	205
DAY NURSERY	205
RESIDENTIAL NURSERY	205
CONVALESCENT TREATMENT FOR MOTHERS AND BABIES	206

PAGE

INSPECTION AND SUPERVISION OF FOOD.

MEAT INSPECTION	212
Tuberculous Carcases	214
Slaughterhouses	212
Meat and Other Foods Condemned as Unsound	213
Slaughter of Animals Act, 1933	214
Shellfish	215
Public Health (Meat) Regulations, 1924	215
Food Preparing Places	216

DISEASES OF ANIMALS ACTS	216
Tuberculosis Order of 1925	216
Swine Fever Order of 1908	219
Regulation of Movement of Swine Order of 1922	219
Parasitic Mange Order of 1911 and 1918	219
Exportation and Transit of Horses, Asses and Mules Order of 1911	219
Anthrax Order of 1928	220
Sheep Scab Order of 1928	220
Foot and Mouth Disease	220
Animals (Landing from Ireland, Channel Isles and Isle of Man) Order of 1933	220
Importation of Canadian Cattle Order of 1933	220
Transit of Animals (Amendment) Order, 1931	220
Importation of Dogs and Cats Order of 1928	221

MILK AND DAIRIES	222
TOWN PRODUCED MILK	222
COUNTRY MILK	223
GRADED MILK AND ISSUE OF LICENCES	223
DAIRY FARMS AND MILKSHOPS	224
BIOLOGICAL TESTS	226
PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS 1925	227
DEPARTMENTAL LABORATORY	227
FOOD AND DRUGS AND FERTILISERS AND FEEDING STUFFS	230
FOOD AND DRUGS	230
ICE CREAM (LEEDS CORPORATION ACT, 1930)	230
FERTILISERS AND FEEDING STUFFS ACT, 1926	230
CITY ANALYST'S REPORT	232

SANITARY CIRCUMSTANCES.

RIVERS AND STREAMS	248
WATER	248
SEWAGE DISPOSAL	249
CLOSET ACCOMMODATION	249
CLEANSING	251

	PAGE
SANITARY ADMINISTRATION—	
Ashpits and Ashbins	251
Public Conveniences	252
Flushing	252
Section 17, Housing Act, 1930	252
Leeds Corporation Act, 1927, Section 95	252
Offensive Trades	252
District Sanitary Inspection	253
Common Lodging Houses	256
Houses-let-in-Lodgings	258
University Lodgings	259
Residential Flats	259
Cellar Dwellings	259
Tents and Vans	260
Canal Boats	261
Schools	261
Rat Suppression	261
Pig Keeping	262
Factories and Workshops	263
Plans	262
Work of Women Inspectors	267
Disinfestation	67 and 264
RAG FLOCK ACTS, 1911 AND 1928	265
MORTUARY ACCOMMODATION	265
SMOKE ABATEMENT	269
HOUSING	276
NUMBER OF HOUSES	276
HOUSING SHORTAGE	277
OVERCROWDING	278
VERMINOUS HOUSES	278
UNFIT HOUSES	279
UNHEALTHY AREAS	279
HEALTH EDUCATION, AND PROPAGANDA	288
STAFF CHANGES	290
CHARTS—	
BIRTH-RATE, 1890-1934	opposite page 22
BIRTH-RATE AND MARRIAGE RATE 1904-1934	24
DEATH RATE, 1890-1934	38
SCARLET FEVER CASE AND DEATH RATES, 1895-1934	48
CANCER DEATH RATE, 1891-1934	64
TUBERCULOSIS DEATH RATE, 1890-1934	134
INFANT MORTALITY RATE, 1890-1934	160
APPENDICES—	
MINISTRY OF HEALTH TABLES	1, 2, 3 and 4

PUBLIC HEALTH COMMITTEE.

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Chairman : Councillor G. BRETT.

Councillor BLANCHE LEIGH.	Councillor GERTRUDE WARDLE.
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„ ELIZABETH BOOTH	„ J. WILKINSON.
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„ D. BEEVERS.	„ FLORENCE E. HUTSON.
„ J. W. HEMINGWAY.	„ A. E. WEAVER.
„ LIZZIE NAYLOR.	„ C. JENKINSON.
„ WINIFRED SHUTT.	„ BEATRICE C. IVES.

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MATERNITY AND CHILD WELFARE.

Chairman : Councillor Z. P. FERNANDEZ.

Councillor BLANCHE LEIGH.	Councillor LIZZIE NAYLOR.
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Mrs. R. H. BLACKBURN.	Mrs. AUSTYN BARRAN.
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Dr. CLARA STEWART.	

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Chairman : Councillor G. BRETT.

Councillor ELIZABETH BOOTH.	Councillor LIZZIE NAYLOR.
„ BLANCHE LEIGH.	„ Z. P. FERNANDEZ.
„ J. W. HEMINGWAY.	„ C. JENKINSON.
„ A. E. WEAVER.	„ WINIFRED SHUTT.

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„ J. W. HEMINGWAY.	

JOINT DAY NURSERIES.

Chairman : Councillor Z. P. FERNANDEZ.

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Councillor ELIZABETH BOOTH.	Mrs. A. MATTISON.
„ LIZZIE NAYLOR.	

Representing Leeds Day Nurseries Association :

Councillor GERTRUDE HALBOT, J.P. | Councillor BEATRICE C. IVES.

CATTLE DISEASES, MILK AND MEAT.

Chairman : Councillor BEATRICE C. IVES.

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Councillor D. BEEVERS.	Councillor GERTRUDE A. STEVENSON
„ ELIZABETH BOOTH.	„ Z. P. FERNANDEZ.
„ BEATRICE IVES.	„ LIZZIE NAYLOR.
„ C. JENKINSON.	

PUBLIC HEALTH STAFF.

Medical Officer of Health and Chief Tuberculosis Officer	J. JOHNSTONE JERVIS, M.D., Ch.B., D.P.H.
Deputy Medical Officer of Health ..	J. SHARPE, M.B., F.R.F.P. & S., D.P.H.
Assistant Medical Officer of Health for Maternity and Child Welfare and Medical Officer of Infants' Hospital	GLADYS J. C. RUSSELL, M.B., Ch.B., D.P.H.
Assistant Medical Officers for Maternity and Child Welfare	SARAH N. S. BARKER, M.B., Ch.B., L.R.C.P., M.R.C.S. MARIA L. GAUNT, M.B., Ch.B. ANNE M. FORREST, M.B., Ch.B., D.P.H. MARION KNOWLES, M.B., Ch.B. MARGARET S. M. REID, M.D., D.P.H.
Chief Clinical Tuberculosis Officer ..	N. TATTERSALL, M.D., B.S.
Assistant Clinical Tuberculosis Officer	S. THOMPSON, M.B., Ch.B., L.M.S.S.A.
Assistant Clinical Tuberculosis Officer	M. I. JACKSON, M.R.C.S., L.R.C.P.
Dental Officer for Maternity and Child Welfare and Tuberculosis	W. L. FLEMING, L.D.S.
Municipal Hospitals—	
Medical Superintendent ..	J. DICK, M.B., Ch.B., D.P.H.
St. James's Hospital—	
Deputy Medical Superintendent	W. MCINTOSH, M.B., Ch.B.
St. Mary's Infirmary—	
Resident Medical Officer ..	E. L. BRITTAIN, M.B., Ch.B.
St. George's Infirmary—	
Visiting Medical Officer ..	M. MELVIN, M.B., Ch.B.
Medical Superintendents—	
Infectious Disease Hospital (Seacroft).	J. S. ANDERSON, M.A., M.D., Ch.B., D.P.H.
Killingbeck Sanatorium	W. S. GILMOUR, M.B., Ch.B.
Gateforth Sanatorium—	
Resident Medical Officer ..	A. C. MEEK, M.A., M.B., Ch.B., D.P.H.
Venereal Diseases Officer	J. P. BIBBY, M.B., Ch.B., M.R.C.P.
Assistant Medical Officer for Venereal Disease	M. STODDART-SCOTT, M.D., Ch.B.
Do. do.	DOROTHY PRIESTLEY, M.D., B.S.
City Bacteriologist	J. W. McLEOD, F.R.S., M.B., Ch.B.
Public Vaccinators	E. S. G. FOWLER, M.R.C.S., L.R.C.P.
Do. do.	M. SHERWIN, M.B., Ch.B.
Do. do.	A. A. ROBERTS, M.B., Ch.B.
Do. do.	N. F. WINDER, M.B., Ch.B.
Do. do.	W. PEARCE, M.R.C.S., L.R.C.P.

Public Vaccinators	..	..	..	F. W. M. GREAVES, M.D., Ch.B., D.P.H.
Do.	do.	..	..	J. E. MIDDLEMISS, F.R.F.P.S., M.R.C.S.
Do.	do.	..	..	J. CARDIS, M.D.
Do.	do.	..	..	C. P. KELLY, Jun., M.B., Ch.B., B.A.O.
Do.	do.	..	..	J. J. REYNOLDS, M.B., Ch.B.
Do.	do.	..	..	W. H. BEAN, B.A., M.B., Ch.B.
Do.	do.	..	..	J. E. RUSBY, L.M.S.S.A.
Do.	do.	..	..	W. WAY, M.R.C.S., L.R.C.P.
Do.	do.	..	..	W. MURISON SMITH, M.B., Ch.B.
Do.	do.	..	..	T. D. PRATT, M.B., Ch.B., M.R.C.S., L.R.C.P.
Do.	do.	..	..	W. G. PLATT, M.B., Ch.B., M.R.C.S., L.R.C.P.
Do.	do.	..	..	J. H. E. MOORE, M.A., M.B., Ch.B.
Do.	do.	..	..	E. W. HARDMAN, M.B., Ch.B.
Do.	do.	..	..	H. F. HOLLIS, M.B., Ch.B.
Do.	do.	..	..	J. P. G. DALY, M.B., Ch.B., B.A.O.
Do.	do.	..	..	J. A. YOUNG, M.R.C.S., L.R.C.P.
Do.	do.	..	..	J. DICK, M.B., Ch.B., D.P.H.
Do.	do.	..	..	F. DANKS, M.B., Ch.B.
Do.	do.	..	..	M. MELVIN, M.B., Ch.B.
Chief Veterinary Officer	..	..	..	J. A. DIXON, M.R.C.V.S.
Assistant Veterinary Officer	..	..	..	E. F. McCLEERY, M.R.C.V.S., D.V.S.M.
City Analyst	..	..	..	C. H. MANLEY, M.A., F.I.C.
Assistant City Analyst	..	..	..	A. HOULBROOKE, M.Sc., F.I.C.
Chief Sanitary Inspector	..	..	..	E. STANDISH.
Divisional Sanitary Inspector	..	..	..	G. F. MARSHALL.
Do.	do.	..	..	J. RICHARDSON.
Removal Officer	..	..	..	D. FERGUSON.
Chief Health Visitor and Inspector of Midwives	..	..	..	MARY E. HUGHES.
Principal Clerks—				
Finance	..	..	..	A. R. BEST.
Statistics	..	..	..	J. P. MOIR.
Sanitary	..	..	..	A. SPARKS.
Infectious Diseases	..	..	..	H. O. PEAKE.
Secretarial	..	..	..	P. A. WOODCOCK.
Food and Drugs	..	..	..	C. STEAD.
Tuberculosis Dispensary	..	..	..	F. H. WOOD.
Hospitals	..	..	..	J. FOLKARD.

Special Inspectors including Smoke, Lodging-houses, Food and Drugs, Dairies, Meat, Workshops and Diseases of Animals	15
Laboratory Assistant	1
Sanitary Inspectors	19
Vaccination Officers (5 part-time)	6
Female Sanitary Inspectors	2
Health Visitors	35
Sunlight, Orthopædic and Dental Nurses	3
Chief Health Visitor and Inspector of Midwives	1
Tuberculosis Nurses	11
Dispensers	7
Masseuses	3
Clerical Staff and Almoners	49
Ambulance and Disinfecting Staff	18
Flushing Staff	5
Disinfestation	27
St. James's Hospital (7 Consulting Surgeons, 4 Consulting Physicians, 1 Pathologist, 1 Radiologist, 4 House Physicians, 3 House Surgeons, 1 Chaplain, 1 Dentist (part time), 1 Matron, 2 Assistant Matrons, 1 Home Sister, 1 Sister Tutor, 1 Housekeeper Sister, 2 Masseuses, 1 Masseur, 2 Dispensers, 2 Lady Almoners, 1 X-Ray Sister, 23 Nursing Sisters, 25 Staff Nurses and Pupil Midwives, 150 Pro- bationer Nurses, 12 Resident Assistant Nurses, 15 Non-Resident Assistant Nurses, 2 Charge Attendants (Mental Wards), 19 Mental Ward Attendants, 1 Male Charge Attendant, 31 Male Nurse Attendants, 1 Cook, 24 Maids, 1 Steward, 1 Assistant Steward, 9 Clerks, 3 Office Attendants, 2 Laboratory Assistants, 17 Male Servants (Porters, etc.), 1 Children's Attendant, 11 Female Servants (Sewing Room), 65 Cleaners)	449
St. Mary's Infirmary (1 Resident Medical Officer, 1 Matron, 1 Assistant Matron, 1 Home Sister and Sister Tutor, 6 Nursing Sisters, 2 Staff Nurses, 5 Pupil Midwives, 29 Probationer Nurses, 1 Female Cook, 1 Male Cook, 1 Female Assistant Cook, 3 Maids, 1 Steward, 2 Clerks, 1 Engineer, 3 Stokers, 12 Male Servants (Porters, etc.), 2 Seam- stresses, 1 Head Laundress, 13 Female Laundry Hands, 2 Male Laundry Hands, 21 Cleaners)	110
St. George's Infirmary (1 Part-time Medical Officer, 1 Matron, 3 Nursing Sisters, 16 Assistant Nurses, 2 Cooks, 2 Maids, 1 Steward, 2 Clerks, 2 Engineers, 3 Stokers, 2 Porters, 1 Portress, 1 Baker, 1 Gardener, 5 Labourers, 2 Seamstresses, 1 Head Laundress, 10 Laundry Hands, 13 Cleaners)	69
City Hospital, Seacroft (3 Assistant Medical Officers, 1 Matron, 2 Assistant Matrons, 1 Sister Tutor, 112 Nurses, 69 Female Servants, 1 Chief Engineer, 1 Steward, 43 Male Servants, including Engineers, Porters, etc., 1 Dispenser, 2 Clerks)	236

Killingbeck Sanatorium (2 Assistant Medical Officers, 1 Matron, 1 Assistant Matron, 1 Home Sister, 1 Dispenser, 2 Clerks, 17 Porters, etc., 6 Sisters, 43 Nurses, 48 Maids, 2 Teachers, 1 Handicrafts Instructor)	125
Gateforth Sanatorium (1 Matron, 1 Sister, 1 Assistant Nurse, 2 Probationer Nurses, 1 Cook, 7 Maids, 1 Working Foreman, 1 Handyman, 1 Gardener and 2 Labourers)	18
The Hollies Children's Sanatorium (1 Matron, 1 Sister, 3 Assistant Nurses, 2 Teachers, 1 Cook, 3 Maids, 1 Handyman)	12
Infants' Hospital, Wyther (1 Matron, 1 Sister, 1 Masseuse, 4 Staff Nurses, 13 Probationer Nurses, 1 Nursery Attendant, 1 Cook, 5 Maids, 2 Laundresses, 1 Handyman, 1 Gardener)	31
Spring Bank Residential Nursery (1 Matron, 1 Sister, 11 Probationer Nurses, 3 Housemaids, 1 Gardener, 1 Assistant Gardener)	18
Cobden Place Day Nursery and Blenheim Hostel (1 Matron, 1 Sister, 9 Probationer Nurses, 1 Cook, 3 Maids)	15
The Factory-in-the-Field (1 Manager, 1 Clerk. Firewood Department :—(1 Foreman, 16 Men, 2 Female Firelighter Makers, 3 Drivers, 6 Travellers). Brush Department :—(1 Foreman, 5 Brushmakers, 1 Traveller). Printing Department :—(1 Foreman, 5 Printers), 1 Gardener, 1 Caretaker and Cook, 1 Assistant Cook)	46

City of Leeds.

To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I present my Annual Report for the year 1934.

The death-rate, 12·9, is one of the lowest on record, the infant mortality rate, 71, is the lowest but one on record, and the birth-rate, 14·8, the highest since 1930. With a low death-rate and a relatively high birth-rate the natural increase of the population reached a figure (899) not surpassed since 1930. The increase is welcome and may be regarded as a healthy reaction after the depression of the last two decades. Though not sanguine enough to believe that the improvement in the birth-rate will be maintained, I think one may reasonably anticipate a further decline in the death-rate which, as will be observed from the table on page 32, still compares unfavourably with the death-rates of most of the other large towns in England and Wales.

Infectious sickness was more than usually prevalent during the year, there being extensive outbreaks of scarlet fever and measles, while the epidemic of diphtheria which began in 1930 continued with unabated vigour reaching proportions never before attained in the epidemiological history of the City.

Happily, in the two former, the type was mild and the death-rate consequently low, while in the latter, though the type was severe, the death-rate was not as high as might have been expected. Even so it is twenty-four years since diphtheria claimed as many lives as in 1934.

For a time the resources of the Department were strained to the utmost to meet the emergency created by the full and rapidly flowing tide of epidemic sickness. The staff, both professional and administrative, bent themselves to their task with a will and spared no pains to ensure for each case speedy and effectual help. In this they were backed up by all sections of the community, including in particular the Press whose services throughout were invaluable, the general practitioners, the school teachers and staff of the Education Department. To all those and not least to the members of the Health Committee, who never failed to treat with sympathy any request made for additional

assistance, I wish to take this opportunity of making due acknowledgment. A description in detail of the measures adopted in dealing with the situation is given in the body of the report.

While new low records were made in such diseases as influenza, bronchitis and tuberculosis, the mortality from cancer jumped up to a higher figure than ever before reached. This is disconcerting though considering the nature of the disease and our imperfect knowledge of the cause the increase need occasion no surprise.

The great event of the year was the transference on October 1st of the Hospitals from the Public Assistance Committee to the Health Committee. Thus has come to pass what was anticipated by the Local Government Act of 1929 and what I have long hoped for and worked for. The Poor Law in its attitude to sickness had become an anachronism and in so far as it is still responsible for the treatment of the sick continues to be an anachronism and should be replaced by more modern methods.

Though the new regime is only a few months old, there is already evidence of a freer and healthier growth which in years to come will develop into a hospital service of which the city may be justly proud. That will not be achieved, however, without the expenditure of money to bring buildings and equipment up-to-date, as is pointed out by Dr. Dick, the Medical Superintendent, in his report on page 116.

Meanwhile an endeavour must be made to co-ordinate the work of the municipal and voluntary hospitals in such a way as to avoid overlapping and the unnecessary duplication of expensive medical equipment.

The taking over by the Health Committee of the Hospitals marks the first step in the evolution of the greater scheme for the unification of all the municipal medical services, and I look forward hopefully to further developments in this direction.

Towards the end of the year a proposal to erect a Health Centre on the Middleton Housing Estate was adopted by the Health Committee. A suitable site has been offered by the Housing Committee and plans are at present in process of preparation. The idea underlying the proposal is that the same premises should serve the purposes both of a school clinic and an infanti welfare centre. The principle has been endorsed by the Education Committee and in future, wherever possible, the two bodies will co-operate in the provision of premises for their medical work. In furtherance of the principle it has been agreed that the East Leeds School Clinic adjoining the Gipton and other municipal

housing estates in the York Road district will in future be available for infant welfare work. The advantages of such an arrangement both from an administrative and an economic point of view are obvious.

For women to be confined in a hospital or nursing establishment rather than in their own homes is becoming the rule rather than the exception as it used to be at the beginning of the century and even up to a fairly recent date. This is creating a situation of ever increasing difficulty, for there is not at present in the City a sufficient margin of beds to meet an exceptional demand unless by resort to overcrowding—always a dangerous procedure in a maternity hospital. The solution of the problem lies in one of two directions, either by increasing the number of beds which means building, or by introducing a system of case selection which will eliminate all those not really in need of institutional treatment. There can be no doubt that many women who have their confinements in hospital could quite safely and conveniently have them at home, especially as there is now a service of home helps organised by the Corporation for those mothers who need domestic assistance during the lying-in period. A combination of the two methods will probably be found to be necessary (see page 180).

The new block of 100 beds for female patients suffering from pulmonary tuberculosis at Killingbeck is now well on the way towards completion and I hope will be occupied before the end of the current year. We shall then have to consider a further extension for male pulmonary and adult surgical cases (see page 139).

By the appointment of a lay Chief Sanitary Inspector in July, a long standing tradition in the Leeds Public Health Department whereby the Deputy Medical Officer of Health acted as Chief Sanitary Inspector was broken. This departure will allow the Deputy Medical Officer of Health to devote more time to duties of a purely medical character for which his training and experience has fitted him. The old arrangement was out-of-date and wasteful.

Housing reform has loomed large in the year's picture. Much of my time has been taken up with duties connected with the Corporation's proposals for clearing away the slums of the City. Gratifying progress has been made in this most necessary sanitary improvement. The results, which are not yet visible, will be reflected in due course not only in a higher standard of living as indicated by improved vital statistics but also by a greater measure of comfort and happiness among the poorer classes. Slums are the most serious bar to sanitary progress which exists to-day; there can be no soundness in the civic body while they remain.

The system of differential renting adopted by the Housing Committee is likely to prove a useful contribution to the public health inasmuch as it will afford the poorest families an opportunity of purchasing better food and more of it, thus improving their physique and increasing their resistance to disease. There is no virtue in putting a family into a better house if, as a result of the higher rent demanded, the nutrition of its members is going to suffer. Where health and economic values conflict, the conservation of the former is the truest economy in the long run.

The inauguration during the year of a special plant for the disinfection by hydrogen cyanide of infested furniture from slum dwellings marked the beginning of a large-scale campaign against the bed-bug. Considering the way in which it depreciates the value of property and in a very real sense makes slums, it is surprising that sanitary authorities have never made any serious attempt to deal with it. Henceforward it will be treated differently and only those who prefer to have it will be pestered with it.

Since last addressing you, the Deputy Medical Officer of Health, Dr. E. Ashworth Underwood, has been appointed Medical Officer of Health of the Metropolitan Borough of Shoreditch, and left the Service in October, his place being taken by Dr. James Sharpe. I wish to acknowledge the valuable assistance rendered by both these officers as well as by all the other members of my staff during what has been a particularly trying year.

I am,

Ladies and Gentlemen,

Your obedient Servant,

J. JOHNSTONE JERVIS.

Public Health Department,

Leeds, 1,

August, 1935.

SUMMARY, 1934.

LATITUDE 53°48' North. LONGITUDE 1°32' West.

AVERAGE HEIGHT ABOVE SEA LEVEL 250 feet.

AREA OF CITY 38,105 Acres

POPULATION (Registrar-General's estimate) 486,250

ESTIMATED NUMBER OF HOUSES 138,624

RATEABLE VALUE £3,393,105

SUM REPRESENTED BY A PENNY RATE £12,870

Average.

1934. 1924-33.

BIRTH RATE (births per 1,000 living) 14·79 15·91

MARRIAGE RATE (persons married per 1,000 living) .. 18·06 16·08

DEATH RATE (deaths per 1,000 living) 12·94 13·49

NATURAL INCREASE OF POPULATION 899 1,156
(Excess of births over deaths in the year)

INFANT MORTALITY RATE 71 87
(Deaths under 1 year per 1,000 births)

DEATH RATE from Pneumonia and Bronchitis 1·24 1·97

 " " Cancer 1·65 1·44

 " " Diarrhoea and Enteritis (under 2 years)
 per 1,000 births 10·57 13·01

				Cases.	Case- rate.	Deaths.	Death rate.
SCARLET FEVER	..	..	..	2,711	5·58	16	0·03
DIPHTHERIA	..	..	..	2,231	4·59	156	0·32
TYPHOID FEVER	..	..	..	8	0·02	1	0·00
MEASLES	..	..	..	13,071	26·88	90	0·19
PULMONARY TUBERCULOSIS	..			617	1·27	392	0·81
OTHER FORMS OF TUBERCULOSIS				172	0·35	70	0·14

Natural and Social Conditions.

NATURAL AND SOCIAL CONDITIONS.

Area.—The area of the city is 38,105 acres.

Population.—The Registrar General's estimate of the resident population at the mid-year of 1934 was 486,250, and the allocation to the 26 wards of the city is given on page 20.

The table on page 19 shows the population at each census together with the percentage increases between successive decades.

Dwelling-houses.—The total number of dwellings in the city at the 1931 census was 128,913, made up of 126,056 occupied, 1,816 vacant and 1,041 vacant but furnished. The number of occupied dwellings at the end of 1934 was 136,126 and the number unoccupied 2,498. This is an increase of 2,926 occupied and 632 unoccupied as compared with the previous year.

Rateable Value.—The rateable value of the city in 1934 was £3,393,105 and the estimated product of a penny rate £12,870. The corresponding figures for 1933 were £3,200,061 and £12,292.

Principal Industries.—The principal industries in the city have not changed during the year but remain as in my previous report.

During the year unemployment showed further signs of improvement. The average number of persons registered as wholly or partially unemployed was 26,368 as compared with 31,362 for 1933, a decrease of 4,994. In January 1934, the number was 28,046, in May, 22,793, and in December, 24,681.

Meteorological Conditions.—The hours of bright sunshine registered during the year were 1,217·67 as compared with 1,315·98 for the previous year and an average of 1,152·20 for the previous five years. The sunniest month was July with a daily average of 7·41 hours, and the darkest, December with a daily average of 0·13 hours. The daily average for the whole year was 3·34 hours as compared with 3·61 hours for the previous year.

The total rainfall was 23·97 inches as compared with 25·61 inches in 1933, and an average of 26·69 inches for the previous quinquennium. The driest month was February with a total of 0·34 inches and the wettest December with a total of 4·53 inches.

Taking the four quarters of the year, the rainfall in the first quarter was 4.14; in the second, 5.85; in the third, 5.09; and in the fourth, 8.89 inches.

LEEDS.

TABLE SHOWING THE ENUMERATED POPULATION AT EACH CENSUS FROM 1801-1931.

Date of Census.	Population.	Increase per cent. on previous Census.		
1801	53,162	..		
1811	62,534	17.63		
1821	83,746	33.92		
1831	119,345	42.51		
1841	152,054	27.41		
1851	172,270	13.30		
1861	207,165	20.26		
1871	259,212	25.13		
1881	309,119	19.25	Population of the area as constituted at the 1931 Census.	Percentage Increase.
1891	367,505	18.89		
1901	428,968	16.72	458,823	..
1911	445,550	3.87		
1921	458,232	2.85		
1931	482,809	5.36		
			463,122	0.94
			482,809	4.25

In 1912, Roundhay, Shadwell, Seacroft and Crossgates (1911 Census population of 7,398) were added to Leeds.

In 1920, Middleton (1911 Census population of 1,207) was added to Leeds.

In 1926, Adel (1921 Census population of 987) was added to Leeds.

In 1928, Alwoodley, Eccup, Templenewsam and portion of Austhorpe (1921 Census populations of 205, 234, 3,393, and 71 respectively—total of 3,903) were added to Leeds.

The month with the highest average temperature was July with 70.35 degrees and the lowest January with 43.60 degrees. The

average temperature for the whole year was 54.06 degrees as compared with 54.08 for the previous year.

The year will rank as a dry year and though there was never at any time any anxiety regarding the sufficiency of the water reserves, the city was fortunate in this respect inasmuch as the shortage of water was acute in many of the surrounding areas. (*Vide* table on page 58.)

POPULATION IN WARDS.

MUNICIPAL WARD.	Census, April 26th, 1931	Estimated Population middle of 1934.
Mill Hill and South	15,672	15,876
Westfield	19,455	19,703
Blenheim	22,947	22,754
Central	20,985	21,143
Woodhouse	18,689	18,837
North	15,475	15,669
Far Headingley.. ..	18,251	18,240
Hyde Park	16,548	16,407
Kirkstall	19,582	19,678
Burmantofts	22,974	23,309
Harehills	19,724	19,771
Potternewton	19,631	19,603
Roundhay	15,151	15,236
Cross Gates and Templenewsam	14,439	14,521
Richmond Hill	24,260	24,665
Osmondthorpe	21,570	21,956
East Hunslet	18,370	18,545
Hunslet Carr and Middleton	19,916	20,377
West Hunslet	18,044	18,124
Beeston	15,220	15,233
Holbeck (South)	14,324	14,351
Holbeck (North)	18,241	18,448
Armley and New Wortley ..	20,181	20,358
Upper Armley	16,953	17,031
Bramley	17,631	17,687
Farnley and Wortley	18,576	18,728
City	482,809	486,250

MARRIAGE AND BIRTH-RATES 1911-1934.

Year.	No. of Marriages.	Marriage rate per 1,000 Population.	No. of Births.	Birth-rate per 1,000 Population.
1911	3,717	15.7	10,562	23.8
1912	3,801	16.0	10,309	23.1
1913	3,925	16.4	10,877	23.4
1914	4,008	16.6	10,652	23.3
1915	4,858	20.2	9,877	21.5
1916	3,701	15.5	9,432	21.1
1917	3,300	14.2	7,566	17.3
1918	3,710	15.5	7,392	17.3
1919	5,083	21.2	7,564	17.6
1920	5,620	23.5	11,229	25.0
1921	4,566	18.7	10,144	21.8
1922	4,183	17.2	9,253	19.8
1923	4,001	16.3	8,684	18.5
1924	4,023	16.3	8,558	18.1
1925	3,807	15.4	8,180	17.3
1926	3,644	14.8	8,065	17.0
1927	4,028	16.7	7,790	16.3
1928	3,927	16.5	7,665	16.1
1929	3,990	16.7	7,426	15.5
1930	3,948	16.5	7,568	15.8
1931	3,802	15.6	7,219	14.8
1932	3,851	15.9	7,004	14.4
1933	3,994	16.5	6,643	13.7
1934	4,390	18.1	7,190	14.8

National Health Insurance Acts.—The total number of insured persons in the city under the National Health Insurance Acts on December 31st, 1934 was 216,196, as compared with 216,691 on January 1st. The number of doctors, including assistants, on the panel at the end of the year was 234 and the number of prescriptions dispensed was 1,094,934. The corresponding figures for the previous year were 233 and 1,168,452.

VITAL STATISTICS.

Marriages.—The number of marriages which took place in Leeds during the year was 4,390 corresponding to a marriage rate of 18.1 as compared with 3,994 and a rate of 16.5 for the previous year and an average of 3,917 and 16.2 for the previous five years.

The marriage rate for the year under review is the highest since 1921 when the rate was 18·7. The marriage rate of England and Wales for 1934 was 16·9 and for 1933, 15·8.

If the marriage rate is a barometer of commercial prosperity, as is generally supposed, then the figure for 1934 surely indicates the arrival of better times.

Births.—The births registered during the year numbered 7,691 comprising 3,926 males and 3,765 females. Of these 325 males and 318 females born to parents not belonging to Leeds were transferred out, whilst 66 males and 76 females born outside the city to Leeds parents were transferred in, making a nett total of 7,190 births comprising 3,667 males and 3,523 females. Compared with the previous year this represents an increase of 276 males and 271 females or a total increase of 547.

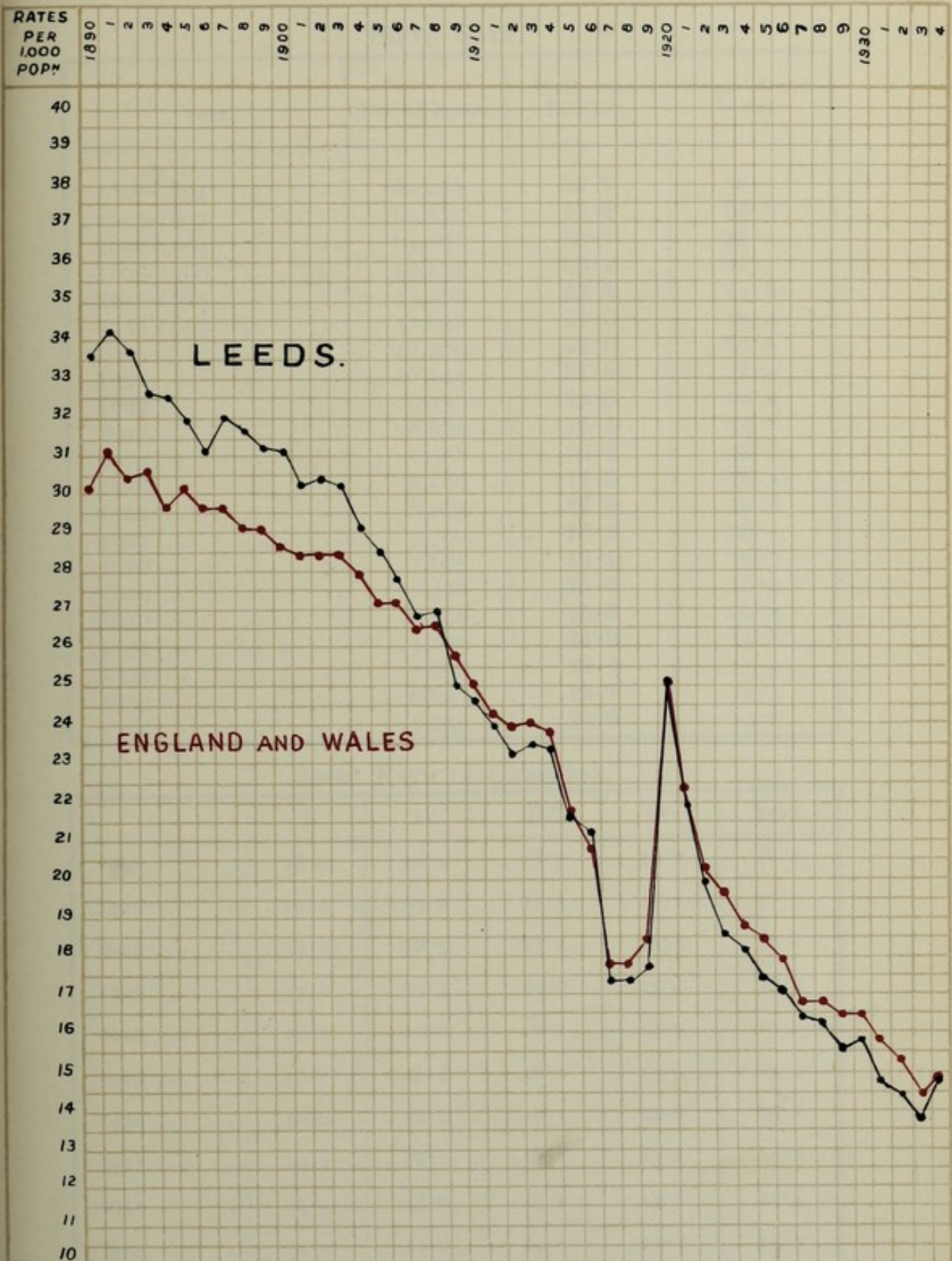
The birth-rate was 14·8 as compared with 13·7 for the previous year and an average of 14·9 for the previous five years. This is the first time since 1930 that an increase in the birth-rate has been reported. The table appended gives the marriage and birth-rates for the years 1911-1934 and it will be noticed that this year there was an increase in both rates, though not in the same ratio.

The chart opposite page 24 shows the marriage and birth-rates for the years 1904-1934.

An examination of the tables on pages 24 and 34, in which are set out the birth and death-rates for the 26 wards of the city, discloses the fact that in three of the wards, *e.g.*, Blenheim, Hyde Park and Potternewton, the death-rate exceeded the birth-rate. The estimated population of these three wards is 58,764, or 12·1 per cent. of the population of the city. Taking the three wards as a whole, the birth-rate was 11·0 and the death-rate 14·0. Last year there were twelve wards with a total estimated population of 216,368 or 44·6 per cent. of the population of the city in which the death-rate was higher than the birth-rate.

Compared with the other large towns of England and Wales, Leeds occupied eighth place, the towns with lower rates being London, Sheffield, Bristol and Bradford.

BIRTH RATE, 1890 - 1934.



The first of these is the fact that the birth date of the individual is not known. This is a serious defect in the record, as it is impossible to determine the age of the individual at the time of death. The second defect is the fact that the name of the individual is not known. This is also a serious defect, as it is impossible to determine the identity of the individual. The third defect is the fact that the sex of the individual is not known. This is also a serious defect, as it is impossible to determine the sex of the individual. The fourth defect is the fact that the race of the individual is not known. This is also a serious defect, as it is impossible to determine the race of the individual. The fifth defect is the fact that the place of birth of the individual is not known. This is also a serious defect, as it is impossible to determine the place of birth of the individual. The sixth defect is the fact that the date of death of the individual is not known. This is also a serious defect, as it is impossible to determine the date of death of the individual. The seventh defect is the fact that the cause of death of the individual is not known. This is also a serious defect, as it is impossible to determine the cause of death of the individual. The eighth defect is the fact that the name of the father of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the father of the individual. The ninth defect is the fact that the name of the mother of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the mother of the individual. The tenth defect is the fact that the name of the spouse of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the spouse of the individual. The eleventh defect is the fact that the name of the children of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the children of the individual. The twelfth defect is the fact that the name of the siblings of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the siblings of the individual. The thirteenth defect is the fact that the name of the grandparents of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the grandparents of the individual. The fourteenth defect is the fact that the name of the great-grandparents of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the great-grandparents of the individual. The fifteenth defect is the fact that the name of the great-great-grandparents of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the great-great-grandparents of the individual. The sixteenth defect is the fact that the name of the great-great-great-grandparents of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the great-great-great-grandparents of the individual. The seventeenth defect is the fact that the name of the great-great-great-great-grandparents of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the great-great-great-great-grandparents of the individual. The eighteenth defect is the fact that the name of the great-great-great-great-great-grandparents of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the great-great-great-great-great-grandparents of the individual. The nineteenth defect is the fact that the name of the great-great-great-great-great-great-grandparents of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the great-great-great-great-great-great-grandparents of the individual. The twentieth defect is the fact that the name of the great-great-great-great-great-great-great-grandparents of the individual is not known. This is also a serious defect, as it is impossible to determine the name of the great-great-great-great-great-great-great-grandparents of the individual.

BIRTH RATE.

Year.	No. of births.	Birth rate, LEEDS.	England and Wales.
1890-1894	62,270	33·2	30·5
1895-1899	63,873	31·5	29·6
1900-1904	64,791	30·1	28·4
1905-1909	59,117	26·9	26·7
1910-1914	53,267	23·6	24·2
1915-1919	41,831	19·0	19·4
1920	11,229	25·0	25·5
1921	10,144	21·8	22·4
1922	9,253	19·8	20·4
1923	8,684	18·5	19·7
1924	8,558	18·1	18·8
1925	8,180	17·3	18·3
1926	8,065	17·0	17·8
1927	7,790	16·3	16·7
1928	7,665	16·1	16·7
1929	7,426	15·5	16·3
1930	7,568	15·8	16·3
1931	7,219	14·8	15·8
1932	7,004	14·4	15·3
1933	6,643	13·7	14·4
1934	7,190	14·8	14·8

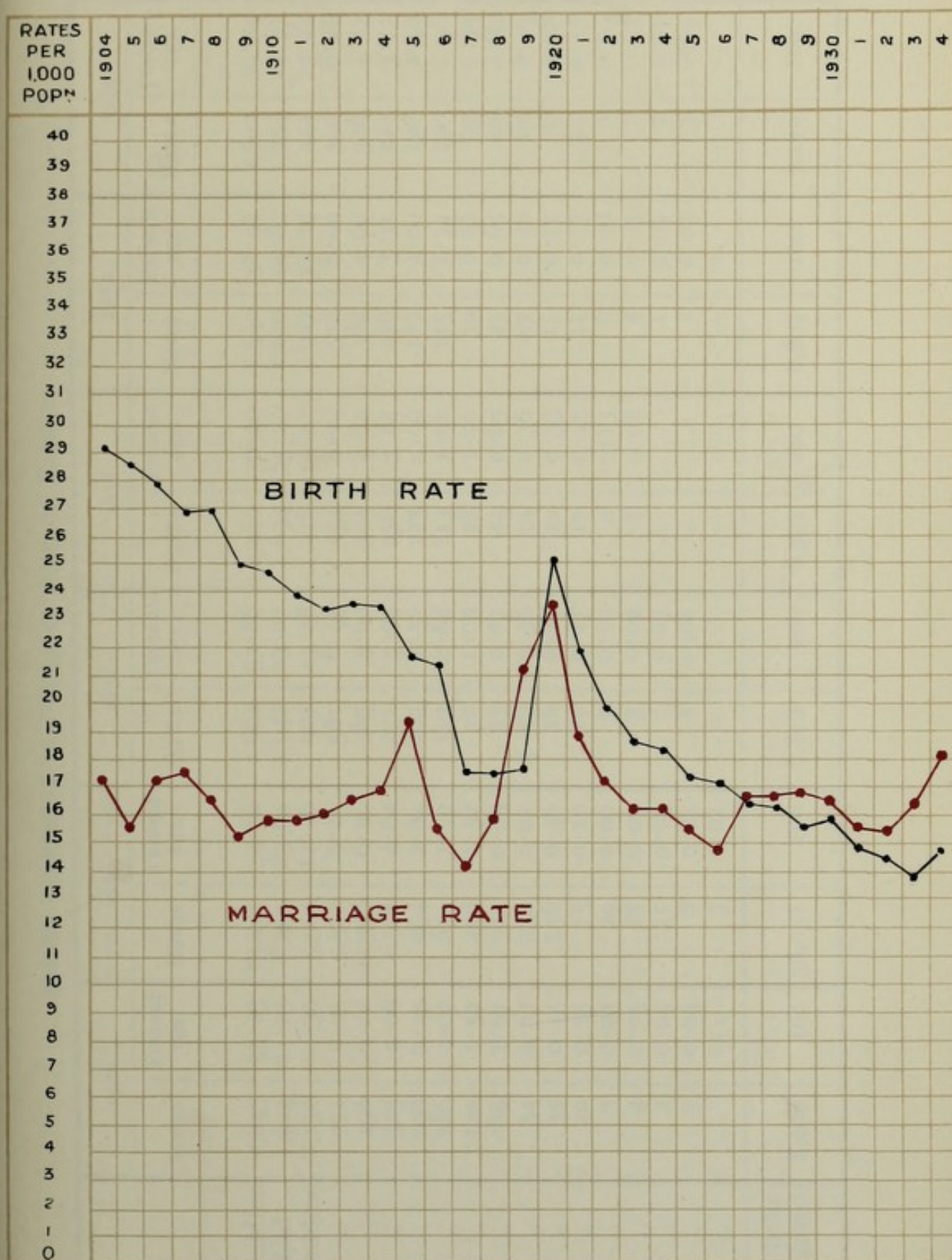
BIRTH RATE IN QUARTERS.

	I.	II.	III.	IV.	Year.
1924	18·7	18·4	18·7	16·8	18·1
1925	17·0	19·0	17·5	15·7	17·3
1926	17·0	18·5	17·2	15·5	17·0
1927	17·0	17·3	15·6	15·4	16·3
1928	16·0	17·6	16·1	14·9	16·1
1929	15·7	16·2	16·2	14·0	15·5
1930	16·0	16·6	16·1	14·6	15·8
1931	15·3	16·2	14·7	13·2	14·8
1932	14·2	16·0	14·5	13·2	14·4
1933	14·1	14·6	14·5	11·7	13·7
1934	15·1	16·1	14·2	13·8	14·8

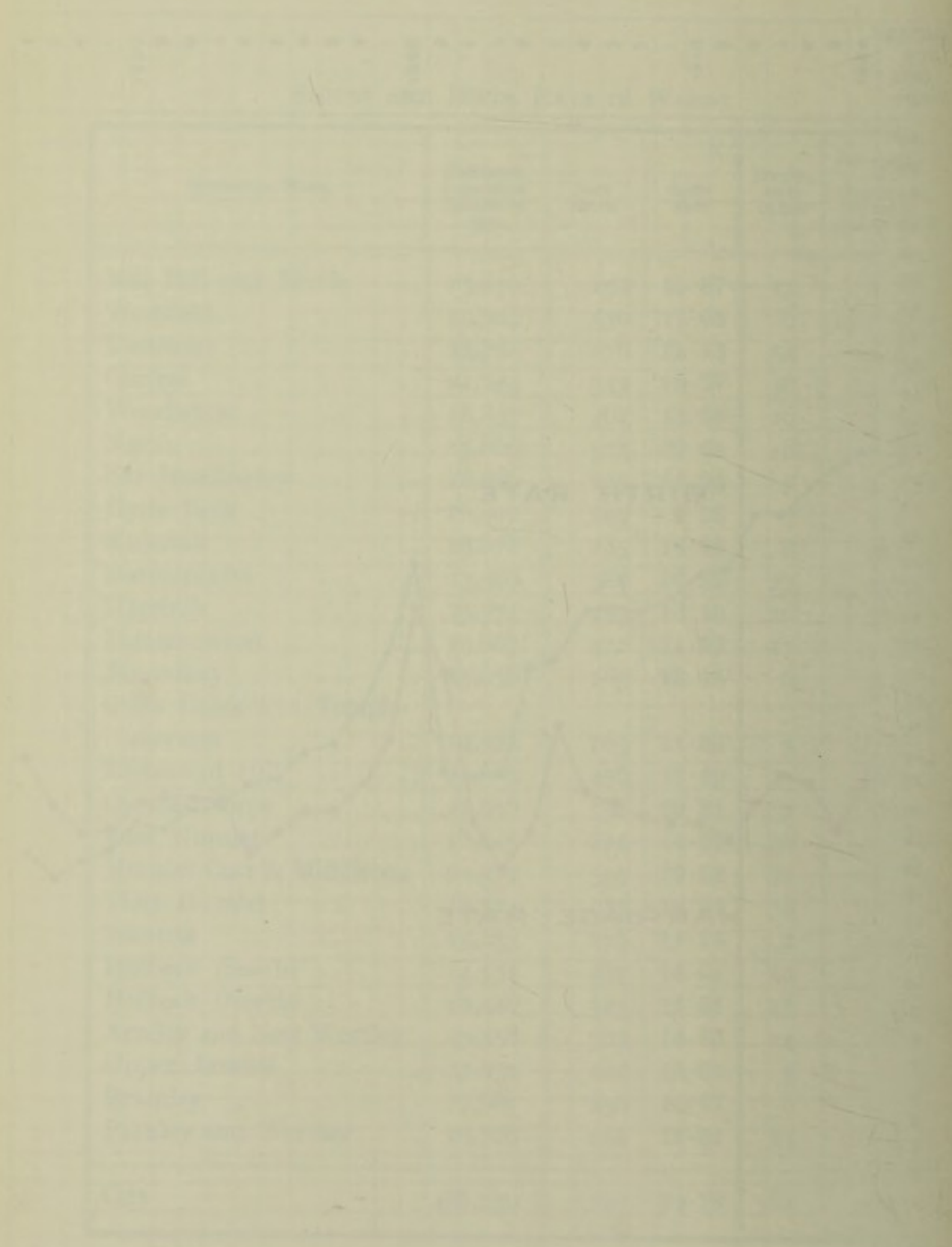
BIRTHS AND BIRTH RATE IN WARDS.

MUNICIPAL WARD.	Estimated Population middle of 1934.	Nett births.	Birth- rate.	Illegiti- mate births.	Percentage of illegitimate births to total births.
Mill Hill and South ..	15,876	252	15·87	17	6·7
Westfield	19,703	336	17·05	26	7·7
Blenheim	22,754	276	12·13	54	19·6
Central	21,143	344	16·27	38	11·0
Woodhouse.. ..	18,837	261	13·86	20	7·7
North	15,669	323	20·61	16	5·0
Far Headingley ..	18,240	205	11·24	7	3·4
Hyde Park.. ..	16,407	149	9·08	3	2·0
Kirkstall	19,678	285	14·48	6	2·1
Burmantofts	23,309	382	16·39	17	4·5
Harehills	19,771	259	13·10	10	3·9
Potternewton ..	19,603	222	11·32	17	7·7
Roundhay	15,236	185	12·14	6	3·2
Cross Gates and Temple- newsam	14,521	163	11·23	5	3·1
Richmond Hill ..	24,665	456	18·49	23	5·0
Osmondthorpe ..	21,956	356	16·21	7	2·0
East Hunslet	18,545	271	14·61	16	5·9
Hunslet Carr & Middleton	20,377	399	19·58	11	2·8
West Hunslet	18,124	287	15·84	8	2·8
Beeston	15,233	179	11·75	2	1·1
Holbeck (South) ..	14,351	201	14·01	10	5·0
Holbeck (North) ..	18,448	323	17·51	18	5·6
Armley and New Wortley	20,358	302	14·83	14	4·6
Upper Armley	17,031	222	13·04	9	4·1
Bramley	17,687	256	14·47	8	3·1
Farnley and Wortley ..	18,728	296	15·81	13	4·4
City	486,250	7,190	14·79	381	5·3

BIRTH RATE AND MARRIAGE RATE 1904 - 1934.



BIRTH RATE AND MARRIAGE RATE 1904-1914



BIRTHS OCCURRING IN ORDER OF SIZE OF FAMILY.

	1926.		5 yrs. 1926—1930		1931.		1932.		1933.		1934.	
	Births.	Percent-age.	Births.	Percent-age.	Births.	Percent-age.	Births.	Percent-age.	Births.	Percent-age.	Births.	Percent-age.
No children	2,645	33.03	13,191	34.68	2,604	37.86	2,480	36.90	2,540	38.44	2,802	39.24
1 child	1,924	24.03	8,991	23.64	1,642	23.87	1,694	25.20	1,640	24.82	1,754	24.57
2 children	1,152	14.39	5,501	14.46	927	13.48	928	13.81	927	14.03	944	13.22
3	771	9.63	3,512	9.23	581	8.45	554	8.24	528	8.00	591	8.28
4	498	6.22	2,306	6.06	385	5.60	324	4.82	304	4.60	326	4.57
5	325	4.06	1,528	4.02	271	3.94	258	3.84	219	3.31	226	3.17
6	196	2.45	994	2.61	163	2.37	175	2.60	172	2.60	178	2.49
7	166	2.07	679	1.79	113	1.64	113	1.68	115	1.74	140	1.96
8	122	1.52	498	1.31	72	1.05	78	1.16	59	0.89	67	0.94
9	86	1.07	324	0.85	53	0.77	44	0.65	43	0.65	49	0.69
10	54	0.67	232	0.61	26	0.38	24	0.36	27	0.40	21	0.29
11	35	0.44	136	0.36	16	0.23	22	0.33	11	0.17	20	0.28
12	20	0.25	75	0.20	12	0.17	17	0.25	11	0.17	11	0.15
13	3	0.04	24	0.06	7	0.10	9	0.13	6	0.09	6	0.08
14	4	0.05	18	0.05	3	0.04	1	0.01	3	0.05	1	0.01
15	4	0.05	11	0.03	2	0.03	..	..	1	0.02	1	0.01
16	3	0.04	8	0.02	1	0.01	..	..	1	0.02	3	0.04
17	..	..	3	0.01	..	..	..	..	..	..	..	..
Total births investigated	8,008	100	38,031	100	6,878	100	6,721	100	6,607	100	7,140	100

Births in Wards.—The distribution of the births in the various wards is shown in the table on page 24. In twelve of the wards, namely, North, Hunslet Carr and Middleton, Richmond Hill, Holbeck (North), Westfield, Burmantofts, Central, Osmondthorpe, Mill Hill and South, West Hunslet, Farnley and Wortley and Armley and New Wortley, the birth-rate was higher than for the city as a whole, whilst in the remainder, East Hunslet, Kirkstall, Bramley, Holbeck (South), Woodhouse, Harehills, Upper Armley, Roundhay, Blenheim, Beeston, Potternewton, Far Headingley, Cross Gates and Templenewsam and Hyde Park, it was lower. The wards with the higher rates were in order North, Hunslet Carr, and Middleton and Richmond Hill, all of which were above 18 and averaged 19.4, whilst those with the lowest were Hyde Park, Cross Gates and Templenewsam and Far Headingley, with a rate under 11.5 and averaging 10.5.

Excess of Births over Deaths.—The excess of births over deaths or what is generally spoken of as the “natural increase of the population” was 899 as compared with 69 in 1933 and an average of 1,156 for the previous ten years. This is the highest “natural increase of the population” recorded in Leeds since 1930 when the figure was 1,638.

Births into Families.—For the last nine years investigations have been made as to the size of family into which children have been born and the table on page 25 gives the results of those investigations. It will be observed that whereas in 1926, 71.4 per cent. of the births investigated were into families of two children and under, the percentage in 1934 rose to 77.0; on the other hand the percentage of births occurring in families of more than six children fell from 6.2 in 1926 to 4.5 in 1934. It is interesting to note that nearly 40 per cent. of the births were first children.

Illegitimate Births.—Of the 7,190 (nett) births registered, 6,809 (3,478 males, 3,331 females) or 94.7 per cent. were legitimate and 381 (189 males and 192 females) or 5.3 per cent. were illegitimate. The ratio of illegitimate to legitimate was 1 to 18 as compared with 1 to 19 for the previous year.

ILLEGITIMATE BIRTHS.

YEAR.	Illegitimate births.	Percentage of nett births registered.	Rate per 1,000 estimated population.
1924 ..	423	4·9%	0·90
1925 ..	422	5·2%	0·89
1926 ..	434	5·4%	0·92
1927 ..	371	4·8%	0·78
1928 ..	390	5·1%	0·82
1929 ..	410	5·5%	0·86
1930 ..	374	4·9%	0·78
1931 ..	358	5·0%	0·74
1932 ..	370	5·3%	0·76
1933 ..	335	5·0%	0·69
1934 ..	381	5·3%	0·78

Reference to the illegitimate death-rate will be found on pages 162 and 166.

Details respecting the notification and visitation of births are given on pages 184 and 185.

Stillbirths.—The number of stillbirths registered during the year was 380, comprising 199 males and 181 females. The inward transfers numbered five, all females, and the outward transfers 65, namely 38 males and 27 females, which after adjustment leaves a nett total of 320, made up of 161 males and 159 females. The rate per thousand of the population was 0·66 as compared with 0·69 for the previous year. The rate for England and Wales was 0·62. Expressed as a percentage of the total births (nett) the

rate was 4.3 as compared with 4.8 for the previous year. Of the 320 nett stillbirths, 291, or 90.9 per cent. were legitimate and 29, or 9.1 per cent. were illegitimate. The ratio of registered "still" to registered "live" births was 1 to 22 as compared with 1 to 20 in 1933.

Details respecting the notification and visitation of stillbirths are given on pages 183 and 185.

Deaths.—The gross number of deaths registered during the year was 6,666 comprising 3,498 males and 3,168 females, giving a gross death-rate of 13.7 as compared with 14.1 for the previous year and an average of 14.5 for the previous five years. The inward transfers numbered 244, namely 127 males and 117 females, and the outward transfers 619, namely 344 males and 275 females, which after adjustment leaves a nett total of 6,291 deaths debitable to the city, made up of 3,281 males and 3,010 females. The corresponding death-rate (nett) was 12.9 as compared with 13.6 for the previous year and an average of 13.8 for the previous five years.

Comparison with other Towns.—Amongst the thirteen large towns in England and Wales, Leeds had the highest death-rate with the exception of Liverpool (13.1) and Bradford (13.5).

Standardized Death-Rate.—The Registrar General is now supplying a Comparability Factor (C.F.) by which the crude death-rate of the area can be multiplied in order to make it comparable with the crude death-rate of the country as a whole or with that of any other local area, the crude death-rate of which should be similarly modified with its own factor for the purpose.

This new basis of standardization is calculated to give a more accurate comparison than the existing method which in recent years has largely fallen into disuse owing to its being so much out of date. The effect of the application of the new factor to the Leeds death-rate, as to the death-rates of most of the large cities, will be to increase it to some extent and make it appear less favourable. This has, of course, always been the case with standardization, whatever the factor used, as far as the large towns were concerned. The comparability factor for Leeds is 1.07 and the crude death-rate multiplied by this factor gives a standardized death-rate of 13.8 or practically one more than the crude rate.

The following table gives the crude and standardized death-rates of Leeds compared with the death-rate of England and Wales.

Year.	Population.	Crude Death-rate.	Standardized Death-rate.	Death-rate England and Wales.
1931 ..	486,400	13·4	14·3	12·3
1932 ..	484,900	13·3	14·2	12·0
1933 ..	485,000	13·6	14·6	12·3
1934 ..	486,250	12·9	13·8	11·8

The death-rate for England and Wales was 11·8 or 8·5 per cent. less than the crude death-rate of Leeds and 14·5 per cent. less than the standardized death-rate.

Death-rates in Quarters.—The death-rate for the first quarter was 16·2 ; for the second, 12·8 ; for the third, 10·5 ; and for the fourth, 12·3.

DEATH RATE IN QUARTERS.

	I.	II.	III.	IV.	Year.
1924	22·4	12·9	9·9	12·2	14·3
1925	14·8	11·4	10·8	14·1	12·8
1926	15·7	12·7	9·9	13·1	12·8
1927	17·5	12·2	10·1	12·2	13·0
1928	14·6	13·0	10·2	13·9	12·9
1929	29·2	14·2	11·0	11·9	16·5
1930	14·1	11·8	10·5	13·2	12·4
1931	17·4	13·1	10·6	12·5	13·4
1932	15·8	13·3	10·6	13·6	13·3
1933	19·0	12·3	10·0	13·0	13·6
1934	16·2	12·8	10·5	12·3	12·9

Death-rates in Wards.—The table on page 34 gives the deaths and death-rates of the 26 wards of the city. The wards with the highest death-rates were in order Blenheim (16.0), Richmond Hill (15.1) and Holbeck (North) (15.1), whilst those with the lowest were Cross Gates and Templenewsam (10.0), Far Headingley (10.8) and Beeston (11.2). The difference between the highest and the lowest, that is between Blenheim and Cross Gates and Templenewsam amounted to 6.0 per thousand, or 60 per cent., whilst that between the highest and the city was 3.1 per thousand or 24.0 per cent.

The reason for the consistently high death-rate in the Blenheim Ward is that it includes some highly congested areas in the middle and southern portions of the ward.

It is interesting to note that the Hunslet Carr and Middleton ward, which of all the wards in the city possesses the largest number of new working-class houses, and is a ward which so far has been most affected by the slum clearance programme of the Corporation, had a death-rate of 12.1 which is lower than the city death-rate by 0.8 per thousand. Furthermore, the death-rate of this ward since 1931, that is since it became a separate ward, has been consistently below the city rate.

Causes of Death.—The principal causes of death were in order of numerical importance, organic heart disease, cancer, arterio sclerosis, pulmonary tuberculosis, cerebral hæmorrhage and pneumonia which together accounted for 57.2 per cent. of the total deaths. Last year this group of diseases was responsible for 56.4 per cent. of the total deaths.

Diseases of the respiratory system including pneumonia, bronchitis and influenza, but excluding pulmonary tuberculosis, accounted for 711 or 11.3 per cent. of the total deaths from all causes. Last year this group was responsible for 17.5 per cent. of the total deaths and the percentage for the previous five years was 18.0. The number of children under five years of age who died from respiratory diseases in 1934 was 124 or 15.9 per cent. of the total deaths under five, as compared with 182 or 23.6 per cent. for the previous year and an average of 231 or 25.8 per cent. for the previous five years.

The only single member of the group of important causes of death which showed a notable increase was cancer which rose from 1.46 in 1933 to 1.65 in the year under review. This is the highest

mortality from cancer which has ever been recorded in the city. The subject is dealt with in greater detail on page 61.

For notes on infantile diarrhoea, bronchitis, pneumonia and tuberculosis see pages 59, 60 and 128.

Deaths from Street Accidents.—The number of street accidents having a fatal termination during the year was 91 of which 79, or 86·8 per cent. were due to motor vehicles. Last year the number was 65, of which 56 or 86·2 per cent. were due to this cause.

On reference to the table on page 38 it will be seen that 32, or 35·2 per cent., of the total deaths were amongst children under 15 years and adults over 65, whilst 59, or 64·8 per cent., were in the age groups between 15 and 65. These figures represent an increase of one in the number of deaths of children and adults over 65, and 25 in the age groups between 15 and 65, or a total increase of 26 as compared with the previous year.

Deaths in Age Groups.—The table on page 37 sets out the deaths according to age groups. The aggregate number of deaths of children in the groups age 0-1, 1-2 and 2-5 was 781 or 12·4 per cent. of the total deaths as compared with 772, or 11·7 per cent., for the previous year, and an average of 894, or 13·4 per cent. for the previous five years. The table also shows that the deaths of persons under 45 years numbered 1,864 or 29·7 per cent. of the total deaths as compared with 1,943 or 29·6 per cent. for the previous year. Of the remaining deaths 1,792 or 28·5 per cent., occurred in the age group 45-65, whilst 2,635, or 41·8 per cent. were in the age group 65+.

COMPARISON OF PERCENTAGES OF DEATHS IN THE VARIOUS AGE GROUPS OF 1934, AS COMPARED WITH THE PREVIOUS DECENNium.

Period.	-1	1-2	2-5	5-15	15-25	25-45	45-65	65+
1924-1933 ..	10·2	2·6	2·5	2·6	4·2	11·1	28·0	38·8
Year 1934 ..	8·2	1·6	2·6	3·3	3·6	10·4	28·5	41·8
Decrease -	-2·0	-1·0	..	..	-0·6	-0·7	—	—
Increase +	—	—	+0·1	+0·7	—	—	+0·5	+3·0

Infant Mortality.—The number of deaths of children under one year of age numbered 513, or 8·2 per cent. of the total deaths.

The infant mortality rate corresponding was 71 per thousand births or 10 less than the previous year (81) and 11 less than the average for the previous five years (82).

This subject is dealt with in greater detail on page 158.

Comparative Statistics of the larger English Cities, 1934.

	RATE PER 1,000 POPULATION.					DEATH RATE PER 1,000 BIRTHS.	
	Population.	Birth Rate.	Death Rate.	Phthisis, Death Rate.	Other Tuberculosis Rate.	Deaths under One Year.	Diarrhoea and Enteritis under 2.
London ..	4,230,200	13·4	12·2	0·76	0·11	67	12·8
Birmingham ..	1,028,000	15·3	11·0	0·71	0·08	68	8·7
Liverpool ..	866,013	20·3	13·1	1·00	0·15	81	8·75
Manchester ..	773,593	14·8	12·2	0·97	0·17	69	11·2
Sheffield ..	† 518,525	14·5	11·4	0·64	0·12	55	3·7
Leeds ..	486,250	14·8	12·9	0·81	0·14	71	10·6
Bristol ..	410,500	13·9	10·9	0·73	0·13	46	2·98
Hull ..	319,600	18·3	12·5	0·9	0·1	64	7·8
Bradford ..	293,650	13·7	13·5	0·70	0·12	62	3·24
West Ham ..	276,150	15·6	11·6	0·86	0·11	65·5	7·1
Newcastle ..	287,050	16·4	12·7	0·97	0·18	83	11·3
Stoke-on-Trent	274,750	16·7	11·7	0·83	0·19	85	12·01
Nottingham ..	281,850	15·6	12·3	0·78	0·11	69	6·1

† Population adjusted for change in boundary during the year. The mid-year population after the change is 520,950.

Cremation.—Out of a total of 6,291 deaths which occurred in Leeds during 1934, the number of bodies disposed of by cremation was 71, or 1·13 per cent., as compared with 66 or 1·00 per cent. for the previous year.

The table on page 39 shows the number of cremations which have taken place year by year since 1905.

Progress is slow but in the right direction.

ANNUAL DEATHS AND DEATH RATE.

Year	Population.	Nett deaths.	Death-rate LEEDS.	Death-rate England and Wales.
1901	429,383	8,204	19.2	16.9
1902	431,043	7,699	17.6	16.3
1903	432,703	7,263	16.8	15.5
1904	434,363	8,039	18.6	16.3
1905	436,023	7,047	16.2	15.3
1906	437,683	7,350	16.9	15.5
1907	439,343	7,167	16.4	15.1
1908	441,003	7,430	16.6	14.8
1909	442,663	6,806	15.4	14.6
1910	444,323	6,711	15.2	13.5
1911	445,983	7,331	16.5	14.6
1912	447,746	6,396	14.3	13.3
1913	457,295	7,237	15.6	13.8
1914	459,260	6,885	15.0	14.0
1915	459,260	7,609	16.6	15.7
1916	446,349	6,946	15.6	14.4
1917	438,254	7,052	16.1	14.4
1918	427,589	8,529	19.9	17.6
1919	430,834	6,992	16.2	13.7
1920	448,913	6,591	14.7	12.4
1921	465,500	6,285	13.5	12.1
1922	466,700	6,479	13.9	12.8
1923	469,900	5,986	12.7	11.6
1924	471,600	6,747	14.3	12.2
1925	472,900	6,037	12.8	12.2
1926	473,400	6,062	12.8	11.6
1927	477,600	6,198	13.0	12.3
1928	474,800*	6,133	12.9	11.7
1929	478,500	7,898	16.5	13.4
1930	478,500	5,930	12.4	11.4
1931	486,400	6,506	13.4	12.3
1932	484,900	6,469	13.3	12.0
1933	485,000	6,574	13.6	12.3
1934	486,250	6,291	12.9	11.8

* Population adjusted to allow for change in boundary during the year. The mid-year population after the change is 476,500.

DEATHS AND DEATH RATE IN WARDS.

MUNICIPAL WARD.	Area in Acres.	Estimated population middle of 1934.	Nett deaths.	Death- rate.
Mill Hill and South.. ..	574	15,876	178	11.2
Westfield	234	19,703	269	13.7
Blenheim	443	22,754	363	16.0
Central	312	21,143	284	13.4
Woodhouse	436	18,837	222	11.8
North	5,038	15,669	212	13.5
Far Headingley	5,386	18,240	197	10.8
Hyde Park	468	16,407	206	12.6
Kirkstall	1,071	19,678	265	13.5
Burmantofts	274	23,309	266	11.4
Harehills	655	19,771	249	12.6
Potternewton	470	19,603	251	12.8
Roundhay	3,877	15,236	171	11.2
Cross Gates and Temple- newsam	5,593	14,521	145	10.0
Richmond Hill	260	24,665	373	15.1
Osmondthorpe	1,455	21,956	246	11.2
East Hunslet	366	18,545	262	14.1
Hunslet Carr and Middleton	2,657	20,377	246	12.1
West Hunslet	206	18,124	254	14.0
Beeston	1,166	15,233	170	11.2
Holbeck (South)	306	14,351	183	12.8
Holbeck (North)	383	18,448	278	15.1
Armley and New Wortley ..	565	20,358	285	14.0
Upper Armley	945	17,031	218	12.8
Bramley	2,114	17,687	240	13.6
Farnley and Wortley ..	2,851	18,728	258	13.8
City	38,105	486,250	6,291	12.9

PRINCIPAL CAUSES OF DEATH.

Death rate.	Diseases.	No. of deaths in 1934 (nett).	Increase or decrease compared with 1933.	Houses.	
				Through.	Back-to-back.
0.00	Enteric Fever	1	- +	..	1
..	Small-pox	..	..	..	..
0.19	Measles	90	+ 68	24	66
0.03	Scarlet Fever	16	+ 7	9	7
0.05	Whooping Cough	25	- 3	9	16
0.32	Diphtheria	156	+ 68	57	99
0.07	Influenza	33	- 225	18	15
0.06	Erysipelas	28	+ 13	11	17
0.81	Pulmonary Tuberculosis ..	392	- 20	161	230
0.14	Other Tuberculous Diseases	70	- 17	25	45
1.65	Cancer, malignant disease	801	+ 95	365	434
0.06	Rheumatic Fever	31	+ 2	13	18
0.05	Meningitis	24	+ 10	12	12
0.80	Cerebral Haemorrhage ..	388	+ 3	180	208
2.43	Organic Heart Disease ..	1,181	- 60	515	661
0.94	Arterio-sclerosis	457	- 19	191	263
0.46	Bronchitis	224	- 118	96	125
0.78	Pneumonia (all forms) ..	378	- 107	145	231
0.16	Other diseases of respiratory organs	76	+ 13	35	41
0.18	Diarrhoea and Enteritis ..	89	- 35	29	60
0.04	Appendicitis and Typhlitis	20	- 13	9	11
0.03	Cirrhosis of Liver	14	+ 7	6	8
0.35	Nephritis and Bright's Disease	171	+ 20	76	95
0.03	Puerperal Fever	15	- +	8	7
0.03	Other accidents and diseases of Pregnancy and Parturition	14	+ 2	6	8
0.41	Congenital Debility and Malformation, including Premature Birth ..	198	- 5	74	124
0.45	Violent Deaths, excluding Suicide	217	- 5	92	121
0.13	Suicide	61	- 4	31	30
2.31	Other Defined Diseases ..	1,121	+ 42	531	584
..	Diseases ill-defined or unknown	..	- 2	..	..
12.94	Totals	6,291	- 283	2,728	3,537

Of the 6,291 deaths, 26 had no home.

CAUSES OF, AND AGES AT DEATH DURING THE CALENDAR YEAR. 1934.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of " Residents " whether occurring within or without the District.										Total Deaths whether of " Residents " or " Non-Residents " in Institutions in the District
	ALL AGES.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.		
1. Enteric Fever	1	..	..	..	1	..	..	..	..	1	
2. Small-pox	..	..	..	..	..	..	..	..	..	..	
3. Measles	90	28	29	27	6	..	..	..	..	45	
4. Scarlet Fever	16	..	..	6	8	1	1	..	..	17	
5. Whooping Cough	25	9	6	9	1	..	..	..	..	12	
6. Diphtheria	156	3	8	48	90	4	2	1	..	156	
7. Influenza	33	1	..	..	..	1	..	13	14	2	
8. Erysipelas	28	2	2	..	..	..	2	13	9	22	
9. Pulmonary Tuberculosis ..	392	2	..	3	4	78	163	123	19	197	
10. Other Tuberculous Diseases	70	4	8	11	13	12	11	7	4	74	
11. Cancer, malignant disease	901	..	..	1	..	4	67	377	352	416	
12. Rheumatic Fever	31	..	..	..	10	7	5	7	2	11	
13. Meningitis	24	4	4	1	6	3	2	3	1	30	
14. Cerebral Hæmorrhage, &c...	388	..	..	..	..	1	9	121	257	150	
15. Organic Heart Disease ..	1,181	..	1	..	3	14	72	345	746	316	
16. Arterio-sclerosis	457	..	..	..	..	..	..	72	385	241	
17. Bronchitis	224	11	4	2	..	2	9	68	128	52	
18. Pneumonia (all forms) ..	378	54	20	23	12	13	60	106	90	208	
19. Other diseases of respiratory organs	76	2	3	4	1	2	5	23	36	41	
20. Diarrhœa and Enteritis ..	89	72	4	1	1	3	..	3	5	79	
21. Appendicitis and Typhlitis	20	..	1	..	1	3	6	6	3	34	
22. Cirrhosis of Liver	14	..	..	..	1	..	2	9	2	12	
23. Nephritis and Bright's Disease	171	1	..	1	3	11	35	66	54	90	
24. Puerperal Fever	15	..	..	..	..	2	13	..	..	19	
25. Other accidents and diseases of Pregnancy and Parturition	14	..	..	..	..	2	12	..	..	15	
26. Congenital Debility and Malformation, including Premature Birth ..	198	195	1	1	1	..	..	..	..	159	
27. Violent Deaths, excluding Suicide	217	14	1	10	16	19	34	55	68	171	
28. Suicide	61	..	..	..	..	4	19	32	6	11	
29. Other Defined Diseases ..	1,121	111	12	16	27	39	120	342	454	748	
30. Diseases ill-defined or unknown	..	..	..	..	..	..	..	..	..	1	
Totals	6,291	513	104	164	205	225	653	1,792	2,635	3,330	

DEATHS IN AGE GROUPS (NETT), 1924-1934.

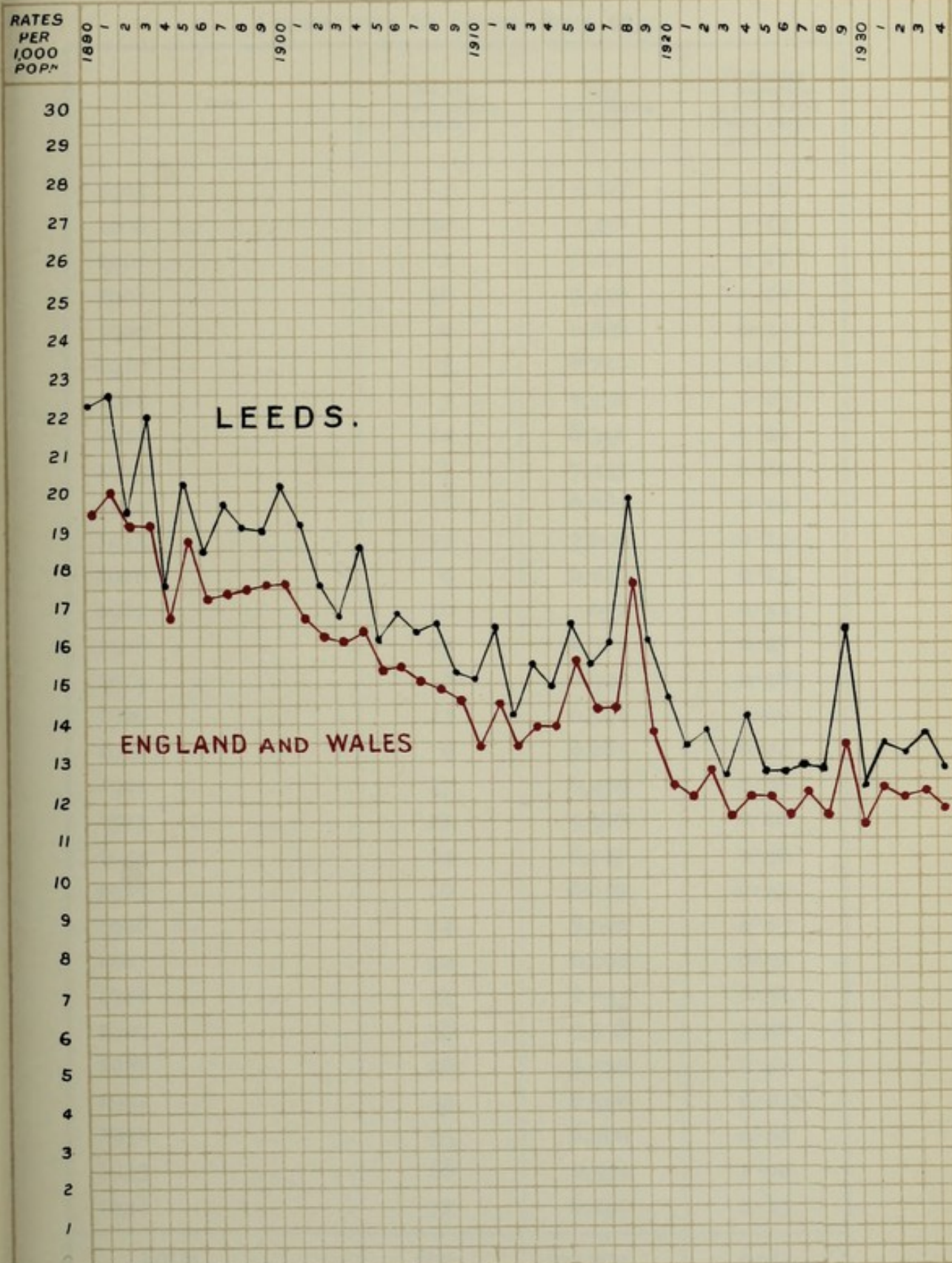
Together with the percentage of the total deaths, represented by each group
(in italics).

Year.	Under 1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
1924	921 <i>13.7%</i>	270 <i>4.0%</i>	202 <i>3.0%</i>	173 <i>2.6%</i>	275 <i>4.1%</i>	786 <i>11.6%</i>	1,804 <i>26.7%</i>	2,316 <i>34.3%</i>	6,747
1925	748 <i>12.4%</i>	177 <i>2.9%</i>	161 <i>2.7%</i>	159 <i>2.6%</i>	297 <i>4.9%</i>	709 <i>11.7%</i>	1,657 <i>27.4%</i>	2,129 <i>35.3%</i>	6,037
1926	748 <i>12.3%</i>	206 <i>3.4%</i>	190 <i>3.1%</i>	158 <i>2.6%</i>	251 <i>4.1%</i>	676 <i>11.2%</i>	1,658 <i>27.4%</i>	2,175 <i>35.9%</i>	6,062
1927	629 <i>10.1%</i>	204 <i>3.3%</i>	160 <i>2.6%</i>	183 <i>3.0%</i>	246 <i>4.0%</i>	714 <i>11.5%</i>	1,711 <i>27.6%</i>	2,351 <i>37.9%</i>	6,198
1928	606 <i>9.9%</i>	122 <i>2.0%</i>	113 <i>1.8%</i>	155 <i>2.5%</i>	230 <i>3.8%</i>	725 <i>11.8%</i>	1,792 <i>29.2%</i>	2,390 <i>39.0%</i>	6,133
1929	722 <i>9.1%</i>	291 <i>3.7%</i>	258 <i>3.3%</i>	160 <i>2.0%</i>	349 <i>4.4%</i>	851 <i>10.8%</i>	2,113 <i>26.8%</i>	3,154 <i>39.9%</i>	7,898
1930	512 <i>8.6%</i>	84 <i>1.4%</i>	117 <i>2.0%</i>	156 <i>2.6%</i>	253 <i>4.3%</i>	667 <i>11.2%</i>	1,813 <i>30.6%</i>	2,328 <i>39.3%</i>	5,930
1931	552 <i>8.5%</i>	137 <i>2.1%</i>	154 <i>2.4%</i>	169 <i>2.6%</i>	275 <i>4.2%</i>	701 <i>10.8%</i>	1,902 <i>29.2%</i>	2,616 <i>40.2%</i>	6,506
1932	617 <i>9.5%</i>	109 <i>1.7%</i>	144 <i>2.2%</i>	155 <i>2.4%</i>	246 <i>3.8%</i>	659 <i>10.2%</i>	1,791 <i>27.7%</i>	2,748 <i>42.5%</i>	6,469
1933	537 <i>8.2%</i>	105 <i>1.6%</i>	130 <i>2.0%</i>	184 <i>2.8%</i>	285 <i>4.3%</i>	702 <i>10.7%</i>	1,825 <i>27.8%</i>	2,806 <i>42.7%</i>	6,574
1934	513 <i>8.2%</i>	104 <i>1.6%</i>	164 <i>2.6%</i>	205 <i>3.3%</i>	225 <i>3.6%</i>	653 <i>10.4%</i>	1,792 <i>28.5%</i>	2,635 <i>41.8%</i>	6,291

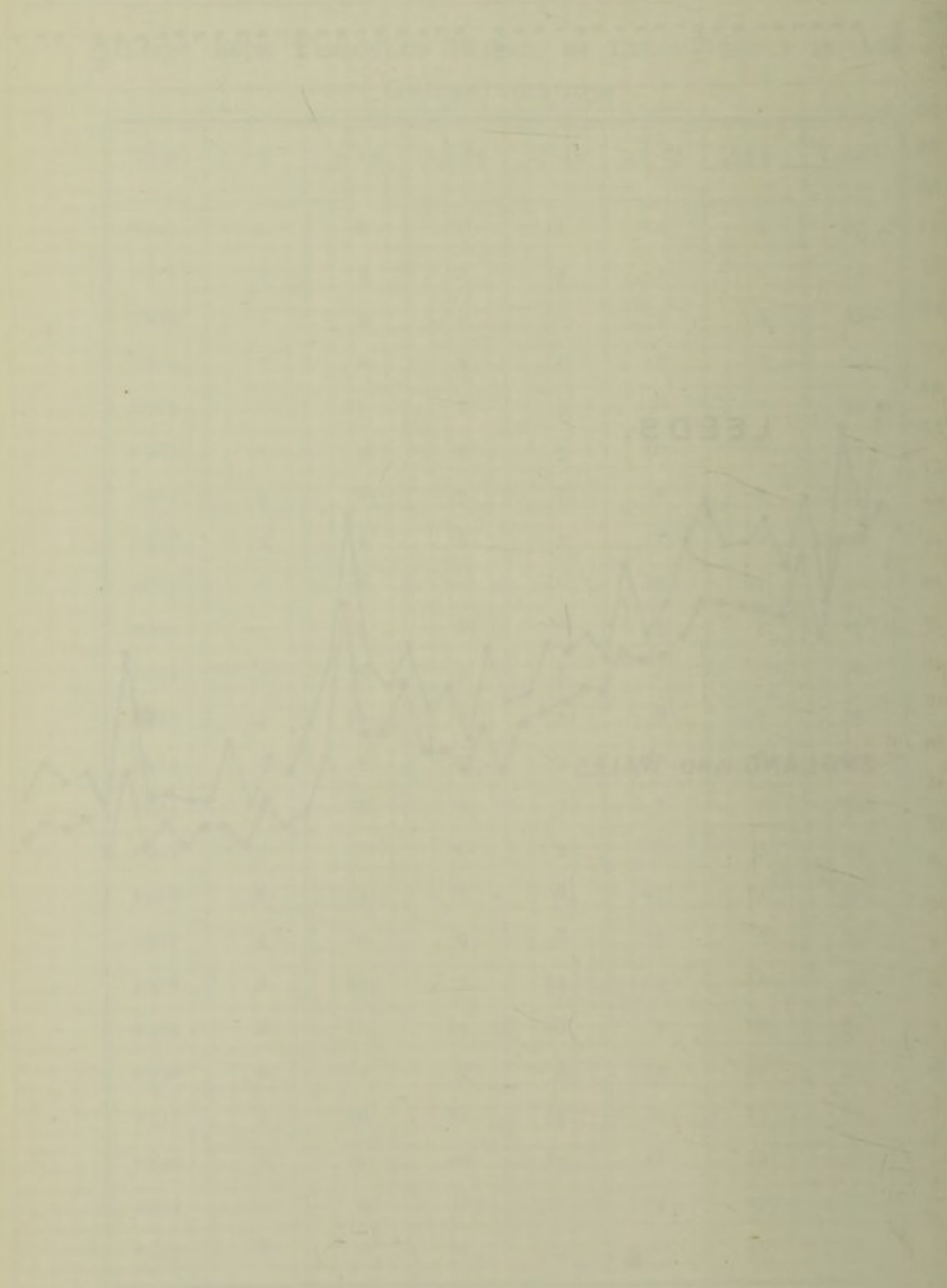
DEATHS FROM VEHICULAR TRAFFIC OF LEEDS PEOPLE IN AGE
GROUPS, 1911-1934.

Year.	-5	5-15	15-25	25-45	45-65	65+	Totals.
1911	4	6	2	2	1	2	17
1912	2	3	2	3	2	2	14
1913	1	5	2	6	9	5	28
1914	1	2	4	4	7	7	25
1915	1	11	2	5	8	7	34
1916	2	4	2	3	10	6	27
1917	4	8	3	7	8	7	37
1918	3	4	3	2	11	6	29
1919	1	8	—	1	13	7	30
1920	—	3	6	8	5	5	27
1921	3	9	3	3	1	7	26
1922	3	10	2	5	8	2	30
1923	2	6	7	7	12	6	40
1924	5	9	6	5	7	7	39
1925	5	7	6	5	6	5	34
1926	6	12	7	8	17	12	62
1927	4	20	9	6	13	5	57
1928	2	10	6	14	14	12	58
1929	2	11	13	10	9	10	55
1930	8	12	9	8	19	19	75
1931	4	10	12	14	19	12	71
1932	6	10	10	15	18	19	78
1933	5	9	8	12	14	17	65
1934	8	9	14	15	30	15	91

DEATH RATE, 1890 - 1934.



DEATH RATE, 1880-1884



CREMATIONS IN LEEDS, 1905-1934.

Year.				No. of Leeds people cremated.	Nett total deaths in City.	Percentage of cremations on nett deaths (Leeds people cremated).
1905	..	..	..	7	7,047	0·10
1906	..	..	..	10	7,350	0·14
1907	..	..	..	12	7,167	0·17
1908	..	..	..	16	7,430	0·22
1909	..	..	..	9	6,806	0·13
1910	..	..	..	5	6,711	0·07
1911	..	..	..	7	7,331	0·10
1912	..	..	..	14	6,396	0·22
1913	..	..	..	7	7,237	0·10
1914	..	..	..	18	6,885	0·26
1915	..	..	..	13	7,609	0·17
1916	..	..	..	9	6,946	0·13
1917	..	..	..	10	7,052	0·14
1918	..	..	..	23	8,529	0·27
1919	..	..	..	18	6,992	0·26
1920	..	..	..	13	6,591	0·20
1921	..	..	..	9	6,285	0·14
1922	..	..	..	17	6,479	0·26
1923	..	..	..	11	5,986	0·18
1924	..	..	..	24	6,747	0·36
1925	..	..	..	26	6,037	0·43
1926	..	..	..	14	6,062	0·23
1927	..	..	..	32	6,198	0·52
1928	..	..	..	31	6,133	0·51
1929	..	..	..	36	7,898	0·46
1930	..	..	..	26	5,930	0·44
1931	..	..	..	54	6,506	0·83
1932	..	..	..	55	6,469	0·85
1933	..	..	..	66	6,574	1·00
1934	..	..	..	71	6,291	1·13
Total	..	..	..	663	203,674	0·33

CHROMIUM IN IRON

CHROMIUM IN IRON	CHROMIUM IN IRON	CHROMIUM IN IRON	CHROMIUM IN IRON
0.01	0.01	0.01	0.01
0.02	0.02	0.02	0.02
0.03	0.03	0.03	0.03
0.04	0.04	0.04	0.04
0.05	0.05	0.05	0.05
0.06	0.06	0.06	0.06
0.07	0.07	0.07	0.07
0.08	0.08	0.08	0.08
0.09	0.09	0.09	0.09
0.10	0.10	0.10	0.10
0.11	0.11	0.11	0.11
0.12	0.12	0.12	0.12
0.13	0.13	0.13	0.13
0.14	0.14	0.14	0.14
0.15	0.15	0.15	0.15
0.16	0.16	0.16	0.16
0.17	0.17	0.17	0.17
0.18	0.18	0.18	0.18
0.19	0.19	0.19	0.19
0.20	0.20	0.20	0.20
0.21	0.21	0.21	0.21
0.22	0.22	0.22	0.22
0.23	0.23	0.23	0.23
0.24	0.24	0.24	0.24
0.25	0.25	0.25	0.25
0.26	0.26	0.26	0.26
0.27	0.27	0.27	0.27
0.28	0.28	0.28	0.28
0.29	0.29	0.29	0.29
0.30	0.30	0.30	0.30
0.31	0.31	0.31	0.31
0.32	0.32	0.32	0.32
0.33	0.33	0.33	0.33
0.34	0.34	0.34	0.34
0.35	0.35	0.35	0.35
0.36	0.36	0.36	0.36
0.37	0.37	0.37	0.37
0.38	0.38	0.38	0.38
0.39	0.39	0.39	0.39
0.40	0.40	0.40	0.40
0.41	0.41	0.41	0.41
0.42	0.42	0.42	0.42
0.43	0.43	0.43	0.43
0.44	0.44	0.44	0.44
0.45	0.45	0.45	0.45
0.46	0.46	0.46	0.46
0.47	0.47	0.47	0.47
0.48	0.48	0.48	0.48
0.49	0.49	0.49	0.49
0.50	0.50	0.50	0.50
0.51	0.51	0.51	0.51
0.52	0.52	0.52	0.52
0.53	0.53	0.53	0.53
0.54	0.54	0.54	0.54
0.55	0.55	0.55	0.55
0.56	0.56	0.56	0.56
0.57	0.57	0.57	0.57
0.58	0.58	0.58	0.58
0.59	0.59	0.59	0.59
0.60	0.60	0.60	0.60
0.61	0.61	0.61	0.61
0.62	0.62	0.62	0.62
0.63	0.63	0.63	0.63
0.64	0.64	0.64	0.64
0.65	0.65	0.65	0.65
0.66	0.66	0.66	0.66
0.67	0.67	0.67	0.67
0.68	0.68	0.68	0.68
0.69	0.69	0.69	0.69
0.70	0.70	0.70	0.70
0.71	0.71	0.71	0.71
0.72	0.72	0.72	0.72
0.73	0.73	0.73	0.73
0.74	0.74	0.74	0.74
0.75	0.75	0.75	0.75
0.76	0.76	0.76	0.76
0.77	0.77	0.77	0.77
0.78	0.78	0.78	0.78
0.79	0.79	0.79	0.79
0.80	0.80	0.80	0.80
0.81	0.81	0.81	0.81
0.82	0.82	0.82	0.82
0.83	0.83	0.83	0.83
0.84	0.84	0.84	0.84
0.85	0.85	0.85	0.85
0.86	0.86	0.86	0.86
0.87	0.87	0.87	0.87
0.88	0.88	0.88	0.88
0.89	0.89	0.89	0.89
0.90	0.90	0.90	0.90
0.91	0.91	0.91	0.91
0.92	0.92	0.92	0.92
0.93	0.93	0.93	0.93
0.94	0.94	0.94	0.94
0.95	0.95	0.95	0.95
0.96	0.96	0.96	0.96
0.97	0.97	0.97	0.97
0.98	0.98	0.98	0.98
0.99	0.99	0.99	0.99
1.00	1.00	1.00	1.00

Infectious and Other Diseases.

INFECTIOUS AND OTHER DISEASES.

BY

JAMES SHARPE, M.B., F.R.F.P.S., D.P.H.,

Deputy Medical Officer of Health.

The year 1934 will always be associated in epidemiological studies with diphtheria. During it, there occurred the largest number of cases on record while the deaths were almost twice the number recorded in 1933. Nevertheless, taking into account the severity of the type, the case mortality was not excessive. (7.0 per cent.).

The number of cases of scarlet fever notified was the largest since 1929, but the form being mild the mortality was low (there were only 16 deaths).

In addition to epidemics of diphtheria and scarlet fever there was also an epidemic of measles of considerable magnitude, 10,576 cases being notified. There were 90 deaths, the largest number since 1929.

With regard to respiratory disorders the city was fortunate, 33 deaths only being registered as due to influenza. This is the lowest since 1914 when the number was 30.

The deaths from whooping cough, pneumonia, and bronchitis respectively reached figures lower than ever previously recorded in the city.

On the other hand cancer claimed the highest number of victims on record. (801).

A complete summary of all cases of notifiable infectious diseases notified to the Department during 1934 will be found in the appendix (Table II.).

Smallpox.—No case of this disease was notified in the city during 1934. This makes the third consecutive year in which the city has been entirely free from the disease. On one occasion information was received regarding the occurrence of smallpox on a ship returning from a foreign country. Contacts landing from this ship and coming into the city were kept under observation during the quarantine period, but in no case did the disease develop.

Cases referred for Second Opinion.—During the year 15 cases were referred to the Department as “doubtful smallpox” by general medical practitioners, as compared with 11 for the preceding year. The cases included chickenpox 9; dermatitis 4; erythema 1; septic rash 1. None of these cases was admitted to Hospital.

Observation of Contacts.—During the year 8 Leeds persons who had been in contact with cases of smallpox whilst visiting other towns or returning from abroad, were kept under observation until the end of the quarantine period of 21 days.

VACCINATION.

Year.	Number of children born.	Number of successful primary vaccinations during year.	Number granted exemption certificates during year.
1925	8,576	5,919	2,477
1926	8,515	6,045	2,348
1927	8,129	6,590	2,016
1928	7,978	5,828	2,387
1929	7,727	4,127	2,423
1930	7,902	4,275	2,558
1931	7,555	3,963	2,511
1932	7,369	3,692	2,635
1933	*7,071	3,390	2,598

*Quite an appreciable number of these children may be vaccinated in 1934.

Vaccination.—During 1933, the last year for which statistics are available, 7,071 births were registered of which 3,390 or 48 per cent. were successfully vaccinated; 46 were found to be in-susceptible to vaccination, and 2,598 statutory exemptions were issued on account of conscientious objections by parents or guardians.

The appended table shows the number of children vaccinated from year to year. The year 1927 was exceptional owing to the increased prevalence of smallpox in the city which gave vaccination a temporary fillip.

DIPHTHERIA AND MEMBRANOUS CROUP.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1923	368	0·78	20	0·04	0·07
1924	289	0·61	27	0·06	0·06
1925	422	0·89	39	0·08	0·07
1926	374	0·79	26	0·05	0·08
1927	439	0·92	28	0·06	0·07
1928	634	1·34	21	0·04	0·08
1929	536	1·12	26	0·05	0·09
1930	994	2·08	54	0·11	0·09
1931	995	2·05	86	0·18	0·07
1932	889	1·83	48	0·10	0·06
1933	1,057	2·18	88	0·18	0·07
1934	2,231	4·59	156	0·32	0·10

Diphtheria.—The number of cases notified during the year was 2,231 of which 2,200 were removed to hospital. The deaths numbered 156 with a death-rate of 0·32 or three times that of England and Wales as a whole.

A review of diphtheria in Leeds for the last 35 years shows that in the year 1934 the number of notifications reached a figure never before attained. The epidemic began in 1930 and the peak was reached in December 1934 when in one week over a 100 cases were notified. On only two previous occasions, viz., in the years 1899 and 1909, did the notifications exceed 1,250 cases.

Year	Cases notified	Case-rate	Deaths	Death-rate
1899	1,798	4.32	335	0.80
1909	1,319	2.99	65	0.15
1934	2,231	4.59	156	0.32

As will be observed from the table on page 44, in the five years 1930-34 there were 432 deaths, the majority of which were children under 15 years. Considering the magnitude of the epidemic and the severity of the type it is fortunate that the number of deaths was not greater.

Diphtheria Immunisation.—During the year 2,217 children were immunised by medical officers of the department in the course of the ordinary routine work of the immunisation clinic.

Material for immunisation continued to be distributed on request to general medical practitioners and sufficient to immunise 556 children was issued during 1934.

The appended table shows the number of children immunised since the inauguration of our scheme in the year 1928.

DIPHTHERIA IMMUNISATION IN LEEDS.

Year.	Immunised by Assistant Medical Officers, Health Department.	Immunised by General Medical Practitioners.	Total.
1928	65	27	92
1929	73	28	101
1930	152	22	174
1931	202	400	602
1932	1,379	495	1,874
1933	1,027	345	1,372
1934	2,217	556	2,773
Total	5,115	1,873	6,988

A most regrettable feature of the recent epidemic has been the failure of the public to take advantage of the facilities offered by the Corporation for free immunisation. Ever since 1928 these

facilities have existed and every effort has been made to induce parents to have their children immunised. Notwithstanding, up to the end of 1933 the number of children protected reached the meagre figure of 4,215 and during 1934 was increased by only 2,773. Had greater heed been paid by the public to the warnings of the Department and the response to its constant reiterated appeals been better there is no doubt that not only would the actual number of cases have been very materially reduced but the mortality would have been more than halved. Therein lies the tragedy. It was not until the beginning of the current year (1935), largely as the result of an intensive press campaign that the public conscience was awakened to the gravity of the situation and parents began to appreciate the jeopardy in which their unprotected children stood. Leaflets explaining the dangers of the disease and offering free immunisation were circulated through the schools and infant welfare centres and parents were urged to consent to their children being immunised. The response was extremely gratifying. Within a month permission had been obtained to immunise 27,261 children. A special staff of doctors, nurses, and clerks was engaged to undertake the work which as it will be appreciated involved a large amount of organisation. The help of the School Medical Department in this organisation was invaluable. My next report will contain fuller particulars of the campaign which at the time of writing is not complete. It may be stated, however, that it is hoped that the whole of the 27,261 children will be completely immunised by the end of May.

While this special effort was being made children under school age continued to be dealt with at the immunisation clinic in Park Square. These children were mostly under five years of age. In this connection it should be observed that in any attempt at mass immunisation success or failure depends to a very large extent on the proportion rendered immune in this section of the child population. The best and indeed the only way to ensure the non-recurrence of the epidemic which has so devastated the child population of this city in recent years is to immunise every child in early infancy.

I might also call attention to another measure adopted by the Department during the year to meet the emergency. From reports received from the hospital, as well as from general practitioners,

it became obvious that cases were not being seen early enough to ensure effective treatment, also that many cases were being missed. It was thought that the explanation, at least in some of the cases, of this failure on the part of parents to call in a doctor as soon as symptoms appeared was due to their inability to pay the doctor's fee. To get over this difficulty the Council decided to reimburse medical practitioners for services rendered in such circumstances. Full details of the proposals were made known to the public through the press and a special letter was sent to all medical practitioners in the city asking for their co-operation. The scheme achieved a considerable measure of success though not as much as had been anticipated.

Institutional Outbreaks.—During the year 107 cases of diphtheria were notified from three institutions in the city. Of these 8 were nurses and the remaining 99 patients.

In the majority, the disease was contracted during residence and occurred as single cases and not in groups. Carriers, diphtheritic rhinitis in children, and missed cases were the probable sources of infection.

A small outbreak occurred during October in a residential home for children which caused a good deal of anxiety. The writer, at the request of the medical officer of the institution, visited the home on several occasions and swabbed the whole of the children, as well as the nursing and domestic staffs. In all, nine children were removed to Seacroft Hospital for treatment. The remaining children were immunised and arrangements made for all children admitted to the home in future to be similarly protected. Where children are segregated for any length of time the small expenditure of money entailed by their immunisation is well repaid.

Diphtheria Carriers.—A number of carrier cases were met with during the year. Most of them were convalescent and the infection was of a temporary character. In two, however, it was persistent. One case, a woman aged 54 years, was admitted to hospital on December 14th and was discharged as a carrier on January 2nd, 1935. Since that date she has been under the care of her own doctor. Swabs of nose and throat have been taken periodically all of which have been reported positive. She is still a carrier (May 1935).

The other case, a boy aged 9 years, was notified as suffering from diphtheria on December 12th and was nursed at home. It was not until the end of March however that successive negative swabs could be obtained.

It may be assumed that these known carriers represented only a fraction of the actual number present in the community.

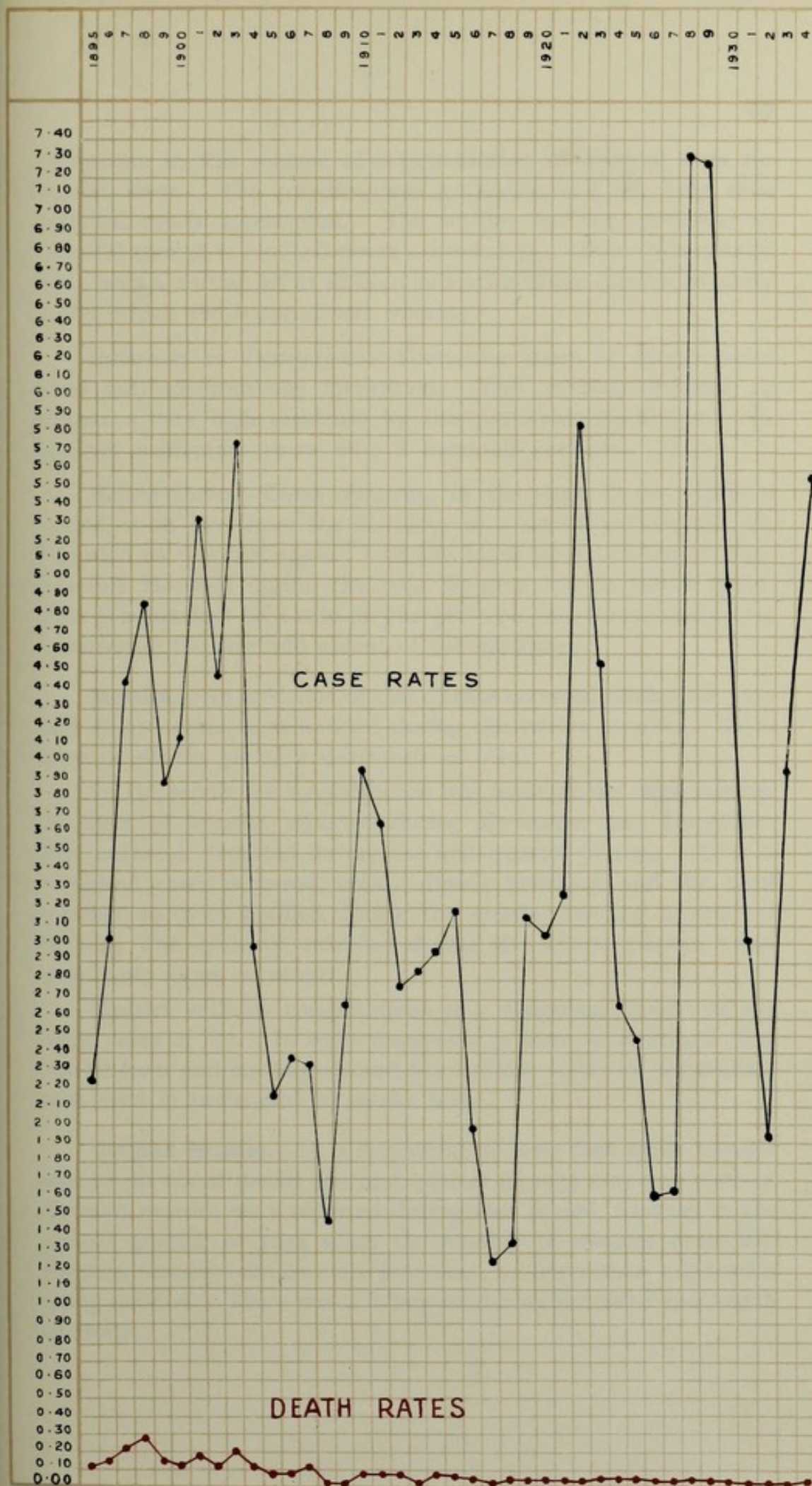
SCARLET FEVER.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1924	1,256	2.66	20	0.04	0.02
1925	1,166	2.47	15	0.03	0.03
1926	756	1.60	5	0.01	0.02
1927	773	1.62	6	0.01	0.01
1928	3,515	7.40	18	0.04	0.01
1929	3,473	7.26	29	0.06	0.02
1930	2,383	4.98	23	0.05	0.02
1931	1,467	3.02	12	0.02	0.01
1932	931	1.92	8	0.02	0.01
1933	1,906	3.93	9	0.02	0.02
1934	2,711	5.58	16	0.03	0.02

Scarlet Fever.—The number of cases of this disease reported during the year was 2,711 of which 2,412 were removed to hospital. The disease was of a mild type. There were 16 deaths equivalent to a death-rate of 0.03.

Owing to the pressure on the accommodation at Seacroft Hospital resulting from the diphtheria epidemic the admissions of scarlet fever cases had to be restricted to those from institutions and from overcrowded and unsuitable homes. A circular letter was sent to all general practitioners in the city asking them to

SCARLET FEVER CASE AND DEATH RATES 1895 - 1934.



co-operate in this scheme of rationalisation of hospital beds for scarlet fever. The response was gratifying and the help thus afforded much appreciated. The waiting list for admission to hospital though it reached never exceeded 35. That there should have been a waiting list at all is an indication of the extreme pressure under which the hospital was working.

Outbreaks in Institutions.—Forty-nine cases of scarlet fever were notified from one institution. This number included 13 nurses, a very high incidence for this particular institution. In another institution there were 8 cases all patients.

Return Cases.—Cases occurring in the same house within a period of 28 days from the discharge of a case from hospital, are regarded as "return cases." Of the 2,458 cases discharged from Seacroft Hospital during the year 89 gave rise to return cases. This is equivalent to a rate of 3.62 per cent., not an excessive rate considering the size and extent of the epidemic.

Measles.—An epidemic of this disease occurred during the year and 10,576 cases were notified during the twelve months. There were 90 deaths giving a death-rate of 0.19.

In the report for 1933 mention was made of the large number of cases of measles reported during November and December. The outbreak persisted during the first quarter of 1934. Over a thousand cases occurred weekly during February and the total number of cases notified during the quarter reached a total of 8,121. The epidemic subsided during the second quarter when only 2,017 cases occurred.

Measles with its complications is a dangerous disease in the early years of life. In some respects it is more to be feared than scarlet fever and on that account has a strong claim for hospitalisation even in preference to scarlet fever.

German Measles.—It is interesting to note that while measles was so prevalent during the first quarter of 1934 only 125 cases of German measles were reported during that period, whereas in the second quarter of 1934 when the number of measles cases fell, German measles became more prevalent, no fewer than 1,678 cases being notified. There was a falling off during the third and fourth quarters.

MEASLES (EXCLUDING GERMAN MEASLES).

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate LEEDS.	Death-rate England and Wales.
1921	209	0.45	5	0.01	0.06
1922	9,932	21.28	152	0.33	0.15
1923	4,683	9.97	50	0.11	0.14
1924	6,654	14.11	46	0.10	0.12
1925	5,100	10.78	39	0.08	0.14
1926	7,076	14.95	19	0.04	0.09
1927	8,569	17.94	117	0.24	0.09
1928	3,638	7.66	21	0.04	0.11
1929	9,486	19.82	102	0.21	0.09
1930	913	1.91	2	0.00	0.11
1931	10,955	22.52	56	0.12	0.08
1932	3,540	7.30	52	0.11	0.08
1933	3,973	8.19	22	0.05	0.05
1934	10,576	21.75	90	0.19	0.09

GERMAN MEASLES.

Year.	Cases notified.	Case-rate.	Deaths LEEDS.	Deaths in England and Wales.
1921 ..	31	0.07	..	15
1922 ..	146	0.31	..	15
1923 ..	541	1.15	..	17
1924 ..	383	0.81	..	12
1925 ..	201	0.43	..	42
1926 ..	626	1.32	1	35
1927 ..	95	0.20	..	20
1928 ..	41	0.09	..	12
1929 ..	1,256	2.62	..	31
1930 ..	343	0.72	..	27
1931 ..	101	0.21	..	16
1932 ..	86	0.18	..	7
1933 ..	119	0.25	..	11
1934 ..	2,495	5.13	..	

WHOOPING COUGH.

Year.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1924	87	0·18	0·10
1925	47	0·10	0·16
1926	119	0·25	0·11
1927	44	0·09	0·09
1928	36	0·08	0·08
1929	107	0·22	0·16
1930	32	0·07	0·05
1931	43	0·09	0·06
1932	41	0·08	0·07
1933	28	0·06	0·06
1934	25	0·05	0·05

AGES AT DEATH FROM WHOOPING COUGH.

1934	0-1	1-2	2-3	3-4	4-5	5-10	10-15	Total.
No. of deaths	9	6	4	1	4	1	..	25

Whooping Cough.—This disease is not notifiable in Leeds so that the actual number of cases occurring in the city cannot be ascertained. The number of deaths (25) was the lowest ever recorded in the city. The death-rate was 0·05, which is satisfactory considering that whooping cough is usually responsible for many deaths in the first two years of life.

ERYSIPELAS.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate Leeds.	Death-rate England and Wales.
1924	237	0.50	10	0.02	0.02
1925	321	0.68	13	0.03	0.02
1926	327	0.69	12	0.03	0.02
1927	320	0.67	18	0.04	0.02
1928	361	0.76	19	0.04	0.02
1929	349	0.73	19	0.04	0.03
1930	423	0.88	23	0.05	0.03
1931	317	0.65	22	0.05	0.03
1932	289	0.60	22	0.05	0.02
1933	353	0.73	15	0.03	0.03
1934	418	0.86	28	0.06	

Erysipelas.—There was an increase in the notifications of the disease during 1934, 418 cases being notified as compared with 353 notified during the preceding year. The deaths numbered 28 which gives a death-rate of 0.06. Of the 418 cases reported, 171 received hospital treatment.

Encephalitis Lethargica.—Only one case of this disease was notified during the year. There were 9 deaths.

Malaria.—No case of this disease was reported during 1934.

Dysentery.—Twelve cases of bacillary dysentery were notified during the year from a large institution in the city.

Acute Anterior Poliomyelitis.—Three cases only of this disease were notified during 1934. There were no deaths.

Cerebro Spinal Meningitis.—There was a considerable decrease in the number of cases of this disease, 18 being reported as compared with 38 in 1933. Two cases were removed to hospital.

Puerperal Fever and Puerperal Pyrexia.—The figures for the year are given below, viz—.

Disease.	Cases notified.		Case-rate per 1,000 population		Deaths.		Death-rate per 1,000. population	
	1933	1934	1933	1934	1933	1934	1933	1934
Puerperal Fever ..	39	53	0.08	0.11	15	15	0.03	0.03
Puerperal Pyrexia ..	115	139	0.24	0.29	..	..	..	..

Of the 53 cases of puerperal fever, 32 (60.3 per cent.) occurred in institutions, 11 (20.8 per cent.) in doctors' practices, and 10 (18.9 per cent.) in the practice of midwives. Fourteen (26.4 per cent.) were removed to Seacroft Hospital. The cases of puerperal pyrexia were distributed as follows:—

111 (79.8 per cent.) in institutions, 8 (5.8 per cent.) in doctors' practices, and 20 (14.4 per cent.) in midwives' practices.

This subject is further dealt with in the section on Maternity and Child Welfare on page 171.

Ophthalmia Neonatorum.—Fifty-four cases of this disease were reported during the year, an increase of ten cases as compared with the previous year.

DAY OF ONSET FROM BIRTH.

1934.	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	10th-15th	15th-20th	20th-25th
No. of Cases	-	1	-	1	1	3	5	5	7	6	12	7	

The results of treatment were as follows:—

Recovery apparently perfect	..	..	52
Recovery not perfect	..	..	1
Still under treatment	..	..	1

This subject is further dealt with in the section on Maternity and Child Welfare on page 172.

PUERPERAL FEVER.

Year.	Cases.	Case-rate per 1,000 population.	Deaths.	Death-rate per 1,000 live births.	Death-rate per 1,000 population.
1900	21	0.05	13	0.99	0.03
1901	26	0.06	16	1.24	0.04
1902	21	0.05	12	0.91	0.03
1903	26	0.06	10	0.77	0.02
1904	26	0.06	11	0.88	0.03
1905	28	0.06	9	0.73	0.02
1906	30	0.07	14	1.16	0.03
1907	30	0.07	15	1.28	0.03
1908	24	0.05	13	1.08	0.03
1909	32	0.07	19	1.73	0.04
1910	29	0.07	14	1.29	0.03
1911	23	0.05	13	1.23	0.03
1912	31	0.07	9	0.87	0.02
1913	32	0.07	13	1.20	0.03
1914	46	0.10	27	2.53	0.06
1915	23	0.05	12	1.21	0.03
1916	28	0.06	12	1.27	0.03
1917	22	0.05	5	0.66	0.01
1918	17	0.04	6	0.81	0.01
1919	26	0.06	6	0.79	0.01
1920	56	0.12	29	2.58	0.06
1921	31	0.07	8	0.79	0.02
1922	35	0.07	14	1.51	0.03
1923	51	0.11	10	1.15	0.02
1924	53	0.11	9	1.05	0.02
1925	52	0.11	24	2.93	0.05
1926	46	0.10	14	1.74	0.03
1927	37	0.08	14	1.80	0.03
1928	47	0.10	14	1.83	0.03
1929	31	0.06	10	1.35	0.02
1930	51	0.11	10	1.32	0.02
1931	65	0.13	17	2.35	0.03
1932	28	0.06	8	1.14	0.02
1933	39	0.08	15	2.26	0.03
1934	53	0.11	15	2.09	0.03

ENTERIC FEVER.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1924	25	0.05	6	0.01	0.01
1925	9	0.02	3	0.01	0.01
1926	9	0.02	1	0.00	0.01
1927	14	0.03	2	0.00	0.01
1928	6	0.01	1	0.00	0.01
1929	14	0.03	3	0.01	0.01
1930	4	0.01	2	0.00	0.01
1931	10	0.02	2	0.00	0.01
1932	9	0.02	..	..	0.01
1933	10	0.02	1	0.00	0.01
1934	8	0.02	1	0.00	0.00

CASES OF ENTERIC FEVER MONTH BY MONTH.

Jan.	Feb	March	April	May.	June.	July.	Aug.	Sept.	Oct	Nov.	Dec.
-	-	-	-	-	-	1	-	4	2	1	-

The Enteric Group.—During the year 8 cases of enteric fever were notified, of which 5 were due to *B. Typhosus*, 1 to *B. paratyphosus A*, and 2 to *B. paratyphosus B*. The ages of the patients ranged from 6 to 49 years, one being 49 and the remaining seven below 38 years. This is a decrease of 2 cases as compared with the previous year.

Two of the cases were infected outside the city. One was admitted through the Leeds General Infirmary and the other contracted the infection while cruising in foreign waters.

In October an interesting case of paratyphosus B was reported. The patient, a man aged 23 years, patronised along with a friend several local restaurants where they partook of meals regularly. The faeces and urine of the four other inmates of his house, as well as those of his friend were sent for bacteriological examination. Except in one case they were all returned as negative. The exception was a woman of 50 years of age who has since been a persistent carrier of the germ. She has been personally warned of the dangers of want of personal cleanliness and is still under observation.

INFLUENZA.

Year.	Deaths.	Death-Rate. LEEDS.	Death-Rate England and Wales.
1924	404	0·86	0·49
1925	159	0·34	0·33
1926	100	0·21	0·23
1927	173	0·36	0·57
1928	100	0·21	0·20
1929	568	1·19	0·74
1930	59	0·12	0·13
1931	125	0·26	0·36
1932	116	0·24	0·33
1933	258	0·53	0·57
1934	33	0·07	0·14

AGES AT DEATH FROM INFLUENZA.

1934	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	1	..	..	..	1	4	13	14	33

Typhoid Carriers.—In the reports for the years 1931, 1932 and 1933 mention was made of a girl now aged 19 who was a chronic carrier. During 1934, examinations of her fæces were carried out on 7 occasions, and on 6 were positive. This person has also been warned of the danger of spreading the infection, and been instructed with regard to personal cleanliness.

Influenza.—It is gratifying to note that only 33 deaths from influenza occurred during the year. This is the lowest number ever recorded in the city, the death-rate 0·07 being only half that of England and Wales. Most of the deaths (81·82 per cent.) occurred in the age group 45+.

DIARRHŒA AND ENTERITIS DEATHS UNDER TWO YEARS
WITH RATES PER 1,000 BIRTHS.

Year.	Deaths.	Rate per 1,000 Births.	
		Leeds.	England and Wales.
1924	103	12·0	7·6
1925	149	18·2	8·8
1926	147	18·2	9·2
1927	88	11·3	6·7
1928	105	13·7	7·2
1929	86	11·6	8·3
1930	34	4·5	6·2
1931	68	9·4	5·9
1932	106	15·1	6·6
1933	104	15·7	7·0
1934	76	10·6	5·5

DEATHS FROM DIARRHŒA AND ENTERITIS UNDER TWO YEARS AND METEOROLOGICAL CONDITIONS
IN EACH MONTH OF THE YEAR.

1934.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Deaths	4	7	6	1	1	6	8	8	10	17	4	4	76
Barom. (inches) ..	29.97	30.18	29.51	29.60	29.94	29.93	29.93	29.70	29.81	29.77	29.92	29.41	29.81
Attached Ther. °F. . .	51.18	54.79	54.78	57.94	59.58	63.13	69.00	64.98	63.17	59.70	58.38	58.96	59.58
Dry Bulb	43.60	44.67	44.86	49.52	56.11	62.85	70.35	63.88	62.02	53.60	48.63	48.12	54.06
Wet Bulb	41.32	41.81	42.27	46.12	51.91	57.85	65.13	58.97	57.42	50.68	46.17	46.39	50.34
Humidity	82.92	79.33	81.49	77.94	75.45	73.87	73.50	73.51	74.81	81.12	82.94	87.80	78.67
Mn. of highest reading ..	47.86	49.29	49.14	53.96	62.51	70.25	77.25	70.63	69.46	58.26	53.39	52.07	59.53
.. lowest	36.09	35.25	35.29	39.29	42.46	48.50	56.57	51.86	46.71	43.74	40.89	40.14	43.10
.. daily range	11.77	14.04	13.86	14.68	20.06	21.75	20.68	18.77	22.75	14.51	12.50	11.93	16.43
Total rainfall (inches) ..	1.79	0.34	2.01	2.93	1.40	1.52	1.52	1.52	2.05	2.29	2.07	4.53	23.97
Sunshine (hours)	49.00	80.75	75.25	119.92	157.67	163.75	229.75	133.08	114.75	62.50	27.08	4.17	1217.67

The meteorological data are compiled from returns sent us by Mr. Ricketts, the Curator of the Museum
They are uncorrected readings, made at 10 a.m. and 4 p.m.

Epidemic (Summer) Diarrhoea and Enteritis.—During the year 76 children under two years of age died from these diseases equal to a death-rate of 10·6 per 1,000 births as compared with 15·7 during 1933. This fall is particularly gratifying because it occurred in spite of a hot, dry summer. Even so the death-rate was almost twice that for England and Wales.

PNEUMONIA (ALL FORMS).

Year.	Deaths.	Death-Rate. LEEDS.	Death-Rate England and Wales.
1924	619	1·31	1·00
1925	503	1·06	0·95
1926	484	1·02	0·83
1927	477	1·00	0·95
1928	485	1·02	0·79
1929	825	1·72	1·11
1930	413	0·86	0·70
1931	500	1·03	0·84
1932	497	1·02	0·74
1933	485	1·00	0·74
1934	378	0·78	

AGES AT DEATH FROM PNEUMONIA.

1934	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	54	20	23	12	13	60	106	90	378

Pneumonia.—During the year 739 notifications of pneumonia were received of which 675 were primary and 64 influenzal. The attack rate for the two varieties of pneumonia based on the notifications received was 1.39 and 0.13 respectively as compared with 1.70 and 0.39 for the previous year and 1.82 and 0.39 the average for the previous five years.

The subjoined table gives the incidence of these two types of pneumonia in each quarter of the year.

PNEUMONIA CASES NOTIFIED.

1934.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Acute Primary Pneumonia ..	246	188	115	126	675
Acute Influenzal Pneumonia ..	30	15	4	15	64

It will be seen that 37 per cent. of the cases occurred in the first quarter of the year. An unusual feature is the high incidence of acute primary pneumonia in the 3rd quarter of the year for which there is no explanation.

The number of deaths which occurred from all forms of pneumonia during the year was 378. This represents a death-rate of 0.78 which is the lowest ever recorded in the city.

Bronchitis.—An exceptionally low death-rate from bronchitis was recorded during 1934, viz., 0.46. The number of deaths (224) was the lowest ever registered in any one year in the city. As usual more than half the deaths occurred in the age group 65 and over. It is very interesting to note that not a single death occurred in age group 5-15. The usual close association between the number of deaths from pneumonia and bronchitis was maintained.

BRONCHITIS.

Year.	Deaths.	Death-Rate. LEEDS.	Death-Rate England and Wales.
1924	643	1.36	0.97
1925	513	1.08	0.91
1926	439	0.93	0.77
1927	351	0.73	0.84
1928	343	0.72	0.59
1929	559	1.17	0.84
1930	278	0.58	0.49
1931	355	0.73	0.63
1932	299	0.62	0.51
1933	342	0.71	0.52
1934	224	0.46	

AGES AT DEATH FROM BRONCHITIS.

1934	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	11	4	2	..	2	9	68	128	224

Cancer.—It was recorded in the report for 1933 that for the first time since 1929 there had been a substantial drop in the number of deaths registered as due to cancer.

CANCER.

Year.	Deaths.	Death-Rate. LEEDS.	Death-Rate England and Wales.
1924	639	1.35	1.30
1925	606	1.28	1.34
1926	657	1.39	1.36
1927	649	1.36	1.38
1928	698	1.47	1.43
1929	684	1.43	1.44
1930	728	1.52	1.45
1931	740	1.52	1.48
1932	760	1.57	1.51
1933	706	1.46	1.53
1934	801	1.65	1.56

AGES AT DEATH FROM CANCER.

1934.	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
Males	..	..	1	..	4	20	196	185	406
Females	..	..	..	..	..	47	181	167	395
Total	..	..	1	..	4	67	377	352	801

Unfortunately the year 1934 did not maintain this good record for the number of deaths due to the disease was higher than in any previous year in the history of the city for which figures are available. Of 801 deaths, 406 were males and 395 females. Among males there was an increase in the deaths due to cancer of the digestive system, 34 more deaths occurring than in the previous year, while among females there were 30 more deaths from cancer of the breast than in 1933. In males over 45 years there was an increase of deaths of 51 over the figure for the preceding year. Females die from cancer at an earlier age than males and from 25-45 years there was a somewhat disturbing increase of 22 deaths.

The successful treatment of cancer depends on early diagnosis. A lump in the breast, a persistent discharge, digestive symptoms occurring, often for the first time, in a person 35 years or more demand an immediate and full investigation.

CANCER DEATH-RATES, ELEVEN LARGE TOWNS, ALSO ENGLAND AND WALES.

	Year 1923.	Year 1924.	Year 1925.	Year 1926.	Year 1927.	Year 1928.	Year 1929.	Year 1930.	Year 1931.	Year 1932.	Year 1933.
London ..	1.39	1.42	1.44	1.46	1.49	1.52	1.55	1.57	1.64	1.61	1.65
Birmingham..	1.18	1.31	1.29	1.31	1.39	1.37	1.37	1.42	1.45	1.47	1.44
Liverpool ..	1.13	1.13	1.21	1.18	1.16	1.33	1.34	1.27	1.34	1.40	1.47
Manchester ..	1.41	1.40	1.40	1.49	1.45	1.49	1.56	1.52	1.63	1.69	1.57
Sheffield ..	1.19	1.26	1.33	1.19	1.39	1.37	1.42	1.45	1.44	1.33	1.51
Leeds ..	1.24	1.37	1.28	1.41	1.37	1.46	1.44	1.52	1.53	1.58	1.48
Bristol ..	1.32	1.28	1.32	1.26	1.43	1.45	1.39	1.50	1.49	1.54	1.45
Hull ..	1.04	1.29	1.20	1.46	1.45	1.47	1.40	1.36	1.28	1.45	1.33
Bradford ..	1.33	1.56	1.42	1.63	1.59	1.55	1.58	1.61	1.68	1.71	1.76
Newcastle ..	1.16	1.24	1.32	1.19	1.20	1.54	1.38	1.39	1.30	1.45	1.44
Nottingham ..	1.46	1.40	1.25	1.38	1.49	1.44	1.52	1.43	1.51	1.44	1.35
England and Wales ..	1.27	1.30	1.34	1.36	1.38	1.42	1.44	1.45	1.48	1.51	1.53

The rates are calculated from figures given in the Registrar General's Annual Reports.

1934.—DEATHS FROM CANCER IN WARDS CLASSIFIED ACCORDING TO ANATOMICAL SITE OF THE DISEASE.

Ward.	Buccal cavity and pharynx.		Digestive organs and peritoneum.		Respiratory organs.		Uterus.	Female genital organs.	Breast.		Male genito-urinary organs.	Skin.		Other or unspecified organs.	Totals.	
	M.	F.	M.	F.	M.	F.			M.	F.		M.	F.		M.	F.
Mill Hill and South..	1	2	6	4	2	..	4	1	..	1	2	..	1	1	12	14
Westfield ..	..	..	6	4	7	3	7	1	..	4	2	..	1	..	15	20
Blenheim ..	3	1	12	3	7	..	5	1	..	7	2	..	1	2	26	18
Central ..	2	..	8	5	1	1	1	..	1	3	..	..	1	2	13	12
Woodhouse ..	1	..	9	5	1	1	1	..	..	4	..	..	..	..	11	11
North ..	1	..	9	6	2	..	2	..	..	6	3	..	1	2	18	15
Far Headingley ..	1	1	8	9	3	1	2	1	..	2	..	..	2	2	13	18
Hyde Park ..	..	..	6	9	3	2	..	..	..	6	3	..	1	2	13	19
Kirkstall ..	1	2	9	9	2	..	2	1	..	1	3	..	..	..	16	15
Burmantofts ..	..	..	7	3	8	2	2	1	..	4	1	..	1	..	18	13
Harehills ..	1	..	8	3	1	1	4	..	..	2	..	..	..	..	11	10
Potternewton ..	1	..	11	10	2	2	3	..	..	6	1	..	2	1	17	22
Roundhay ..	..	..	16	3	..	..	2	1	..	5	1	..	1	..	17	12
Cross Gates & Templenewsam	1	..	6	2	2	2	3	..	..	3	1	..	..	..	10	10
Richmond Hill ..	2	1	12	10	7	..	3	1	..	3	3	..	..	..	26	18
Osmondthorpe ..	3	..	10	7	3	2	1	..	..	2	1	..	2	2	18	14
East Hunslet ..	3	..	12	7	1	..	4	1	..	3	3	..	1	1	19	16
Hunslet Carr and Middleton	3	..	6	5	..	..	3	..	..	7	1	..	3	3	11	18
West Hunslet ..	2	..	10	8	2	..	1	2	..	3	1	..	2	2	15	16
Beeston ..	2	1	7	4	2	..	..	..	..	2	..	1	4	4	12	11
Holbeck (South)	2	..	11	5	4	3	1	1	..	3	1	..	1	..	19	12
Holbeck (North)	3	..	16	6	1	4	3	1	..	..	1	..	..	..	21	14
Armley and New Wortley	..	..	11	6	2	..	2	..	..	6	1	..	4	4	15	18
Upper Armley ..	1	..	7	9	..	2	1	..	..	3	3	..	1	1	13	16
Bramley ..	..	1	15	7	1	1	1	..	..	5	1	..	..	..	19	15
Farnley and Wortley	2	..	5	6	..	..	4	2	..	3	2	..	1	1	9	17
City ..	36	9	243	155	64	27	62	14	1	94	37	1	4	25	407	394

CANCER DEATH RATE.— 1891-1934.

RATES
PER
1,000
POP.

1891

2

3

4

5

6

7

8

9

1900

1

2

3

4

5

6

7

8

9

1910

1

2

3

4

5

6

7

8

9

1920

1

2

3

4

5

6

7

8

9

1930

1

2

3

4

5

6

7

8

9

1934

1

2

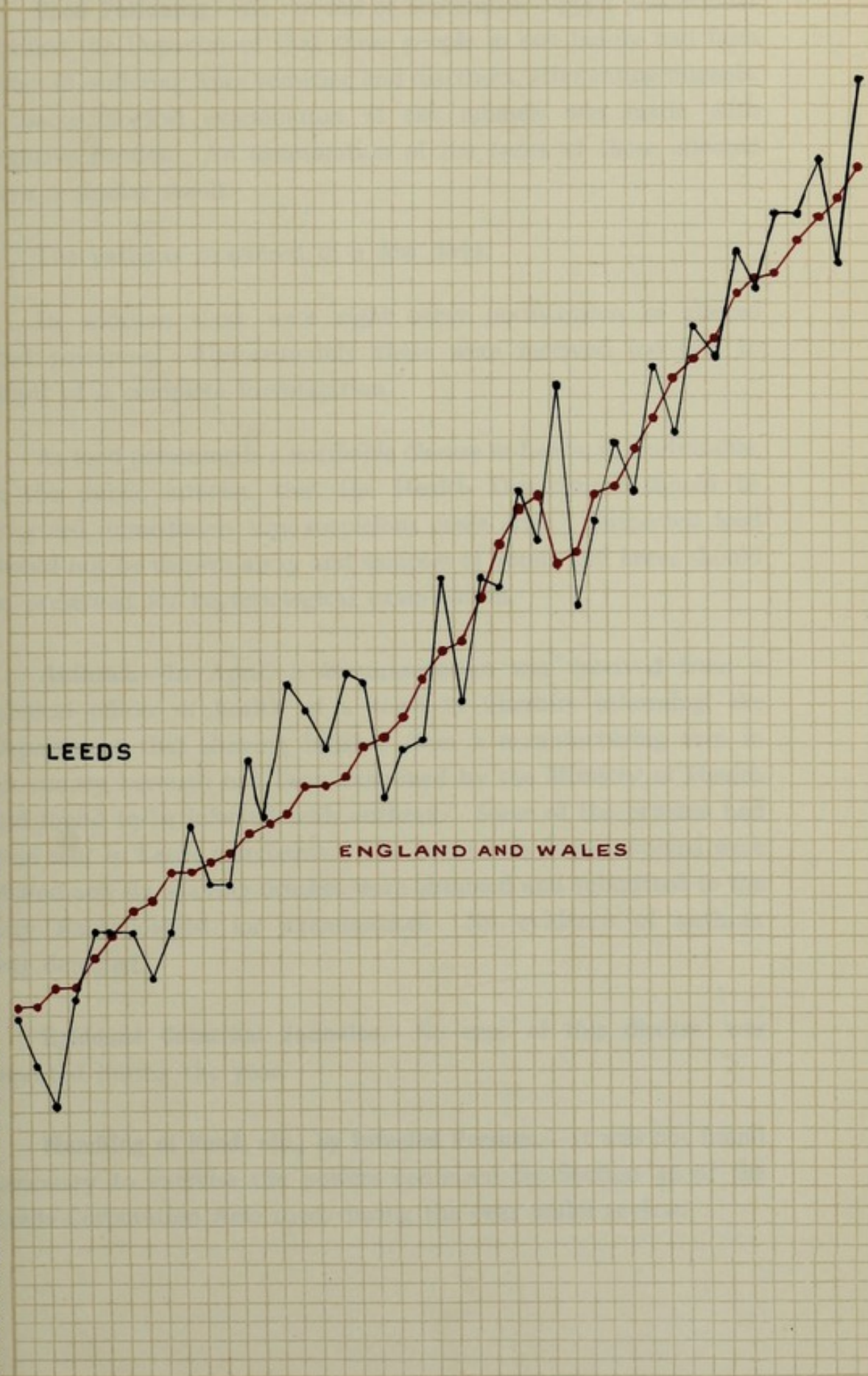
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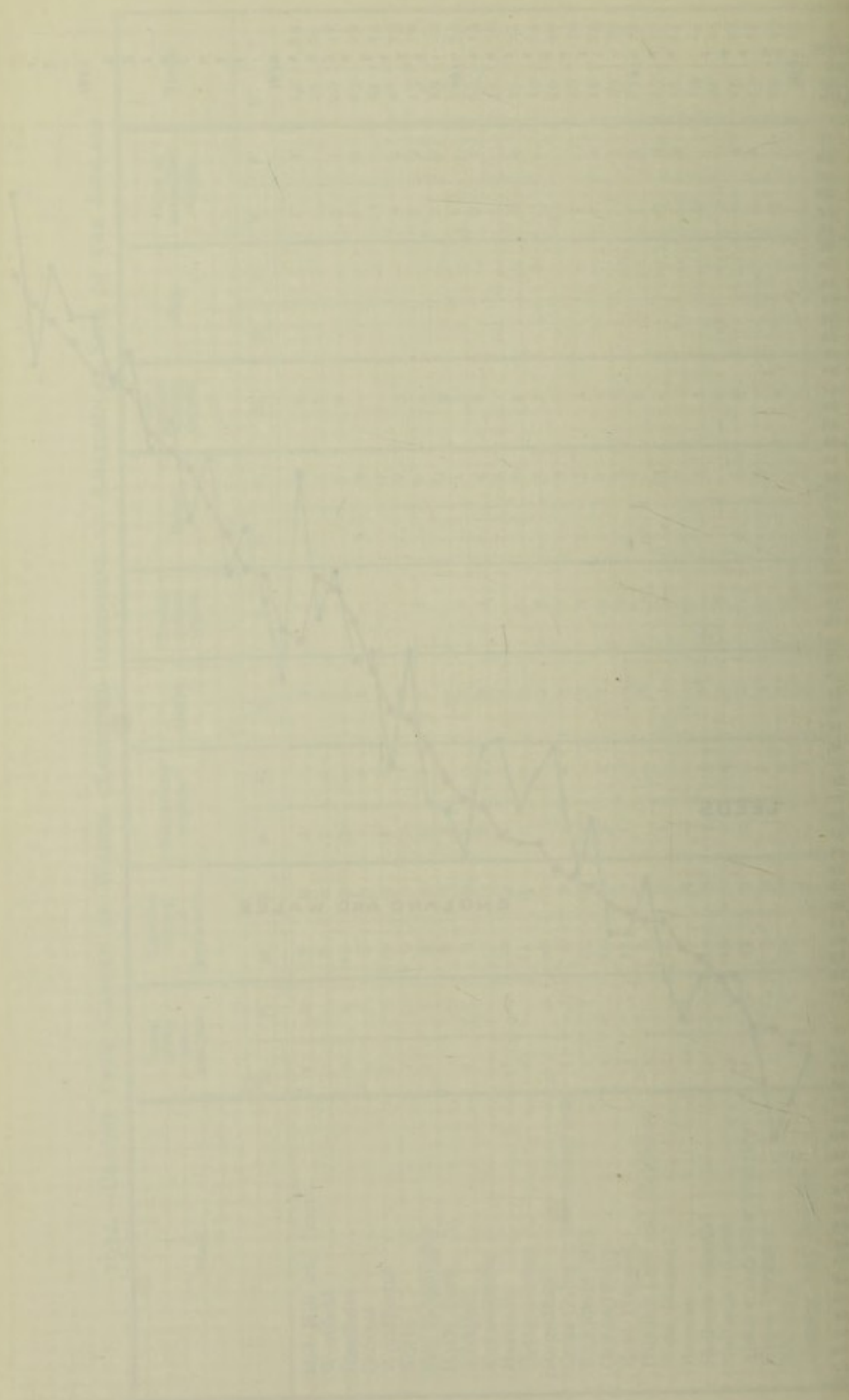
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1.70
1.68
1.66
1.64
1.62
1.60
1.58
1.56
1.54
1.52
1.50
1.48
1.46
1.44
1.42
1.40
1.38
1.36
1.34
1.32
1.30
1.28
1.26
1.24
1.22
1.20
1.18
1.16
1.14
1.12
1.10
1.08
1.06
1.04
1.02
1.00
0.98
0.96
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.78
0.76
0.74
0.72
0.70
0.68
0.66
0.64
0.62
0.60
0.58
0.56
0.54
0.52
0.50
0.48
0.46
0.44
0.42
0.40
0.38
0.36
0.34
0.32
0.30

LEEDS

ENGLAND AND WALES





Food Poisoning.—At the end of September, 1934 a practitioner notified the Department that three people in one family had been taken ill, suffering from vomiting and diarrhoea, after eating mussels. A bacteriological examination of the mussels was made with negative results. An examination of the fæces of those affected gave a similar result.

The patients recovered in a few days.

In addition there were eight other notifications of alleged food poisoning. Unfortunately these were received too late to admit of a complete investigation.

As food poisoning is a notifiable disease in Leeds, it is advisable, in the public interest, that the Health Department should be informed immediately any suspicious cases arise. Suspected food should not be thrown away and samples of vomit and fæces should be preserved for bacteriological examination.

Anthrax.—In April, a communication was received from a medical officer of health of a town in Cheshire informing the Department that shaving brushes from a manufacturing firm in his county borough had been examined by the Ministry of Health and found to be infected with anthrax. Some of the brushes had been sent to Leeds merchants. The two Leeds firms involved were visited and six shaving brushes were obtained and submitted to the City Bacteriologist for examination. No evidence of anthrax was detected.

Epidemic Catarrhal Jaundice.—No case of this disease was reported during the year.

Handling of Food, etc., by Infected Persons.—It was not found necessary to exercise the powers conferred by Section 42 of the Leeds Corporation Act, 1930, during the year under review.

AMBULANCE WORK AND DISINFECTION.

Ambulance Work.—During the year under review 6,647 cases were removed by the ambulances to Seacroft Hospital, Killingbeck Sanatorium and other hospitals or lying-in institutions. In addition three puerperal cases on behalf of the West Riding County Council were conveyed to the City Hospital. Over and above these, 464 other journeys were made for the transference of patients from one institution to another or for returning patients home on discharge from hospital.

The following are details of the cases removed to hospital by the ambulances, viz. :—

Smallpox	..	..	..	..	..	—
Scarlet Fever	..	..	..	..	..	2,538
Diphtheria	..	..	..	..	..	2,550
Typhoid	..	..	..	..	..	10
Measles ..	..	..	..	..	..	35
Tuberculosis	..	..	..	..	..	199
Other Diseases	..	..	..	..	..	204
Maternity	..	..	..	..	..	1,111
TOTAL ..	..	..	..	..	..	<u>6,647</u>

(As compared with 4,504 in 1933).

The total mileage run by the ambulances was 57,713, compared with 43,149 during 1933.

There are now three ambulances for infectious diseases, one for maternity cases and four bedding vans.

Disinfection.—The following work was done by the disinfecting staff, viz. :—

Houses disinfected	..	..	..	..	..	5,649
Rooms ..	..	..	..	..	..	10,596
Beds and Mattresses	..	..	..	..	..	7,639
Articles of bed linen	..	..	..	..	..	55,258
Articles of clothing	..	..	..	..	..	58,299
Other articles ..	..	..	..	..	..	10,610

Disinfectant baths were provided and disinfection of clothing carried out in respect of 775 infectious disease contacts.

The total mileage run by the disinfection and bedding vans was 31,840.

Verminous Persons.—The number of verminous persons dealt with at the cleansing station was 762, while 336 rooms, 32 houses, and 19,351 articles of clothing and bedding were disinfested.

Disinfesting Station.—As indicated in the last report of the Medical Officer of Health proposals had been put forward by the Health Committee and approved by the City Council for the building of a special station for the disinfestation of bug infested furniture and other household effects on vacant land adjacent to the Stanley Road Disinfecting Station.

The Station was opened in August. It consists of a corrugated iron shed (90 ft. by 27 ft.), open on both sides and enclosed within a 6 ft. unclimbable fence approached through double gates at the north-east end. (One of the sides will shortly be closed in by metal louvres to protect the men and the plant from the weather). The whole of the site within the fence (120 ft. by 75 ft.) including that occupied by the shed, has been rendered in concrete to facilitate the handling of the vehicles and to provide the necessary drainage. The shed has been divided up into eight separate bays with guide-rails and stop-bars to keep the containers from fouling each other or the exhaust duct. On the east side of the shed and running its whole length is a metal exhaust duct, 9 in. in diameter, which terminates at the north end in a vertical flue, 90 ft. high and 2 ft. in diameter, at the bottom of which has been fixed an 18 in. diameter electric fan capable of 2,840 revolutions per minute and with an extraction capacity of 1,000 cubic feet per minute at 3 in. water gauge.

There are eight openings into the duct to correspond with the eight bays, to each of which is securely fitted a 5 ft. length of armoured tubing 3 in. in diameter with screw coupling for connection to the container. A manometer at the junction of the tube and the duct shows the pressure in the latter when the fan is working. There is a small slot in the branch duct through which a piece of sensitised paper can be passed to ascertain when all the gas has been extracted.

An electric main carrying 400 volts has been run into the shed, and at each of the openings into the duct a branch cable comes off for the purpose of carrying current into the vaporiser for gasifying hydrocyanic acid, and two other cables for connecting to the tubular heaters inside the containers. The last mentioned are separated into two banks to allow of control of the temperature in the containers. Switchboards are also provided with tell-tale lights to show when the current is passing into the vaporisers and the containers.

The containers are of steel with sliding-door secured by clamps against an india rubber gasket to make a gas-tight joint. They are mounted on a wooden chassis with an attachment for coupling up with the Fordson tractor. The dimensions of the container are 13 ft. 6 in. by 6 ft. 6 in. by 6 ft. 6 in. and the capacity 570 cubic feet. At the end of the container is a recess for the vaporiser and the connections for the extraction tube and the electric cable connections. The recess also holds the dial of a distance reading thermometer, with which each container is fitted to enable the operator to regulate the temperature. Each container is also fitted with a sectional wooden floor which is removable for cleaning purposes. The

containers are numbered, and on the underside of the chassis is a receptacle for the card on which particulars of the contents of the container are entered. Where possible, the contents of two houses are loaded into one container. To avoid confusion each end of the container is marked externally with a distinctive letter corresponding to that which appears on the record card of the particular house, the furniture of which is packed in that end of the container.

The station staff consists of a supervisor and three fumigators, all specially trained by Imperial Chemical Industries, Ltd., and provided with masks made by Messrs. Siebe Gorman, Ltd., which they are under an obligation to wear when actually handling the fumigant. The outside staff consists of an assistant supervisor who is also trained, 16 furniture packers, four tractor drivers, two bedding van drivers and two youths.

The capital cost of the scheme was in the region of £5,000, while the annual maintenance and running charges are estimated at £6,000. The cost per house, exclusive of the cost of disinfection of bedding by steam, works out at approximately 35s. and the estimated number of houses to be dealt with annually is 3,500.

The following table shows the work done at the new Disinfesting Station.

HCN. FUMIGATION.

Work done from 17th August to 31st December, 1934 :—

Number of articles fumigated	28,605
„ „ „ disinfected by steam	14,740
„ „ houses dealt with	660
Number of personal disinfestations :—	
(a) Adults	..
(b) Children	..
Furniture supplied on loan :—	
(a) No. of articles	442
(b) No. of houses	146
Refusal to allow fumigation :—	
(a) Objection to fumigation	2
(b) Other reasons	10
Number of articles destroyed	3
Claims for damage or loss :—	
(a) Claims not accepted	11
(b) Claims accepted	11
(c) Cost	£3 18s. 10d.

BACTERIOLOGICAL WORK.

The following is a complete summary of the work done for the Health Department by the Department of Pathology and Bacteriology in the Leeds University Medical School, under the supervision of Professor James W. McLeod, the City Bacteriologist.

GENERAL.

Nature of pathological or bacteriological investigation.	Number of specimens.
Diphtheria—	
Swabs for Kleb Loeffler bacillus	7,043
Virulence Tests	..
Scarlet—	
Swabs for haemolytic streptococci	87
Tuberculosis—	
Sputum for tubercle bacillus	1,662
Sputum for tubercle bacillus (concentration tests) ..	3
Typhoid—	
Faeces and urine for typhoid group of organisms ..	89
Agglutination (Widal) Test for typhoid group ..	16
Other—	
Sputum for organisms	2
Chest fluid for organisms	5
Pus for organisms	7
Urine for organisms, cells, and T.B.	24
Blood for organisms	..
Guinea Pig Inoculations—	
Pathological Fluids	2
Milk for guinea pig inoculation	248
Food Investigations—	
Milk for bacterial count	..
Foodstuffs for bacteriological examination	14
Water Investigations—	
Water bacteriological examinations	63
Miscellaneous Examinations—	
Throat swabs for organisms	1
Faeces for organisms	11
Cerebro-spinal fluid	4
Other examinations	21
Total	9,302

LEEDS CITY HOSPITAL

(Seacroft).

REPORT FOR THE YEAR ENDING**31st DECEMBER, 1934**

BY

J. S. ANDERSON, M.A., M.D., Ch.B., D.P.H.,

Medical Superintendent.

Admissions.—Patients admitted during the year numbered 5,387, as compared with 3,372 in 1933. The number of admissions constituted a record for the Hospital, the previous highest total having been exceeded by over a thousand. Simultaneous epidemics of scarlet fever and diphtheria accounted for the increase. Towards the end of the year when pressure on the available accommodation was at its greatest, it was found necessary to arrange for St. George's Infirmary to take some of the convalescent scarlet fever patients. For some months it was not found to be possible to admit erysipelas patients.

Direct admissions from outside the city boundaries numbered 14, consisting of puerperal fever patients from Castleford, Dewsbury, Morley and the West Riding County Council area, a diphtheria case from Heckmondwike, a measles case from Morley and an erysipelas case from the West Riding County Council area. During the year, 163 patients were admitted from the Leeds General Infirmary and 107 from other medical institutions in the city.

The daily average number of patients in Seacroft Hospital was 439·5 as compared with 289·1 in the previous year. Only twice in the history of the hospital has the daily average exceeded four hundred—in 1911–12 and 1922–23 when the figures were 408·7 and 413·7 respectively. In 1934, the greatest daily number of patients was 556 and the lowest 306. As the official number of beds in the hospital is 489, it will be noted that a considerable degree of overcrowding must have existed. A similar state of affairs has existed in nine different years since the opening of the hospital.

The average length of stay in hospital for the 5,115 patients whose treatment was completed was 32·0 days, as compared with 34·5 days in 1933. It is doubtful if the policy of reducing the stay in hospital to such an extent is desirable in the interests of the patients, but no alternative offered itself during the year

Smallpox Hospital.—No patients were admitted during the year.

Quarantine Cottages.—There were no admissions during the year.

Death-rates.—The case mortality for all cases was 3.9 per cent as against 4.2 per cent. in 1933. Diphtheria was again the chief contributor.

Meteorological Records.—These continue to be kept at Seacroft Hospital.

Diphtheria.—During the year 2,201 patients were admitted as compared with 1,042 in 1933. The number of patients discharged on completion of treatment was 1,917 in respect of whom the average stay in hospital was 38.8 days.

Death-rate.—During the year 154 deaths were attributed to diphtheria, giving a case mortality of 7.4 per cent. as compared with 8.7 per cent. in 1933, 5.5 per cent. in 1932 and 8.4 per cent. in 1931. Of the deaths, 7 followed tracheotomy.

Type of the Disease.—The disease continued to be of a severe type, especially for the first three months of the year when the case mortality was 10.6 per cent. The predominant strains of organism was the "gravis" type. Of 1,311 cases in whom the type was investigated, 78.2 per cent. showed the "gravis" type, 15.1 per cent. the intermediate type, and 6.7 per cent. the "mitis" type. The percentage of cases infected with the intermediate type rose notably in the second half of the period.

Forms of the Disease.—The patients who completed treatment were classified as follows :—

Form of Infection.	Number of Cases.	Percentage of Total Cases.	Deaths.
Faucial and naso-pharyngeal	1,864	90.0	140
Faucial and laryngeal ..	29	1.4	4
Laryngeal	19	0.9	3
Rhinitis	92	4.5	6
Bacteriological	67	3.2	1
Total	2,071	100.0	154

It will be noted that several deaths were associated with rhinitis and bacteriological diphtheria. These occurred in patients who had been admitted from other hospitals with diphtheritic infection, and were not true diphtheria deaths.

Treatment.—The treatment of diphtheria shows very little change. The administration of glucose in severe cases has been continued throughout the year, but the addition of insulin has been largely discontinued. As regards serum dosage, there has been a distinct tendency to lower the dosage. Whereas in 1933, many patients received well over 100,000 units, in this period it was exceptional to exceed that dose. Several years' experience of severe diphtheria in Leeds suggests that antitoxin in excess of 100,000 units is wasted, and that even this figure may be excessive. Experience also suggests that nothing is gained by spreading the administration over several days.

Diphtheria Carriers.—Removal of tonsils and adenoids for this condition was carried out in 35 cases during the year. The operation was attended by success in all cases, although in one case freedom from infection was not demonstrated until 66 days after the operation. The average interval between operation and discharge was 24 days.

COMPLICATIONS.

	Number of patients.	Percentage of total patients.
All complications	325	15·7
Paralysis :		
All types	279	13·5
Eye	122	5·9
Palate	229	11·0
Pharynx	27	1·3
Other types	47	2·2

Laryngeal Diphtheria.—The low incidence of laryngeal diphtheria associated with the severe type of diphtheria in Leeds has been noted in previous reports. During the period 1905-1929, laryngeal cases constituted 10·3 per cent. of all cases admitted to hospital. During the years 1930-1934, when the "gravis" strain was known to be predominant, the percentage fell to 3·9. In 1933, it actually fell to 2·1 per cent. the lowest figure ever recorded in Leeds, while in 1934 the percentage was 2·3. As far as the virulence of the disease is concerned, tracheotomy deaths must be taken into account as these are due in many cases, not to specific toxæmia, but rather to the effect of obstruction of a mechanical nature, while variations in operative technique must not be ignored. In Leeds, in the period 1905-1929, tracheotomy deaths constituted 20·8 per cent. of all deaths; in the period 1930-1934 the percentage fell to 6·4. The lowest figure was recorded in 1934, when the percentage was 4·5.

A feature, noted during the past year, has been a tendency for the diphtheritic process to extend to the smallest bronchi and even apparently to the lung substance, in spite of appropriate treatment. A series of cases during the winter 1934-35 has demonstrated this. Tracheotomy has given temporary relief, but progressive downward spread of membrane has led to death from asphyxia some days after operation. Post mortem examinations have demonstrated this, and swabs taken from the smaller bronchi and even from the lung substance have demonstrated diphtheria organisms, in all cases of the "gravis" type. The faucial type resistant to intensive antitoxin treatment thus appears to have its counterpart in the laryngeal type of the disease. Details of patients treated by tracheotomy are given in the accompanying table. It remains to be added that three of the fatal cases had concurrent diphtheria and measles. The suction treatment of the disease was not employed in any of the cases.

Type of Disease.	Number of patients.	Deaths.	Mortality per cent.
Laryngeal	5	3	60·0
Faucial and laryngeal ..	11	4	36·3
All types	16	7	43·7

Cross Infection.—Of the patients who completed treatment, 2.9 per cent. developed an additional infection while in hospital. If those incubating the disease on admission are excluded, the percentage is 1.7. Overcrowding contributed to this, most of the wards having 50 per cent. additional beds. The details are given in the following table,—the figures in brackets indicating the number of patients who were incubating the disease on admission :—

Scarlet fever	19	(2)
Measles	16	(7)
Rubella	12	(6)
Chickenpox	11	(7)
Whooping cough ..	2	(2)
Total	60	(24)

Amended diagnosis.—In 364 cases, it was found necessary to change the diagnosis as notified. This is equivalent to 14.2 per cent. of all cases notified as diphtheria and admitted to hospital. The details of the final diagnosis are as follows :—

Acute nephritis	1
Cervical adenitis	1
Laryngeal spasm	1
Laryngitis	7
Measles	16
Observation cases	4
Otitis media	1
Pleurisy	2
Pneumonia	4
Quinsy	6
Retro-pharyngeal abscess ..	1
Rhinorrhœa	1
Scarlet fever	26
Tonsillitis	293
Total	364

Scarlet Fever.—During the year 2,417 patients were admitted as compared with 1,743 in 1933, and 2,458 patients were discharged on completion of treatment. The average stay in hospital was

31.3 days as compared with 33.6 in the previous year. It is interesting to note that the average stay in hospital has fallen during the past fifteen years by over three weeks. This is in keeping with general modern practice and means a very considerable reduction in the cost of treatment of scarlet fever. The figures for the past fifteen years are given as a matter of interest.

Year	Days in Hospital	Year	Days in Hospital.
1919-20 ..	.. 55.2	1927-28 ..	.. 44.2
1920-21 ..	.. 51.7	1928-29 ..	.. 39.0
1921-22 ..	.. 52.7	1929 ..	.. 37.4
1922-23 ..	.. 47.2	1930 ..	.. 37.4
1923-24 ..	.. 49.7	1931 ..	.. 37.4
1924-25 ..	.. 50.2	1932 ..	.. 38.2
1925-26 ..	.. 49.0	1933 ..	.. 33.6
1926-27 ..	.. 44.2	1934 ..	.. 31.3

The epidemic which commenced in 1933 continued throughout the year, but did not assume severe proportions until the autumn, when admissions were restricted. In December, a number of convalescent patients were transferred to St. George's Infirmary in order to facilitate the admission of diphtheria cases.

Return Cases.—These numbered 89 or 3.62 per cent. of patients discharged. It is obvious that the reduction in the isolation period had no adverse effect as the return case rate for the previous year was 4.8 per cent.

Case Mortality.—Sixteen deaths were recorded during the year, the case mortality being 0.6 per cent. as compared with 0.5 per cent. in 1933. As most of the deaths occurred in patients who contracted scarlet fever while under treatment for serious medical or surgical conditions in other institutions, it is obvious that scarlet fever at present *per se* is benign in character.

Types of the Disease.—During the year, the toxic or malignant type of the disease was noted in two fatal cases, while the septic type was noted on 16 occasions with a fatal event in four cases.

Complications.—The incidence of septic complications was much the same as in the previous year. Otitis media was relatively more frequent, this complication being bilateral in a third of the patients. The explanation appears to have been the co-existence of an extensive measles epidemic which affected the scarlet fever wards.

SCARLET FEVER.
PERCENTAGE INCIDENCE OF PRINCIPAL COMPLICATIONS.

Principal complications.	Total number of cases.	Percentage incidence.
Adenitis (suppurative in 14 cases) ..	183	7·4
Albuminuria and nephritis	72	2·9
Otitis media (bilateral in 62 cases)	195	7·8
Rheumatism	51	2·0
Rhinitis in convalescence	124	5·0

Scarlatinal Antitoxin.—Owing to the mildness of the disease, the use of antitoxin was restricted to the acute cases almost all of whom received this treatment ; 126 patients received antitoxin, the administration being by the intramuscular route in every case.

Treatment of ear, nose and throat conditions.—As already noted there were 195 cases of otitis media. Mastoid antrotomy was performed on 11 patients. On account of persistent otorrhoea or rhinitis, the removal of tonsils and adenoids was carried out in 5 patients.

The services of Mr. W. Maxwell Munby, F.R.C.S., continued to be available throughout the year.

Cross Infection.—The number of cross infections is recorded in the following table, the figures in brackets indicating the number of patients who were incubating the disease on admission :—

Measles	91	(10)
Chickenpox	18	(10)
Erysipelas	3	(—)
Whooping Cough ..	15	(6)
Rubella	21	(12)
Diphtheria	9	(—)
Total	157	(38)

It will be seen that of the patients who completed treatment, 6.4 per cent. developed an additional infection while in hospital. If those incubating a disease on admission are excluded, the percentage is 4.8. Several factors contributed to this high incidence. The accommodation of the hospital was severely taxed, and during the winter months, overcrowding was of necessity present. Secondly, an unusually big epidemic of measles occurred during the Spring, and it was virtually impossible to keep the children's wards free from infection. Thirdly, rubella was unusually prevalent in the Spring, and lastly, the biggest epidemic of diphtheria in the history of Leeds commenced at the end of the year.

Double Infections.—Another infection was found to be present on admission in 11 cases. The accompanying diseases were diphtheria and chickenpox (4 cases each) erysipelas, measles and whooping cough (1 case each).

Relapses.—In the annual report for 1933, comment was made on the increased relapse rate associated with the present benign type of scarlet fever. Details of the relapses during the past four years are as follows :—

	1931.	1932.	1933.	1934.
First week	..	1	1	2
Second week	12	7	4	7
Third week	12	12	14	10
Fourth week	11	10	25	17
Later	17	8	26	7
Total	52	38	70	43
Relapse rate ..	3.6	4.0	4.3	1.7

It will be noted that the relapse rate fell quite appreciably in 1934. In view of the very large number of patients admitted during the year, this fall assumes considerable importance as it indicates a great saving in patient days and consequently in the cost of treatment of scarlet fever. The reduction appears to have resulted from a procedure commenced during the last two months of 1933, and continued throughout the whole of 1934, especially in the wards for children under 5 years of age, who were found to be particularly liable to relapse. This procedure consisted in the administration of scarlatinal toxin to patients in graded doses at regular intervals commencing as soon as the initial fever had abated. The intervals were arranged so that the course was completed by the end of the third week when the patients are normally allowed up and are accordingly more exposed to exogenous infection. The course consisted of 500, 2,000, 5,000, and 20,000 skin doses. The following table shows the number of patients who received this treatment :—

Ward.	Type of Patient.	Total skin doses of toxin.				Total	Percentage of all Admissions.
		500	2,500	7,500	27,500		
FG	Children under 5 ..	4	11	26	334	375	62.3
NP	„ 5-10 ..	2	2	6	68	78	17.5
HJ	Females over 10 ..	..	..	..	..	..	..
TU	Males over 10 ..	..	2	6	54	62	9.9
..	Miscellaneous ..	1	..	4	3	8	12.3
	1934	7	15	43	459	523	21.1
	1933	..	..	..	..	105	6.4

The incidence of relapses in the various wards is shown in the following table. It will be noted that the incidence was lowest in the children under 5 years of age, a group of which previously showed the highest percentage of relapses.

Ward.	Type of Patient.	Number of Admissions.	Relapses.	Percentage of Relapses.
FG	Children under 5	601	7	1.1
NP	,, 5-10.. ..	444	12	2.7
HJ	Females over 10	740	10	1.3
TU	Males over 10	624	12	1.9
..	Miscellaneous	65	2	3.0
	1934	2,474	43	1.7
	1933	1,592	70	4.3

Amended Diagnosis.—In 141 cases, it was found necessary to change the diagnosis of scarlet fever after admission. This is equivalent to 5.5 per cent. of all notified cases of scarlet fever admitted to hospital. Details of the final diagnosis were as follows :—

Acute rheumatism	..	1
Catarrhal jaundice ..	..	1
Dermatitis	..	1
Diphtheria	..	3
Erysipelas	..	1
Erythema multiforme	..	1
Impetigo	..	1
Infantile eczema ..	..	1
Measles	..	8
Observation cases ..	..	63
Otitis media	..	1
Rubella	..	46
Scabies	..	1
Tonsillitis	..	9
Urticaria	..	1
Whooping cough ..	..	2
Total	..	141

Measles.—During the year, admissions of this disease numbered 48. Seven deaths occurred. Of these, three were attributable to broncho-pneumonia and one to laryngitis. Of the remaining fatal cases, tracheotomy was performed in two and one was uncomplicated. Tracheotomy was also successfully performed in a case of concurrent measles and laryngeal diphtheria. Nine cases were wrongly diagnosed before admission, the final diagnosis being rubella in 8 cases, and scarlet fever in one.

Enteric Infections.—During the year, one case of typhoid fever was admitted, one case of paratyphoid A fever and three of paratyphoid B fever. Of the cases, three originated in the city and one in the West Riding area. The patient with paratyphoid A fever was believed to have been infected on the Mediterranean coast of Spain, while on a summer cruise. Incidentally he was discharged from hospital still carrying infection in his intestine. No deaths were recorded.

In 5 additional cases, the diagnosis was not confirmed, the amended diagnosis being :—

Colitis	1
Gastro enteritis	2
Observation cases	2

Cerebro-spinal Fever.—Three cases were admitted, the ages of the patients being 2, 17 and 30 years. All recovered. The average doses of serum administered intrathecally and intravenously were 32 c.cms.

Puerperal Fever.—During the year, 31 cases were admitted as compared with 28 in 1933 and 21 in 1932. There were 7 deaths. Of the fatal cases, one was attributed to phlegmasia with septic broncho-pneumonia and pulmonary embolism, four to general peritonitis including one case with uterine abscess, one to septicaemia and one to toxæmia. Post mortem examination was carried out in all cases. Of those who recovered, 21 were found to be suffering from local uterine sepsis, two from pelvic cellulitis, one from septicaemia and one from general peritonitis. Laparotomy was performed in three cases.

The services of Mr. Carlton Oldfield continued to be available.

Smallpox.---No cases were admitted during the year.

MISCELLANEOUS CASES.

Disease.	Total number of cases.	Deaths.
Infectious Diseases :—		
Erysipelas	188	15
Chickenpox	3	..
Rubella	53	..
Whooping cough	2	1
Pulmonary Diseases :—		
Bronchitis and pleurisy	1	..
Pleurisy	2	..
Acute lobar pneumonia	5	1
Diseases of the Nose and Throat :—		
Acute coryza	1	..
Laryngitis	2	..
Quinsy	2	..
Rhinitis	2	..
Otorrhoea	5	..
Tonsillitis	310	4
Diseases of the Skin :—		
Dermatitis	1	..
Erythema nodosum	2	..
Impetigo	1	..
Seborrhoeic dermatitis	1	..
Scabies	1	..
Toxic erythema	1	..
Diseases of the Nervous System :—		
Disseminate sclerosis	1	..
Herpes zoster	1	..
Other Diseases :—		
Acidosis	1	..
Acute nephritis	1	..
Adenitis	2	..
Catarrhal jaundice	1	..
Cellulitis and septicaemia	1	1
Cerebral haemorrhage	1	1
Concussion	1	..
Gastro-enteritis	2	2
Rheumatism	2	..
Observation for diphtheria	5	..
Observation for erysipelas	3	..
Observation for rubella	2	..
Observation for scarlet fever	61	..
Observation for summer diarrhoea	1	..
Admitted with mother	3	..
Born in hospital	1	..
Total	673	25

Sickness of Staff.—The health of the staff remained good throughout the year, the number “warded” being 22.

The details of staff illnesses are as follows :—

Nature of Illness.	Staff.			Days in Hospital.		
	Nursing.	Do-mestic.	Male.	Nursing.	Do-mestic.	Male.
Diphtheria	6	1	..	174	29	..
Scarlet fever	..	3	..	..	84	..
Bronchitis and pleurisy ..	1	..	..	13	..	..
Cervical adenitis	1	..	..	10	..	..
Concussion	1	..	..	11	..	..
Dermatitis	1	..	..	14	..	..
Disseminated sclerosis ..	1	..	..	36	..	..
Erythema nodosum	..	1	..	..	11	..
Sub-acute rheumatism ..	1	..	..	40	..	..
Scabies	1	..	..	8	..	..
Tonsillitis	3	..	1	18	..	12
Total ..	16	5	1	324	124	12

Immunisation of the Nursing Staff.—Routine immunisation of the nursing staff against diphtheria and scarlet fever is carried out. As regards typhoid fever, only members of the nursing staff engaged in nursing this disease receive prophylactic injections of vaccine. It has never been considered expedient to immunise the domestic staff as the incidence of infectious disease has been so low.

Diphtheria.—Of 95 new members of the staff, 42 or 44·2 per cent. were to be found Schick positive on joining. Of these 40 received immunising injections, the prophylactic employed being toxoid-antitoxin floccules in 21 cases, and alum precipitated toxoid

in 19. No untoward results were obtained except in one case where the latter prophylactic was employed and a sterile abscess developed at the site of injection on the twentieth day. A preliminary test with 1/500 alum precipitated toxoid was sometimes employed to detect sensitivity, toxoid antitoxin floccules being preferred in positive reactors.

In view of the fact that diphtheria was so prevalent, it is not surprising that several cases occurred in the nursing staff. The details were as follows:—

F.S.—Schick positive 11/11/33. Moderate faucial diphtheria 18/1/34. Delay in immunising due to administration of seven prophylactic injections of scarlatinal toxoid. D.A. Serum 20,000.

I.S.—Schick positive 1/12/32. Three doses of T.A.F. December, 1932. Schick negative 15/7/33. Moderate faucial diphtheria, 14/3/34. D.A. Serum 20,000. Schick (performed one hour before administration of serum) negative.

E.B.—Schick negative 18/4/34. Moderate faucial diphtheria, 21/4/34. Schick test appears to have been performed in incubation period. D.A. Serum 16,000.

D.K.—Schick positive 29/5/34. First injection of T.A.F. 9/6/34. Slight faucial diphtheria 14/6/34. D.A. Serum 20,000.

K.L.—Schick negative 11/10/33. Slight faucial diphtheria, 17/9/34. Schick negative 17/9/34. Blood antitoxin $\frac{1}{2}$ A.U. per c.cm. 17/9/34. No serum. "Mitis" type of organism. In view of the blood antitoxin content, this must be regarded as a doubtful clinical case. Tonsils and adenoids ultimately removed for carrier condition.

L.E.—Schick negative 17/5/33. Slight faucial diphtheria 16/11/34. Intermediate type of organism. No serum. Schick negative 19/11/34.

M.S.—Schick positive 1/9/34. 0.5 cc. A.P.T. 26/9/34. Schick positive 24/10/34. Schick slightly positive 28/11/34. Slight faucial diphtheria, 22/12/34.

E.B.W.—Schick positive 3/12/34. 0.5 c.cm. A.P.T. 11/12/34. Moderate faucial diphtheria 16/12/34. D.A. Serum 48,000. Still under treatment at end of year.

It will be noted that only one successfully immunised nurse developed diphtheria and that in no case did complications develop.

Scarlet Fever.—Of 93 new members of the staff, 24 or 25·8 per cent. were Dick positive on joining. Of these, 21 received prophylactic injections. No member of the nursing staff contracted scarlet fever during the year, a surprising event in view of the fact that 2,417 cases of scarlet fever were admitted.

Laboratory.—For diagnostic and discharging purposes 15,303 throat, nose and ear swabs were examined for diphtheria organisms.

The following additional examinations were made :—

Cerebro-spinal fluid	..	..	..	..	8
Faeces (for enterica organisms)	..	..	..	..	13
Urine (for enterica organisms)	..	..	..	..	12
Urine (chemical and bacteriological examinations)	..	..	..	..	14
Sputum	..	..	..	..	2
Other pathological discharges	..	..	..	..	2
Miscellaneous	..	..	..	..	8

Publications :—

“ Observations on Scarlet Fever and Diphtheria,” by J. S. Anderson, M.D., D.P.H. *Clinical Journal*, Feb., 1934.

“ The Relapse in Scarlet Fever,” by J. S. Anderson, M.D., D.P.H. *Archives of Disease in Childhood*, Vol. 9, No. 54, Dec., 1934.

LEEDS CITY HOSPITALS, SEACROFT, LEEDS.

YEAR 1934.

ABSTRACT FROM REGISTERS.

	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Pneumonia.	Infantile Diarrhoea.	Other Diseases.	For Quarantine Cottages.	TOTAL.
Patients remaining in Hospitals and Isolation Cottages, on Sunday, December 31st, 1933 ..	..	8	257	200	..	1	..	28	..	494
Admitted from January 1st, 1934 to December 31st, 1934	..	48	2,417	2,201	5	4	..	712	..	5,387
Total treated	..	56	2,674	2,401	5	5	..	740	..	5,881
Discharged	..	49	2,458	1,917	5	4	..	682	..	5,115
Died	..	7	16	154	..	1	..	32	..	210
Mortality per cent. ..	..	12.5	0.6	7.4	..	20.0	..	4.5	..	3.9
Patients remaining in Hospitals and Isolation Cottages, on Monday, December 31st, 1934 ..	..	..	200	330	..	..	..	26	..	556
Average stay in Hospital for recovered patients ..	..	24.1	31.3	38.8	43.6	25.7	..	15.8	..	32.0

NUMBER OF ADMISSIONS DURING EACH OF THE
LAST TWENTY YEARS.

YEAR.	Seacroft Hospital.		Small Pox Hospital.	Admitted to all Hospitals.	Cottages for Contacts.	Total No. Ad- missions.
	Infectious Diseases.	Tuber- culosis.				
1915-16	1,999	*399	I	2,399	29	2,428
1916-17	1,440	*482	..	1,922	11	1,933
1917-18	1,366	*545	..	1,911	6	1,917
1918-19	1,349	*421	..	1,770	8	1,778
1919-20	2,668	*378	..	3,046	33	3,079
1920-21	2,148	..	..	2,148	4	2,152
1921-22	2,430	..	..	2,430	6	2,436
1922-23	3,265	..	I	3,266	18	3,284
1923-24	2,185	..	..	2,185	16	2,201
1924-25	2,033	..	8	2,041	73	2,327
1925-26	1,944	..	4	1,948	8	1,956
1926-27	1,632	..	3	1,635	9	1,644
1927-28	1,793	..	81	1,874	186	2,060
**1928-29	4,059	*51	46	4,156	39	4,195
†1929	4,171	..	24	4,195	9	4,204
1930	3,554	..	42	3,596	29	3,625
1931	2,874	..	5	2,879	4	2,883
1932	2,347	..	..	2,347	..	2,347
1933	3,372	..	..	3,372	..	3,372
1934	5,387	..	..	5,387	..	5,387

*Beds set apart for cases of tuberculosis in Seacroft hospital.

**Ward taken over at Holbeck Infirmary for scarlet fever patients for three months.

†Year ending December 31st instead of March 31st.

METEOROLOGICAL RECORD.

1934.	SUNSHINE. Total, hr. min.	SUNSHINE.			WIND—FORCE.		EARTH TEMPERATURE. (4' 0" below surface).			
		Max. in 24 hrs. hr. min.	Date.	No. of days no Sunshine.	Daily Average, miles per h. ur.	Max. in 24 hrs. miles per hour.	Max.	Date.	Min.	Date
January	59.30	7.30	27	11	..	..	41.0	6-21	39.5	29-31
February	97.10	9.10	26	2	..	..	40.0	2-27	39.5	1-28
March ..	111.40	9.10	3	4	..	..	40.5	29	38.5	20
April ..	145.00	10.10	21	2	..	..	44.0	29	40.0	1-12
May ..	181.10	11.30	11	2	..	..	48.0	30-31	44.0	1-2
June ..	186.20	14.50	1	2	..	..	52.5	21-30	48.0	2
July ..	258.40	14.20	2	1	..	..	58.0	17-30	53.0	1
August	177.40	12.50	16	2	..	..	58.0	3-17	56.6	30-31
September	159.20	10.00	10	..	..	..	57.0	19	55.0	28-30
October	90.30	7.50	9	4	..	..	55.0	1-5	51.5	30-31
November	39.00	6.10	7	16	..	..	51.0	1	46.0	12-30
December	6.40	3.10	10	26	..	..	46.5	5-12	44.5	28-31
Year ..	1,512.40	14.50	June 1	72	..	..	58.0	July 17- Aug. 17	38.5	Mar. 20

• Anemometer out of order

VENEREAL DISEASES.

The number of deaths certified as due to syphilis during the year was 12, which is equal to a death-rate of 0.02 per thousand of the population. Of these, three were children under one year of age—two males and one female; one male between 25 and 45; four males and three females between 45 and 65; and one male over 65. The number of deaths in 1934 shows a decrease of twelve as compared with the previous year, whilst the death-rate declined from 0.05 in 1933 to 0.02 in 1934.

Work of the Treatment Centre.—The total number of new cases registered at the Centre at the Leeds General Infirmary from Leeds and the other contributory areas was 2,372. Increases were recorded in syphilis, male 27, female 48; gonorrhoea, male 75, female 16; and other diseases not venereal, male 111, female 24. There was, therefore, a nett total increase of all types of 301 as compared with the figure for the previous year. (*Vide* table on page 92).

The number of cases ceasing to attend before completion of treatment or final tests of cure was 508, or 10.5 per cent. of the total attending the centre as compared with 445, or 10.0 per cent. for the previous year. The increase in the number of defaulters is to be regretted as each case remains a potential source of infection to the rest of the community; besides which, every defaulter represents a financial loss inasmuch as the money expended on his treatment has failed to show the return expected, namely, his cure.

The number of in-patients treated at the Leeds General Infirmary was 11 as compared with 7 for the previous year and the corresponding number of in-patient days 141 and 121 respectively.

Turning to Leeds cases the total number of new cases registered was 1,846, comprising 229 males and 134 females suffering from syphilis; 721 males and 144 females suffering from gonorrhoea; and 483 males and 135 females suffering from other diseases not venereal. As compared with the previous year these figures represent

in the case of syphilis an increase of 30 males and 28 females, in gonorrhoea an increase of 55 males and 11 females, and in other diseases not venereal an increase of 82 males and 16 females. Taking the cases of all types there was an increase of 222 as compared with the figure for the previous year. (*Vide* table on page 92). The increase is the largest recorded since 1929 and its significance is inescapable.

The total attendance of all Leeds cases was 78,065, an increase of 9,557 on the figure for the previous year.

Institutions :—*Maternity Hospital.*—The number of new cases admitted as in-patients to the Leeds Maternity Hospital decreased from 18 in 1933 to 12 in 1934, namely 2 syphilis and 10 gonorrhoea. The corresponding number of in-patient days decreased from 295 to 137.

Hope Hospital.—The number of cases treated was 45 as against 50 for the previous year, whilst the number of new admissions was 29 as compared with 34 for 1933. The number of in-patient days was 4,559 as against 5,939 for the previous year. It should be pointed out, however, that these figures do not include babies admitted with their mothers or born whilst their mothers were in residence.

On behalf of the Health Committee I should like once again to place on record our indebtedness to the Hospital Committee, which is purely voluntary, for the good services rendered during the year.

Further particulars of the cases admitted to and treated in the Maternity and Hope Hospitals are given in the table on page 93.

For particulars of the work of the special clinic for mothers and babies suffering from venereal diseases held in connection with Maternity and Child Welfare see page 201.

Supply of Salvarsan Substitutes.—The number of medical practitioners in the area qualified to receive free supplies of salvarsan substitutes up to the end of the year was 52. The amount of salvarsan substitutes distributed to practitioners was 1,185 doses as compared with 1,113 in 1933.

LEEDS GENERAL INFIRMARY (LOCAL TREATMENT CENTRE).

Cases on the register on January 1st, 1934 ..	2,419
Old cases re-admitted	32
New cases admitted (including 80 known to have received treatment at other centres)	2,372
Cases ceased to attend	508
Transferred to other centres, etc.	205
Discharged on completion of treatment	1,623
Cases on the register on January 1st, 1935 ..	2,487

WORK DONE IN THE DEPARTMENT OF PATHOLOGY AND
BACTERIOLOGY OF THE UNIVERSITY OF LEEDS IN CONNECTION
WITH THE V.D. REGULATIONS.

NATURE OF TEST.	NUMBER OF TESTS.
For detection of spirochetes—	
for treatment centre	69
for practitioners	1
for institutions.. .. .	..
For detection of gonococci—	
for treatment centre	2,687
for practitioners	293
for institutions	173
For Wassermann reaction—	
for treatment centre	3,745
for practitioners	382
for institutions	2,945
Other examinations—	
for treatment centre	2,224
for practitioners	38
for institutions	192
TOTAL	12,749

PERSONS TREATED AT THE GENERAL INFIRMARY, LEEDS.
(LOCAL TREATMENT CENTRE).

				Year 1933.		Year 1934.		Increase or decrease.	
				M.	F.	M.	F.	M.	F.
Syphilis ..	first cases	..	275	156	302	204	+ 27	+ 48	
Soft chancre	"	..	..	..	..	..	..	..	
Gonorrhœa	"	..	824	171	899	187	+ 75	+ 16	
Other diseases									
not Venereal	"	..	490	155	601	179	+ 111	+ 24	
Total	..	..	1,589	482	1,802	570	+ 213	+ 88	
Total attendances of all cases				81,480	92,474	+ 10,994			
Aggregate No. of In-patient days				121	141	+ 20			
No. of doses of Salvarsan substitutes				16,735	16,899	+ 164			
Pathological specimens examined :—									
Spirochetes				47	69	+ 22			
Gonococci				4,150	4,911	+ 761			
Other organisms				..	..	..			
Blood—Wassermann re- action				3,536	3,745	+ 209			

LEEDS PATIENTS.

	Year 1933.		Year 1934.		Increase or decrease.	
	M.	F.	M.	F.	M.	F.
Syphilis first cases	199	106	229	134	+ 30	+ 28
Soft chancre	..	..	..	..	..	..
Gonorrhœa	666	133	721	144	+ 55	+ 11
Other diseases, not Venereal	401	119	483	135	+ 82	+ 16
Total	1,266	358	1,433	413	+ 167	+ 55
Total attendances of all cases	68,508		78,065		+ 9,557	
Aggregate No. of In-patient days	85		78		- 7	
No. of doses of Salvarsan sub- stitutes	12,784		12,779		- 5	
Pathological specimens examined :—						
Spirochetes	45		56		+ 11	
Gonococci	3,437		4,114		+ 677	
Other organisms	..		..		..	
Blood—Wassermann re- action	2,799		3,001		+ 202	

MATERNITY HOSPITAL, 42, HYDE TERRACE.

	Cases in residence on Jan. 1st, 1934.	Cases admitted.	Cases discharged.	Cases in residence on Dec. 31st, 1934.
Syphilis	..	2	2	..
Gonorrhœa	..	10	10	..
Syphilis and Gonorrhœa	..	..	..	..
Other disease	..	..	..	..
Total	..	12	12	..

Total days in residence 137

No. of doses of Salvarsan substitute .. 57

Pathological specimens examined :—

Spirochetes	17
Gonococci	12
Other organisms	16
Blood—Wassermann reaction.. ..	90

HOPE HOSPITAL, 126, CHAPELTOWN ROAD.

	Cases in residence on Jan. 1st, 1934.	Cases admitted.	Cases discharged.	Cases in residence on Dec. 31st, 1934.
Syphilis	4(+1)	9(+6)	9(+4)	4(+3)
Gonorrhœa	9(+3)	17(+7)	20(+10)	6(+..)
Syphilis and Gonorrhœa	2	3	3	2
Other disease	1	..	1	..
Total	16(+4)	29(+13)	33(+14)	12(+3)

Total days in residence 4,559(+1,819)

No. of doses of Salvarsan substitute .. 119(+102)

Pathological specimens examined :—

Spirochetes	..
Gonococci.. ..	9
Other organisms	110
Blood—Wassermann reaction.. ..	45(+7)

Of the 29 women admitted, 13 had babies, shown in the above table in brackets.

RESEARCH REPORT ON THE HISTORY OF THE

1. The first part of the report deals with the early history of the region, from the time of the first settlement to the present day.	2. The second part of the report deals with the development of the region, from the time of the first settlement to the present day.	3. The third part of the report deals with the present day situation of the region, from the time of the first settlement to the present day.
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4. The fourth part of the report deals with the future of the region, from the time of the first settlement to the present day.	5. The fifth part of the report deals with the conclusion of the report, from the time of the first settlement to the present day.
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6. The sixth part of the report deals with the appendix, from the time of the first settlement to the present day.	7. The seventh part of the report deals with the bibliography, from the time of the first settlement to the present day.	8. The eighth part of the report deals with the index, from the time of the first settlement to the present day.
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9. The ninth part of the report deals with the conclusion of the report, from the time of the first settlement to the present day.	10. The tenth part of the report deals with the conclusion of the report, from the time of the first settlement to the present day.
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Municipal Hospitals.

LEEDS CITY GENERAL HOSPITALS.

BY

J. DICK, M.B., Ch.B., D.P.H.,

Medical Superintendent.

On October 1st, 1934, there were transferred under the provisions of the Local Government Act, 1929, to the care of the Health Committee, three institutions previously administered by the Public Assistance Committee, namely, St. James's Hospital, St. Mary's Infirmary and Rothwell Institution. The last named, until that time, had been a mixed institution containing a proportion of non-sick inmates. The latter were all transferred to the Beckett Street and Holbeck Institutions before 1st October and the institution was taken over for hospital purposes only. Shortly afterwards it was renamed St. George's Infirmary. The use proposed for each of the hospitals was laid down in the scheme adopted by the Council earlier in the year. This scheme has not been possible of entire fulfilment during the period under review but the main features were already in being before the transfer.

St. James's Hospital takes the great proportion of direct admissions, and although there are many direct admissions to St. Mary's Infirmary, these are, apart from the maternity cases, mainly of a type likely to become chronic or where the object of admission is less to obtain higher medical skill than for nursing purposes.

The practice is that St. James's Hospital takes all kinds of cases, including a number of a chronic type, but excluding cases of known pulmonary tuberculosis, except in special circumstances. St. Mary's Infirmary admits maternity patients, cases suffering from chronic or incurable diseases, together with a small number of cases of acute illness and of pulmonary tuberculosis. St. George's Infirmary has no direct admissions, all patients being transferred from the other hospitals. The cases dealt with are of two categories :—(a) Chronic cases (adults), (b) Convalescent or debilitated children.

The method of admission was much simplified by the transfer, the cases being referred almost entirely by their own doctors, by

means of telephonic communication in urgency or by application on a printed form in cases of less immediate necessity. All applications are received at St. James's Hospital and allocated according to the nature of the case and the accommodation available at the time.

The three institutions are now under one medical control, a position which makes the distribution of cases a much simpler matter than before.

ST. JAMES'S HOSPITAL.

Although the Health Committee has had control for only three months of the period covered by the report, the statistics are given for the full year.

The number of patients admitted to hospital and the total treated are shown in the following table, together with the number of discharges and deaths and the number of patients remaining at the end of the year.

	Men.	Women.	Children.	Total.
Remaining in hospital on 31st December, 1933	376	501	242	1,119
Admitted during 1934	2,980	3,949	1,659	8,588
Children born during 1934	..	..	916	916
Total admissions and births	2,980	3,949	2,575	9,504
Total number treated during 1934	3,356	4,450	2,817	10,623
Discharges during 1934	2,425	3,496	2,325	8,246
Deaths	567	421	279	1,267
Total discharges and deaths	2,992	3,917	2,604	9,513
Remaining in hospital on 31st December, 1934	364	533	213	1,110

The admissions show an increase over 1933 of 630, and the figure of 9,504 is the highest ever recorded.

The following table shows, together with other statistics, the numbers admitted during each of the past eight years.

	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.
No. of Admissions ..	5,870	6,403	6,644	6,523	6,911	7,914	8,874	9,504
No. of Operations ..	514	692	766	873	915	1,189	1,462	1,786
No. of Labours Conducted ..	287	470	547	557	645	766	865	961

The average daily number under treatment was 1,110, the highest on any one day 1,204 on 13th February and the lowest 1,016 on 11th and 13th August. The average daily number is lower than in the time when admissions were many fewer. This is accounted for by the fact that a great deal of accommodation was at one time more or less locked up by chronic cases; the transfer of many of those elsewhere has resulted in an increased turnover. Despite the lower average, there has been, during the greater part of the year, severe pressure on certain sections of the hospital and it has been difficult at times to meet all demands, but no acute or urgent case has had to have admission deferred. The average duration of stay for all cases was 42·6 days; excluding the mental detention cases but including all other types, chronic as well as acute, the duration was 34·3 days.

The beds are distributed as under :—

	Men.	Women.	Children.	Total.
Medical	152	148	..	300
Diseases of Skin	21	14	..	35
Surgical	88	66	..	154
Orthopædic	15	14	..	29
Gynæcological	..	19	..	19
Maternity	..	51	40	91
Children	..	..	219	219
Venereal Diseases	6	11	..	17
Infirm Sick	39	146	..	185
Mental	144	144	..	288
Total	465	613	259	1,337

DISEASES FROM WHICH PATIENTS SUFFERED.

DISEASE.	Men.	Women.	Children.	Total.	DISEASE.	Men.	Women.	Children.	Total.
INFECTIOUS DISEASES :—									
Cerebro-Spinal Fever ..	1	4	11	16	Sarcoma of Bone ..	1	1	..	2
Chickenpox ..	..	1	31	32	Lymphosarcoma ..	3	..	..	3
Diphtheria ..	2	1	15	18	Malignant Mole ..	..	..	1	1
Dysentery ..	..	..	3	3	Melanotic Sarcoma ..	1	1	..	2
Erysipelas ..	20	6	5	31	Endothelioma of Peritoneum	2	..	..	2
Measles ..	..	..	103	103	Endothelioma of Mesentery	1	..	..	1
Ophthalmia Neonatorum ..	..	..	4	4	Retroperitoneal Sarcoma ..	1	1	..	2
Polio-myelitis ..	..	..	3	3	Papilloma of Bladder ..	1	1	..	2
Scarlet Fever ..	..	..	2	2	Cerebral tumour ..	3	9	3	15
Typhoid Fever ..	..	..	1	1	Spinal tumour ..	..	1	..	1
Whooping Cough ..	..	..	26	26		177	169	4	350
	23	12	204	239	RHEUMATISM :—				
INFLUENZA					1. Acute Rheumatism ..	10	8	33	51
	4	3	1	8	" " with				
TUBERCULOSIS :—					Valvular Heart Disease ..	6	8	16	30
Pulmonary	107	37	5	149	Chorea	2	2	44	48
Non-Pulmonary :—					" " with Valvular				
Bones and Joints ..	21	11	11	43	Heart Disease ..	..	1	18	19
Lymphatic glands ..	3	9	10	22	Rheumatic Carditis ..	1	3	2	6
Meninges	5	2	18	25	" Pericarditis ..	4	..	10	14
Breast	..	1	..	1	" Peritonitis ..	..	..	1	1
Salpinges	..	2	..	2	Post Scarlatinal Rheumatism	1	1	..	2
Genito-Urinary ..	1	..	..	1		24	23	124	171
Testis	4	..	..	4	2. Fibrositis				
Epididymis	2	..	..	2	Myalgia	22	21	..	43
Intestine	1	..	..	1	Sciatica	13	8	..	21
Peritoneum	3	1	2	6	Arthralgia	3	3	..	6
Mastoid	..	..	2	2	Chronic Rheumatism ..	..	1	..	1
Skin	..	1	..	1		4	2	..	6
Epituberculosis ..	..	..	1	1		42	35	..	77
Miliary	1	..	..	1	3. Osteo-arthritis				
Generalised	..	..	1	1	Rheumatoid Arthritis ..	21	17	..	38
	41	27	45	113	Still's Disease	10	25	..	35
MALIGNANT DISEASES :—						..	..	1	1
Cancer of Larynx ..	6	2	..	8		31	42	1	74
" " Bronchus ..	24	7	..	31	VENEREAL DISEASES :—				
" " Lung	9	5	..	14	Syphilis	12	9	..	21
" " Mediastinum ..	..	2	..	2	Gumma	2	..	..	2
" " Lip	2	..	..	2	Congenital Syphilis ..	..	..	3	3
" " Tongue	9	1	..	10	Gonorrhoea	29	8	..	37
" " Pharynx	2	..	..	2	Gonococcal Arthritis ..	10	5	..	15
" " Oesophagus ..	3	2	..	5	Syphilitic Arthritis ..	1	1	..	2
" " Stomach	25	13	..	38		54	23	3	80
" " Cæcum	..	2	..	2	PUERPERAL PYREXIA :—				
" " Colon	21	23	..	44	Delivered in hospital ..	..	31	..	31
" " Rectum	30	8	..	38	Cases delivered before				
" " Liver	1	..	..	1	admission	..	4	..	4
" " Gall bladder ..	2	2	..	4		..	35	..	35
" " Common Bile Duct	1	..	..	1	PUERPERAL FEVER :—				
" " Pancreas	5	..	..	5	Delivered in hospital ..	..	4	..	4
Abdominal Carcinomatosis	2	2	..	4					
Hypernephroma	1	1	..	2	OTHER DISEASES AND				
Cancer of Bladder ..	6	2	..	8	ACCIDENTS CONNECTED WITH				
" " Prostate	5	..	..	5	PREGNANCY AND CHILD-				
" " Penis	3	..	..	3	BIRTH :—				
" " Urethra	1	..	..	1	Abortion	..	211	..	211
" " Testis	1	..	..	1	Threatened abortion ..	..	12	..	12
" " Breast	..	41	..	41	Hydatidiform Mole ..	..	1	..	1
" " Ovary	..	4	..	4	Ectopic Gestation ..	..	14	..	14
" " Uterus	..	26	..	26	Ante-natal cases :—				
" " Vulva	..	4	..	4	Albuminuria	..	20	..	20
" " Middle Ear ..	1	..	..	1	Eclampsia	..	4	..	4
" " Thyroid	..	1	..	1					
Rodent Ulcer	1	4	..	5					
Cancer of Skin	2	..	..	2					
" " Scrotum	1	..	..	1					
Sarcoma of Uterus ..	..	2	..	2					
Sarcoma of Muscle ..	..	1	..	1					

DISEASES FROM WHICH PATIENTS SUFFERED.—(Continued).

DISEASE.	Men.	Women.	Children.	Total.	DISEASES.	Men.	Women.	Children.	Total.
OTHER DISEASES AND ACCIDENTS CONNECTED WITH PREGNANCY AND CHILDBIRTH—Continued.					INJURIES—continued.				
Severe toxæmia	..	..	..	..	Femur	16	28	6	50
Pyelitis	..	16	..	16	Patella	4	..	..	4
Headache	..	1	..	1	Fibula	2	4	2	8
Vomiting	..	8	..	8	Tibia	2	..	..	2
Hyperemesis	..	1	..	1	Tibia and Fibula	6	12	..	18
Chorea	..	2	..	2	Pott's	5	18	1	24
Retroverted Gravid Uterus	..	4	..	4	Os Calcis	1	..	..	1
Ante-partum Hemorrhage	..	3	..	3	Metatarsals	..	1	..	1
Hydramnios	..	2	..	2	Skull	4	3	3	10
Oedema of feet	..	2	..	2	Jaw	1	..	..	1
Oedema vulvæ	..	1	..	1	Spine	1	2	..	3
Varicose Veins	..	3	..	3	" Kummel's Disease	2	..	..	2
Femoral Phlebitis	..	1	..	1	Pelvis	2	4	..	6
Prolapsed Hemorrhoids	..	1	..	1	Coccyx	..	2	..	2
Vaginal discharge	..	3	..	3	Ribs	18	8	..	26
Valvular Heart Disease	..	1	..	1	Multiple	..	2	..	2
Chronic Bronchitis	..	2	..	2	Dislocations :				
Debility	..	3	..	3	Clavicle	1	..	..	1
Pseudocyesis	..	1	..	1	Shoulder	1	..	..	1
Puerperal conditions :—					Traumatic Cerebral Lesions	4	5	..	9
Pvilitis	..	1	..	1	Concussion	41	27	7	75
Hyperpiesia	..	1	..	1	Wounds	22	12	6	40
Phlegmasia Alba Dolens	..	1	..	1	Abrasions	3	2	..	5
Debility	..	3	..	3	Contusions	18	19	7	44
Subinvolution	..	4	..	4	Sprains	11	9	..	20
Discharge	..	1	..	1	Ruptured Plantaris	1	..	..	1
Pyuria	..	1	..	1	" Quadriceps Tendon	1	..	..	1
Prolapse—					Ruptured Bladder	2	..	..	2
Cystocele, &c.	..	10	..	10	Burns	5	6	4	15
Vesico Vaginal Fistula	..	1	..	1	Scalds	1	6	7	14
Post-partum Hemorrhage	..	1	..	1	Foreign body in tissues	1	..	1	2
Mental states :—					Attempted Suicide :—				
Melancholia	..	2	..	2	Drowning	3	2	..	5
Confusional states	..	10	..	10	Cut throat	5	4	..	9
Breast abscess and Mastitis	..	23	..	23	Hanging	1	..	..	1
					Self-strangulation	..	1	..	1
					Poisoning—Suicidal :—				
					Coal gas	12	4	..	16
					Ammonia	..	1	..	1
					Aspirin	1	1	..	2
					Carbolic Acid	..	2	..	2
					Condy's Fluid	..	1	..	1
					Iodine	1	..	..	1
					Dye tablets	..	1	..	1
					Rat poison	..	..	1	1
					Staining fluid	1	..	..	1
					Accidental Poisoning :—				
					Coal gas	2	..	..	2
						220	200	49	469
					DISEASES OF NERVOUS SYSTEM :—				
					Cerebral Aneurysm				
					Hemorrhage	6	8	1	15
					Thrombosis	94	71	..	165
					Cortical Atrophy	5	8	..	13
					Diplegia	2	1	3	6
					Abscess	..	1	..	1
					Infantile hemiplegia	..	..	1	1
					Acute Encephalitis	..	..	1	1
					Parkinsonism	2	1	..	3
					Post-encephalitic	..	..	..	..
					Parkinsonism	9	9	..	18
					Convulsions	..	..	13	13
					Epilepsy	27	34	12	73
					Huntingdon's Chorea	..	1	..	1
					Hypertrophic Cervical	..	..	..	..
					Meningitis	..	1	..	1
					Myelitis	..	1	..	1
					Disseminated Sclerosis	3	4	..	7
					Locomotor Ataxia	13	4	..	17
					Spastic Paraplegia	1	2	..	3
INJURIES AND OTHER FORMS OF VIOLENCE :—									
Fractures :—									
Clavicle	3	2	2	7					
Humerus	5	8	2	15					
" with dislocation	..	..	..	..					
of shoulder	1	1	..	2					
Radius	2	2	..	4					
Ulna	2	1	..	3					
Radius and Ulna	..	1	..	1					
Colles'	4	8	..	12					
Phalanges	1	..	..	1					
	195	217	19	431					

DISEASES FROM WHICH PATIENTS SUFFERED.—(Continued).

DISEASE.	Men.	Women.	Children.	Total.	DISEASE.	Men.	Women.	Children.	Total.
DISEASES OF NERVOUS SYSTEM—continued.					DISEASES OF RESPIRATORY SYSTEM:—				
Postero-lateral Sclerosis ..	1	..	..	1	Upper Respiratory Infection ..	..	..	57	57
Optic Atrophy ..	1	..	..	1	Bronchitis ..	154	68	25	247
Diplopia ..	..	2	..	2	Broncho-pneumonia ..	23	16	78	117
Third nerve Paralysis ..	1	..	..	1	Lobar pneumonia ..	105	35	104	244
Trigeminal Neuralgia ..	..	2	..	2	Empyema—Pneumococcal ..	14	5	32	51
Facial Paralysis ..	1	..	..	1	Streptococcal ..	2	1	4	7
Peripheral Neuritis ..	3	1	..	4	Abscess of Lung ..	9	1	..	10
Post-Diphtheritic Neuritis ..	..	..	1	1	Gangrene of Lung ..	..	1	..	1
Congenital Ataxia ..	..	..	1	1	Collapse of Lung ..	..	..	1	1
Progressive Muscular Atrophy ..	..	1	..	1	Fibrosis of Lung ..	5	2	2	9
Pneumococcal Meningitis ..	2	2	2	6	Bronchiectasis ..	24	17	13	54
Staphylococcal Meningitis ..	..	..	1	1	Hamoptysis ..	..	1	..	1
Streptococcal Meningitis ..	..	..	1	1	Bronchial Fistula ..	1	1	..	2
Congenital Hydrocephalus ..	..	..	4	4	Cyst of Lung ..	1	..	..	1
Spina Bifida ..	..	..	2	2	Pleurisy ..	6	8	1	15
Headache ..	6	4	1	11	Chronic ..	1	2	..	3
Neurasthenia ..	28	18	..	46	with effusion ..	3	4	3	10
Hysteria ..	6	5	..	11	Spontaneous Pneumothorax ..	..	..	1	1
Functional Aphonia ..	1	..	..	1	Asthma ..	12	6	3	21
Drop foot ..	..	2	..	2	Coryza ..	3	..	..	3
Dyspnoea ..	1	..	..	1	Suppurative Laryngitis ..	..	1	..	1
Paraplegia ..	2	1	..	3	Syphilitic Laryngitis ..	1	..	..	1
Twitchings ..	1	..	..	1	Pulmonary Embolism ..	..	1	..	1
Habit spasm ..	1	..	2	3					
Head nodding ..	..	..	1	1		364	170	324	858
Hiccup ..	3	..	..	3	DISEASES OF CIRCULATORY SYSTEM:—				
Insomnia ..	1	..	..	1	Infective Endocarditis ..	3	8	1	12
Vertigo ..	2	3	..	5	Acute Endocarditis ..	..	2	..	2
Drug Addiction ..	1	..	..	1	Valvular Heart Disease ..	33	71	22	126
Cerebral Syphilis ..	7	4	..	11	Congenital Heart Lesion ..	1	1	2	4
Neuro Syphilis ..	1	3	..	4	Cardiac Myopathy ..	59	73	..	132
Neuralgia ..	1	1	..	2	Partial Heart Block ..	1	..	..	1
	233	197	48	478	Tachycardia ..	..	1	..	1
DISEASES OF THE EYE:—					Pericarditis ..	1	..	..	1
Blepharitis ..	..	1	3	4	Adherent Pericardium ..	1	..	..	1
Conjunctivitis ..	3	1	..	4	Arterio-Sclerosis ..	159	102	..	261
Corneal Ulcer ..	4	1	3	8	Hyperpiesia ..	11	13	..	24
Keratitis ..	2	1	..	3	Coronary Thrombosis ..	8	4	..	12
Iritis ..	1	..	..	1	Aortitis (Syphilitic) ..	3	..	..	3
Iridocyclitis ..	..	1	..	1	Endarteritis (Syphilitic) ..	1	..	..	1
Cataract ..	2	..	..	2	Aneurysm ..	4	3	..	7
Glaucoma ..	1	1	..	2	Raynaud's Disease ..	..	1	..	1
Panophthalmitis ..	..	1	..	1	Thrombo-phlebitis ..	7	11	..	18
Strabismus ..	..	1	..	1	Varicose Veins ..	6	2	..	8
Defective vision ..	..	2	1	3	Anæmia ..	3	5	1	9
Dacryocystitis ..	1	2	..	3	Achlorhydric Anæmia ..	1	4	..	5
DISEASES OF NOSE AND EAR:—					Pernicious Anæmia ..	6	11	..	17
Otitis Media ..	4	7	26	37	Splenic Anæmia ..	..	1	..	1
Aural polypus ..	2	..	3	5	Myelogenous Leukæmia ..	3	1	..	4
Mastoiditis ..	2	..	2	4	Hodgkin's Disease ..	1	..	..	1
Tinnitus ..	2	..	1	3	Splenomegaly ..	..	1	..	1
Deafness ..	..	1	..	1	Acholic Jaundice ..	1	1	..	2
Foreign body in Ear ..	..	..	1	1	Henoch's Purpura ..	..	..	1	1
Naso-pharyngitis ..	..	..	2	2	Gastro-intestinal hæmorrhage of new born ..	..	..	1	1
Sinusitis ..	3	1	2	6					
Nasal polypi ..	2	1	..	3		313	316	28	657
Deflected septum ..	8	..	2	10	DISEASES OF DIGESTIVE SYSTEM:—				
Hypertrophied Inferior Turbinates ..	1	2	3	6	Acute Glossitis ..	..	1	..	1
Epistaxis ..	1	3	..	4	Stomatitis ..	2	2	4	8
DISEASES OF THE THROAT:—					Dental Caries and Pyorrhœa ..	6	6	..	12
Tonsillitis ..	22	20	34	76	Dental Cyst ..	1	..	..	1
Quinsy ..	9	6	1	16	Pharyngitis ..	1	..	1	2
Enlarged tonsils and adenoids ..	4	11	103	118	Dysphagia ..	..	1	..	1
Retropharyngeal Abscess ..	1	..	2	3	Congenital Hypertrophic Pyloric Stenosis ..	..	..	3	3
Laryngitis ..	1	..	..	1	Dyspepsia ..	24	21	1	46
Fibroma of Vocal Chord ..	1	1	..	2	Hyperchlorhydria ..	5	1	..	6
	77	65	189	331					

DISEASES FROM WHICH PATIENTS SUFFERED.—(Continued).

DISEASES.	Men.	Women.	Children.	Total.	DISEASES	Men.	Women.	Children.	Total.
DISEASES OF DIGESTIVE SYSTEM—continued.					DISEASES OF GENITO-URINARY SYSTEM—continued.				
Gastritis	4	1	..	5	Vesical Calculus	6	..	..	6
Gastric Ulcer	12	8	..	20	Urethral Stricture	14	..	..	14
Perforated Gastric Ulcer ..	1	..	..	1	" Fistula	2	..	..	2
Vomiting	..	1	4	5	Periurethral Abscess	6	..	..	6
Hæmatemesis	8	3	..	11	Urethral Calculus	..	..	1	1
Duodenal Ulcer	48	8	..	56	Phimosis	5	..	7	12
Perforated Duodenal Ulcer ..	8	3	..	11	Balanitis	6	..	2	8
Jejunal Ulcer	1	..	..	1	Hydrocele	7	..	1	8
Hypertrophic Enteritis ..	1	..	..	1	Hæmatocele	3	..	..	3
Enteritis	6	3	..	9	Spermatocele	1	..	..	1
" (Children)	..	..	95	95	Webbed penis	1	..	..	1
Appendicitis	43	79	19	141	Epididymitis	1	..	..	1
Appendix Abscess	5	7	..	12	Varicocele	8	..	..	8
Diarrhœa	4	2	..	6	Dysmenorrhœa	..	6	..	6
Constipation	20	40	1	61	Salpingitis	..	35	..	35
Ulcerative Colitis	2	3	..	5	Pyosalpinx	..	13	..	13
Diverticulitis	1	1	..	2	Oedema of Vulva	..	1	..	1
Hirschsprung's Disease ..	..	..	1	1	Undescended Testis	2	..	..	2
Redundant Colon	..	1	..	1	Nephroptosis	..	2	..	2
Fæcal Fistula	..	3	..	3	Paraphimosis	..	..	1	1
Blocked Colostomy	1	..	..	1	Retention of Urine	7	2	..	9
Proctitis	..	..	1	1	Procidentia	..	7	..	7
Rectal Polypus	..	1	..	1	Menstruation	..	..	1	1
Prolapse of Rectum	2	1	1	4	Menorrhagia	..	6	..	6
Hæmorrhoids	32	8	..	40	Metrorrhagia	..	4	..	4
Fissure in Ano	1	2	..	3	Menopausal Hæmorrhage ..	..	2	..	2
Catarrhal Jaundice	5	4	5	14	Endometritis	..	2	..	2
Subacute Liver Necrosis ..	..	4	..	4	Endometriosis	..	1	..	1
Cirrhosis of Liver	7	2	1	10	Fibromyomata	..	12	..	12
Portal Pyæmia	1	1	..	2	" (Submucous)	..	1	..	1
Hydatid Cyst of Liver ..	..	1	..	1	" (Cervical Polyp.) ..	..	1	..	1
Hepatomegaly	1	1	..	2	Ovarian Cyst	..	7	..	7
Cholecystitis	12	22	..	34	Fimbrial Cyst	..	1	..	1
Cholelithiasis	7	33	..	40	Adenomatous Cervix	..	2	..	2
Impacted gallstone in intestine ..	1	..	..	1	Cervicitis	..	2	..	2
Ruptured common bile duct ..	..	1	..	1	Leucorrhœa	..	6	..	6
Pancreatitis	3	3	..	6	Vulvo-Vaginitis	..	1	7	8
Abdominal pain and colic ..	20	17	5	42	Retroversion	..	4	..	4
Peritoneal Adhesions	3	2	1	6	Retroflexion	..	2	1	3
Pneumococcal Peritonitis ..	..	..	2	2	Caruncle	..	1	..	1
Intussusception	..	..	3	3	Pelvic Abscess	..	2	..	2
Volvulus	1	1	..	2					
Food Poisoning	..	2	2	4	DISEASES OF THE SKIN :—				
Swallowed foreign body ..	..	1	1	2	Alopecia Areata	..	..	1	1
Melæna	..	1	..	1	Furunculosis	16	3	4	23
Hernia, Inguinal	67	5	8	80	Carbuncle	23	7	..	30
" Femoral	5	7	..	12	Dermatitis	3	1	4	8
" Epigastric	3	..	..	3	" Varicose	2	2	..	4
" Umbilical	2	6	2	10	" Herpetiformis	3	..	1	4
" Incisional	6	12	..	18	" Medicamentosa	1	..	..	1
Tapeworm	1	..	2	3	" Exogenic	6	5	..	11
Fistula in Ano	3	4	..	7	" Exfoliative	1	1	1	3
Imperforate Anus	..	..	1	1	Eczema	28	11	6	45
	387	337	166	890	" Infantile	..	..	12	12
DISEASES OF GENITO-URINARY SYSTEM :—					" Psychogenic	3	3	..	6
Albuminuria	..	1	..	1	" Seborrhœic	12	10	2	24
Bacilluria	..	3	1	4	" Gravitational	8	5	..	13
Pyelitis	1	27	9	37	Intertrigo	..	1	1	2
Nephritis	34	28	21	83	Impetigo	6	5	43	54
Hæmaturia	8	1	1	10	Septic Disease of New Born ..	..	..	5	5
Renal Calculus	5	4	..	9	Septic Umbilicus	..	..	1	1
Renal Colic	5	2	..	7	Pemphigus Neonatorum	..	..	1	1
Ureteric Calculus	3	3	..	6	Erythema Herpes Iris	..	..	3	3
Hydronephrosis	..	4	..	4	" Multiforme	..	..	2	2
Pyonephrosis	4	..	..	4	" Toxic	4	2	..	6
Polycystic disease of Kidneys	1	..	..	1	Urticaria	2	..	2	4
Cystitis	10	12	..	22	Psoriasis	12	1	13	26
Enlarged Prostate	41	..	..	41	Lupus Verrucosus	1	..	..	1
					" Erythematous	1	..	..	1
					Sycosis	2	..	..	2

DISEASES FROM WHICH PATIENTS SUFFERED.—(Continued).

DISEASES	Men.	Women.	Children.	Total.	DISEASES.	Men.	Women.	Children.	Total.
DISEASES OF THE SKIN— continued.					SEPTIC INFECTIONS—continued.				
Herpes	4	4	1	9	Lower Extremity	19	20	13	52
Pruritus	2	1	..	3	Chest Wall	2	1	1	4
Warts	..	..	1	1	Abdominal Wall	1	1	..	2
Sebaceous Cysts	3	..	..	3	Perinephric	..	..	2	2
Ulcer	18	15	..	33	Pelvic	1	2	1	4
Keratoderma Blenorrhagica	1	..	..	1	Bartholin's	..	3	..	3
Onychogryphosis	1	..	..	1	Ischio-Rectal	18	11	..	29
Pompholyx	2	..	..	2	Testis	1	..	..	1
Scabies	42	10	45	97	Multiple	..	2	4	6
Pediculosis and Vermin Rash	9	6	..	15	Adenitis	6	4	28	38
Artefacts	1	2	..	3	Ludwig's Angina	1	..	..	1
Pityriasis Lichen	..	..	..	..	Cellulitis	31	23	6	60
Varioliformis	..	..	1	1	Staphylococcal Pyæmia	1	..	..	1
Kerion	..	..	2	2	Pneumococcal Septicæmia	..	..	1	1
Xeroderma	..	..	1	1		123	97	91	311
Leukæmia Cutis	..	1	..	1	MISCELLANEOUS :—				
Painful Scar	..	1	..	1	Parenchymatous Goitre	..	2	..	2
	217	97	153	467	Adenomatous Goitre	..	3	..	3
DISEASES OF BONES, JOINTS, &c.					Cystic Goitre	..	2	..	2
Bursitis	4	5	2	11	Hyperthyroidism	2	4	..	6
Synovitis	8	1	1	10	Thyrototoxicosis	2	7	..	9
Baker's Cyst	2	1	..	3	Thyroid deficiency	..	5	1	6
Loose bodies	1	1	..	2	Diabetes Mellitus	20	36	3	59
Torn Internal Semilunar	..	..	..	..	Obesity	1	3	..	4
Cartilage	6	2	..	8	Erythema Nodosum	..	10	..	10
Torn Internal Lateral	..	..	..	..	Polyarthritis, toxic	13	16	..	29
Ligament of Knee	2	1	..	3	Gout	3	1	..	4
Septic Arthritis	2	2	10	14	Acidosis	..	..	5	5
Periostitis	1	1	1	3	Rickets	..	..	8	8
Osteomyelitis	..	..	9	9	Malnutrition (Nutritional	..	..	9	9
" Chronic	9	2	5	16	disorder)	..	..	..	..
Osteitis	2	..	..	2	Debility	36	40	26	102
Kyphosis	..	1	..	1	" Collapse "	19	4	..	23
Scoliosis	1	..	..	1	Menopausal debility	..	5	..	5
Coxa Valga	1	..	..	1	Visceroptosis	..	7	..	7
Coxa Vara	1	..	..	1	Dermoid cyst	1	1	..	2
Bowing of Tibiæ	..	1	..	1	Teratoma	..	..	1	1
Pseudocoxalgia	1	..	..	1	Actinomycosis	1	..	..	1
Foot strain	..	1	..	1	Tetanus	..	..	1	1
Flat foot	2	..	..	2	Thyroglossal cyst	1	..	..	1
Metatarsalgia	2	1	..	3	Hæmangioma	..	..	1	1
Calcanalgia	1	..	..	1	Pink disease	..	..	2	2
Talipes	..	2	5	7	Fibroma	..	2	..	2
Pes Cavus (Congenital)	1	2	..	3	Lipoma	..	1	..	1
Hallux Rigidus	2	..	..	2	Sunstroke	3	..	1	4
Hallux Valgus	..	2	..	2	Cleft palate	..	..	2	2
Hammer Toe	..	1	1	2	Pituitary disfunction	..	..	1	1
Ingrowing Toe Nail	2	..	..	2	Prematurity	..	..	29	29
Heil's Disease	1	..	..	1	Debility from birth	..	..	16	16
Contracture of fingers	2	..	..	2	No disease	11	8	20	39
Torticollis	2	..	..	2	Malingering	1	1	..	2
Cervical rib	..	1	..	1	With Mother	..	..	30	30
Exostosis	3	1	..	4	Unexplained fever (P.U.O.)	2	2	4	8
Charcot's Joint	..	1	..	1	Fibroadenoma of breast	..	1	..	1
Osteogenesis Imperfecta	..	..	1	1		116	161	160	437
Old Poliomyelitic Deformities	2	1	1	4	PATIENTS DISCHARGED FROM MATERNITY WARD AND NOT INCLUDED IN ABOVE FIGURES				
Sinus of Stump	1	..	..	1	Delivered in Hospital	..	926	..	926
Stump sores	1	..	..	1	" before admission	..	38	..	38
	63	31	36	130	Children born in Hospital	..	..	871	871
SEPTIC INFECTIONS :—					" before admission	..	..	30	30
Fingers	6	8	1	15	Undelivered (apparently	..	68	..	68
Hands	4	4	2	10	normal, but not in labour)	..	..	..	..
Toes	6	1	1	8		..	1032	901	1,933
Feet	9	..	1	10		2,992	3,917	2,604	9,513
Abscess :—									
Face, Head and Neck	7	11	28	46					
Upper Extremity	10	6	2	18					
					TOTAL				

Deaths.—The number of deaths was 1,267, a decrease of 54 from the previous year. It is worthy of note that influenza does not appear as a cause of death during 1934. The explanation of the decrease lay in the smaller number of deaths from respiratory diseases.

DEATHS IN AGE GROUPS.

Under 1 year	..	..	172
1-2 years	..	..	40
2-5	..	..	34
5-15	..	..	32
15-25	..	..	38
25-35	..	..	54
35-45	..	..	88
45-55	..	..	147
55-65	..	..	251
65-75	..	..	246
75-85	..	..	146
85 and over	..	..	19
All ages	..	..	1,267

DEATHS IN QUARTERS.

	Men.	Women.	Children.	Total.
1st Quarter	159	118	89	366
2nd	137	101	65	303
3rd	123	89	59	271
4th	148	113	66	327
Year	567	421	279	1,267

Deaths occurring within 24 hours of admission .. 135.

Deaths occurring within 48 hours of admission .. 73.

CAUSES OF DEATH.

Disease.	Men.	Women.	Children.	Total.	Disease.	Men.	Women.	Children.	Total.
INFECTIOUS DISEASES :—					RHEUMATISM :—				
Cerebro-spinal Fever ..	1	4	7	12	(1) Acute types :—				
Erysipelas	2	2	1	5	Rheumatic Myocarditis ..	1	2	..	3
Measles	..	..	25	25	" Pericarditis ..	1	..	4	5
Typhoid Fever	..	..	1	1	Chorea	..	1	..	1
Whooping Cough	..	..	10	10		2	3	4	9
	3	6	44	53	(2) Non-articular types				
INFLUENZA	..	..	..	..	(fibrositis, etc.)	..	..	..	..
TUBERCULOSIS :—									
Pulmonary	27	4	3	34	(3) Chronic Arthritis :—				
					Rheumatoid Arthritis ..	1	3	..	4
Non-Pulmonary :—					VENEREAL DISEASE :—				
Intestine	1	..	..	1	Syphilis	..	1	..	1
Peritoneum	1	..	..	1	Congenital Syphilis	..	..	2	2
Genito-Urinary	1	..	..	1		..	1	2	3
Salpinges	..	2	..	2	PUERPERAL FEVER	..	2	..	2
Mastoid	..	..	2	2					
Hip-joint	1	..	..	1	OTHER DISEASES AND				
Spine	..	3	..	3	ACCIDENTS CONNECTED				
Meninges	5	2	18	25	WITH PREGNANCY AND				
Miliary	1	..	..	1	CHILDBIRTH :—				
	10	7	20	37	Severe Toxæmia	..	1	..	1
MALIGNANT DISEASE :—					Eclampsia	..	1	..	1
Cancer of Larynx	4	2	..	6	Septic Abortion	..	3	..	3
" Bronchus	17	6	..	23	Peritonitis (attempted				
" Lung	2	3	..	5	Abortion)	..	1	..	1
" Mediastinum	..	1	..	1		..	6	..	6
" Tongue	4	1	..	5	MENTAL DISEASES :—				
" Pharynx	2	..	..	2	Amentia	..	..	2	2
" Oesophagus	3	2	..	5	Mania	..	1	..	1
" Stomach	14	5	..	19	Melancholia	1	..	..	1
" Colon	10	9	..	19	Dementia	..	3	..	3
" Cæcum	..	1	..	1	Confusional Insanity	..	1	..	1
" Rectum	19	3	..	22	Toxic Psychosis	1	..	..	1
" Pancreas	4	..	..	4	Paraphrenia	..	1	..	1
" Gall Bladder	1	2	..	3	Dementia Paralytica	7	2	..	9
" Common Bile Duct	1	..	..	1		9	8	2	19
Abdominal Carcinomatosis ..	2	1	..	3	ACCIDENTAL INJURY AND				
Endothelioma of Peritoneum ..	1	..	..	1	VIOLENCE :—				
" " Mesentery	1	..	..	1	Fractures :—				
Retroperitoneal Sarcoma	1	1	..	2	Skull	1	3	..	4
Cancer of Breast	..	16	..	16	Clavicle	..	1	..	1
" Ovary	..	2	..	2	Humerus	2	1	..	3
" Uterus	..	6	..	6	Spine	..	1	..	1
Sarcoma of Uterus	..	1	..	1	Pelvis	1	2	..	3
Cancer of Vulva	..	2	..	2	Femur	6	9	..	15
" Bladder	3	2	..	5	Pott's	1	..	..	1
" Prostate	3	..	..	3	Multiple	..	2	..	2
" Urethra	1	..	..	1	Cerebral Laceration	..	1	..	1
" Penis	2	..	..	2	Traumatic Epilepsy	1	..	..	1
" Testis	1	..	..	1	" Cerebral Softening	1	..	..	1
" Middle Ear	1	..	..	1	" Cerebral				
" Thyroid	..	1	..	1	Hæmorrhage	2	4	..	6
Lymphosarcoma of Cervical					Burns	1	..	..	1
Glands	2	..	..	2	Cellulitis following Wound ..	2	..	..	2
Sarcoma of Bone	1	1	..	2	Erysipelas following Wound ..	1	1	..	2
Rodent Ulcer	..	1	..	1	Ruptured Bladder	2	..	..	2
Cancer of Skin	1	..	..	1		21	25	..	46
Melanotic Sarcoma	1	1	..	2					
Cerebro-Spinal Tumours :									
Glioma of Brain	1	4	1	6					
" Cerebellum	1	..	1	2					
Neurofibroma of Cerebello-									
Pontine angle	..	1	..	1					
Spinal Meningioma	..	1	..	1					
	104	76	2	182					

CAUSES OF DEATH.—(Continued).

Disease.	Men.	Women.	Children.	Total.	Disease.	Men.	Women.	Children.	Total.
NERVOUS SYSTEM :—					DIGESTIVE SYSTEM—continued				
Cerebral Aneurysm	..	1	..	1	Cirrhosis of Liver	5	1	1	7
„ Haemorrhage	5	4	1	10	Subacute Necrosis of Liver ..	..	3	..	3
„ Thrombosis	43	39	..	82	Portal Pyæmia (arising from	..	..	..	..
„ Cortical Atrophy	2	3	..	5	Appendicitis)	1	1	..	2
Acute Encephalitis	..	..	1	1	Cholelithiasis	1	3	..	4
Post-Encephalitic	..	..	..	..	Impacted Gallstone in	..	..	..	..
Parkinsonism	2	2	..	4	Intestine	1	..	..	1
Epilepsy	2	4	3	9	Ruptured Common Bile Duct ..	..	1	..	1
Convulsions	..	..	2	2	Chronic Pancreatitis	1	..	..	1
Spastic Diplegia	1	..	..	1	Peritoneal Adhesions	2	1	1	4
Huntingdon's Chorea	..	1	..	1	Pneumococcal Peritonitis	..	..	2	2
Cerebral Abscess	..	1	..	1	Femoral Hernia	..	2	..	2
Locomotor Ataxia	1	..	..	1	Inguinal Hernia	2	1	..	3
Cerebro-Spinal Syphilis ..	1	1	..	2	Ventral Hernia	..	1	..	1
Myelitis	..	1	..	1	Imperforate Anus	..	..	1	1
Pneumococcal Meningitis ..	2	2	2	6		23	20	59	102
Staphylococcal Meningitis ..	..	..	1	1	GENITO-URINARY SYSTEM :—				
Streptococcal Meningitis ..	..	..	1	1	Nephritis	20	15	3	38
Congenital Hydrocephalus ..	..	..	4	4	Pyelitis	..	1	2	3
Spina Bifida, etc.	..	..	2	2	Pyonephrosis	1	..	..	1
	59	59	17	135	Cystitis	4	1	..	5
RESPIRATORY SYSTEM :—					Enlarged Prostate	18	..	..	18
Acute Suppurative	..	..	..	..	Urethral Stricture	2	..	..	2
Laryngitis	..	1	..	1	Pyosalpinx	..	1	..	1
Bronchitis	33	11	7	51		45	18	5	68
Broncho-Pneumonia	18	10	31	59	DISEASES OF THE SKIN :—				
Lobar Pneumonia	29	8	8	45	Carbuncle	1	..	..	1
Empyema, pneumococcal ..	3	1	7	11	Ulcer	1	..	..	1
„ streptococcal	1	..	3	4	Toxic Erythema	..	1	..	1
Gangrene of Lung	..	1	..	1	Generalised Impetigo	..	..	1	1
Abscess of Lung	3	..	..	3	Septic Dermatitis	..	..	1	1
Bronchiectasis	7	2	2	11	Septic Disease of Newborn ..	..	..	2	2
Asthma	..	1	..	1	Pemphigus Neonatorum	..	..	1	1
Pulmonary Embolism	..	1	..	1		2	1	5	8
	94	36	58	188	MISCELLANEOUS DISEASES :—				
CIRCULATORY SYSTEM :—					Otitis Media	1	2	3	6
Infective Endocarditis ..	3	3	1	7	Septic Tonsillitis	2	1	..	3
Acute Endocarditis	..	2	..	2	Retropharyngeal Abscess ..	..	..	1	1
Valvular Heart Disease ..	13	15	..	28	Osteomyelitis	..	..	4	4
Congenital Valvular Lesion ..	..	..	1	1	Periostitis	1	..	..	1
Cardiac Myopathy	33	49	..	82	Septic Arthritis	..	..	1	1
Coronary Thrombosis	7	3	..	10	Cellulitis	5	3	1	9
Arterio-Sclerosis	83	54	..	137	Abscess of Neck : Pyæmia ..	..	1	..	1
Aortitis (Syphilitic)	3	..	..	3	Staphylococcal Pyæmia	1	..	..	1
Endarteritis (Syphilitic) ..	1	..	..	1	Pneumococcal Septicæmia ..	..	..	1	1
Femoral Thrombosis	..	1	..	1	Ischio-Rectal Abscess	2	..	..	2
Thrombo-Phlebitis	1	..	..	1	Acute Toxic Arthritis	..	1	..	1
Aneurysm	3	1	..	4	Diabetes Mellitus	5	6	..	11
Pernicious Anæmia	1	1	..	2	Hyperthyroidism	..	1	..	1
Myelogenous Leukæmia ..	1	1	..	2	Thyrototoxicosis	..	1	..	1
Gastro-Intestinal	..	..	..	..	Prematurity	..	..	28	28
Haemorrhage of New-born ..	..	..	1	1	Debility from Birth	..	..	16	16
Hodgkin's Disease	1	..	..	1		17	16	55	88
	150	130	3	283	TOTAL				
DIGESTIVE SYSTEM :—					567	421	279	1,267	
Gastric Ulcer	..	1	..	1					
Perforated Gastric Ulcer ..	1	..	..	1					
Duodenal Ulcer	2	1	..	3					
Perforated Duodenal Ulcer ..	3	..	..	3					
Congenital Hypertrophic	..	..	..	..					
Pyloric Stenosis	..	..	3	3					
Appendicitis	3	3	..	6					
Diverticulitis	1	..	..	1					
Enteritis (Infantile diarrhoeal	..	..	51	51					
diseases)	..	..	..	..					
Volvulus	..	1	..	1					

DEATHS OF CHILDREN UNDER 1 YEAR—1934.

Cause of Death.	No. of Deaths.
Prematurity	29
Debility from Birth	16
Intracranial Hæmorrhage	1
Spina Bifida	2
Imperforate Anus	1
Congenital Hydrocephalus	3
" Valvular Heart Lesion	1
" Hypertrophic Pyloric Stenosis	3
" Syphilis	2
Convulsions	1
Pneumococcal Meningitis	1
Staphylococcal	1
Bronchitis	6
Broncho-pneumonia	15
Lobar pneumonia	3
Empyema	3
Retropharyngeal Abscess	1
Gastro-intestinal Hæmorrhage	1
Enteritis (Diarrhœal diseases)	48
Pneumococcal Peritonitis	1
Nephritis	1
Pyelitis	2
Pemphigus Neonatorum	1
Septic disease of new born	2
Septic dermatitis	1
Generalised Impetigo	1
Pulmonary Tuberculosis	2
Tuberculous Meningitis	5
Cerebro-Spinal Fever	4
Measles	12
Whooping Cough	2
Total	172

Medical Work.—There is no special feature to report regarding this side of the work. There was markedly less disease of the respiratory system. Influenza was almost non-existent. The general run of cases was much as usual, and covered a very wide range.

Surgical Work.—A further increase in the number of operations performed falls to be reported. Though not the be-all and end-all of surgical practice, this figure is useful in making comparison with the work of previous years. Operations performed under anaesthesia numbered 1,786, an increase of 324 from 1933. In addition, 134 cases of minor importance, such as cystoscopy, pyelography, and other procedures not requiring an anaesthetic, were dealt with in the theatre. Twelve blood transfusions were carried out. In 5 cases the donors were obtained from the Leeds Blood Transfusion Service, the remaining donors being relatives or friends of the patients.

OPERATIONS PERFORMED DURING 1934.

OPERATIONS PERFORMED.		OPERATIONS PERFORMED.	
ABDOMINAL OPERATIONS :—		OPERATIONS ON EYE, EAR, NOSE AND THROAT :—	
Appendicectomy	173	For Cataract	3
For Appendix Abscess	6	Discission	1
Caesarean Section	19	Enucleation of Eye	1
Cholecystectomy	33	Excision of Lacrymal Sac	2
Cholecystostomy	1	For Ptosis	2
Choledochotomy	3	Adenotonsillectomy	169
Cæcostomy	10	Excision of Aural Polypus	9
Colostomy	12	" " Nasal Polypus	4
Colectomy	4	Lavage of Antrum	1
Partial Gastrectomy	7	Mastoidotomy	8
Gastro-enterostomy	10	Mastoidectomy	1
Gastrostomy	3	Drainage of Cerebral Abscess	1
Undoing Gastro-enterostomy	1	Myringotomy	1
For Pyloric Stenosis	1	Resection of Nasal Septum	7
Jejunostomy	1	Tracheotomy	2
Lumbar Sympathectomy	1	Turbinectomy	6
Laparotomy (Exploratory)	14		
Laparotomy for—			218
Perforated Duodenal Ulcer	8	CHEST OPERATIONS :—	
Intestinal Obstruction	4	Decortication of Pleura	1
Peritonitis	3	Division of Pleural Adhesions	1
Pelvic Abscess	4	Phrenic Evulsion	54
Abscess in Lesser Sac	1	Pulmonary Lobectomy	1
Intussusception	3	Rib resection for Empyema	48
Resection of Intestine	5	Thoracoplasty	9
Hysterectomy	9		114
Myomectomy	2	DRAINAGE OF ABSCESSES :—	
Ovariectomy	2	Abdominal Wall	9
Salpingectomy	14	Breast	30
Salpingo-oophorectomy	13	Chest Wall	2
	367	Face and Head	12
OPERATIONS FOR HERNIA :—		Ischio-rectal	27
Epigastric Hernia	2	Lower Extremity	87
Femoral Hernia	6	Lumbar	2
Strangulated Femoral Hernia	4	Neck	54
Incisional Hernia	8	Upper Extremity	59
Inguinal Hernia	64		282
Strangulated Inguinal Hernia	8	RECTAL OPERATIONS :—	
Umbilical Hernia	8	Biopsy of Carcinoma Recti	4
	100	Dilatation of Sphincter	2
GENITO-URINARY OPERATIONS :—		Excision of Rectum	1
Biopsy of Cervix Uteri	1	" " Haemorrhoids	31
Bartholin's Cyst, Excision	3	" " Fistula-in-ano	3
Cervical Polypus, Excision	2	For Rectal Prolapse	1
Circumcision	22		42
Colpotomy	9	AMPUTATIONS :—	
Colpo-perineorrhaphy	11	Of Finger	10
Cystoscopy (under general anæsthesia)	3	" Leg	7
Dilatation and Curettage	29	" Toe	3
Evacuation of Uterus	126		20
For Haematocele	1	ORTHOPÆDIC OPERATIONS :—	
" Hydrocele	7	Application of Plaster	55
" Hypospadias	1	Avulsion of Nail	3
" Renal Calculus	6	Arthrectomy of Knee	2
" Recto-Vaginal Fistula	1	Arthrodesis of Ankle	1
" Urethral Caruncle	1	" " Hip	1
" Varicocele	8	Arthrotomy of Hip	5
" Vesical Calculus	3	" " Knee	5
Nephrectomy	6	" " Wrist	1
Orchidectomy	7	Capsulotomy	2
Perinephric Abscess, Drainage	3		
Prostatectomy	11		
Suprapubic Cystotomy	14		
Urethral Stricture, Dilatation	5		
Urethrotomy	1		
	281		

OPERATIONS PERFORMED DURING 1934.—(Continued).

OPERATIONS PERFORMED.		OPERATIONS PERFORMED.	
ORTHOPÆDIC OPERATIONS—continued.		MISCELLANEOUS OPERATIONS :—	
Excision of Cyst of Knee	4	Biopsy of Breast	2
" " Exostosis of Femur	3	" " Humerus	1
" " Exostosis of Os Calcis	1	" " Ulcer of Leg	1
" " Semimembranosus		Closure of Cæcostomy	3
" " Bursa	1	Excision of Adenoma	2
For Dislocated Shoulder	2	" " Breast	9
" Osteomyelitis of Humerus	1	" " Bursa	2
" " Femur	7	" " Coccyx	2
" " Tibia	4	" " Cyst	4
" Fractured Patella	3	" " Dental Cyst	1
" Fractured Olecranon	1	" " Dermoid	1
" Hey's Internal Derangement of		" " Hamangioma	1
" Knee Joint	7	" " Lipoma	2
" Hallux Rigidus	1	" " Rodent Ulcer	2
" Hallux Valgus	4	" " Sebaceous Cyst	2
" Hammer Toe	2	" " Thyroglossal Cyst	1
" Pes Cavus	1	" " Thyroid Gland	8
Insertion of Pin for Fractured Femur	2	Examination under Anæsthetic ..	18
Lengthening Tendo Achillis	2	Extraction of Teeth	3
Manipulation under anæsthesia	46	For Cleft Palate	2
Osteotomy	11	For Harelip	1
Removal of Os Calcis Pin	3	Incision of Carbuncle	20
" " Smith Peterson's Pin	2	Prepatellar Bursitis	9
Sequestrectomy	7	Incision of Septic Finger	25
Spinal Fusion	6	Insertion of Pessary	1
Steindler's Operation	1	Ligature of Saphenous Veins	2
Tenotomy	6	" " Superior Thyroid Artery ..	1
	203	Removal of Needle from Finger ..	1
		Resuture of Abdominal Wound ..	7
OPERATIONS ON THE SKULL AND		Skin grafting	4
BRAIN :—		Suture of Wound of Arm	1
Cerebral Decompression	5	" " Scalp	3
Excision of Cerebral Tumour	1	" " Hand	1
Injection of Alcohol into Vth Nerve	1	" " Neck	2
Trephining	1	Toilet of Burns	1
Ventriculography	5		146
	13		
		TOTAL	1,786

Children's Wards.—During the year 1,659 children were admitted, an increase of 91 over 1933. With the outstanding prevalence of infectious disease in the city it was fortunate that the wards suffered comparatively little from the more serious infections such as diphtheria and scarlet fever. There were, of course, cases from time to time, but the source was usually quickly traced and effective measures taken to prevent spread. It has to be recorded, however, that a serious amount of diarrhoeal disease in young children was again in evidence. There were 95 cases, as opposed to 127 in 1933. The death-rate was high, there being 51 deaths, of which 48 were in children under one year. In 1933 the deaths were 71, of which 66 occurred in children under one year. The accommodation has been ample at all times.

Maternity Department.—Labours conducted during 1934 numbered 961 being an increase of 96 over the previous year (see also table on page 98 for figures of previous years). There were 60 stillbirths and 15 cases of twins, the total number of live births being 916. Ninety-nine births (10·3 per cent.) were illegitimate and 421 (43·8 per cent.) were first births. In addition to the women confined in hospital, there were 38 who were admitted immediately following delivery. There were 4 maternal deaths. Of the cases, 138 were classified as abnormal. Major causes of abnormality were :—

Ante-partum haemorrhage	10
Placenta praevia	7
Retained placenta	7
Post-partum haemorrhage	9
Extended limbs in breach presentations	10
Impacted shoulder	1
Other transverse lies	2
Eclampsia	4
Maternal tuberculosis	3

There were 42 cases of breech presentation ; 86 of the labours were premature and induction was carried out in 21 cases. Caesarean section was performed in 19 cases, the indications being :—

Contracted pelvis.. ..	15
Heart disease	1
Pulmonary tuberculosis	1
Mental deficiency.. ..	1
Transverse lie	1
	—
	19
	—

Forceps were applied in 66 instances.

There were 4 cases notified of puerperal fever, of which 2 died. There were 40 cases of puerperal pyrexia, of which none died. In many of these cases the cause of the pyrexia was not related to delivery. Two cases of puerperal mania occurred.

Maternal deaths :—

(1) This was a case of puerperal septicaemia in a woman who had been advised to enter hospital a fortnight before she did so on account of obvious ill health and toxic symptoms. She refused, however, because of illness at home amongst her family. The delivery was normal and unassisted. Fever developed and she died five days after the child was born. There was no evidence of local sepsis.

(2) This occurred in a debilitated woman with toxæmia and hydramnios, where labour was prolonged, complicated and difficult. The patient's condition gave rise to anxiety on several occasions during labour. Delivery was finally accomplished after craniotomy. The patient died a week later from toxæmia and septic infection of the uterus.

(3) This was an emergency case of acute eclampsia. The patient was admitted in a comatose condition and died within a few hours in spite of treatment. Delivery had not taken place.

(4) This was a case of toxæmia and liver necrosis. Acute heart failure occurred during delivery by forceps under a general anaesthetic after prolonged labour.

There were 60 cases of stillbirth (6·2 per cent.), a decrease of 12 from the previous year. The causes of stillbirth were as follows :—

Maceration	..	..	..	6
Syphilis	..	..	..	2
Foetal ascites	..	..	..	1
Anencephaly	..	..	..	3
Hydrocephalus and Spina bifida				3
Prematurity	..	..	..	11
Ante-partum haemorrhage			..	7
Prolapsed cord	..	..	..	4
Craniotomy	..	..	..	1
Protracted labour		..	..	8
Difficult labour	..	..	..	9
Complicated breech presentations				5
				—
Total	..	..		60
				==

Thirty-three children died within 10 days of birth. The causes of death were :—

Prematurity	..	..	..	22
Debility from birth	..	..		6
Congenital syphilis	..	..		1
Convulsions	..	..	..	1
Meningocele	..	..	..	1
Gastro-intestinal haemorrhage	..			1
Maternal toxæmia	..	..		1
				—
				33
				==

There were no cases of ophthalmia neonatorum.

The ante-natal clinic has been well attended. New cases are seen on Wednesday mornings at 10 o'clock, and subsequent attendances are made on Monday and Friday afternoons at 2 o'clock. In all 1,002 women were registered and 5,114 attendances were recorded. Of the patients delivered in hospital, 896 had attended the clinic, this being equal to 93.2 per cent. of the deliveries.

A great many cases are abnormal, but in a considerable proportion the abnormality is slight and is dealt with by advice as to diet, mode of life, etc. More serious cases are admitted to hospital.

A regular post-natal clinic has not yet been established but in specific instances women are asked to attend again later so that their progress may be followed up.

Mental Wards.—The Mental Wards have always been part of the hospital administration at St. James's Hospital, and to preserve continuity, Section 19 of the Mental Treatment Act, 1930, was adopted and all powers conferred by virtue of the Poor Law were transferred thereby.

The following table shows statistics of admissions to and discharges from the Mental Wards for the year 1934.

	Men.	Women.	Total.
Remaining in hospital on 31st December 1933,	111	117	228
Admitted from outside	219	221	440
Transferred from hospital general wards ..	53	76	129
Total admissions and transfers	272	297	569
Total treated during 1934	383	414	797
Discharged to Mental Hospital as certified cases	77	89	166
Discharged to Mental Hospital as temporary patients	5	12	17
Discharged to Mental Hospital as voluntary patients	7	5	12
Discharged to Mental Deficiency Authority ..	4	3	7
Transferred to hospital general wards ..	72	106	178
Discharged c/o friends, &c.	93	52	145
Died	19	24	43
Total	277	291	568
Remaining in hospital on 31st December, 1934	106	123	229

The average annual number of admissions to the Mental Wards during the past 8 years has been 580. The majority of patients come in under Section 20 of the Lunacy Act, *i.e.* by virtue of a 3 day's detention order issued by the General Relieving Officer. There are also many cases, chiefly of a temporary nature, which occur as the result of illness, and where it is impossible for the patients to be nursed in ordinary general wards. Very few cases are decided within the 3 days allowed under Section 20, the fullest use being made of the extension of 14 days provided under Section 24. Frequently a case proves to be one of a relatively transitory nature and many cases improve to such an extent during that period that their further treatment can be carried out in the general medical wards.

In cases where treatment must of necessity be prolonged, transfer to a mental hospital is arranged, and in 1934, under all

categories, 195 were so transferred. The introduction of the "temporary" and "voluntary" classes, by virtue of the 1930 Act, is now beginning to have more appreciable effect, and it is anticipated that future years will show an increased number of transfers under those headings. It must, however, be borne in mind that many cases in elderly people, which, in other circumstances, might be included amongst the "temporary" cases, are dealt with throughout in the mental and other wards here. It is also clear that the number of voluntary patients transferred must be limited, as most of this type go direct to a mental hospital without being admitted to the observation wards at St. James's.

The average number of cases detained under long orders in the mental wards is 110 women and 100 men.

Occupation is provided for the men in the shape of gardening, work in the grounds, certain classes of portering and, for those who are capable of undertaking it, workshop occupation. For the past few years all mattresses for the various hospitals have been made in this department. In addition, upholstery repair work, cleaning and renovation of carpets and the like are carried on. The women are occupied during the morning in domestic duties for the most part and in laundry work in the case of 13 to 18. In the afternoons a handicraft class is held and many useful articles are made.

Pathological Department.—The increased output of work during 1933 was maintained and, in fact, exceeded in 1934. During the past year it became necessary, owing to the pressure, to make certain restrictions in the facilities. The activities are reviewed in the following sections:—

A.—*Routine Clinical Investigations.*—The total for the year amounted to 7,040. In previous years the figures were: 3,395 (1930); 4,966 (1931); 5,456 (1932); and 6,958 (1933).

B.—*Post-mortem Examinations.*—During the past year the number of post-mortem examinations rose to a record figure of 297, an increase of 62 or 26 per cent. Whilst this appears to be a small increase when compared with the routine examinations, it represents a considerable amount of extra work. The number of cases followed by histological examination of selected tissues was

maintained at 80 per cent. and involved the preparation of over 2,000 histological specimens. The museum now contains about 200 selected specimens and deserves adequate space. A catalogue is in preparation.

C.—*Special Investigations and Research.*—This section has had to receive scanty attention during the past year owing to the pressure of work already described.

Dr. Polson applied a glycine tolerance test of liver efficiency to a series of patients. This test failed to be of use because it was impracticable to administer adequate doses of glycine subcutaneously. A few positive results were obtained but in other cases having frank liver disease the test was negative.

Dr. Polson began an observation of the blood and urinary changes in chronic liver damage.

The following papers, based on morbid material obtained at post-mortem in this hospital, were published by Dr. Polson during 1934 :—

- (1) "Haemochromatosis—a review." *Queen's Medical Magazine.*
- (2) "The Causes of Sudden Death." *Queen's Medical Magazine.*

D.—*External Activities.*—The hospital collection of cancers of the lung was exhibited at the meeting of the Association of Physicians in Leeds, at the opening ceremony of the Algernon Firth Institute of Pathology in Leeds and before the Pathological Society of Great Britain and Ireland.

The hospital continued to co-operate with the Medical School of the University of Leeds, and with other investigators in the elucidation of pathological problems affecting various organs of the body.

Comments on the future of this department will be found in the body of the report following.

X-Ray Department.—The increasing amount of work in this department makes it necessary, apart altogether from any future developments such as are discussed later, to advise the extension of the sessions of the radiologist and the appointment of an additional radiographer.

The figures for the last few years are given in the following table :—

		Patients X-Rayed.		Patients Screened { Included in preceding figure.
1929	..	1,095	..	154
1930	..	1,280	..	150
1931	..	1,504	..	238
1932	..	1,681	..	290
1933	..	1,864	..	271
1934	..	2,236	..	298

Massage Department.—The number of patients treated was 550. The number of treatments given is shown in the following table :—

Massage	..	..	12,828
Exercises	..	..	1,759
Radiant Heat	..	..	572
Electrical	..	..	3,101
Medical Diathermy..			436
Ultra-violet Radiation			2,247

Almoner's Department.—The transfer from the Public Assistance Committee involved the institution of this department. Before the end of the year two lady almoners with the necessary clerical assistance had been appointed and installed. As the department had only been in existence for three months, no report is made for the present.

General Review and Recommendations.—A review of the year's work shows that the hospital is taking an ever increasing part in the treatment of illness amongst the people of Leeds. It is necessary, therefore, to consider the position with regard both to accommodation and to equipment, if the standard of service is to be maintained at the high level that should be expected of the hospital.

To take accommodation first, there is frequently a heavy call on certain departments, particularly amongst those dealing with adult

patients. It has at times been necessary to have a short waiting list of less urgent cases, but the period of waiting, with very few exceptions, has never been more than a few days. There is no apparent danger of an acute shortage of beds, owing to the reconstruction which is to be undertaken at St. George's Infirmary, and which will add approximately 140 beds to the present provision. This will allow a transfer of chronic cases and so increase the beds available for acute cases, although a portion of the 140 beds will be required to augment the present accommodation for chronic sick.

The more pressing problem of accommodation at the moment, as it has been for some time past, is the housing of the nursing staff. An extension to the Nurses' Home, was opened in November, 1926, but this was filled at once by nurses who had been accommodated elsewhere, and there has been a steady increase in the staff to meet the very much heavier demands of the altered type of work, with the immensely larger proportion of acute cases. It is universally accepted as a principle that each nurse should have her own bedroom, but at present there are between 70 and 80 bedrooms shared by two nurses. It is clear, therefore, that enlargement of the Nurses' Home is required to supply the needs of the staff as it now exists. It is also necessary, to take into account the provision that must be made for a staff of considerably larger size. The manner in which the hospital work is developing means, inevitably, that more nurses will be required; in fact, considerations of space alone have been responsible for holding up certain very important improvements. It is estimated that 150 extra rooms form the minimum requirement for the near future and that ultimately a further 50 may be needed. In addition to the rooms now required to give each nurse of the present staff a bedroom, one must take notice of the fact that additional trained staff is required and has been advised by the Ministry of Health's Medical Officer.

Additional pupil midwives will have to be engaged and extra nurses will have to be appointed to the theatre and X-ray staffs when these departments develop. The number of probationers should be increased, to improve their working conditions and to allow for such things as the relief of staff for meals during the night. The present facilities for recreation are not adequate

and something in the nature of a hall is required to provide relaxation for the nurses by way of games and the like. It may be stated that at one time there was a hall available but this had to be surrendered for other purposes.

A further requirement is a larger dining room. The present room is insufficient and is steadily becoming less and less adequate as the number of nurses grows.

There appears to be no reason to doubt the adequacy of the ground-space at our disposal to bring about these additions.

If the accommodation for patients is adequate, the same cannot be said with regard to certain other sections of the hospital's work. It is suggested that fresh and additional accommodation for the undermentioned is now becoming imperative :—

1. Operating theatres.
2. Laboratory and teaching accommodation.
3. X-ray department.
4. Massage and Electro-therapy.
5. Mortuary.

The position now is that there is but one operating theatre, and all kinds of surgical operations and other forms of treatment have to be carried out there. It is possible for only one team to be working at a time, and this is not infrequently a handicap and an embarrassment, particularly in view of the increasing number of emergency operations. The number of operations has increased by nearly 100 per cent. during the last three years. Further development of work and appointment of additional consultant surgical staff are limited by our inability to cope with any more work under the present arrangements. It is considered that a suite of three theatres is required. The present theatre can be utilized for minor surgery and, possibly, in association with work that will develop should anything in the nature of casualty reception be undertaken.

The pathological department is at present housed in a part of the building which, geographically and otherwise, falls naturally within the boundary of the North Lodge. The work has outgrown the accommodation available and by far the most satisfactory

development is the provision of a new laboratory built specifically for the purpose. With it could be combined provision for the practical and theoretical instruction of nurses.

As for the X-ray department, there is now a constant pressure and the number of patients examined is increasing steadily, and will continue to increase so long as the admissions to the hospital are increasing, which is a condition likely to exist for some years to come. More room and more apparatus are essential and it is not possible to accommodate these in or near the present department.

The department for massage and electro-therapy likewise requires new quarters, which should be in association with the X-ray department.

As to the mortuary, this occupies an inconvenient site and in other ways is unsatisfactory. It is now some time since provisional plans were drawn up, but owing to the transfer of the hospital to the Health Committee and other developments, these have been held in abeyance. It is considered that a fresh building should be erected in association with the new laboratory.

It is not necessary that all departments mentioned should be housed in separate buildings. In fact, with the exception of the mortuary, it is possible to combine in one or two buildings the entire construction. There is adequate space for this purpose.

A development which must also be considered by the Committee relates to the maternity department. The present accommodation consists of general wards adapted for the exigencies of midwifery. This means that the wards are much larger than is desirable in a maternity department. This did not matter very much when the number of cases dealt with was comparatively small, but now that approximately 1,000 confinements are conducted in the year, it is necessary to face the question of the suitability of the department. It has to be stated that any considerable increase in the number of deliveries must be viewed with a certain amount of apprehension. It is considered that the maximum number that can be conducted with safety has now been reached. It is therefore necessary that thought should be given to the problem and to the possibility of the creation of a properly designed and up-to-date maternity block.

ST. MARY'S INFIRMARY.

The following table gives statistics of admissions to and discharges from St. Mary's Infirmary during 1934 :—

	Men	Women	Children	Total
Remaining in hospital on 31st December, 1933	58	134	16	208
Admitted during the year ..	421	960	116	1,497
Births	..	..	386	386
Total admissions and births ..	421	960	502	1,883
Total treated during 1934 ..	479	1,094	518	2,091
Discharged during 1934 ..	242	748	483	1,473
Died during 1934	185	209	19	413
Total discharges and deaths ..	427	957	502	1,886
Remaining in hospital on 31st December, 1934	52	137	16	205

The average number of beds occupied during the year was 226 ; the highest number being 265 on 18th February, and the lowest 209 on 28th October. The beds available number 251, excluding cots in the maternity ward. The average duration of stay was 40 days.

The total admissions, viz. 1,883, show an increase over the previous year of 366.

The principal item in the admission list is, of course, the maternity patients ; 402 women were confined during the year. There were 19 stillbirths and 3 cases of twins, so that the number of live births was 386.

There were 10 cases of puerperal pyrexia and one of puerperal fever, all of whom recovered. The causes of stillbirth were :—

Ante-partum hæmorrhage	..	1
Encephaly		3
Prematurity		3
Protracted and difficult labour	..	10
Complicated breech		1
Craniotomy		1
		—
		19
		—

Five infants died within 10 days of birth, one from intestinal bleeding, two from prematurity and two debility from birth.

The ante-natal clinic, which is held on Wednesday mornings at 10 o'clock, was attended by 203 women, the total number of attendances recorded being 1,058. This clinic is held in the "bungalow," which enables the patients to be kept away from the maternity department until such time as they are due for admission.

DISEASES FROM WHICH PATIENTS SUFFERED.

DISEASE.	Adults.	Children.	Total.	DISEASE.	Adults.	Children.	Total.
INFECTIOUS DISEASES :—				NERVOUS SYSTEM :—			
Erysipelas	3	..	3	Cerebral Thrombosis	65	..	65
Measles	..	43	43	" Softening	6	..	6
German Measles	..	6	6	" Hæmorrhage	9	..	9
Scarlet Fever	1	..	1	Senile Dementia	1	..	1
	4	49	53	Primary Dementia	1	..	1
INFLUENZA	5	1	6	Epilepsy	4	1	5
TUBERCULOSIS :—				Paralysis Agitans	2	..	2
Pulmonary	147	..	147	Post-encephalitic Parkinsonism ..	1	..	1
Non-Pulmonary :—				Spastic Paraplegia	2	..	2
Hip	3	..	3	Progressive Muscular Atrophy ..	1	..	1
Spine	2	..	2	Neuritis	1	..	1
Peritoneum	1	..	1	Neurasthenia	14	..	14
	6	..	6	Hysteria	2	..	2
MALIGNANT DISEASE :—				Pseudoangina	1	..	1
Cancer of Lip	1	..	1	Tachycardia	1	..	1
" Tongue	4	..	4	Spina Bifida	..	1	1
" Palate	1	..	1		111	2	113
" Stomach	14	..	14	RESPIRATORY SYSTEM :—			
" Maxillary Antrum ..	1	..	1	Bronchitis	99	9	108
" Oesophagus	1	..	1	Lobar Pneumonia	17	6	23
" Colon	8	..	8	Broncho Pneumonia	14	6	20
" Rectum	2	..	2	Empyema	..	1	1
" Pancreas	4	..	4	Pleurisy	4	..	4
" Lung	1	..	1	" with effusion	2	..	2
" Breast	12	..	12	Bronchiectasis	1	..	1
" Uterus	9	..	9	Asthma	4	..	4
" Vulva	2	..	2		141	22	163
" Kidney	1	..	1	CIRCULATORY SYSTEM :—			
" Glands of Neck ..	2	..	2	Valvular Heart Disease	18	..	18
" Skin	1	..	1	Cardiac Myopathy	50	..	50
" Scrotum	1	..	1	Arterio-Sclerosis	236	..	236
Rodent Ulcer	1	..	1	Coronary Thrombosis	3	..	3
	66	..	66	Thrombo-Phlebitis	1	..	1
RHEUMATISM :—				Aortitis	1	..	1
Acute Rheumatism	8	..	8	Pernicious Anæmia	4	..	4
Acute Rheumatic Carditis ..	2	..	2	Hodgkin's Disease	1	..	1
Chorea	2	2	4	Splenomegaly	1	..	1
Fibrositis	4	..	4	Melæna Neonatorum	..	1	1
Myalgia	3	..	3		315	1	316
Osteoarthritis	5	..	5	DIGESTIVE SYSTEM :—			
Rheumatoid Arthritis ..	13	..	13	Oesophageal stricture	1	..	1
	37	2	39	Dyspepsia	3	..	3
DISEASES CONNECTED WITH				Gastritis	3	2	5
PREGNANCY AND CHILDBIRTH :—				Duodenal Ulcer	1	..	1
Puerperal Pyrexia	10	..	10	Catarrhal Jaundice	2	..	2
" Fever	1	..	1	Cholecystitis	1	..	1
Albuminuria of Pregnancy ..	6	..	6	Cholelithiasis	1	..	1
Pyelitis	1	..	1	Pancreatitis	1	..	1
Threatened Abortion	1	..	1	Gastro-Enteritis	..	3	3
Subinvolution	1	..	1	Colitis	2	..	2
Anæmia following Abortion ..	1	..	1	Tapeworm	1	..	1
	21	..	21	Inguinal Hernia	2	..	2
INJURIES, ETC. :—					18	5	23
Contusions	6	1	7	GENITO-URINARY SYSTEM :—			
Concussion	5	..	5	Nephritis	17	..	17
Fractures :—				Pyonephrosis	1	..	1
Humerus	1	..	1	Cystitis	2	..	2
Tibia and Fibula	3	..	3	Enlarged Prostate	6	..	6
Fibula	1	..	1	Dysuria	1	..	1
Skull	1	..	1	Phimosis	..	1	1
Spine	1	..	1	Ovarian Cyst	1	..	1
	18	1	19	Menorrhagia	2	..	2
					30	1	31

DISEASES FROM WHICH PATIENTS SUFFERED.—(Continued).

DISEASE.	Adults.	Children.	Total.	DISEASE.	Adults.	Children.	Total.
SEASES OF SKIN :—				MOTHERS DISCHARGED FROM			
Eczema	3	4	7	MATERNITY WARD AND NOT			
Exogenic Dermatitis	2	..	2	INCLUDED IN ABOVE FIGURES :—			
Furunculosis	1	..	1	Delivered in Hospital	385	..	385
Herpes	1	..	1	" before admission	2	..	2
Impetigo	..	5	5		387	..	387
Lipoma	1	..	1				
Pediculosis	..	1	1				
Ulcer	3	..	3				
	11	10	21	CHILDREN DITTO :—			
SCCELLANEOUS DISEASES :—				Born in Hospital	..	383	383
Abscess	2	..	2	Born before admission	..	2	2
Cellulitis	2	..	2		..	385	385
Septic finger or toe	..	2	2				
Sinus of Hip	1	..	1	CASES OF PREGNANCY DISCHARGED			
Ischio-Rectal Abscess	2	..	2	BEFORE DELIVERY	25	..	25
Tonsillitis	2	1	3				
Otitis Media	1	1	2				
Dacryocystitis	1	..	1				
Synovitis	1	..	1				
Debility	12	3	15				
" Collapse "	1	..	1				
No Disease	1	5	6				
Children admitted with mother	..	4	4				
Prematurity	..	5	5				
Debility from Birth	..	2	2				
Diabetes Mellitus	14	..	14				
Lyxœdema	1	..	1				
Post-Appendicectomy	1	..	1				
	42	23	65	TOTAL	1,384	502	1,886

CAUSES OF DEATH

DISEASE.	Adults.	Children.	Total.	DISEASE.	Adults.	Children.	Total.
INFECTIOUS DISEASES :—				NERVOUS SYSTEM—continued.			
Measles	..	10	10	Spastic Paraplegia	2	..	2
TUBERCULOSIS :—				Progressive Muscular Atrophy ..	1	..	1
Pulmonary	55	..	55	Spina Bifida	..	1	1
Hip Joint	1	..	1		62	1	63
Spine	1	..	1	RESPIRATORY SYSTEM :—			
	57	..	57	Bronchitis	23	..	23
MALIGNANT DISEASE :—				Lobar Pneumonia	7	..	7
Cancer of Lip	1	..	1	Broncho-Pneumonia	9	1	10
" " Tongue	4	..	4		39	1	40
" " Palate	1	..	1	CIRCULATORY SYSTEM :—			
" " Maxillary Antrum	1	..	1	Valvular Heart Disease	8	..	8
" " Esophagus	1	..	1	Cardiac Myopathy	30	..	30
" " Stomach	11	..	11	Arterio-Sclerosis	106	..	106
" " Colon	4	..	4	Coronary Thrombosis	3	..	3
" " Rectum	2	..	2	Aortitis	1	..	1
" " Pancreas	3	..	3	Pernicious Anæmia	3	..	3
" " Lung	1	..	1	Hodgkin's Disease	1	..	1
" " Breast	7	..	7	Melæna Neonatorum	..	1	1
" " Uterus	6	..	6		152	1	153
" " Kidney	1	..	1	DIGESTIVE SYSTEM :—			
" " Scrotum	1	..	1	Cholelithiasis	1	..	1
Rodent Ulcer	1	..	1	Colitis	1	..	1
	45	..	45		2	..	2
RHEUMATISM :—				GENITO-URINARY SYSTEM :—			
Rheumatic Endocarditis	1	..	1	Nephritis	13	..	13
Rheumatoid Arthritis	7	..	7	Cystitis	2	..	2
	8	..	8	Enlarged Prostate	2	..	2
MENTAL DISEASES :—					17	..	17
Primary Dementia	1	..	1	MISCELLANEOUS :—			
INJURY, ETC. :—				Cellulitis	1	..	1
Arterio-Sclerosis and Fall	2	..	2	Diabetes Mellitus	8	..	8
NERVOUS SYSTEM :—				Prematurity	..	4	4
Cerebral Thrombosis	44	..	44	Debility from Birth	..	2	2
" " Hæmorrhage	9	..	9		9	6	15
" " Softening	2	..	2	TOTAL	394	19	413
Paralysis Agitans	2	..	2				
Post-encephalitic Parkinsonism ..	1	..	1				
Epilepsy	1	..	1				

Table showing causes of death in children under one year :—

Prematurity	4
Debility from birth	2
Spina bifida	1
Melæna neonatorum	1
Broncho pneumonia	1
Measles	2
	—
	11
	—

The arrangement whereby cases of tuberculosis are admitted has been functioning throughout the year and 147 cases of pulmonary tuberculosis were admitted. The patients are chiefly such as are suffering from advanced disease and are unlikely to benefit by sanatorium treatment, but others are admitted who are waiting admission to Killingbeck. The accommodation set aside for tuberculosis was inspected by the Ministry of Health and approved just at the end of the year.

ST. GEORGE'S INFIRMARY.

The number of admissions during the year was 279 and the number of discharges and deaths 249, the deaths numbering 61. The average number of beds occupied was 146, the highest number being 160 and the lowest 135. The beds available for hospital purposes number 177.

Children discharged during the year numbered 114, of whom 31 had suffered from rheumatic conditions and 35 from chest disease; 74 adults were discharged and 61 died.

The average duration of stay was 172 days.

The principal source of admissions was convalescent children from St. James's Hospital, but the use of the children's block was restricted by the prevalence of infectious disease and the necessity of preventing as far as possible its introduction amongst the convalescents. Towards the end of the year the children's block was cleared and cases of scarlet fever were admitted from Seacroft Hospital to relieve pressure there, and enable additional beds to be devoted to the treatment of diphtheria.

The portion of St. George's Infirmary, that was formerly the institution, is now empty. It is proposed that during 1935 reconstruction will begin and, ultimately, approximately 140 beds will be available for the accommodation of chronic sick patients.

Tuberculosis.

TUBERCULOSIS.

The total number of names on the register on December 31st, 1934 was 3,112 as compared with 3,294 at the corresponding period of last year, a decrease of 182.

There were added to the register during the year on account of fresh notifications and inward transfers 789 names, and removed from the register on account of cancellations owing to death, removal from the city, and cure or change in diagnosis, 971 names. The register is kept fully up-to-date and it should be noted that the number of cases entered therein, namely 3,112, is lower than in any year since 1925, when the register was revised. The actual number of names on the register on December 31st, 1925 was 7,599.

The following table shows the number of cases on the register at the end of each year since 1925.

Year.			Number of Cases.	Increase or decrease compared with the previous year.
1925	..	..	7,599	—
1926	..	..	8,288	+ 689
1927	..	..	8,337	+ 49
1928	..	..	7,867	- 470
1929	..	..	6,076	- 1,791
1930	..	..	5,248	- 828
1931	..	..	4,109	- 1,139
1932	..	..	3,495	- 614
1933	..	..	3,294	- 201
1934	..	..	3,112	- 182

The progressive decrease is gratifying as showing that notwithstanding the handicaps of bad housing, unemployment, and economic distress, the efforts of the Department through its Tuberculosis Scheme to keep the disease within control have not been unavailing.

Statistics.—Notifications.—During the year 617 cases of pulmonary and 172 of non-pulmonary tuberculosis were notified, making a total of 789 cases of which 468 were males and 321 females. Compared with the previous year this is a decrease of 15 in the number of pulmonary and an increase of 21 in non-pulmonary notifications and compared with the average of the previous five years a decrease of 34 pulmonary and 7 non-pulmonary.

Notifications of tuberculosis received during the year.

PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males ..	2	7	28	75	63	69	73	45	17	379
Females	1	5	29	80	63	24	24	7	5	238
Totals..	3	12	57	155	126	93	97	52	22	617

NON-PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males ..	2	19	30	21	8	6	2	..	1	89
Females	3	13	26	24	13	2	2	..	..	83
Totals ..	5	32	56	45	21	8	4	..	1	172

TUBERCULOSIS.

YEAR.	DEATHS.						NOTIFICATIONS.					
	Pulmonary tuberculosis.		Non-pulmonary tuberculosis.		All forms tuberculosis.		Pulmonary tuberculosis.		Non-pulmonary tuberculosis.		All forms tuberculosis.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Cases.	Case-rate.	Cases.	Case-rate.	Cases.	Case-rate.
1924	513	1.09	144	0.31	657	1.40	1,191	2.53	180	0.38	1,371	2.91
1925	511	1.08	88	0.19	599	1.27	1,720	3.64	149	0.32	1,869	3.96
1926	477	1.01	108	0.23	585	1.24	1,299	2.74	161	0.34	1,460	3.08
1927	457	0.96	101	0.21	558	1.17	811	1.70	155	0.32	966	2.02
1928	453	0.95	89	0.19	542	1.14	766	1.61	158	0.33	924	1.95
1929	508	1.06	113	0.24	621	1.30	743	1.55	156	0.33	899	1.88
1930	432	0.90	101	0.21	533	1.11	642	1.34	251	0.52	893	1.87
1931	439	0.90	88	0.18	527	1.08	666	1.37	176	0.36	842	1.73
1932	386	0.80	107	0.22	493	1.02	574	1.18	162	0.33	736	1.52
1933	412	0.85	87	0.18	499	1.03	632	1.30	151	0.31	783	1.61
1934	392	0.81	70	0.14	462	0.95	617	1.27	172	0.35	789	1.62

PULMONARY TUBERCULOSIS.

AGES AT DEATH.

1934.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	1	1	..	8	23	96	97	14	240
Females	4	1	2	19	28	67	26	5	152
TOTALS	5	2	2	27	51	163	123	19	392
Average 10 years 1924-1933	10	4	6	44	57	182	138	18	459

NON-PULMONARY TUBERCULOSIS. DEATHS.

1934	Tubercular meningitis.	Abdomin- al.	Bones and Joints.	Other tuber- culosis.	Total.
Males ..	18	5	7	8	38
Females ..	17	1	6	8	32
Totals ..	35	6	13	16	70

AGES AT DEATH.

1934	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	14	3	3	3	1	7	4	3	38
Females	9	6	1	3	5	4	3	1	32
Totals ..	23	9	4	6	6	11	7	4	70
Average 10 years 1924-1933	41	11	7	10	7	14	10	3	103

Of the total cases of pulmonary tuberculosis notified during the year 11.7 per cent. were children under 15 years and 88.3 per cent. persons over 15 years, the same percentages as for the previous year. The age group responsible for the largest number of notifications (155) was 15-25 and for the smallest 0-1 (3 only), whilst between 1-5 the cases numbered 12.

As regards the non-pulmonary type of case, 54.1 per cent. were children under 15 years and 45.9 per cent. persons over 15. The corresponding figures for the previous year were 53.6 per cent. and 46.4 per cent. respectively. As a comparison with the pulmonary groups it might be pointed out that between 15-25 the notifications numbered 45, between 1-5, 32, and under one, 5.

The vulnerability of the young adult to pulmonary tuberculosis has been remarked upon in previous reports. For some reason or another, not as yet quite clear, the young person, especially of the female sex, between the age 15-25 exhibits a tendency to the disease which does not obtain in the other age groups. Not only so, but his response to treatment is neither so certain nor so good. He is, of course, subject to stresses and strains which at other age periods are much less intense. Precisely at what period infection takes place is difficult to say, but in all probability, it is at some time prior to adolescence, probably during early childhood or school life. If this surmise is correct, the obvious approach to the problem is through the school child, who should have such careful medical surveillance as will detect the signs and symptoms of the disease in its very early stages.

Of the total cases notified 607 were by medical practitioners and 182 came from institutions.

The number of cases of pulmonary tuberculosis not heard of until the time of death was 8, the number of non-pulmonary 27, and there was one posthumous notification of pulmonary tuberculosis, making a total of 36. This is a decrease of 36 on the figure for the previous year.

The table on page 136 gives the deaths from all forms of tuberculosis with the year of notification. Out of a total of 462 deaths from tuberculosis of all forms 175, or 37.9 per cent., were notified in the same year as death occurred, 32, or 6.9 per cent., in the same month, and 65, or 14.1 per cent., in the same week. In the previous year there were 170, or 34.1 per cent., notified in the same year as death occurred, 31, or 6.2 per cent., in the same month, and 44, or 8.8 per cent., in the same week.

TUBERCULOSIS—DEATHS AND RATES IN WARDS.

MUNICIPAL WARD.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		All Forms Tuberculosis.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
Mill Hill and South..	18	1·13	3	0·19	21	1·32
Westfield	22	1·12	4	0·20	26	1·32
Blenheim	15	0·66	2	0·09	17	0·75
Central	24	1·14	5	0·24	29	1·37
Woodhouse	10	0·53	3	0·16	13	0·69
North	7	0·45	..	..	7	0·45
Far Headingley ..	9	0·49	1	0·05	10	0·55
Hyde Park	7	0·43	3	0·18	10	0·61
Kirkstall	11	0·56	4	0·20	15	0·76
Burmantofts	24	1·03	1	0·04	25	1·07
Harehills	13	0·66	2	0·10	15	0·76
Potternewton ..	12	0·61	3	0·15	15	0·77
Roundhay	2	0·13	..	..	2	0·13
Cross Gates and Templenewsam ..	9	0·62	2	0·14	11	0·76
Richmond Hill ..	36	1·46	12	0·49	48	1·95
Osmondthorpe ..	26	1·18	3	0·14	29	1·32
East Hunslet ..	10	0·54	3	0·16	13	0·70
Hunslet Carr and Middleton	20	0·98	4	0·20	24	1·18
West Hunslet	18	0·99	..	..	18	0·99
Beeston	7	0·46	2	0·13	9	0·59
Holbeck (South) ..	15	1·05	2	0·14	17	1·18
Holbeck (North) ..	20	1·08	1	0·05	21	1·14
Armley and New Wortley	19	0·93	..	..	19	0·93
Upper Armley	13	0·76	1	0·06	14	0·82
Bramley	12	0·68	3	0·17	15	0·85
Farnley and Wortley	13	0·69	6	0·32	19	1·01
City	392	0·81	70	0·14	462	0·95

An analysis of the notifications in age groups will be found in the table on page 129.

Deaths.—The total deaths from tuberculosis of all types during the year numbered 462 of which 278 were males and 184 females. In the previous year the total was 499 of which 282 were males and 217 females. Of the total, pulmonary tuberculosis accounted for 392, or 84·8 per cent., and non-pulmonary 70, or 15·2 per cent. The death-rate from pulmonary tuberculosis was 0·81 and from non-pulmonary 0·14, making a total death-rate from all forms of the disease of 0·95, as compared with 0·85, 0·18 and 1·03 respectively for the previous year. Set against the average rates of the previous five years, they represent a decrease of 0·09 in the pulmonary rate and 0·07 in the non-pulmonary, making a total decrease for all forms of the disease of 0·16. The death-rate for tuberculosis of all forms (0·95) was the lowest on record and the first time in the history of the city that it has been less than one. The credit for this is due mostly to the decline in the non-pulmonary rate which last year reached low water mark, though the pulmonary rate participated in the decrease but not to the same extent.

Comparative rates, England and Wales, and other towns.—The provisional death-rates for England and Wales for the year were from pulmonary tuberculosis 0·63, from non-pulmonary 0·13, making a total death-rate from all forms of 0·76. Comparing these rates with Leeds it will be noted that the Leeds rates were higher by 28·6 per cent. in the case of pulmonary tuberculosis, by 7·7 per cent. in non-pulmonary, and 25·0 per cent. in all forms of the disease.

With reference to the death-rate from pulmonary tuberculosis it will be noted on referring to the table on page 32 that among the large towns of England and Wales, Leeds occupied seventh place, the towns with lower rates being in order, Sheffield, Bradford, Birmingham, Bristol, London and Nottingham, and with higher Stoke-on-Trent, West Ham, Hull, Manchester, Newcastle and Liverpool.

Death-rates in Wards.—The wards with the highest death-rates from pulmonary tuberculosis were Richmond Hill (1·46), Osmondthorpe (1·18), Central (1·14), Mill Hill and South (1·13), and Westfield (1·12), whilst those with the lowest were Roundhay (0·13), Hyde Park (0·43), North (0·45), Beeston (0·46) and Far Headingley (0·49).

The tables on pages 132 and 130 give the analysis of the deaths in the various wards and age groups.

Occupational Incidence and Mortality.—For the occupation of persons notified during the year as suffering from tuberculosis of all forms and those dying from the disease, see page 137.

Institutional Accommodation for Tuberculosis.—Cases of pulmonary tuberculosis requiring institutional treatment are sent to one or other of the two sanatoria provided by the city, Killingbeck or Gateforth. The former has 220 beds, of which an average of 202 were occupied by pulmonary cases during the year, whilst the latter has 54 beds devoted to the treatment of adult pulmonary and non-pulmonary cases as they arise, of which an average of 52 were occupied during the year.

In September application was made to the Minister of Health for his approval of a ward of 24 beds at St. Mary's Infirmary being used for the reception of cases of chronic tuberculosis. The addition of these beds has already proved of very great service as they have released valuable beds in the sanatoria and enabled them to be used for earlier and more hopeful cases.

Work on the construction of a new female block of 100 beds at Killingbeck was commenced in September and is still in progress. It is hoped that the block will be completed and occupied by the end of the current year.

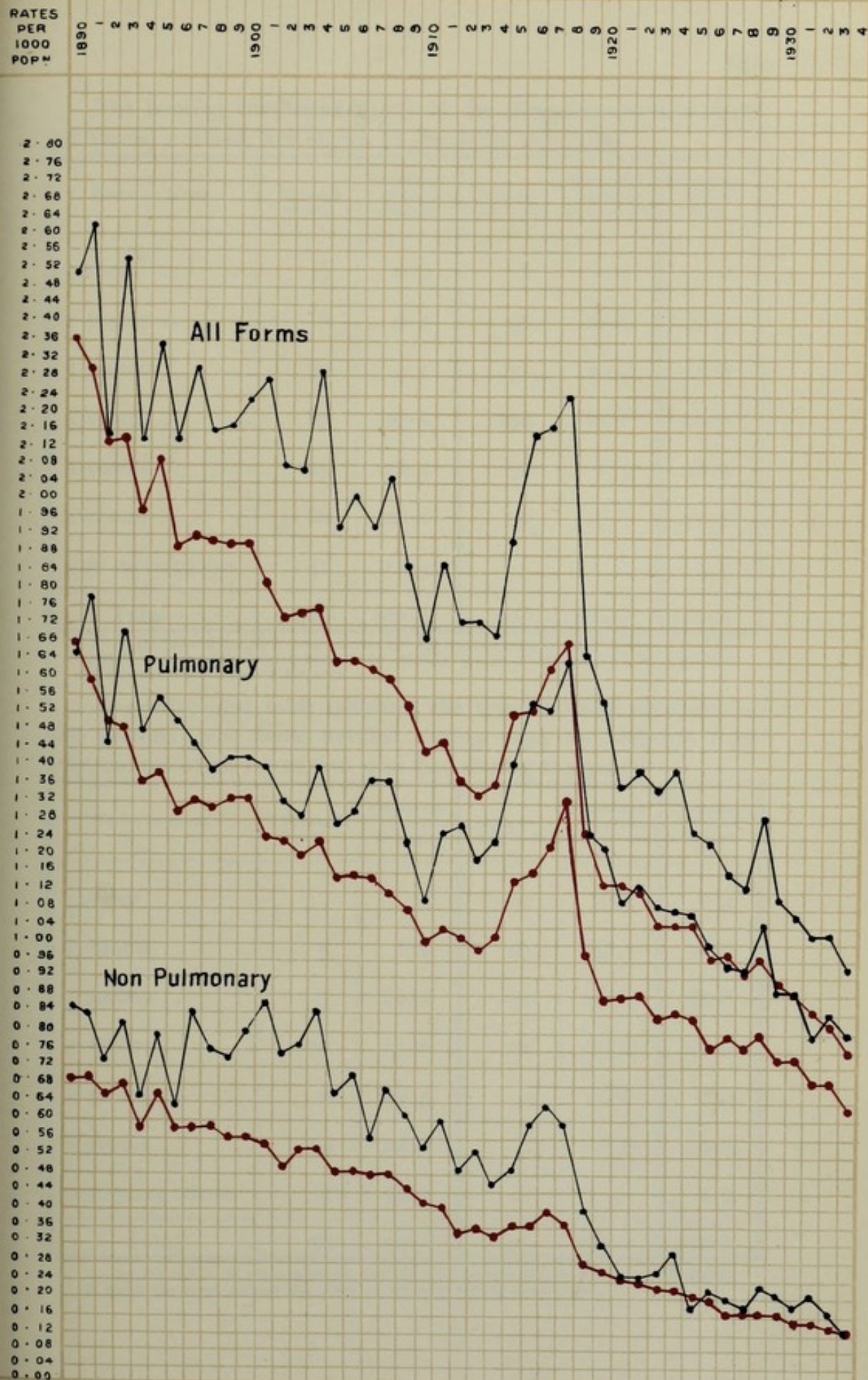
Early or suspected tuberculosis in children is treated in the children's sanatorium at "The Hollies" which possesses 40 beds of which an average of 38 were occupied during the year.

Surgical cases of tuberculosis are treated at the Marguerite Home, Thorp Arch, and the Lord Mayor Treloar's Hospital, Alton, Hampshire. The number of beds reserved for these cases in the former is 25 and in the latter a varying number which averaged 8 during the year 1934.

For further details with respect to institutional treatment, see pages 148, 150 and 155.

Public Health Act, 1925, Section 62.—No action was necessary under this section during the year.

TUBERCULOSIS DEATH RATE. - 1890 - 1934.



LEEDS — BLACK.
ENGLAND & WALES - RED.

THE UNIVERSITY OF CHICAGO
LIBRARY

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The housing conditions of 751 of the 789 cases of tuberculosis (all forms) notified, are shown in the table subtended :—

Rooms in house.	Through house.	Percentage of total throughs.	Back-to-back house.	Percentage of total back-to-back.	Percentage of total cases.
1 room	3	0·9	6	1·4	1·2
2 rooms	8	2·4	97	22·9	14·0
3 rooms	30	9·1	171	40·4	26·8
4 rooms	87	26·5	109	25·8	26·1
5 rooms	93	28·4	31	7·3	16·5
6 rooms	66	20·1	9	2·1	10·0
7 or more rooms	41	12·5	..	..	5·5
Total	328	100·0	423	100·0	100·0

In addition to the 328 through houses and 423 back-to-back houses, there were 38 cases notified from common lodging houses, etc., making a total of 789 cases of all forms of tuberculosis notified during the year.

The sub-joined table indicates the type of house occupied by 165 persons who were notified during 1934 as suffering from tuberculosis of all forms and who died during the year :—

Rooms in house.	Through house.	Percentage of total throughs.	Back-to-back house.	Percentage of total back-to-back.	Percentage of total deaths.
1 room	..	..	2	1·9	1·2
2 rooms	5	8·6	25	23·4	18·2
3 rooms	7	12·1	52	48·6	35·8
4 rooms	16	27·6	21	19·6	22·4
5 rooms	9	15·5	4	3·7	7·9
6 rooms	14	24·1	3	2·8	10·3
7 or more rooms	7	12·1	..	..	4·2
Total	58	100·0	107	100·0	100·0

In addition to 58 through houses and 107 back-to-back houses, there were 10 deaths in which the home address was given as common lodging houses, etc.

DEATHS FROM ALL FORMS OF TUBERCULOSIS IN 1934 WITH YEAR
OF NOTIFICATION.

Year of Notification.			No. dying in 1934.	Percentage of total deaths.
1913	..	..	1	0.2
1914	..	..	1	0.2
1915	..	..	—	—
1916	..	..	3	0.6
1917	..	..	1	0.2
1918	..	..	1	0.2
1919	..	..	1	0.2
1920	..	..	2	0.4
1921	..	..	4	0.9
1922	..	..	2	0.4
1923	..	..	2	0.4
1924	..	..	5	1.1
1925	..	..	2	0.4
1926	..	..	8	1.7
1927	..	..	7	1.5
1928	..	..	11	2.4
1929	..	..	18	3.9
1930	..	..	19	4.1
1931	..	..	22	4.8
1932	..	..	43	9.3
1933	..	..	91	19.7
1934	..	..	175	37.9
Not notified	..		30	6.5
Died outside City			13	2.8
Total ..			462	100.0

NOTIFICATIONS AND DEATHS FROM ALL FORMS OF TUBERCULOSIS
OCCURRING IN 1934 CLASSIFIED ACCORDING TO OCCUPATION.

Occupation.	Notifications.		Deaths.	
	Number.	Percentage of total Notifications.	Number.	Percentage of total deaths.
Textile Workers ..	133	16.9	81	17.5
Leather	20	2.5	11	2.4
Metal	46	5.8	33	7.1
Coal	11	1.4	10	2.2
Stone	13	1.6	8	1.7
Wood	16	2.0	12	2.6
Other dusty Trades ..	19	2.4	12	2.6
Printers	13	1.6	5	1.1
Clerks, Typists, etc. ..	35	4.4	26	5.6
House Workers ..	98	12.4	79	17.1
Nurses	8	1.0	1	0.2
Food Trades, etc. ..	18	2.3	14	3.0
Labourers	56	7.1	48	10.4
Out-door Worker ..	69	8.7	41	8.9
Various	42	5.3	30	6.5
School Age	121	15.3	15	3.2
Infants	37	4.7	28	6.1
No Occupation ..	26	3.3	8	1.7
No Trace	8	1.0	..	..
Total ..	789	100.0	462	100.0

REPORT ON THE WORK OF THE TUBERCULOSIS DISPENSARY AND SANATORIA.

BY

NORMAN TATTERSALL, M.D., B.S., *Chief Clinical Tuberculosis Officer.*

General.—The steady decline in mortality from tuberculosis for many years still continues, and in 1934, for the first time in the history of the city, the death-rate fell below 1 per 1,000 of the population, the actual figure being 0.95 and the total deaths 462.

The death-rate from tuberculosis in 25 years has been halved, the average figure for the two years 1908-9 was 1.98, while 25 years later the average for 1933-4 is 0.99.

For many years the tuberculosis death-rate in Leeds has been significantly higher than that of the country as a whole. During recent years there has been a gradual approximation of the curves which would seem to indicate that the adverse factors which led to the high death-rate in Leeds are gradually being eliminated. These factors are numerous, but working and housing conditions are probably the most important. The efforts now being made to clear the slums will not only result in less crowding in the individual house, but also provide more light and air for the rehoused population. This must prove a great asset in diluting the infection and assisting the further decline in the death-rate.

During the year the Public Assistance Hospitals of the city were transferred to the Health Department and the consent of the Ministry was obtained to the setting aside of 24 beds at St. Mary's Infirmary for the reception of cases with pulmonary tuberculosis. These beds have proved of considerable service, especially for those cases of advanced disease whose main requirement is that of general nursing rather than specialised forms of treatment, or whose home conditions render prompt isolation from their families essential. The full utilisation of these beds liberates a certain amount of accommodation at Killingbeck Sanatorium for the reception of cases requiring specialised treatment, especially the various forms of collapse therapy. Still, this extra provision, does not provide the city with sufficient residential accommodation for pulmonary tuberculosis, especially for males, for whom there has been a fairly heavy waiting list throughout

the year. The main factor in maintaining the shortage of beds is the increase in the average duration of treatment. This is clearly brought out in the table below, the number of patients having treatment for under three months being much reduced, with a marked increase in the percentage of those remaining in the institution for periods longer than six months.

Year.	Under 3 months.	3-6 months.	6-12 months.	Over 12 months.
1925	57·5%	39%	3%	0·5%
1934	33%	31%	23·5%	12·5%

The old popular idea of "three months" in a sanatorium is dying out and the necessity for prolonged treatment is being more fully appreciated by the patients themselves.

In the future it seems probable that the average duration of treatment will tend to increase still further and this must be taken into account in schemes of bed extension.

The new block for women patients at Killingbeck Sanatorium which is now being built will provide 100 beds for female pulmonary cases which should be sufficient to meet our needs, but for males it would appear that 30 or 40 additional beds for pulmonary cases will be required, and it is hoped that when the female block is completed steps will be taken to provide some similarly up-to-date accommodation for men.

The provision of beds for tuberculosis will not be complete until further accommodation for adult patients suffering from surgical tuberculosis is available. These cases are very difficult to treat at home and require skilled supervision over long periods. The duration of treatment in many cases can be reduced by fixation operations but treatment both before and after operation should be under sanatorium conditions. Too many of these patients spend long periods in the wards of general hospitals which are not suitable for the reception of this type of case. It would greatly add to the efficiency of the tuberculosis scheme if a special pavilion of 20 to 30 beds could be provided for such cases.

Central Tuberculosis Dispensary.—Statistical details of the work of the Dispensary for 1934 appear on pages 141 and 142.

A total of 1,423 new cases, excluding contacts, were seen during the year, being an increase of 36 over the previous 12 months. A definite diagnosis of tuberculosis was made in 591 cases (41.5 per cent. of the total) of whom 470 were suffering from pulmonary disease and 121 from various forms of non-pulmonary tuberculosis. New cases under observation at the end of the year with the diagnosis still uncertain amounted to 70.

The total number of cases remaining on the Dispensary Register at the end of the year was 2,825 which represents a slight reduction on the previous year.

Contacts.—Detailed findings of the contacts examined during the year are set out in the following table:—

“CONTACTS” FIRST EXAMINED AT CENTRAL TUBERCULOSIS DISPENSARY FROM JANUARY 1st, 1934, to DECEMBER 31st, 1934.

	New Contacts Examined.	Found Sputum T.B.+	Clinically definite, but sputum negative.	Diagnosed Non- Pulmonary Tubercle.	Found to be Non- Tubercular, lost sight of, etc.	Remaining under observa- tion.	Number admitted to Sanatoria for observation or treatment.
Males	82	2	1	..	74	5	3
Females	159	..	3	..	149	7	1
Boys	144	..	11	3	108	22	11
Girls	152	..	13	1	122	16	9
Total	537	2	28	4	453	50	24

61 cases remaining under observation on December 31st, 1933, were re-examined, with the following results:—

Definitely diagnosed as tubercular 20

Marked off as non-tubercular, died, lost sight

of, etc. 41

Remaining under observation Nil.

Total examinations made = 931 (552 cases).

Both the actual number of contacts seen during the year and the percentage found to be suffering from tuberculosis (6.3 per cent.) are lower than in the previous year.

EXTRACTS FROM THE MINISTRY OF HEALTH ANNUAL RETURN. FORM T/145. (Table A.) FOR THE YEAR ENDED 31st DECEMBER, 1934. SHOWING, UNDER HEADINGS A. AND B., THE STATE OF DIAGNOSIS AT THE END OF THE YEAR.*

A. New Cases examined during the year (excluding contacts).	PULMONARY.			NON-PULMONARY.			TOTAL.	
	Adults.		Children.	Adults.		Children.	Adults.	
	M.	F.	M.	F.	M.	F.	M.	F.
Definitely Tuberculous	284	168	12	6	27	36	311	204
Doubtfully Tuberculous	..	..	..	..	..	..	30	21
Non-Tuberculous	..	..	..	..	..	..	327	294
TOTALS	284	168	12	6	27	36	668	519
B. New Contacts examined during the year:—								
Definitely Tuberculous	3	3	11	13	..	..	3	3
Doubtfully Tuberculous	..	..	..	..	..	..	5	7
Non-Tuberculous	..	..	..	..	..	..	74	149
TOTALS	3	3	11	13	..	..	82	159
C. Cases written off Dispensary Register:—								
Recovered	135	80	29	20	25	28	160	108
Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)							443	485
TOTALS	..	..	..	..	..	..	603	593
Number of Persons on Dispensary Register:—								
Diagnosis completed	..	..	..	..	..	..	..	2,705
Diagnosis not completed	..	..	..	..	..	..	..	120
TOTAL	..	..	..	..	..	..	..	2,825

* Returns prior to 1931 have shown the diagnosis as at one month from date of first attendance.

PATIENTS (EXCLUDING CONTACTS) FIRST EXAMINED AT CENTRAL TUBERCULOSIS DISPENSARY
FROM JANUARY 1st, 1934 TO DECEMBER 31st, 1934.

PULMONARY TUBERCULOSIS.

	New patients.			Number bacteriologically positive.			Number clinically positive, but not T.B. +.			Number found to be Non-tubercular, lost sight of, etc.			Still under observation.			Number admitted to Sanatoria for treatment or observation.								
	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.				
Insured Non-Insured	549	317	..	..	153	75	..	..	81	36	..	..	291	197	..	..	24	9	..	..	150	86	..	..
	92	166	96	82	35	40	4	3	15	17	8	3	36	97	73	69	6	12	11	7	33	21	24	31

OTHER FORMS OF TUBERCULOSIS.

	New patients.			Bones and Joints.			Abdominal			Other Organs.			Glands.			Number admitted to Sanatoria.				
	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.
Insured	22	25	..	..	8	4	..	..	4	9	..	..	4	4	..	..	6	8	..	..
	5	11	27	31	1	5	7	12	..	2	7	7	3	1	..	11	1	3	13	11
Non-Insured																				

Total attendances at Central Tuberculosis Dispensary for—

(a) Light treatment	..	4,290
(b) Other special treatments	..	2,973
(c) Ordinary clinics	..	7,377
(d) X-ray ..	..	1,685
		<u>16,325</u>

Total Number of Clinical Examinations (included in attendances)

6,645

Number of cases making the clinical attendances (excluding Light and Special treatments)

3,429

The most important group of contacts are the young adults, and yet these are the very patients who are most reluctant to attend for examination. For the most part they have just left school or have recently entered industry and are rather resentful of medical inspection when they feel perfectly well. It is, however, from this group that acute cases of young adult tuberculosis mainly arise and it is probable that a more intensive investigation, especially by X-ray, would bring to light many "latent" apical infections which are quite symptomless but which are capable of extremely rapid development under conditions of stress and reinfection.

If the existence of such foci of disease could be ascertained it would be possible to pilot such individuals through a period of danger by the avoidance of those influences most likely to lead to activation.

Tuberculous Meningitis.—In last year's report detailed reference was made to enquiries instituted into the source of infection in all cases of tuberculous meningitis. A further 36 cases occurred during 1934. In 18, the source of infection was traced, 14 of them to known cases of pulmonary tuberculosis, and 4 to the milk supply or perhaps it might be more accurate to say that in 4 cases the evidence pointed to the milk supply being the source of infection.

Home Visiting by Medical Staff.—The medical staff paid 827 visits to patients in their homes. Of these 30 were for artificial pneumothorax inductions or refills, 77 for personal consultation with the patient's doctor, and 25 for various forms of special treatment.

Treatment.—Treatment by artificial pneumothorax continues to absorb a large proportion of the time available for treatment, the number of refills is still increasing, although in quite a number of cases the collapsed lung has been allowed to expand after treatment over a period of several years. The total of 967 refills done at the Dispensary shows an increase of 20 per cent. on the previous year.

Injectations of various gold salts are still being carried out with considerable benefit in some cases, its value being most noticeable for the control of spread in the contra-lateral lung during the course of pneumothorax treatment.

Phrenic evulsion in selected cases is carried out at St. James's Hospital and will probably be used in the future in an increasing number of pneumothorax cases when refills are discontinued.

The Mantoux tuberculin test is applied largely to contact and other children and much statistical information on the incidence of first infection, and its extent amongst young children, is being accumulated.

Many other minor surgical measures were carried out such as application of plaster and splints, aspiration of abscesses, and injections of gold, tuberculin, etc. The total attendances for such treatment amounted to 1,076.

Review of Babies Born into Tuberculous Households.—Babies born into known tuberculous families during 1925-29 have been followed up for a period of five years from birth. This investigation has now been completed and final statistical results are being prepared for separate publication.

Artificial Sunlight.—The treatment of suitable non-pulmonary cases by Carbon Arc and Kromayer lamps has been continued under the care of Dr. Jackson. A new super-Kromayer lamp was installed in March, replacing an old pattern, and results have certainly justified the change.

The number of cases treated was 134 (48 continued from last year, and 86 new cases) a total of 4,290 attendances being recorded.

There remained 50 cases under treatment at the year end, 68 completed courses of treatment, and 16 ceased attendance for various reasons.

Dental Department.—The Dental Officer, Mr. W. L. Fleming, L.D.S., attends the Dispensary for two sessions each week, and on other days available to the Department visits the various sanatoria.

Details of treatment given are shown in the following table :—

	Extractions.	Fillings and Scalings.	Dentures.	Total Attendances.
Dispensary ..	383	44	72	535
Killingbeck ..	368	46	24	516
" The Hollies "	(Treatment given at the Dispensary).			95

X-Ray Department.—The existing plant was overhauled and modernised early in the year, dressing cubicles built and steel cabinets provided for storage and indexing of films. Patients made 1,685 attendances and 2,093 films were taken, in addition to numerous screenings of artificial pneumothorax and other cases.

Most of the work in this Department has been done by Dr. Thompson whose skill is a valuable asset in this important part of our Dispensary routine.

Health Visitors.—The staff of nine health visitors remains unchanged. They made 17,573 visits to the homes of patients; 723 to complete environmental reports, 16,698 to cases on the Dispensary Register and 152 to other notified cases.

The services of the various District Nursing Associations was continued or requested in 89 cases, and the monthly lists record 4,160 visits.

Clerical.—Much useful information was obtained from the 950 forms G.P. 36 completed by Panel Doctors under the National Health Insurance Regulations, and only eight were outstanding at the year end.

The Divisional Medical Officers of the Ministry of Health (Insurance Department) have been supplied with reports on 23 cases, only half the number requested during 1933.

Full co-operation has been maintained with all other Health Services in the city. The Medical section of the Education Department was supplied with 1,261 reports on children of school age.

The number of forms and reports for tuberculous ex-servicemen required by the Ministry of Pensions has considerably decreased, only 62 being completed during the year.

When doctors send cases to the Dispensary full details of our clinical, X-ray, and other findings are sent, followed by periodical reports concerning the patients progress and treatment should a definite diagnosis be established. These amounted to 2,171 and 2,184 respectively.

Miscellaneous correspondence accounted for 2,887 letters and 12,059 post-cards.

Care Work.—The almost numberless ways in which the Care Committee help our patients has been increased by the administration of an Allotment scheme. Suitable plots of land are obtained near the patients' homes, tools and seeds provided, so that suitable cases may have exercise in the open air and at the same time help towards the maintenance of their families by growing vegetables, etc.

Valuable assistance is also given by this Voluntary Committee in arranging periods of convalescent treatment for approved cases, and in administering the nourishment grant.

During the year 1,418 patients have been assisted in various ways as shown below :—

	Cases.
Convalescence arranged	71
Nourishment granted	515
Bed, bedding and sick-room requisites supplied	69
Clothing granted	171
Financial aid or food grants	100
Home helps supplied, or other assistance given	348
Assessments made for surgical appliances and dental treatment	96
Grants made to Ex-servicemen from the " Gerich Fund " (A bequest)	48

At Christmas 327 parcels of suitable food were distributed at a cost of £47 raised by voluntary collections and special contributions.

The Committee have lost two loyal and generous supporters by the removal from Leeds of Councillor and Mrs. Clegg, whose places will be difficult to fill.

The Factory-in-the-Field.—There has been no change in the working arrangements. The firewood and firelighter departments employed the largest number; the brushmaking and printing sections remained constant.

The staff at the year end was made up as follows :—

Department.	Tuberculous.		Non-Tuberculous.	
Firewood and firelighters	..	22	..	2
Brushmaking	..	4	..	2
Printing	..	5	..	1
Other Employees	..	2	..	6
		—		—
		33	..	11
		==		==

Tuberculous Employees.—Patients are seen periodically at the Dispensary and the Manager informed of any change in the working capacity of the individual. During the year 42 patients have been employed at varying periods, 33 remaining on the roll. Of the 9 who ceased work, 1 was fit for the open labour market, 1 proved unsuitable, and 7 broke down in health (3 of these died later in the year).

Loss of Time due to Tuberculous Disability.—Of the 33 tuberculous employees remaining on the pay roll at the year end only 6 had been off work by reason of ill-health during the year, as shown in the following table :—

			No. Employed.	Worked Full Time.	Absent owing to to sickness.
Firewood Department—					
(All males)—					
Canvassers	..	5	..	5	.. —
Bundlers, etc.	..	11	..	10	.. 1 lost 65 days.
Labourers	..	4	..	2	.. 2 lost 126 days.
Firelighter Department—					
Male	..	1	..	1	.. —
Female	..	1	..	1	.. —
Brush Department—					
Males	..	4	..	4	.. —
Printing Department—					
Males	..	2	..	2	.. —
Females	..	3	..	1	.. 2 lost 38 days.
Other Employees—					
Males	..	2	..	1	.. 1 lost 7 days.

The average time lost per head amongst the above workers was 7.15 days in the year. The respective figure for each section being Firewood 9.5, Firelighter and Brushmaking nil, Printing 7.6, others 3.5.

"The Hollies."—This institution continues to be used as a "Preventorium" where infected children are sent to remove them from home contact and build up their resistance, or suspected children are kept under observation for the purpose of establishing a diagnosis.

During the diphtheria epidemic in the latter half of the year 12 cases, definite or suspected, were removed to the City Isolation Hospital. This was the only outbreak of infectious disease during the year.

School Report.—Every opportunity was taken during the fine summer to hold class sessions out-of-doors, and the children greatly enjoyed practical work in the gardens.

The following details have been furnished by the Head Teacher :—

Number of children admitted to the school register, 107.
(Boys 46 and girls 61).

Number of school sessions, morning 253, afternoon 253,
Total 506.

Total number of attendances 15,556 average attendance
per session 31.

Average number on the school register 36.46.

The happy atmosphere of this institution is a constant tribute to the patience, care, and tact of the nursing and teaching staff.

"The Hollies" Sanatorium School.

PERIOD ENDED 31st DECEMBER, 1934.

(Ministry of Health Form T.145 (D)—modified).

				Remaining Jan. 1st, 1934.	Admitted.	Discharged.	Remaining Dec. 31st, 1934.	
Pulmonary	Boys	.. {	Under 5	..	..	1	1	..
			Over 5	..	5	9	12	2
	Girls	.. {	Under 5	..	2	2	3	1
			Over 5	..	7	18	15	10
Non-Pulmonary	Boys	.. {	Under 5	..	2	..	2	..
			Over 5	..	5	7	4	8
	Girls	.. {	Under 5	..	1	..	1	..
			Over 5	..	2	9	7	4
Observation Cases	Boys	.. {	Under 5	..	1	5	4	2
			Over 5	..	4	13	15	2
	Girls	.. {	Under 5	..	..	3	3	..
			Over 5	..	10	21	26	5
Totals				39	88	93	34	

ANALYSIS OF CASES DISCHARGED.

DURATION OF RESIDENTIAL TREATMENT.

(Ministry of Health Form T.145 (G)—modified).

			Pulmonary.			Non-Pulmonary.			Total.
			Disease Quies- cent.	Disease Im- proved.	Disease not Im- proved.	Disease Quies- cent.	Disease Im- proved.	Disease not Im- proved.	
1-3 months.	Boys	.. { Under 5	..	..	..	..	..	..	..
		.. { Over 5	..	2	..	1	..	..	3
	Girls	.. { Under 5	1	..	..	1	..	..	2
		.. { Over 5	3	2	..	..	2	..	7
3-6 months.	Boys	.. { Under 5	..	..	..	2	..	..	2
		.. { Over 5	2	..	..	1	..	..	3
	Girls	.. { Under 5	2	..	..	..	..	..	2
		.. { Over 5	4	..	..	..	..	..	4
6-12 months.	Boys	.. { Under 5	1	..	..	..	..	..	1
		.. { Over 5	6	2	..	1	..	..	9
	Girls	.. { Under 5	..	..	..	..	..	..	..
		.. { Over 5	4	1	..	5	..	..	10
Over 12 months.	Boys	.. { Under 5	..	..	..	..	..	..	..
		.. { Over 5	..	..	..	1	..	..	1
	Girls	.. { Under 5	..	..	..	..	..	..	..
		.. { Over 5	1	..	..	..	..	..	1
	Totals		24	7	..	12	2	..	45

SANATORIA.

Killingbeck Sanatorium.—The Medical Superintendent, Dr. W. Santon Gilmour, writes :—

The official accommodation remains at 220 beds, though the pressure of the waiting list has again necessitated the provision of extra beds wherever possible, so that the maximum number of occupied beds has been as high as 235. The total number of cases treated during the year was 665, comprising 284 males, 250 females and 131 children as compared with a total of 697 for the previous year. Of the 665 cases treated 51 were non-pulmonary cases, divided as follows :—Male 13, female 17, children 21. The average percentage of bed cases was 66·74.

The average length of stay was :—Non-pulmonary 54 weeks and pulmonary 27 weeks. The averages for 1933 were 57 weeks and 26 weeks respectively.

Patients to the number of 516 were examined by the Dental Surgeon during the year and 368 received treatment.

Other Work Done :—

Pneumothorax and air replacement 45 cases—690 refills.

Gold cases 90—853 injections.

Phrenic evulsion, 42.

Operations other than phrenic evulsion, 25.

Examinations of sputa, pus, etc., at Leeds Medical School and St. James's Hospital, 17.

Sputum examinations at Killingbeck, 643.

X-ray examination 451 films—586 screenings.

Treatment of cases of pulmonary disease continued to be carried out on the same lines as in previous years. Patients are accommodating themselves better to the most valuable form of treatment, *i.e.* rest. The increase this year in the length of stay and average number of bed cases reflects this and does not therefore indicate an increase in the number of serious cases. Ancillary treatment in the form of artificial pneumothorax, surgical methods

of collapse, and gold therapy has been applied in as many cases as possible and is a very valuable aid to treatment. The number of non-pulmonary cases is higher than last year. Many cases with bone disease have had operations aiming at a more rapid and permanent cure of the disease. This to a certain extent relieves the pressure on beds, but even then their period of stay at Killingbeck is a long one, the average being more than twice that of then pulmonary cases. There is, therefore, a very definite need of special separate accommodation which would relieve the beds now occupied by surgical cases for the use of pulmonary cases and provide facilities for the specialised nursing and treatment of surgical cases.

In the near future the new female block of 100 beds will provide extra accommodation that should cope with the demand of female pulmonary disease. The position, however, on the male pulmonary side will not be so satisfactory and will need consideration. Extra and better accommodation—irrespective of any relief afforded in the event of the separation of the surgical cases—is required.

Equipment.—Two carbon arc sun-ray lamps were installed at the end of the year to meet a need that has existed for some time.

An annexe has been built on to the existing central kitchen; the kitchen floor has been laid in tiles, and some new cooking equipment provided. This reconstruction has greatly aided the efficiency of this important department. At the same time a dining room connected to the annexe is being built for the Domestic Staff; this when completed will relieve the present dining room of its dual purpose of dining room and sitting room.

A start was made in September on the site of the new female ward and considerable headway has been made in spite of weather conditions.

School Report.—The work in the school during the past year has been satisfactory. The surgical cases received instruction in the Ward, other children attended the school. The fine weather of the summer and autumn enabled the work to be carried on out

of doors. One boy was sent to Burrow Hill Colony to take a commercial course. The various crafts taught are a source of pleasure to the children while music, dancing, and games are a pleasant diversion in the curriculum.

Acknowledgments.—Thanks are again due to the concert parties and others who entertained the patients during the year. The Honorary Chaplain, the Rev. Edmund Beabey, A.K.C., rendered very valuable help in the arrangement of these parties.

Thanks are also due to the friends and firms who provided gifts for the patients' comfort at Christmas and during the year.

The Sewing Guild is producing satisfactory results; the Guild workers and the Nursing Staff take a great interest in the provision and organisation of work for the patients.

I wish to thank the staff at Killingbeck for their loyalty during the year and the staffs of the Health Department, the Tuberculosis Dispensary, and St. James's Hospital for their kind co-operation.

Killingbeck Sanatorium.

GRADE OF EXERCISE ATTAINED BY ADULT CASES.

					Males.	Females.	Total.
No exercise	..	..	..	..	27	44	71
Walking	..	..	..	..	23	12	35
Work	{ Grade A.*				29	34	63
	{ Grade B.†				12	..	12
	{ Grade C.‡				27	..	27
Treatment not completed	..	..	..	..	20	22	42
Total					138	112	250

* Light work in wards and garden, or vocational.

† Slightly heavier than "A."

‡ Moderately heavy work in wards and garden.

Killingbeck Sanatorium.

PERIOD ENDED 31ST DECEMBER, 1934.

(Ministry of Health Form T.145 (D)—modified).

				Remain- ing Jan. 1st, 1934.	Admitted.	Discharged	Died.	Remain- ing Dec. 31st, 1934.
Pulmonary.	Males	..	..	85	174	132	46	81
	Females	..	..	74	151	103	49	73
	Boys	..	{ Under 5	..	2	..	..	2
		..	{ Over 5	..	18	23	..	17
	Girls	..	{ Under 5	..	1	..	..	1
		..	{ Over 5	..	16	15	2	15
Non-Pulmonary	Males	..	..	7	6	6	..	7
	Females	..	..	6	11	9	..	8
	Boys	..	{ Under 5	..	1	2	..	1
		..	{ Over 5	..	4	1	..	7
	Girls	..	{ Under 5	..	2	1	..	1
		..	{ Over 5	..	6	3	..	5
Observation Cases.	Males	..	..	3	9	7	3	2
	Females	..	..	2	6	7	..	1
	Boys	..	{ Under 5	..	2	2	..	..
		..	{ Over 5	..	12	16	..	2
	Girls	..	{ Under 5	..	1	3	..	..
		..	{ Over 5	..	9	11	..	1
Totals				233	432	341	100	224

ANALYSIS OF CASES DISCHARGED.

DURATION OF RESIDENTIAL TREATMENT.

(Ministry of Health Form T.145 (G)—modified).

		Pulmonary Tb. Disease.						Non-Pulmonary Tb. Diseases.			Total.
		T.B. Minus.			T.B. Plus.			Quies-cent.	Im-proved.	Not Im-proved.	
		Quies-cent.	Im-proved.	Not Im-proved.	Quies-cent.	Im-proved.	Not Im-proved.				
1-3 months.	Males	3	..	..	..	14	8	..	..	1	26
	Females	2	1	..	1	10	6	..	1	..	21
	Children { Under 5	..	..	..	..	..	..	..	..	..	..
		Over 5	3	2	..	..	..	1	..	..	..
3-6 months.	Males	5	5	..	4	28	6	..	..	..	48
	Females	7	1	..	2	17	11	1	..	..	39
	Children { Under 5	..	..	..	..	..	..	..	..	..	..
		Over 5	4	1	..	..	..	..	1	1	..
6-12 months.	Males	5	1	..	3	21	6	1	..	1	38
	Females	2	2	..	3	11	5	3	..	1	27
	Children { Under 5	..	..	..	..	..	..	1	1	..	2
		Over 5	4	3	..	..	1	..	1	..	..
Over 12 months.	Males	..	..	..	1	8	6	2	1	..	18
	Females	..	..	..	..	5	5	3	..	..	13
	Children { Under 5	..	..	..	..	..	..	1	..	..	1
		Over 5	10	1	..	..	..	..	1	..	..
	Totals	45	17	..	14	115	54	15	4	3	267

Gateforth Sanatorium (Males only).

PERIOD ENDED 31ST DECEMBER, 1934.

(Ministry of Health Form T.145 (D) modified).

	Remaining Jan. 1st, 1934.	Admitted.	Dis- charged.	Died.	Remaining Dec. 31st, 1934.
Pulmonary ..	39	98	88	2	47
Non-Pulmonary ..	2	4	3	..	3
Observation Cases..	7	20	24	..	3
Totals	48	122	115	2	53

ANALYSIS OF CASES DISCHARGED.

DURATION OF RESIDENTIAL TREATMENT.

(Ministry of Health Form T.145 (G)—modified).

PULMONARY T.B. DISEASE.							NON-PULMONARY T.B. DISEASES.			Total.
	T.B. Minus.			T.B. Plus.			Quies- cent.	Im- proved.	Not Im- proved.	
	Quies- cent.	Im- proved.	Not Im- proved.	Quies- cent.	Im- proved.	Not Im- proved.				
1-3 months ..	8	4	2	..	5	4	..	1	..	24
3-6 months ..	3	7	..	..	13	6	..	..	..	29
6-12 months..	3	4	..	1	7	3	..	..	..	18
Over 12 mths.	2	4	..	..	5	3	..	..	1	15
Total ..	16	19	2	1	30	16	..	1	1	86

GRADE OF EXERCISE ATTAINED BY PATIENTS ON DISCHARGE.

Cases who completed treatment. Grade.						Treatment not completed.	Total.
1	2	3	4	5	6		
3	2	8	3	5	26	44	91

NOTE.—Patients take walking exercise until 2 hours per day are done without symptoms. Six grades of manual work are then carried out, the last grade involving 6 hours normal work without any rest period.

Gateforth Sanatorium.—The Resident Medical Officer, Dr. A. C. Meek, writes :—

The accommodation which has been fully taxed throughout the year, remains the same, viz. 54 beds for adult males. Treatment has continued on the usual lines of walking exercise and graduated labour, preceded, if necessary, by a period of rest in bed. A few cases have also been treated by artificial pneumothorax, and an increasing number by injections of Myocrisin ("gold treatment"), both of which methods have given encouraging results.

Many improvements have been carried out, including the provision of modern apparatus for the destruction of sputum and the sterilisation of sputum vessels, the alteration and extension of the pig-styes, and the erection of a new lantern light in the entrance hall. New flooring has been laid down in the front hall, the medical room, the ward on the ground floor, and the Nurses' service pantry.

Towards the end of the year work was begun on the resurfacing of all roads and paths within the Sanatorium grounds.

It is hoped that an extensive painting programme will be carried out during 1935. A motor vehicle for the carriage of patients to and from Hambleton railway station would be a desirable acquisition.

The poultry farm has had a very successful year. Egg production reached the satisfactory total of 35,696, compared with 20,221 in the previous year. Over 700 dozen eggs were sent to Killingbeck Sanatorium.

Produce to the value of £197 has been used in the Institution and £154 realised by the sale of pigs, eggs, poultry, etc.

The decomposition of hydrogen peroxide is a reaction which is very rapid in the presence of certain substances. These substances are called catalysts. The reaction is exothermic, and the heat evolved is sufficient to ignite the gas which is evolved. The reaction is also catalyzed by certain metal ions, such as iron, copper, and manganese. The reaction is also catalyzed by certain organic substances, such as enzymes.

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Maternity and Child Welfare.

MATERNITY AND CHILD WELFARE.

The most notable achievement in the section of Maternity and Child Welfare during the year was the reduction of the infant mortality rate to 71, only three per thousand higher than the lowest rate on record—68 in 1930. Even so, the Leeds rate still compares very unfavourably with that of the majority of the large towns and with that of England and Wales as a whole.

Statistics.—The number of children under one year of age who died in 1934 was 513 (males 282 and females 231) as compared with 537 (males 295 and females 242) for 1933. The infant mortality rate was 71 as compared with 81 for the previous year and an average of 82 for the previous five years.

Compared with the other large towns in England and Wales, Leeds had the highest infant mortality rate with the exception of Liverpool, Newcastle and Stoke-on-Trent.

The rate for England and Wales was 59 or 16.9 per cent. lower than the rate for Leeds.

Causes of Death.—The principal causes contributing to the infant death-rate in order of numerical importance were premature birth, diarrhoea and enteritis, pneumonia and congenital malformations. An examination of the list of causes of death given on page 168 discloses the fact that 77, or 15.0 per cent., of the total deaths of children under one year of age were due to the respiratory group of diseases—pneumonia, bronchitis, whooping cough, and influenza. Last year the number was 106, or 19.7 per cent., and the average for the previous five years was 144 or 24.5 per cent.

Prematurity was the most important single cause of death, the number of deaths attributed to it being 121 or 23.6 per cent. of the total as compared with 134 or 25.0 per cent. for the previous year.

The following table shows the number of deaths from prematurity and the death-rates per thousand births for the years 1924-1934.

Year.	Births.	Deaths from prematurity.	Death-rate per 1,000 births.
1924	8,558	144	16·8
1925	8,180	146	17·8
1926	8,065	149	18·5
1927	7,790	146	18·7
1928	7,665	169	22·0
1929	7,426	173	23·3
1930	7,568	152	20·1
1931	7,219	114	15·8
1932	7,004	128	18·3
1933	6,643	134	20·2
1934	7,190	121	16·8

The average death-rate per thousand births for the ten years 1924-1933 was 19·1.

Diarrhoea and enteritis was the second most important single cause of death, 72 deaths, or 14·0 per cent. of the total being attributable to this disease as compared with 97, or 18·1 per cent., for the previous year and an average of 87 or 13·1 per cent. for the previous decade.

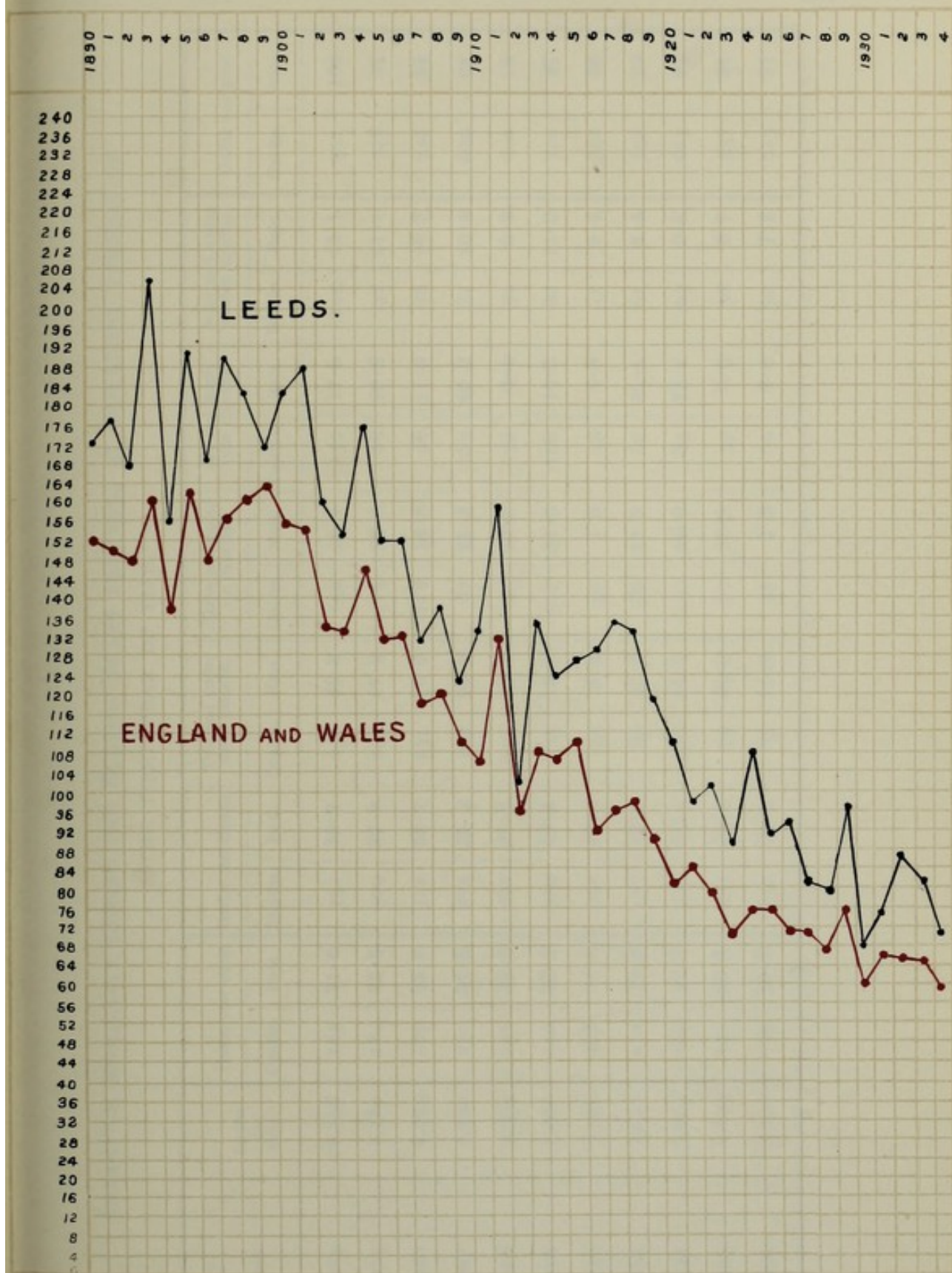
The deaths from pneumonia (all forms) numbered 54, or 10·5 per cent. of the total deaths under one year, as compared with 75 or 14·0 per cent. for the previous year and an average of 105 or 15·9 per cent. for the previous decade.

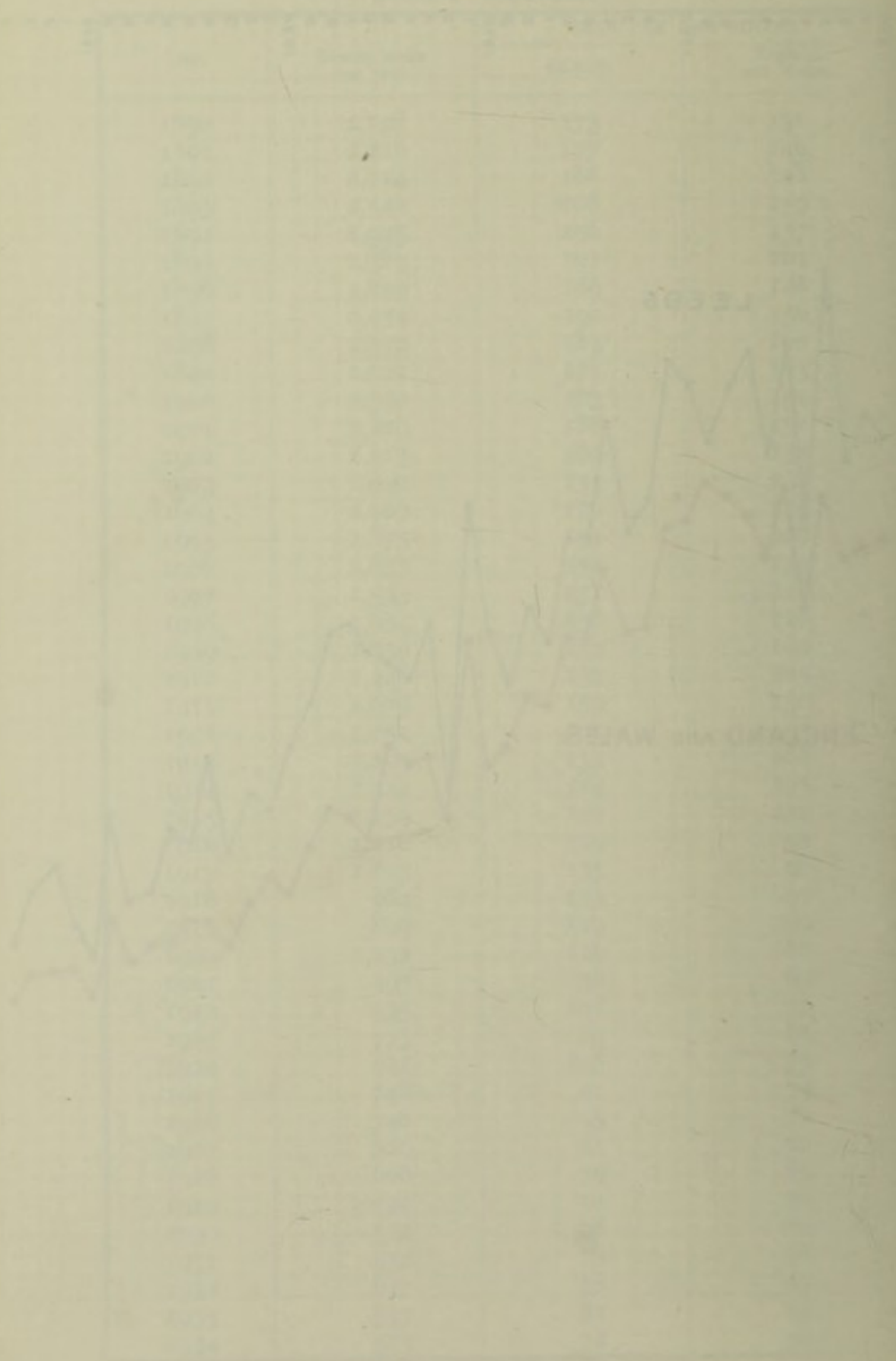
Deaths in Age Groups.—Of the total (513) infant deaths, 87, or 17·0 per cent., took place on the first day of life; 185, or 36·1 per cent., in the first week; 252, or 49·1 per cent., in the first month; 85, or 16·6 per cent., between one and three months; 55, or 10·7 per cent., between three and six months; 69, or 13·5 per cent., between six and nine months; and 52, or 10·1 per cent. between nine and twelve months.

INFANT MORTALITY.

Year.	Deaths under one year.	RATE PER 1,000 BIRTHS.	
		LEEDS.	England and Wales.
1890	2,128	173	151
1891	2,216	177	149
1892	2,114	168	148
1893	2,542	206	159
1894	1,945	156	137
1895	2,384	191	161
1896	2,120	169	148
1897	2,454	190	156
1898	2,372	183	160
1899	2,222	172	163
1900	2,397	183	154
1901	2,429	188	151
1902	2,113	160	133
1903	1,992	153	132
1904	2,207	176	145
1905	1,875	152	128
1906	1,837	152	132
1907	1,533	131	118
1908	1,654	138	120
1909	1,350	123	109
1910	1,446	133	105
1911	1,679	159	130
1912	1,051	102	95
1913	1,469	135	108
1914	1,324	124	105
1915	1,253	127	110
1916	1,216	129	91
1917	1,023	135	96
1918	984	133	97
1919	899	119	89
1920	1,232	110	80
1921	997	98	83
1922	935	101	77
1923	773	89	69
1924	921	108	75
1925	748	91	75
1926	748	93	70
1927	629	81	70
1928	606	79	65
1929	722	97	74
1930	512	68	60
1931	552	76	66
1932	617	88	65
1933	537	81	64
1934	513	71	59

INFANT MORTALITY PER 1000 BIRTHS, 1890 - 1934.





INFANTILE MORTALITY DURING THE ELEVEN YEARS 1924-1934 AT DIFFERENT PERIODS OF
THE FIRST YEAR OF LIFE.

YEAR.	Births in year.	Under one week.		Under one month.		One and under three months.		Three and under six months.		Six and under nine months.		Nine and under twelve months.		Under one year.	
		Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
1924	..	185	21.6	331	38.7	156	18.2	155	18.1	150	17.5	129	15.1	921	108
1925	..	184	22.5	309	37.8	141	17.2	119	14.5	88	10.8	91	11.1	748	91
1926	..	187	23.2	312	38.7	134	16.6	118	14.6	96	11.9	88	10.9	748	93
1927	..	170	21.8	274	35.2	103	13.2	87	11.2	84	10.8	81	10.4	629	81
1928	..	201	26.2	286	37.3	102	13.3	94	12.3	72	9.4	52	6.8	606	79
1929	..	210	28.3	314	42.3	111	14.9	107	14.4	108	14.5	82	11.0	722	97
1930	..	208	27.5	291	38.5	74	9.8	57	7.5	49	6.5	41	5.4	512	68
1931	..	172	23.8	233	32.3	92	12.7	86	11.9	80	11.1	61	8.4	552	76
1932	..	189	27.0	255	36.4	110	15.7	100	14.3	85	12.1	67	9.6	617	88
1933	..	175	26.3	243	36.6	99	14.9	80	12.0	57	8.6	58	8.7	537	81
1934	..	185	25.7	252	35.0	85	11.8	55	7.6	69	9.6	52	7.2	513	71

The percentage changes in the infant death-rates per 1,000 births in 1934 as compared with the average of the previous ten years are as follows :—

Under 1 week, increase	4.0%	3-6 months, decrease ..	42.4%
Under 1 month decrease	6.4%	6-9 ,, ,, ..	15.8%
1-3 months ,,	19.7%	9-12 ,, ,, ..	27.3%
Whole year decrease, 18.4%			

It is interesting to note the changes which have taken place at the various age periods of infancy since the quinquennium 1905-1909. These are set out in the table on page 167. The quinquennial average has been taken in order to make a better comparison.

Neo-Natal Death-rate.—The number of deaths of infants occurring in the first month was 252, or 9 more than the previous year, and the neo-natal rate was 35.0

Of the total deaths under one year, 49.1 per cent. occurred in the first month as compared with 45.3 per cent. for the previous year, and of the deaths in the first month 34.5 per cent. occurred on the first day, 73.4 per cent. in the first week, and 86.1 per cent. in the first two weeks.

The deaths in the first month were largely due to prematurity and other congenital defects. (*Vide* table on page 184).

Illegitimate Death-rate.—Of the 381 illegitimate births, 54 or 14.2 per cent., died before reaching the age of one year which is equal to an infant mortality rate of 142. This is a decrease of

25 per thousand as compared with 1933 and an increase of one as compared with 1932.

Death-rate in Quarters.—The infant mortality rate for the four quarters of the year is given in the accompanying table.

	I.	II.	III.	IV.	Year.
1924	171	83	68	109	108
1925	84	62	100	126	91
1926	120	78	75	100	93
1927	104	70	66	83	81
1928	84	60	77	99	79
1929	142	84	79	84	97
1930	80	62	54	76	68
1931	105	62	57	83	76
1932	103	77	74	100	88
1933	107	62	67	90	81
1934	91	53	70	72	71

The infant mortality rate for the second and fourth quarters is the lowest on record.

Maternal Mortality.—The number of mothers who lost their lives in childbirth during the year was 29, an increase of two on the figure for 1933. The maternal mortality rate per thousand live births was 4.03 as compared with 4.06 for the previous year and an average of 4.24 for the previous five years. Calculated on the total number of births (live and still) the rate for the year was 3.86 as compared with 3.87 for the previous year and an average of 4.04 for the previous five years.

The following table shows the maternal mortality rate per thousand live births and per thousand total (live and still) births for the last six years.

MATERNAL MORTALITY.

Year.	No. of deaths.	Rate per 1,000 live births.	Rate per 1,000 total (live and still) births.
1929	33	4.44	4.23
1930	32	4.23	4.05
1931	39	5.40	5.14
1932	21	3.00	2.86
1933	27	4.06	3.87
1934	29	4.03	3.86

There was only one death among unmarried mothers. The death-rate per thousand illegitimate births was 2.62 as compared with a rate of 4.11 for married mothers. Last year the death-rate of unmarried mothers was 5.97 and that of married mothers 3.96.

Further details on this subject will be found on page 182.

INFANTILE MORTALITY IN WARDS AT DIFFERENT PERIODS OF THE FIRST YEAR OF LIFE, CALENDAR YEAR, 1934.

WARD.	Births in year.	Under one day.		Under one week.		Under one month.		One and under three months.		Three and under six months.		Six and under nine months.		Nine and under twelve months.		Under one year.	
		Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
Mill Hill and South	252	5	19.8	7	27.8	8	31.7	1	4.0	4	15.9	2	7.9	2	7.9	17	67
Westfield ..	336	7	20.8	7	20.8	12	35.7	4	11.9	2	6.0	3	8.9	2	6.0	23	68
Blenheim ..	276	3	10.9	8	29.0	9	32.6	7	25.4	3	10.9	3	10.9	3	10.9	25	91
Central ..	344	9	26.2	10	29.1	10	29.1	4	11.6	4	11.6	10	29.1	2	5.8	30	87
Woodhouse ..	261	3	11.5	10	38.3	10	38.3	3	11.5	2	7.7	1	3.9	2	7.7	18	69
North ..	323	2	6.2	8	24.8	8	24.8	..	..	1	3.1	..	..	..	..	9	28
Far Headingley ..	205	1	4.9	4	19.5	9	43.9	..	..	1	4.9	1	4.9	1	4.9	12	59
Hyde Park ..	149	1	6.7	1	6.7	3	20.1	1	6.7	..	..	..	..	..	..	4	27
Kirkstall ..	285	4	14.0	8	28.1	11	38.6	3	10.5	3	10.5	7	24.6	2	7.0	26	91
Burmantofts ..	382	3	7.8	8	20.9	13	34.0	5	13.1	3	7.8	2	5.2	6	15.7	29	76
Harehills ..	259	6	23.2	12	46.3	17	65.6	6	23.2	2	7.7	..	..	2	7.7	27	104
Potternewton ..	222	1	4.5	6	27.0	8	36.0	1	4.5	2	9.0	..	..	2	9.0	13	59
Roundhay ..	185	1	5.4	3	16.2	4	21.6	..	..	..	..	..	..	1	5.4	5	27
Cross Gates and Templenewsam	163	1	6.1	2	12.3	2	12.3	1	6.1	..	..	1	6.1	1	6.1	5	31
Richmond Hill ..	456	8	17.5	16	35.1	20	43.9	8	17.5	4	8.8	9	19.8	6	13.2	47	103
Osmondthorpe ..	356	6	16.9	8	22.5	9	25.3	5	14.0	1	2.8	1	2.8	..	..	16	45
East Hunslet ..	271	2	7.4	5	18.5	7	25.8	4	14.8	2	7.4	5	18.5	5	18.5	23	85
Hunslet Carr and Middleton	399	6	15.0	11	27.6	14	35.1	5	12.5	4	10.0	1	2.5	3	7.5	27	68
West Hunslet ..	287	4	13.9	7	24.4	10	34.8	6	20.9	2	7.0	4	13.9	2	7.0	24	84
Beeston ..	179	2	11.2	4	22.3	5	27.9	1	5.6	2	11.2	..	..	..	..	8	45
Holbeck (South)	201	4	19.9	5	24.9	8	39.8	..	..	4	19.9	4	19.9	2	10.0	18	90
Holbeck (North)	323	3	9.3	12	37.2	21	65.0	10	31.0	2	6.2	6	18.6	4	12.4	43	133
Armley and New Wortley ..	302	..	..	5	16.6	8	26.5	2	6.6	2	6.6	5	16.6	..	..	17	56
Upper Armley ..	222	1	4.5	6	27.0	7	31.5	1	4.5	4	18.1	..	..	..	..	12	54
Bramley ..	256	2	7.8	7	27.3	11	42.9	4	15.6	..	..	2	7.8	2	7.8	19	74
Farnley and Wortley ..	296	2	6.8	5	16.9	8	27.0	3	10.1	1	3.4	2	6.8	2	6.8	16	54
City ..	7,190	87	12.1	185	25.7	252	35.0	85	11.8	55	7.6	69	9.6	52	7.2	513	71

BIRTHS AND DEATHS UNDER ONE YEAR WITH RATES.—CALENDAR YEAR 1934.

WARD.	TOTAL BIRTHS (nett).	Birth rate per 1,000 population.	No. of legitimate births.	No. of illegitimate births.	Total deaths under one year (nett).	Death rate per 1,000 births.	No. of legitimate deaths under one year.	Legitimate death rate per 1,000 legitimate births.	No. of illegitimate deaths under one year.	Illegitimate death rate per 1,000 illegitimate births.
Mill Hill and South	252	15.87	235	17	17	67	12	51	5	294
Westfield ..	336	17.05	310	26	23	68	18	58	5	192
Blenheim ..	276	12.13	222	54	25	91	15	68	10	185
Central ..	344	16.27	306	38	30	87	26	85	4	105
Woodhouse ..	261	13.86	241	20	18	69	16	63	2	100
North ..	323	20.61	307	16	9	28	8	26	1	63
Far Headingley ..	205	11.24	198	7	12	59	12	61	..	..
Hyde Park ..	149	9.08	146	3	4	27	4	27	..	..
Kirkstall ..	285	14.48	279	6	26	91	24	86	2	333
Burmantofts ..	382	16.39	365	17	29	76	26	71	3	176
Harehills ..	259	13.10	249	10	27	104	24	96	3	300
Potternewton ..	222	11.32	205	17	13	59	12	59	1	59
Roundhay ..	185	12.14	179	6	5	27	5	28	..	..
Cross Gates and Templenewsam	163	11.23	158	5	5	31	4	25	1	200
Richmond Hill ..	456	18.49	433	23	47	103	44	102	3	130
Osmondthorpe ..	356	16.21	349	7	16	45	16	46	..	..
East Hunslet ..	271	14.61	255	16	23	85	21	82	2	125
Hunslet Carr and Middleton..	399	19.58	388	11	27	68	27	70	..	..
West Hunslet ..	287	15.84	279	8	24	84	21	75	3	375
Beeston ..	179	11.75	177	2	8	45	8	45	..	..
Holbeck (South)	201	14.01	191	10	18	90	17	89	1	100
Holbeck (North)	323	17.51	305	18	43	133	39	128	4	222
Armley and New Wortley..	302	14.83	288	14	17	56	16	56	1	71
Upper Armley ..	222	13.04	213	9	12	54	12	56	..	..
Bramley ..	256	14.47	248	8	19	74	18	73	1	125
Farnley and Wortley..	296	15.81	283	13	16	54	14	49	2	154
City ..	7,190	14.79	6,809	381	513	71	459	67	54	142

PERCENTAGE CHANGES (5 YEAR PERIODS, ALSO YEARS 1930, 1931, 1932, 1933 AND 1934) IN THE INFANT DEATH-RATE PER 1,000 BIRTHS AS COMPARED WITH THE AVERAGE OF THE FIVE YEARS 1905-1909.

Five year period.	Under one week.		Under one month.		One and under three months.		Three and under six months.		Six and under nine months.		Nine and under 12 months.		Under one year.	
	Rate.	Percentage increase or decrease over 5 years period 1905-1909.	Rate.	Percentage increase or decrease over 5 years period 1905-1909.	Rate.	Percentage increase or decrease over 5 years period 1905-1909.	Rate.	Percentage increase or decrease over 5 years period 1905-1909.	Rate.	Percentage increase or decrease over 5 years period 1905-1909.	Rate.	Percentage increase or decrease over 5 years period 1905-1909.	Rate.	Percentage increase or decrease over 5 years period 1905-1909.
1905-1909	26.2	—	44.3	—	25.5	—	28.0	—	23.0	—	18.6	—	139	—
1910-1914	26.6	+1.5%	44.1	-0.5%	24.7	-3.1%	23.9	-14.6%	20.1	-12.6%	18.0	-3.2%	131	-5.8%
1915-1919	26.4	+0.8%	44.4	+0.2%	21.5	-15.7%	25.0	-10.7%	19.7	-14.3%	17.9	-3.8%	129	-7.2%
1920-1924	23.8	-9.2%	42.3	-4.5%	17.9	-29.8%	16.1	-42.5%	13.2	-42.6%	11.6	-37.6%	101	-27.3%
1925-1929	24.3	-7.3%	38.2	-13.8%	15.1	-40.8%	13.4	-52.1%	11.5	-50.0%	10.1	-45.7%	88	-36.7%
Year 1930	27.5	+5.0%	38.5	-13.1%	9.8	-61.6%	7.5	-73.2%	6.5	-71.7%	5.4	-71.0%	68	-51.1%
Year 1931	23.8	-9.2%	32.3	-27.1%	12.7	-50.2%	11.9	-57.5%	11.1	-51.7%	8.4	-54.8%	76	-45.3%
Year 1932	27.0	+3.1%	36.4	-17.8%	15.7	-38.4%	14.3	-48.9%	12.1	-47.4%	9.6	-48.4%	88	-36.7%
Year 1933	26.3	+0.4%	36.6	-17.4%	14.9	-41.6%	12.0	-57.1%	8.6	-62.6%	8.7	-53.2%	81	-41.7%
Year 1934	25.7	-1.9%	35.0	-21.0%	11.8	-53.7%	7.6	-72.9%	9.6	-58.3%	7.2	-61.3%	71	-48.9%

DEATHS FROM STATED CAUSES UNDER ONE YEAR OF AGE.

Causes of death.	Year 1933.	Year 1934.	Increase or decrease.	Percentage of total deaths under one.
Smallpox	..	..	..	..
Chickenpox	..	..	..	..
Measles	4	28	+24	5.5
Scarlet Fever	..	..	..	..
Whooping Cough	10	9	- 1	1.8
Diphtheria	2	3	+ 1	0.6
Influenza	6	1	- 5	0.2
Erysipelas	5	2	- 3	0.4
Tuberculous Diseases	10	6	- 4	1.2
Meningitis	4	4	- +	0.8
Convulsions	15	20	+ 5	3.9
Bronchitis	15	11	- 4	2.1
Pneumonia (all forms)	75	54	-21	10.5
Other diseases of Respiratory Organs	..	2	+ 2	0.4
Diarrhœa and Enteritis	97	72	-25	14.0
Gastritis	..	2	+ 2	0.4
Syphilis	5	3	- 2	0.6
Rickets	1	..	- 1	..
Suffocation, including overlying	10	14	+ 4	2.7
Injury at birth	12	20	+ 8	3.9
Atelectasis	16	21	+ 5	4.1
Congenital Malformations	38	51	+13	9.9
Premature birth	134	121	-13	23.6
Atrophy, Debility, and Marasmus	26	23	- 3	4.5
Other Causes	52	46	- 6	9.0
Totals	537	513	- 24	100.0

MATERNITY AND CHILD WELFARE SERVICES INCLUDING SUPERVISION OF MIDWIVES.

BY

GLADYS J. C. RUSSELL, M.B., Ch.B., D.P.H., *Assistant Medical
Officer of Health for Maternity and Child Welfare.*

Number of Midwives.—The total number of midwives on the register at December 31st, 1933 was 90; 26 new names were added during the year; nine did not renew their notification of intention to practise; 15 left the district, leaving a total on the register at December 31st, 1934 of 92.

The actual number of midwives who practised in the area during the year was 85 of whom 42 were attached to Institutions, Nursing Homes, Associations, etc. Eighty-three (or 97·6 per cent.) of those were trained and two (or 2·4 per cent.) untrained. The number of births attended by midwives was 2,094 or 27·2 per cent. of the total births registered as compared with 2,001 or 28·3 per cent. during the previous year.

The following table gives an analysis of the cases attended by midwives :—

TRAINED.			UNTRAINED.	
83 midwives.			2 midwives.	
Total cases attended .. 2,054			Total cases attended .. 40	
Average per midwife 25 cases.			Average per midwife 20 cases.	
No. of Cases.	Practising on their own account.	Attached to Nursing Homes or Associations.	No. of Cases.	Practising on their own account.
Over 200	..	..	Over 200	..
" 150	..	..	" 150	..
" 100	5	..	" 100	..
" 75	..	1	" 75	..
" 50	3	5	" 50	..
" 25	10	5	" 25	..
" 10	7	3	" 10	2
" 5	1	7	" 5	..
Under 5	15	21	Under 5	..

Twenty-one trained midwives (14 attached to institutions, nursing homes or Association) and one untrained took no cases during the year.

It will be noted from the table that only 5 of the 41 independent midwives had over 100 cases, that is, sufficient to give them an adequate yearly income. Three had over 50 cases, which is fairly good, but the remaining 33 had under 50 cases, and of these 15 had less than 5 cases, too small a number to provide the midwife with a sufficient income.

Inspection of Midwives.—The total number of inspections made during the year was 245, of which 172 were routine inspections, and 73 were special visits. On 78 occasions midwives were interviewed in connection with breaches of the rules of the Central Midwives Board and other minor misdemeanours; 14 were reported to the Senior Medical Officer for Maternity and Child Welfare and 11 were interviewed by her. Two midwives were reported to the Maternity and Child Welfare Committee and the Central Midwives Board, one for a breach of the rules, and the other because she had been convicted and put on probation for one year by the local Court.

Advising Medical Help.—Notifications of having advised medical assistance were received in 918 cases, which may be classified as follows:—

Illness during pregnancy or abortion	..	..	71
Malpresentation	..	..	29
Delayed or obstructed labour	..	..	167
Ruptured perineum	..	..	206
Retained membrane or placenta	..	..	14
Hæmorrhage	..	..	44
Convulsions, eclampsia	..	..	1
Puerperal rise of temperature	..	..	64
Illness of mother during puerperium	..	..	63
Illness of child	..	..	103
Infants—discharging eyes	..	..	56
Artificial feeding	..	..	21
Death of infant under ten days	..	..	25
Still-births	..	..	36
Suspected infectious disease	..	..	16
Maternal deaths	..	..	2

Midwives Emergencies.—During the year 544 claims were made by medical practitioners in the city for attendance on emergencies of labour under Section 14 of the Midwives Act, 1918, and 175 claims were brought forward from the previous year. Of these 19 were paid direct by the parent and 609 met in whole or in part by the Local Authority, at a total cost of £602 12s. 9d. At the end of the year there were 91 claims awaiting settlement.

Accouchement Sets.—During the year 136 sterilised accouchement sets were sold to mothers through the Welcomes, midwives, and Health Department. These maternity sets are of undoubted advantage to the mother, and proposals are contemplated for such sets to be given free or at assisted rates where necessary.

Nursing in the Home.—A yearly grant is paid to the Leeds District Nursing Association, who have undertaken to nurse in their own homes cases of puerperal fever, puerperal pyrexia, mastitis, ophthalmia neonatorum, pemphigus, pneumonia and otitis media. A total of 445 cases was attended to in this way during the year.

Puerperal Fever.—There were 53 cases of this disease notified during 1934, of whom 34 recovered and 13 died. In 6 cases the result is not known as the patients came from outside the city. Only one case followed abortion, the remainder were after full-time delivery. The number of cases occurring in the practice of doctors was 11, of which 7 had handywomen in attendance, in midwives' practice 10, and in institutions 32. There were 139 cases of puerperal pyrexia notified, and of these 7 died, 6 from puerperal fever. (See page 53).

The Inspector of Midwives paid a total of 97 visits for the purpose of investigating rises of temperature in the puerperium. Arrangements were made for the district nurses to take over the nursing in 17 cases.

Ten midwives were disinfected after contact with cases of puerperal fever, and 18 after puerperal pyrexia.

Ophthalmia Neonatorum.—During the year 54 cases of ophthalmia neonatorum were notified, 5 cases occurred in the practice of doctors 4 of whom had handywomen in attendance, 26 occurred in the practice of midwives, and 23 in institutions. Of the total cases, 26 were treated in hospital, and 28 were treated at home, 3 of those as out-patients at the Infirmary and 10 at the Infant Welfare Clinics. (See page 53).

Nineteen cases of ophthalmia neonatorum, and 10 cases of discharging eyes were referred to the District Nursing Association for home treatment. As a result of treatment 50 cases apparently made a complete recovery, in one case there was a corneal opacity on the right eye, and one case is still under treatment.

Pemphigus.—There were 9 cases of pemphigus brought to the notice of the Department during the year, 8 occurred in the practice of midwives and one in Hospital. One of the midwives cases died after removal to Hospital. Six midwives had isolated cases of one, and one midwife had a group of two cases.

Municipal Midwives.—There were no midwives actually employed by the Health Department, but there continued in operation the arrangement made between the Corporation and the Maternity Hospital whereby provision is made for the maintenance of district midwives in five districts in the city. The total number of cases dealt with by the Branch Midwives was 383, much the same number as last year, but still a considerable decrease on the number a few years ago.

There were only 48 cases at the Burley Road branch and 53 at the Hunslet Branch.

It is doubtful if it is worth while continuing the branches in those districts for such small numbers. Many of the areas served by the Branches are likely to be affected by the Corporation's programme of slum clearance which will entirely alter their complexion. The Burley Road (West Street Area) has already been severely pruned and not being very far distant from the Hospital might be served direct from the Hospital. It was hoped to transfer the Hunslet branch to Middleton, but nothing so far has materialised in this direction.

The deficit of the working of all the branches for the year was £420 which is borne by the Corporation under the agreement already referred to.

The five branch midwives and three independent midwives, all approved by the Central Midwives Board, take pupils for district experience.

Compensation to Midwives.—A midwife can claim compensation for the loss of a case she has sent to an ante-natal clinic, or referred to a medical practitioner, and which owing to some abnormality has had to be sent into Hospital for confinement. The number of such claims was 27 and the cost to the Corporation £27. A midwife can also claim compensation for a case lost because of her having been in contact with infection, but there were no such claims during the year.

Owing to the large number of women now falling out of maternity benefit it was agreed by the Maternity and Child Welfare sub-committee that midwives may apply for help towards the payment of their fees when such patients are in straitened financial circumstances and unable themselves to pay. Each individual case is considered on its merits, and the usual procedure is for the midwife to be paid the full fee of £2, less any part already received from the patient. The number of claims granted in those necessitous cases during the year was 15 and the total cost to the Corporation £21.

Handywomen.—During the year four handywomen were visited and warned as to limitations of practice, etc. Eight were disinfected after cases of puerperal fever and other infections.

Ante-natal Work.—A total of 2,774 expectant mothers attended the ante-natal clinics during the year which represents an increase of 61 on the previous year. Of the total 2,171 were new and attended for the first time. The attendances at all the clinics totalled 9,309 as compared with 8,765 for 1933.

The appended table gives an analysis of the new cases admitted during 1934 to the registers of the different clinics with particulars as to where the recommendations came from, and indicates the percentage sent by midwives.

NEW CASES ADMITTED TO THE REGISTERS OF THE ANTE-NATAL
CLINICS DURING 1934, AND BY WHOM RECOMMENDED.

Welcome.	Midwife.	Self.	Hospital.	Welcome Dr.	Private Dr.	Health Visitor.	Total.	Percentage sent by Midwife.
Ellerby ..	68	89	1	1	..	2	161	42·2
West Street	13	53	2	..	..	..	68	19·1
Burmantofts	84	44	6	..	..	..	134	62·7
Hunslet ..	111	24	2	2	..	..	139	79·9
University ..	108	66	1	..	1	16	192	56·3
Woodhouse..	76	40	1	5	..	26	148	51·4
Holbeck ..	68	52	1	3	7	41	172	39·5
Armley ..	6	208	8	..	..	..	222	2·7
Chapeltown	33	114	4	..	4	..	155	21·3
St. Nicholas	142	17	13	..	..	2	174	81·6
Bramley ..	6	90	4	..	6	8	114	5·3
New Wortley	27	54	..	..	1	16	98	27·6
Middleton ..	79	48	1	2	..	8	138	57·2
West Hunslet	46	76	12	2	3	3	142	32·4
Cross Gates..	1	10	..	..	..	4	15	6·7
Burley ..	45	18	3	..	..	1	67	67·2
Halton ..	1	6	..	..	..	..	7	14·3
Kirkstall ..	5	18	..	..	1	1	25	20·0
TOTAL ..	919	1,027	59	15	23	128	2,171	42·3

Particulars of the work at the ante-natal clinics are set out in the following table :—

EXPECTANT MOTHERS ON REGISTER.

Welcome.	No. on register at beginning of year.	Registered during year.	Live Births.		On register end of year.	Total attendance of expectant mothers.
			Full Term.	Premature.		
Ellerby ..	43	161	145	3	41	566
West Street ..	28	68	57	5	26	218
Burmantofts ..	46	134	138	4	27	576
Hunslet..	34	139	122	4	36	502
University ..	43	192	153	8	64	671
Woodhouse ..	47	148	132	12	41	641
Holbeck ..	34	172	147	7	43	772
Armley ..	82	222	194	13	74	1,424
Chapelton ..	30	155	121	4	45	536
St. Nicholas ..	34	174	149	5	41	516
Bramley ..	43	114	98	4	36	614
New Wortley ..	30	98	88	1	36	528
Middleton ..	32	138	121	5	40	470
West Hunslet ..	34	142	126	6	39	807
Crossgates ..	4	15	12	..	6	52
Burley ..	26	67	60	3	21	232
Halton ..	4	7	9	..	..	28
Kirkstall ..	9	25	20	1	9	147
Totals ..	603	2,171	1,892	85	625	9,300

Of the 2,774 mothers on the register 26 miscarried and 78 had still births.

In addition to the above 9 expectant mothers paid 9 visits to Meanwood and Harehills Centres where no ante-natal clinics are held, making a total of 9,309 attendances.

Included in the number of live births are 28 sets of twins.

The average period of pregnancy at which these women first attended the clinics was 5.2 months. A certain proportion, however, default after one or two attendances. The number of defaulters varies in the different clinics, but works out at an average of 30.6 per cent. All primiparas who default and any cases which had shown any abnormality are visited to see why they have not attended, and are urged to continue up to term. This 30.6 percentage of defaulters is probably rather high, as some of the mothers, if going into Hospital for confinement, transfer to the Hospital ante-natal clinic. The actual number of such transfers cannot be ascertained.

Further particulars in connection with this are given in the table on page 177. When any abnormality is found at the ante-natal clinics, the mother is referred to a consultant, her own doctor or the hospital.

Particulars of these cases for each clinic and where referred are given in the table on page 178.

The reasons for referring expectant mothers to the various Hospitals are given in the table on page 179. It will be noted that the largest group is contracted pelvis and disproportion, the next largest albuminuria and toxæmia. A total of 264 women were referred for in-patient hospital treatment from the ante-natal clinics.

The percentage of primiparas who attended at the ante-natal clinics was as follows :—

Armley.	Barrack House.	Bramley.	Burley.	Burnan-tofts.	Ellerby.	Holbeck.	Hunslet.	Middle-ton.	New Wortley.	St. Nicholas.	Univer-sity	West Street.	West Hunslet.	Wood-house.	Average.
42.0	30.1	55.0	32.5	26.0	22.3	31.6	28.9	8.8	39.0	25.5	26.8	18.7	51.4	28.0	31.1

Midwives are advised to have all primiparas medically examined either at a clinic, or by their own doctor. The percentage of multiparas, however, is larger owing to the fact that the mother is probably attending with her infant, and is, therefore, not so shy about coming to the ante-natal clinic.

Milk is supplied to necessitous expectant mothers in the last three months of pregnancy. This was supplied free to 336 mothers, and at full or assisted rates to 95.

With the consent of the mothers, hæmoglobin (blood) determinations are being done at some of the ante-natal clinics. These tests are done monthly or at least three times during pregnancy. At the same time qualitative dietary surveys are being made in their homes, in order to correlate, if possible, the diet with the condition of the blood. This is being done only on a small scale in Leeds, but the findings will be linked up with similar investigations taking place in other parts of the country.

ANTE-NATAL CASES, 1934.

Clinic.	Army.	St. Nicholas.	Hunslet.	West Street.	New Wortley.	University.	Burnantofts.	Ellerby.	Woodhouse.	Holbeck.	Chapeltown.	Bramley.	Middleton.	West Hunslet.	Burley.	Halton.*	Crossgates.*	Kirkstall.*	Total.
Number of women attending—																			
First attendances	222	174	139	68	98	192	134	161	148	172	155	114	138	142	67	7	15	25	2,171
All attendances	304	208	173	96	128	235	180	204	195	206	185	157	170	176	93	11	19	34	2,774
Average number of attendances per session—																			
All women	13	11	10	9	10	12	11	13	12	14	11	12	9	16	9	..	..	..	12
Average period of pregnancy (in months) at first visit ..	4.4	5.5	5.5	5.0	5.1	5.3	5.7	5.6	5.5	5.5	4.9	5.0	5.4	4.79	4.96	5.0	5.0	4.9	5.2
Number of defaulters	37	129	98	26	35	52	70	84	37	103	61	29	39	27	23	..	..	..	850
Percentage of defaulters ..	12.2%	62.0%	56.6%	27.1%	27.3%	22.1%	38.9%	41.2%	19.0%	50.0%	33.0%	18.5%	22.9%	15.3%	24.7%	..	..	..	30.6%
Average number of attendances made by defaulters	1.8	2.27	2.0	2.0	1.7	2.1	2.6	2.0	1.8	2.0	2.3	2.0	1.8	1.7	1.21	2.0	..	..	1.95
Average period of pregnancy (in months) at which default took place	6.0	6.76	6.5	5.5	5.6	7.0	6.7	6.7	6.0	6.6	7.0	6.8	7.6	5.2	5.34	3.0	..	..	6.55

* Halton, Crossgates and Kirkstall have no special ante-natal clinic, but occasional expectant mothers are seen at the infant session.

NUMBER OF WOMEN REFERRED ON ACCOUNT OF ABNORMALITIES.

Clinic.	Armley.	St. Nicholas.	Hunslet.	West Street.	New Wortley.	University.	Burmantofts.	Ellerby.	Woodhouse.	Holbeck.	Chapelton.	Bramley.	Middleton.	West Hunslet.	Burley.	Halton.*	Crossgates.*	Kirkstall.*	Total.
To whom referred :—																			
Consultant (including consultant medical staff of Hospital) ..	9	31	16	2	16	18	25	51	10	29	12	3	12	23	4	..	..	..	261
V. D. Officer ..	..	4	..	..	1	1	5	2	..	2	1	..	2	2	..	..	..	1	21
T. B. Officer ..	..	1	..	..	..	..	..	..	1	1	1	..	..	2	..	..	..	..	6
General Practitioner ..	3	4	6	..	2	4	2	3	3	4	1	3	2	12	2	..	..	..	51
Special Ante-natal Institutions (with reasons, separate table)	1	4	1	..	3	3	4	12	..	2	4	5	8	4	..	..	..	5	56
Special Obstetric Institutions (with reasons, separate table)	2	21	11	4	8	5	6	19	..	13	4	22	3	10	2	1	1	..	132
General Hospital (with reasons, separate table)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Obstetrical reasons ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Non Obstetrical reasons ..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	4
Poor Law Institutions (with reasons, separate table)	..	..	..	1	1	..	4	3	..	..	3	14	5	..	..	..	1	1	58
Obstetrical reasons ..	25	..	..	1	1	..	4	3	..	..	3	14	5	..	..	..	1	1	58
Non Obstetrical reasons ..	..	..	..	1	..	7	1	3	..	1	..	1	..	..	..	..	..	..	14

* Halton, Crossgates and Kirkstall have no special ante-natal clinic, but occasional expectant mothers are seen at the infant session.

ANTE-NATAL CLINICS, 1934.

WOMEN REFERRED TO INSTITUTIONS BECAUSE OF ABNORMALITY.

Reason for Sending	Ante-natal Institution	Obstetrical Institution	General Hospital	Poor Law Hospital (now Municipal)	Total
Albuminuria and Toxaemia	19	9	..	21	49
Contracted pelvis and disproportion	..	65	..	26	91
Malpresentation	2	13	..	8	23
Previous bad obstetrical history ..	2	13	..	1	16
Ante-partum hæmorrhage and placenta prævia ..	2	4	..	3	9
Cardiac disease	9	13	..	5	27
Varicose veins	3	1	..	2	6
Vaginal discharge ..	2	..	..	..	2
Threatened miscarriage	2	..	..	3	5
General Debility and anaemia	1	6	..	..	7
Miscellaneous medical reasons ..	14	7	4	4	29
TOTAL	56	131	4	73	264

Consultative Ante-natal Clinic.—A total of 89 women were referred to this clinic during the year as compared with 72 for the previous year and 53 for the first year. Sixty-six of those cases were referred by clinic doctors and 23 by private doctors.

The following table gives the reasons for sending patients :—

Contracted pelvis, disproportion (real or suspected)	19
Abnormal presentation	13
Medical complications of pregnancy	14
Albuminuria	8
Diagnosis of pregnancy	5
Previous bad obstetrical history	4
Miscellaneous	26

The mothers all did well. There were no maternal deaths. Of the 75 births, 54 were delivered in Hospital and 21 at home. There were 68 live births and 7 stillbirths. The stillbirths all occurred in Hospital, mostly after difficult delivery or in cases of albuminuria. Two live babies were delivered by Caesarean Section.

Natal Work.—Of the total 7,190 births occurring in 1934, 3,339 or 46·44 per cent. took place in institutions or nursing homes in the city. This figure is much the same as last year but is practically double what it was ten years ago. Leeds is fairly well supplied with Hospital maternity beds, but it is doubtful whether they are being used to the best advantage and for the benefit of those whose need is greatest. At times the demand is so great that in order to cope with it overcrowding has to be resorted to and that in a maternity hospital is never safe. The only satisfactory way of dealing with the situation would be to introduce a system whereby cases—other than abnormal cases—would be selected before admission, the basis of selection being the home conditions and financial circumstances of the mother. At the present time there are many normal cases, in comfortable circumstances with good homes who are confined in Hospital, and who could quite safely be delivered at home. Moderately good conditions at home are always safer than overcrowded conditions in hospital.

An analysis of the Leeds births registered as occurring in the various lying-in institutions in the city is given in the following table :—

Institution.				No. of births.	Percentage of net births.
Leeds Maternity Hospital	..	..	..	1,817	25·27
St. James's Hospital	..	..	..	890	12·38
St. Mary's Infirmary	..	..	..	359	4·99
Hope Hospital	..	..	..	2	0·03
Hospital for Women	..	..	..	8	0·11
Private Nursing Homes	..	..	..	263	3·66
Total				3,339	46·44

Specialist Service.—The number of claims received from consultants for services rendered in connection with the Corporation's maternity scheme was 23 and the total cost to the Corporation was £54 1s. 6d.

Maternity and Nursing Homes.—The number of registered nursing homes in the city on December 31st, 1933, was 26. The following table gives particulars as to the registration of maternity and nursing homes during 1934 :—

	Maternity Homes.	Other Nursing Homes.
No. of existing registered Homes on January 1st, 1934	21	5
No. of applications for registration ..	..	..
No. of Homes registered	..	..
No. of Orders made refusing or cancelling registration	..	..
No. of Appeals against such Orders ..	..	..
No. of Cases in which such Orders have been :—		
(a) Confirmed on appeal	..	..
(b) Disallowed	..	..
No. of applications for exemption from registration	3	1
No. of Cases in which exemption has been :—		
(a) Granted	3	1
(b) Withdrawn	..	..
(c) Refused	..	..
No. of Cases in which registration voluntarily surrendered	..	..
Existing registration extended to include registrations as—	1	..

The total number of registered nursing homes on December 31st, 1934 was 26, comprising :—

Maternity Homes.. .. .	9
Maternity and General Nursing Homes ..	13
General Nursing Homes.. .. .	4

All registered homes were visited regularly and inspected, the number of visits paid for this purpose being 62. Two homes were visited in connection with the infringement of the Nursing Homes Registration Act.

Ambulance Service.—For the number of cases removed to the various lying-in institutions by the special ambulance provided and maintained for the purpose, see page 66.

Maternal Mortality.—During the year 29 mothers lost their lives in childbirth as compared with 27 for the previous year. The rate of mortality for the city was 4·03 per thousand live births and 3·86 per thousand total births (live and still). The corresponding figures for the previous year were 4·06 and 3·87.

Of the 29 deaths, fifteen were due to sepsis, four after a normal delivery at home, five after a normal delivery in hospital, three after a difficult labour in hospital, and three after abortion.

The following table indicates the relationship of the maternal deaths to the parity of the mother.

Para.	1	2	3	4	5	6	7	8	Not known.	Total.
Number of deaths	10	7	5	1	2	..	2	1	1	29

The deaths in the different age groups were as follows :—

Age.	20-24	25-29	30-34	35-39	40 or over.
Number ..	4	9	9	5	2

Only in 6 cases of death had the patient what one would call good ante-natal care, in 8 cases there was no ante-natal care whatever, in 5 it was quite inadequate, in 8 it was fairly good and in the remaining two cases it could not be ascertained. The financial circumstances of the family do not seem to have much bearing on the maternal death rate. Fifteen cases were poor, two

were fair, and eleven comfortable; in one case the circumstances were not known.

The deaths all occurred in married women.

The Maternal mortality rate for the ante-natal clinics was much the same as for the city, which is unusual.

There were eight women on the registers who died in childbirth. Four of those only attended once or twice, and then defaulted about the sixth or seventh month. Of the remaining four who attended regularly three were also under consultant supervision and were delivered in Hospital, and the other died from antepartum hæmorrhage due to placenta prævia.

There is an impression abroad that maternal mortality is always due to neglect or carelessness and can be entirely abolished. This is not so; there will always be some cases in which, despite the greatest care, a fatal issue is unavoidable.

The maternal mortality problem for some years past, has had a very generous press publicity and has given rise to many conferences and discussions. All this is useful in that it arouses public interest in the subject and no doubt indirectly leads to improvements in the maternity service. This incessant talk of maternal mortality has, however, one serious drawback. It arouses in the prospective mother a new and unnecessary element of fear, the one thing we seek to eliminate in dealing with these young mothers. In fact, the abolition of fear is one of the safeguards of maternity practice. It is highly desirable, therefore, that instead of emphasising the dangers of childbirth, we should stress the practical means of ensuring a safe and natural motherhood, and indicate that with wise supervision every mother should be able to look forward to her baby's coming with tranquility and joy. It is not mortality that should be stressed, but vitality.

Stillbirths and Neo-natal Mortality.—The number of stillbirths for 1934 was 356 or 4·6 per cent. of the total births notified, as compared with 373 or 5·2 per cent. for 1933. Of the total stillbirths 43·5 per cent. occurred in primiparas, and 15·8 per cent. in women with one child, the percentage diminishing as parity increased.

COMPARISON BETWEEN LIVE BIRTHS AND STILLBIRTHS FOR THE
LAST ELEVEN YEARS.

Year.	Live births notified.	Stillbirths notified.	Total births notified live and still.	Percentage of stillbirths to total births.
1924	8,105	348	8,453	4.1
1925	8,034	334	8,368	4.0
1926	7,828	380	8,208	4.6
1927	7,582	367	7,949	4.6
1928	7,497	388	7,885	4.9
1929	7,210	382	7,592	5.0
1930	7,444	357	7,801	4.6
1931	7,119	406	7,525	5.4
1932	6,907	355	7,262	4.9
1933	6,794	373	7,167	5.2
1934	7,419	356	7,775	4.6

Notification of Births Act came into force in Leeds 1st January, 1914.

The following table gives the analysis of the causes of neo-natal mortality during the last ten years in Leeds :—

NEO-NATAL MORTALITY.

Cause of Death.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.
Congenital malformation	21	19	30	23	14	23	21	20	15	18	29
Premature birth ..	136	134	133	120	153	148	138	105	118	126	112
Atrophy, debility and marasmus..	32	39	32	15	25	26	32	15	13	20	16
Atelectasis ..	17	15	19	19	16	19	17	10	21	16	20
Injury at birth ..	23	18	19	17	10	18	16	20	16	12	20
Suffocation including overlying ..	7	10	4	11	11	17	8	9	8	6	8
Diarrhoea-enteritis	15	12	12	8	7	5	7	7	8	2	3
Syphilis ..	10	9	9	2	2	4	3	3	1	1	1
Pneumonia ..	11	8	12	12	7	19	11	5	8	12	10
Convulsions ..	21	19	17	21	18	16	13	12	13	6	10
Other causes ..	38	26	25	26	23	19	25	27	34	24	23
Total ..	331	309	312	274	286	314	291	233	255	243	252
Notified stillbirths	348	334	380	367	388	382	357	406	355	373	356

Post-natal Supervision.—There is no separate post-natal clinic for mothers, but if any abnormality is suspected when a mother makes her first attendance with her infant, she is referred to the ante-natal clinic for examination, and if treatment is required sent to her own doctor or to hospital.

Patients delivered in Hospital are examined there post-natally four to six weeks after confinement.

As in previous years mothers whose health is likely to be impaired by further pregnancies were referred to the Gynæcological Clinic at the Maternity Hospital where they receive advice and instruction in the use of contraceptives in accordance with the recommendations of the Ministry of Health embodied in Memorandum 135/M.C.W.

The number of Leeds cases who attended this clinic during the year was 10.

Home Visiting.—The total number of visits paid by the health visitors during the year amounted to 134,252.

A complete summary of the work of the health visitors is appended :—

	VISITS.
Notified births including re-visits	97,700
Stillbirths and deaths under one month including re-visits	755
Death investigations of children from one month—five years	678
Ophthalmia Neonatorum	115
Measles	15,437
Whooping Cough	487
Pneumonia	1,004
Epidemic Diarrhœa.. .. .	—
Expectant Mothers	4,458
Special visits (medical aid claims 569, cancer 58, and others 667)	1,294
Visits to ill children notified from the Leeds General Infirmary and Public Dispensary ..	548
Visits to children under the Children and Young Persons Act, 1908-1932	939
Ineffectual visits	10,837
Total visits for the year	<u>134,252</u>

The normal practice in the city with regard to home visitation of infants under one year is that each child is visited by the Health Visitor five times during the first twelve months. In times of epidemic sickness, however, particularly when measles is rife, it is not always possible to ensure that this minimum is attained, though an average of about four visits per child is maintained. The total number of visits to children under one year in 1934 was 30,845, the total number of births 7,190, which works out at an average of 4.3 visits per child. Children between the ages of one and five years are expected to have a minimum of eleven visits from the health visitors, namely, four visits between the first and second years, three visits between the second and third, and two visits each between the third and fourth and fourth and fifth years. Unfortunately, the pressure of other duties sometimes reduces this minimum, as do also epidemics of infectious disease.

Infant Protection Visits.—During the year 939 visits were paid to boarded out children by the health visitors who are also the Infant Protection Visitors for the purposes of the Children and Young Persons Acts 1908-1932.

Proceedings were taken in one case under Section 67. 1(a) and 1(b); an order for removal was obtained from a Justice.

Proceedings were also taken against one foster mother for an offence against Section 65 (1), in that she failed to give notice of reception of a foster child and that while she maintained this child she changed her residence without giving the necessary notice to the Local Authority. This woman was convicted of these offences and a fine was imposed. There still tends to be a laxity in these notifications from foster mothers, and it is hoped that the above will serve as an example to other women.

Infant Welfare Centres.—There are 20 infant welfare centres situated in different parts of the city.

Owing to the clearance of slum areas in certain parts of the city and the opening out of new housing estates in other parts, it will be necessary to transfer some of the existing centres to these new areas.

INFANT LIFE PROTECTION.

CHILDREN AND YOUNG PERSONS ACTS, 1908-1932.

CHILDREN NURSED FOR HIRE OR REWARD DURING THE YEAR 1934.

Number of foster-mothers on the register at the beginning of the year	117
Number of foster-mothers on the register at the end of the year	121
Foster-mothers with one child	114
Foster-mothers with two children	6
Foster-mothers with three children	1

Number of children on the register at the beginning of the year	124
Number of children placed on the register during 1934	88
Number of children who ceased, during the year to come under the provision of this Act	73
Number of children on the books at the end of the year	129

DETAILS AS TO THE NUMBER OF CHILDREN WHO CEASED,
DURING THE YEAR, TO COME UNDER THE PROVISIONS OF THE
CHILDREN AND YOUNG PERSONS ACTS, 1908-1932.

Returned to parents or relatives	35
Attained the age of 9 years	10
Adopted without payment	12
Sent to special homes, etc.	6
Removed to other districts	10
TOTAL	73

The premises at present in use at Middleton are unsuitable and inaccessible, and it is hoped in the near future to build a Health Centre on this estate for the joint use of the Maternity and Child Welfare and School Medical Departments.

The use of the East Leeds School Clinic for Maternity and Child Welfare work is also under consideration. This centre would serve the York and Selby Road estates, the Torre and Gipton Estates, both of which are at present uncatered for. Ellerby, Burmantofts and University Welcomes are comparatively close together. They serve districts, large parts of which will disappear as the slum clearance programme of the Corporation advances. It will therefore be unnecessary to retain all these centres; one will probably suffice and the other two can be closed.

The number of new babies under one year of age admitted to the Welcomes during 1934 was 4,484, between one and two years 464 and between two and five years 789.

Of the total children born during the year 62.4 per cent. attended at one or other of the welcomes, as compared with 63.3 for last year. The total number of names on the registers at the Welcomes at the end of the year was 9,663 as compared with 9,715 in 1933, and the total attendances of all babies at all the Welcomes during the year was 110,063 which includes attendances at the morning treatment clinics. This is a decrease of 3,171 compared with the figure for 1933.

We continue to try to induce mothers to bring their under-five-year-old children to the Welcomes for periodic overhaul, but up to the present our efforts have not met with great success. Definite appointments were made for a certain number, who had defaulted, to come up for birthday examinations, but the response was very poor. Concurrent epidemics of measles, scarlet fever, and diphtheria also considerably curtailed the attendance of these older children at the infant welfare centres.

The mortality rate of infants attending the Welcomes was 31 as against 71 for the city, which again proves the advantage that Welcome children have over those who do not attend a Centre.

Infant Consultations.—The number of infant sessions at one centre is 5 per week, at four 3, at ten 2, and at four 1. Central Clinic, and the work done there, is dealt with below.

BABIES UNDER ONE REGISTERED DURING YEAR 1934.

WELCOME.	0-1 month.	1-3 months.	3-6 months.	6-12 months.	Total.
Ellerby ..	126	81	21	13	241
West Street ..	111	98	33	30	272
Burmantofts ..	92	117	22	19	250
Hunslet ..	90	81	13	22	206
University ..	94	124	22	25	265
Woodhouse ..	113	93	23	14	243
Holbeck ..	152	95	27	26	300
Armley ..	132	137	24	33	326
Chapelton ..	116	120	53	43	332
St. Nicholas ..	130	82	17	25	254
Bramley ..	46	63	23	29	161
New Wortley ..	104	57	9	25	195
Middleton ..	65	79	16	20	180
Meanwood ..	17	53	17	10	97
West Hunslet ..	145	119	29	23	316
Harehills ..	90	143	40	36	309
Cross Gates ..	32	34	12	14	92
Burley ..	103	104	23	18	248
Halton ..	43	30	12	15	100
Kirkstall ..	38	46	6	7	97
Totals ..	1,839	1,756	442	447	4,484

BABIES OVER ONE REGISTERED DURING YEAR 1934.

WELCOME.	1-2 years.	2-3 years.	3-4 years.	4-5 years.	Total.
Ellerby ..	17	18	13	10	58
West Street ..	40	16	17	11	84
Burmantofts ..	15	16	8	4	43
Hunslet ..	20	13	6	4	43
University ..	24	20	11	9	64
Woodhouse ..	23	25	14	7	69
Holbeck ..	27	25	23	8	83
Armley ..	33	30	33	25	121
Chapelton ..	44	31	22	9	106
St. Nicholas ..	19	18	13	6	56
Bramley ..	22	11	8	7	48
New Wortley ..	22	16	19	4	61
Middleton ..	38	15	29	11	93
Meanwood ..	7	7	5	1	20
West Hunslet ..	21	18	11	7	57
Harehills ..	30	27	17	9	83
Cross Gates ..	14	11	10	4	39
Burley ..	24	19	13	4	60
Halton ..	21	14	10	3	48
Kirkstall ..	3	5	6	3	17
Totals ..	464	355	288	146	1,253

ATTENDANCES MADE AT INFANT WELFARE CENTRES DURING
YEAR 1934

WELCOME.	Consultations and meetings.			Morning treatment.			
	Mothers.	Babies under 1 year.	Babies 1—5 years.	Mothers.	Babies under 1 year.	Babies 1—5 years.	Callers.
Ellerby ..	4,496	2,730	1,298	4	462	38	113
West Street ..	1,435	3,458	2,691	83	643	354	136
Burmantofts ..	3,942	3,318	2,102	157	1,196	556	—
Hunslet ..	1,676	3,219	2,159	7	358	38	69
University ..	2,252	3,394	2,457	124	747	148	288
Woodhouse ..	3,218	3,645	1,943	26	425	78	64
Holbeck ..	2,132	3,699	2,343	301	956	199	232
Armley ..	2,527	3,884	2,803	450	1,327	1,905	565
Chapeltown ..	1,899	3,769	1,879	3	558	39	46
St. Nicholas ..	2,299	3,229	1,579	16	448	150	451
Bramley ..	661	1,931	1,439	—	280	46	86
New Wortley ..	1,217	2,569	1,684	236	984	512	32
Middleton ..	1,016	2,169	2,015	23	225	17	172
Meanwood ..	91	1,303	751	3	183	4	15
West Hunslet ..	1,406	4,575	2,153	—	749	103	—
Harehills ..	841	4,596	2,065	—	681	16	40
Crossgates ..	332	884	843	—	54	2	9
Burley ..	702	3,486	1,765	1	480	116	22
Halton ..	415	1,348	1,184	2	193	480	18
Kirkstall ..	154	1,108	617	47	211	18	1
Totals ..	32,711	58,314	35,770	1,483	11,160	4,819	2,359

Medical Findings at the Welcomes.—The table on page 196 gives details of the condition of children on their admission to the Welcomes during 1934 with the percentages of normal children for each clinic. This year's percentage 58.9 is slightly larger than previous years. The table on page 197 indicates the defects discovered in children during the year. The total number of defects was 8,616. The largest group as usual was minor digestive disorders 1,725, then rickets 1,138, malnutrition and debility, 1,123, and bronchitis 880. Minor defects are also treated at the Welcomes; the more serious are referred to the family doctor if there is one—or to the hospitals.

Nutrition Investigation.—An investigation is being undertaken into the growth rate in babies on different basal diets, and comparisons will be made later of the weight charts, and the full and stem-length charts, of these infants on the different food stuffs.

Breast Feeding.—Dr. Reid went into the breast feeding records at her three clinics and the following table gives her results. It will be seen that the percentage entirely breast fed at those Welcomes is small, and is smaller among the poorer mothers than among those somewhat better off.

BREAST-FEEDING.

Cases.	Bramley.	Burmantofts.	Ellerby.
Entirely breast fed	51	47	40
Breast plus supplementary feeding ..	21	27	44
Weaned for adequate reason	17	28	28
Wrongly weaned	13	12	8
Breast fed—but defaulted, result not known	18	43	42
Artificially fed on admission ..	48	102	71
Total Infants	168	259	233
Percentage entirely breast fed ..	30.4	18.1	17.2

At Kirkstall Welcome out of 100 babies 78 were breast fed on admission, 16 bottle fed and 6 partly breast fed. This is a much larger percentage than at Dr. Reid's clinics. Of the 78 admitted on the breast, 29 were weaned before 7 months and the average age at weaning was 3 months. It is interesting to note that at Kirkstall 43.1 per cent. of the infants were first, 29.5 per cent. second, and 13 per cent. third babies.

Rickets.—During the year 1,138 children seen at the Welcomes exhibited some evidence of rickets. As the total number of children on the registers was 9,663 this means that 11 per cent. of the children seen showed symptoms of rickets at some time during the year.

The worst cases of rickets, however, are seen in children who do not attend the clinics. One hundred and twenty cases of well marked rickets found by the Health Visitors in the course of their routine visitations were investigated, and it was found that 48 had never attended any clinic, 53 had defaulted after a few attendances, 11 had attended very irregularly, 3 did not attend before a year, one did not attend till after two years, and only three had attended with a fair degree of regularity.

Ninety-nine or 82.5 per cent. of the cases occurred in back-to-back houses which as far as the oldest and intermediate types are concerned open directly on to the streets and are without a garden or yard into which the baby can be put. It is therefore denied the benefit of direct sunshine and skyshine except such amount as finds its way into the interior of the houses which at the best is very little and at the worst none at all.

With the removal of many families from these old back-to-back houses to new houses with gardens and no obstructing buildings, rickets should diminish.

The other factor in the causation of rickets is deficiency of vitamin in the diet. In the cases under consideration the majority came of poor families whose diets one might conclude were inadequate. Actually in 80 cases the families were classed as poor, in 31 fair, in 8 fairly good, while only one could have been said to be in comfortable circumstances.

Human milk has no more of the protective vitamin than cow's milk, but nevertheless it seems to exert a preventive action on the development of rickets. This may be explained on the ground that its utilisation requires a minimum of effort because of its perfect adjustment to the nutritional needs. Rickets, however, does occur in breast fed infants, but is usually mild.

The following table gives an indication of the extent of breast feeding in the cases investigated :—

No. of months breast fed.	0	-1	2	3	4	5	6	7	8	9	10	11	Longer than 1 year.
Cases	10	15	12	7	7	6	2	1	3	11	11	3	25

A few of the mothers who fed their babies up to nine months had become pregnant again at the sixth or seventh month. The number of cases which occurred in children over a year still being breast fed speaks for itself.

The position in the family did not seem to have any bearing on the occurrence of rickets :—

Position in family.	1	2	3	4	5	6	7	8	9	10	11	12	15
Cases ..	13	31	21	13	10	8	2	5	7	4	2	3	1

Dr. Barker has gone into the occurrence of rickets at her clinics and the following are her observations :—

" Although it is a fact that in Leeds, severe rickets, with resulting gross deformities, has been greatly reduced since the inauguration of the Maternity and Child Welfare Scheme, yet the incidence of rickets still remains high. It is probably the most common condition seen at the Infant Welfare Clinics. The disease is generally mild and when deformities result, they usually yield readily to treatment.

Cod Liver Oil is stated to prevent rickets in infants when it is given in doses of one drachm twice daily from the age of two months increasing to three drachms daily from the age of three months, and continuing until at least the age of two years.

During the last two and a half years this treatment has been advised for every bottle fed infant attending my clinics. Breast fed infants have been advised one drachm twice daily during the winter at least, and every child one drachm three times daily after weaning.

The following figures illustrate that notwithstanding these efforts, the incidence of rickets at the clinics is disappointingly high. These figures were obtained from my annual report, and it should be noted that during the year I had not contemplated this special report, and therefore extra attention was not given to the disease.

The chart of every child over six months was searched for a record of any sign of rickets. It was decided whether the rickets was active or cured. The active rickets was divided into mild and severe, the latter group containing the worst type with marked thickening of the epiphyses and usually marked deformity.

In the group of mild cases of active rickets are those with no deformity and those with very slight bow-leg or knobby knees, and the moderate bow-legs and knock knee that require massage and artificial sunlight.

CASES OF RICKETS.

Clinic.	No. of children over 6 months.	No. with signs of mild rickets.	No. with signs of severe rickets.	No. with signs of cured rickets.	Percentage incidence of rickets of all types.
New Wortley ..	327	142	7	49	61%
Holbeck ..	304	140	10	35	61%
West Hunslet ..	470	204	3	88	63%
Total ..	1,101	486	20	172	62%

New Wortley and Holbeck are clinics in the poorer areas where housing is generally bad, and unemployment common. West Hunslet Clinic is in a district with better housing, and on the whole less unemployment. The mothers, too, seem more interested and anxious to learn.

Apart from the severe type of rickets there is striking uniformity in the percentage incidence of rickets at all three clinics.

The severe type of rickets, with one single exception, occurred in children who attended the clinic for the first time with the condition fully developed, usually in the second year, or who had defaulted from the clinic for long periods. In many of these cases the parents were indifferent or difficult, indeed, although there was gross deformity, the parents often persistently defaulted. This probably explains why seventeen of the

twenty cases occurred among the less interested class of parents, although the figures clearly show that rickets is just as common at West Hunslet as Holbeck or New Wortley. The mothers at West Hunslet however do not allow the condition to progress and they are generally more willing to attend for treatment.

The size and nutrition of the children at West Hunslet is definitely better than that of the children at the other two clinics. Their home conditions and feeding are better and in consequence their growth more rapid. Hess, the American authority on rickets, states that rickets is the greatest danger of overfeeding, and that the amount of cod liver oil required to prevent rickets depends more upon the rate of growth than upon the weight of the child.

Clearly then most Leeds children require some form of anti-rachitic treatment. Judging from my results, cod liver oil does not appear to be uniformly successful though it is only fair to observe that being entirely dependent upon the mothers' co-operation for its regular administration it is highly probable that in many cases the amount actually given fell considerably short of what was ordered.

Calciferol, an irradiated ergosterol, has given good results when used in curative treatment. It is pleasant to take, and no signs of hyper-vitaminosis have so far been observed.

A small amount of dried milk containing the equivalent of two drachms of cod liver oil to the pint has been tried at Holbeck with entirely satisfactory results as regards the digestion of the milk.

Every effort is made to teach the mothers to make use of all the available sunshine and skyshine. They are advised to keep the pram hoods down and not to overclothe the children, but many of the mothers possess neither garden nor yard where the pram can be left, and into some of their houses the sun does not enter at any part of the day. The smoke screen of Leeds also deprives the children of a goodly proportion of valuable sunshine and skyshine.

Speaking generally of the rickets seen at the clinics, treatment with artificial sunlight is not given until some deformity has developed. It is easier to persuade a mother to attend for treatment when she herself can see some reason for it, but the delay seriously prejudices the success of the treatment. If rickets is cured with sunlight treatment before the child stands, then care must be taken to give adequate amounts of cod liver oil or calciferol to prevent a relapse. Such relapses have occurred at the clinics. Hess states that if a child has a course of artificial sunlight in the autumn or later, either for preventive or curative treatment, it should have a second course in February or March to prevent a relapse.

It is impractical to use artificial sunlight on a large scale for the prevention of rickets though this would obviously be the most satisfactory and economical method of using it."

DEFECTS DISCOVERED IN NEW CASES ON ADMISSION TO THE CLINICS, IN 1934.

Condition.	Ellerby.	West Street.	Burmantot.	Hunslet.	University.	Woodhouse.	Holbeck.	Armley.	Chapelton.	St. Nicholas.	Bramley.	New Wortley.	Middleton.	Meanwood.	West Hunslet.	Crossgates.	Harehills.	Burley.	Halton.	Kirkstall.	Total.
Normal	158	186	189	126	182	146	142	255	229	134	134	97	107	90	171	54	182	227	78	34	2,921
Malnutrition	35	19	19	23	12	61	18	22	19	36	20	6	13	4	5	19	25	40	11	11	448
Debility	17	24	21	5	3	1	4	18	5	9	10	3	1	1	1	3	3	3	1	1	133
Rickets	17	17	16	8	5	13	21	18	12	12	8	15	7	1	15	8	16	16	2	4	231
Minor digestive disturbances	80	31	102	34	7	58	29	38	15	38	61	11	13	3	13	1	61	13	3	12	623
Enlarged Tonsils and Adenoids	102	8	4	2	3	16	3	18	1	1	2	24	6	6	34	7	2	5	1	2	73
Developmental defects	9	3	8	10	3	32	23	12	5	12	62	13	4	2	9	3	10	9	1	5	511
Skin diseases	6	4	3	5	2	10	5	3	6	6	3	1	3	1	2	4	3	2	1	1	118
Bronchitis	6	4	3	5	2	10	5	3	6	6	3	1	3	1	2	4	3	2	1	1	65
Phimosis	2	1	1	1	1	5	3	10	3	1	3	2	3	1	5	2	2	1	1	12	66
Dental Caries	2	2	1	1	1	5	3	10	3	1	3	2	3	1	5	2	2	1	1	1	48
Infant feeding difficulty	3	3	3	3	3	5	8	17	7	5	2	20	2	2	39	1	1	5	1	24	124
Inflammatory eye conditions	3	4	13	4	3	5	8	17	7	7	1	5	2	2	3	1	1	1	1	1	91
Umbilical Hernia	2	6	2	3	13	1	5	3	21	2	1	2	7	1	7	1	17	1	1	6	93
Otorrhoea	2	2	2	3	3	1	5	3	6	2	1	3	1	3	1	1	3	1	1	2	28
Prematurity	2	4	2	7	4	2	7	2	6	5	1	6	1	3	7	2	1	6	1	2	69
Squint	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	7
Infectious Diseases	3	1	3	1	1	1	2	1	1	1	1	1	1	1	23	1	1	1	1	1	8
Acute Gastro Enteritis	3	1	3	1	1	1	2	1	1	1	1	1	1	1	23	1	1	1	1	1	12
Granulating Umbilicus	1	1	1	1	1	1	10	1	1	1	1	5	1	1	1	1	1	1	1	1	39
Infantile Paralysis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Nocturnal Enuresis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Cervical Adenitis	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	5
Mental Deficiency	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Abscess or minor sepsis	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Mongol	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10
Worms	1	1	1	1	1	1	2	1	1	1	1	3	1	1	1	1	1	1	1	1	1
Stomatitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Veneral Disease	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Nasal Catarrh	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Miscellaneous	2	1	8	5	1	6	8	1	1	1	5	11	1	1	7	4	3	4	3	5	76
Total Defects	445	322	543	238	252	366	341	437	363	278	322	228	177	114	347	112	341	338	115	137	5,816
Total number of cases included in the above	242	298	282	226	252	320	307	404	362	268	190	207	177	107	325	102	341	312	110	116	4,958
Percentage of Normal Children	65.3	62.4	67.0	55.8	72.2	45.6	46.3	63.1	63.3	50.0	70.5	46.9	60.5	84.1	52.6	52.9	53.4	72.8	70.9	29.3	58.9

Average percentage of normal children for all clinics is 58.9%.

MEDICAL FINDINGS AT THE INFANT WELFARE CENTRES DURING, 1934.

Condition.	Fillerby.	West Street.	Burmantots.	Hunst.	University.	Woodhouse.	Holbeck.	Armley.	Harehills and Chapeltown.	St. Nicholas.	Bramley.	New Wortley.	Middleton.	Meanwood.	West Hunst.	Crossgates.	Burley.	Halton.	Kirkstall.	Total.
Defect—																				
Malnutrition	107	13	106	27	44	77	40	11	56	47	50	52	33	2	28	14	7	8	8	730
Debility	21	84	27	11	18	43	5	77	57	7	14	..	11	7	1	2	..	6	2	393
Minor digestive disturbances ..	77	163	114	69	88	84	96	223	243	85	73	104	58	27	150	34	16	8	13	1,725
Rickets	51	49	56	39	23	39	176	51	89	46	39	149	25	16	207	33	18	23	9	1,138
Skin diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bronchitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Developmental defects	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enlarged tonsils and adenoids ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inflammatory eye conditions ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Otorrhoea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dental caries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Infectious disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute gastro enteritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Umbilical hernia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phimosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Squint	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Adenitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mental deficiency	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Worms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Prematurity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Infantile Paralysis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Granulating Umbilicus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stomatitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Anæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nasopharynx Infection	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Myotonia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enuresis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Miscellaneous	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS	529	522	674	346	531	454	608	691	1,075	412	372	618	339	113	777	144	149	179	83	8,616

Leeds Babies' Welcome Association.—The Maternity and Child Welfare Department continued to work in close co-operation with the Leeds Babies' Welcome Association during the year. The work of the Association is worthy of high commendation. The services of the voluntary workers at the Welcomes continues to be most helpful and much appreciated. I take this opportunity of extending the thanks of the Maternity and Child Welfare Committee and the Health Department to the Association—President, Officers, Members of Committee and helpers generally—for their valuable work during the year and for their constant interest and support.

Central Clinic.—This clinic is now held at 8, Park Square (26-28, Park Cross Street). The work done here includes dental treatment to expectant and nursing mothers and children under five years, orthopaedic consultations, artificial sunlight treatment, massage, electrical treatment and remedial exercises, diphtheria immunisation, venereal disease clinic, and X-ray examinations.

The X-ray apparatus was transferred from Holbeck to Central Clinic, for greater convenience for both staff and mothers.

Artificial Sunlight Treatment.—In addition to the two mercury vapour lamps at Central, three of the Welcomes are also equipped for treatment with ultra-violet light. Treatment sessions are held twice weekly—it is difficult to get the mothers to attend oftener. The cases dealt with are chiefly rickets, malnutrition, catarrhal conditions, and debility following acute infections. Unfortunately, we still have many defaulters, but this is to be expected as the indifference which may have led to the rickets or other conditions also tends to make attendance irregular or incomplete.

All cases are examined by the doctors in charge before being put on sunlight treatment, they are seen again during the course of treatment and before being discharged.

Central.—A total of 299 children had artificial sunlight treatment at this clinic during the year. The attendances during the year of all cases were as follows:—babies under one year 227, children between one and five years 3,587, a total of 3,814.

Holbeck.—During the year a total of 241 children received treatment. The total number of treatments was as follows:—babies under one year, 178, children between one and five years 2,230, a total of 2,409.

Armley.—There were 119 children and one mother treated during the year. Altogether 159 treatments were given to babies under one, and 1,516 to children between one and 5 years, and 12 to mothers, making a total of 1,687.

Hunslet.—During the year a total of 88 children were dealt with. The treatments were as follows:—babies under one year 119, children from one to five years 939, total 1,058. The number of X-ray cases examined during the year was 87 infants, 27 expectant mothers and 2 adults. As in previous years these cases were mostly rickety children for diagnosis and progress during treatment, orthopaedic cases, and ante-natal cases where abnormality was suspected.

Orthopaedic Clinic.—A total of 430 children attended this clinic during the year as compared with 340 for the previous year. Most cases were re-examined in three months time or less and their progress ascertained.

The total number of attendances at the clinic was 779, an average of 16 per session.

The following table gives an indication of the type of case referred by the Welcome doctors to this clinic:—

General Rickets	..	..	..	..	10
Genu Valgum	..	..	..	..	212
Genu Varum	..	..	..	..	50
Talipes	..	..	..	..	41
Flat feet	..	..	..	..	18
Torticollis	..	..	..	..	15
Deformity of toes and fingers	..	..	..	..	13
Different types of paralysis	..	..	..	..	26
Deformities of spine	..	..	..	..	10
Deformities and diseases of hip	..	..	..	..	6
Miscellaneous	..	..	..	..	29
Total					430

The Orthopædic Surgeon, Mr. S. Daw, makes the following observations on the work of the clinic :—

“ With prolonged experience of the work of the Infant Welfare Clinics, one is more and more convinced of their great medical value. In the Orthopædic section there is naturally a great variety of cases. Among these, two groups stand out particularly for comment. Of the 430 patients seen in 1934, no less than 212, nearly 50 per cent. had the common rickety deformity of knock knee. The city of Leeds has been notorious in the past for the number of people with crooked legs seen in the streets. It can now be firmly stated that such will not be a continued reproach under present conditions. The deformity is now recognised in its early stages, thanks to the work of the Infant Clinics, and treatment is inaugurated almost from the time that the child begins to walk. The result is that a majority are cured before they reach school age. Those not completely cured which appear in the school clinics present a much less formidable problem than would be the case if there were no infant clinics.

To turn to another group, congenital club foot, these cases constitute about ten per cent. of the total. Here again early treatment is invaluable. We usually see these cases in the first few weeks of life. Treatment begins at once and cure is obtained without operation in most of the cases. This result will appeal strongly to all those who know what an exceedingly stubborn and incurable condition club foot is if the start of treatment is delayed even for a few months.

The same remarks apply to the majority of cases which occur in smaller numbers. Early treatment is the keynote of success. The more widespread the examinations in infant life, the fewer will be the cases requiring treatment during school age.”

Ten cases were referred to Hospital for operation and 17 cases were admitted to the Marguerite Home, Thorp Arch, where 10 beds are reserved for the use of the infant clinics.

Appliances were supplied to 35 cases at a cost of £24 17s. 1d. of which £9 14s. 9d. was refunded by the parents.

Fifty-one cases were transferred to the School Orthopædic Clinic on reaching the age of five years.

Four trained masseuses attend regularly at the Welcomes, two of whom do artificial sunlight treatment as well as massage. There is also a voluntary masseuse who does one session a week at Halton. During the year 14,587 massage treatments were given.

Dental Clinic.—The total number of new patients who received dental treatment during the year was 762, and included 189 expectant

mothers, 373 mothers and 200 children. The total for the previous year was 600.

The number of treatments was :—expectant mothers 1,743, mothers 6,725, and children 700, a total of 9,168. Dentures were supplied to 338 mothers of which 123 were full upper and lower dentures, 31 full upper only, 8 full lower only, 20 full upper and partial lower, 12 full lower and partial upper, and the remainder (144) partial plates, remodels and repairs.

The total cost to the Corporation was £332 7s. 6d. of which £302 17s. 11d. was recovered from the patients.

Venereal Disease Clinic.—The total number of patients referred to this clinic during the year was 32, and included 7 expectant mothers, 12 mothers and 13 infants. The total attendances were 101, 60 for mothers, 11 for expectant mothers and 30 for children.

Milk Distribution.—Particulars respecting the amount of liquid and dried milk supplied to mothers attending the Welcomes are given in the appended tables.

The Almoning Committee met on 50 occasions and considered 6,895 applications. This is 866 less than the previous year. Details of the work of the milk staff are given on page 202.

During the year, the amount of dried milk distributed in Leeds amounted to 23.65 tons, of which 11.36 tons were given free to 2,283 mothers and babies, and 12.29 tons were supplied at full or assisted rates to 2,078 mothers and babies. In 1933, the corresponding figures were 17.51 tons given free to 2,606 mothers and 13.46 tons supplied at full or assisted rates to 1,896 persons.

In addition 3.00 tons were distributed at the Welcomes to cases in receipt of Public Assistance, as compared with 2.72 tons for 1933. The cost of milk supplied to Public Assistance cases is defrayed by the Public Assistance Committee.

The amounts of fresh cows' milk distributed during the year were 4,761 gallons free to 337 babies, and 2,208 at full or assisted rates to 225 babies; in 1933 the corresponding figures were 4,512 gallons free to 348 babies and 1,674 at full or assisted rates to 147 babies.

WORK OF MILK STAFF.

	I. Quarter.	II. Quarter.	III. Quarter.	IV. Quarter.	Year.
Applications dealt with (new)	400	382	359	384	1,525
„ „ (repeat)	3,869	3,525	2,879	3,331	13,604
„ „ (refused)	..	..	..	..	..
No. of re-applications ..	145	169	127	117	558
*No. of external cases dealt with at the office ..	303	201	189	231	924
	4,717	4,277	3,554	4,063	16,611
No. of visits to Welcomes paid by the milk secretaries	166	142	161	159	628

* Persons under treatment at the Public Dispensary and the General Infirmary.

COST OF MILK DISTRIBUTION SCHEME FOR YEAR ENDED
31ST DECEMBER, 1934.

Expenditure			INCOME.		
	£	s. d.		£	s. d.
By salaries and wages	632	18 0	To cash received for		
„ Cost of dried milk	3,909	19 4	sale of dried milk	2,371	8 10
„ Cost of cows' milk	713	11 2			
„ Printing, stationery, etc...	38	8 0			
„ Superannuation					
Contributions ..	32	7 10			
„ Sundries	9	4 3	„ balance—loss ..	2,964	19 9
	£5,336	8 7		£5,336	8 7

Nett cost per head to Corporation, £0 11s. 10d.

AMOUNT OF DRIED MILK DISTRIBUTED IN LBS. (YEAR 1934).

WELCOME.	Free.	Assisted.	Full Price.	Issued through Public Assistance Committee.	TOTAL.
Ellerby	2,425 $\frac{1}{2}$	1,626 $\frac{3}{4}$	950 $\frac{1}{4}$	965	5,967 $\frac{1}{2}$
West Street ..	2,108 $\frac{1}{4}$	768 $\frac{3}{4}$	666 $\frac{3}{4}$	788 $\frac{3}{4}$	4,332 $\frac{1}{2}$
Burmantofts ..	2,479 $\frac{1}{4}$	1,476 $\frac{1}{2}$	1,174 $\frac{1}{4}$	909 $\frac{1}{2}$	6,039 $\frac{1}{2}$
Hunslet	1,016	724	1,080	441	3,261
University ..	1,930 $\frac{1}{4}$	1,156 $\frac{1}{4}$	808 $\frac{1}{4}$	573	4,467 $\frac{3}{4}$
Woodhouse ..	2,048 $\frac{1}{2}$	1,276	1,079	365	4,768 $\frac{1}{2}$
Holbeck	1,469 $\frac{3}{4}$	1,136	822 $\frac{1}{2}$	488 $\frac{3}{4}$	3,917
Armley	932	457 $\frac{1}{2}$	517 $\frac{3}{4}$	112	2,019 $\frac{1}{4}$
Chapelton ..	2,731	1,404	1,422 $\frac{3}{4}$	760	6,317 $\frac{3}{4}$
St. Nicholas ..	2,301 $\frac{3}{4}$	1,263 $\frac{1}{2}$	591 $\frac{1}{4}$	536	4,692 $\frac{1}{2}$
Bramley	416	346	726	23	1,511
New Wortley ..	1,584	917	190	244	2,935
Middleton ..	1,195	655	756	185	2,791
West Hunslet ..	1,381	656	788	201	3,026
Burley	309	105	574	34	1,022
Crossgates ..	288	268	350	18	924
Halton	271	108	475	25	879
External	559 $\frac{1}{4}$	158	65	64	846 $\frac{1}{4}$
Totals	25,445 $\frac{1}{2}$	14,502 $\frac{1}{4}$	13,036 $\frac{3}{4}$	6,733	59,717 $\frac{1}{2}$

NUMBER OF RECIPIENTS, YEAR 1934 (DRIED MILK).

WELCOME.	Free.	Assisted.	Full Price.	TOTAL.
Ellerby	218	108	65	391
West Street ..	190	63	40	293
Burmantofts ..	187	89	90	366
Hunslet	117	74	82	273
University ..	151	67	53	271
Woodhouse ..	183	81	101	365
Holbeck	155	97	70	322
Armley	80	30	29	139
Chapelton ..	237	113	112	462
St. Nicholas ..	178	73	41	292
Bramley	33	34	57	124
New Wortley ..	128	62	29	219
Middleton ..	120	46	34	200
West Hunslet ..	87	48	93	228
Burley	27	16	34	77
Crossgates ..	33	23	33	89
Halton	22	8	39	69
External	137	31	13	181
Totals	2,283	1,063	1,015	4,361

AMOUNT OF COWS' MILK DISTRIBUTED IN PINTS. (YEAR 1934).

WELCOME.	Free.	1d. per pint.	2d. and 2½d. per pint.	3d. and 3½d. per pint.	TOTAL.
Ellerby	3,705½	1,032	748	..	5,485½
West Street ..	1,704	221	104	..	2,029
Burmantofts ..	3,708½	1,543	410½	..	5,662
Hunslet	2,674	511	140	..	3,325
University ..	3,666½	1,148½	1,003	..	5,818
Woodhouse ..	4,290½	1,405	1,133½	..	6,829
Holbeck	1,485	631	101	..	2,217
Armley	807	14	112	..	933
Chapelton ..	4,798½	1,437½	725½	..	6,961½
St. Nicholas ..	2,141½	809½	333	..	3,284
Bramley	508	450½	194	..	1,152½
New Wortley ..	1,049	488	137	..	1,674
Middleton ..	2,085½	605	970	..	3,660½
West Hunslet ..	1,045	641	57	..	1,743
Burley	196	87	70	..	353
Crossgates ..	895	..	..	..	895
Halton	728½	38½	42	..	809
External	2,604	197	127	..	2,928
Totals	38,092	11,259½	6,407½	..	55,759

NUMBER OF RECIPIENTS YEAR 1934

WELCOME.	Free.	1d. per pint.	2d. and 2½d. per pint.	3d. and 3½d. per pint.	TOTAL.
Ellerby	32	17	12	..	61
West Street ..	12	3	2	..	17
Burmantofts ..	29	17	7	..	53
Hunslet	15	7	4	..	26
University ..	31	14	9	..	54
Woodhouse ..	32	16	11	..	59
Holbeck	15	12	5	..	32
Armley	4	1	1	..	6
Chapelton ..	45	12	8	..	65
St. Nicholas ..	19	3	5	..	27
Bramley	5	5	2	..	12
New Wortley ..	17	7	5	..	29
Middleton ..	18	4	11	..	33
West Hunslet ..	11	9	2	..	22
Burley	2	2	1	..	5
Crossgates ..	4	..	..	..	4
Halton	4	1	1	..	6
External	42	6	3	..	51
Totals	337	136	89	..	562

THE INFANTS' HOSPITAL, WYTHIER.

This Hospital continues to be a most useful part of the Maternity and Child Welfare Service. Details of the work of the Hospital are given in the attached tables. The cases admitted to the Hospital as in previous years consisted for the most part of children suffering from dietetic disorders, malnutrition, marasmus, and rickets with their various accompanying ailments. Several cases were referred from the Orthopædic Clinic, the General Infirmary, and the Public Dispensary.

The 50 cots which the Hospital provides were well occupied during the year.

Day Nursery.—The number of children admitted for the first time during the year was 40 as compared with 47 for the previous year. The total attendances are given in the accompanying table.

The present premises utilised as a Day Nursery, although conveniently situated, are anything but ideal. For many years better premises have been sought, but it was difficult to obtain them just in the right position. A house not far distant from our present premises is now available and it is hoped to transfer the Nursery there in the Summer. This house is in every way superior to our present premises and will have the advantage of a large garden for the children to be out in. The lack of a garden has been one of the most serious disadvantages of the present Nursery.

Residential Nursery.—There were 23 children in residence on January 1st, 1934; 127 were admitted during the year, 114 were discharged and 36 remained in residence on December 31st, 1934. Nine of the children were illegitimate. The reasons for other admissions were as follows:—in 48 cases mothers expecting confinement, in 56 cases illness of mothers, in 17 cases deaths of mothers, in 16 cases mothers going for convalescence, in 3 cases mothers out at work, in one case mother deserted.

The new premises at Spring Bank, Headingley Lane, are proving very satisfactory. The accommodation allows for 36 children, with in addition an isolation ward for 4 children. The staff consists of Matron, Sister, staff nurse, 10 probationers, 3 maids, a gardener and a boy.

I should like once more to express my own appreciation and that of the Maternity and Child Welfare Committee, of the work of the Executive Committee of the Day and Residential Nurseries whose services given ungrudgingly have been of great value.

TOTAL ATTENDANCES OF RESIDENT AND DAY CHILDREN AT THE
NURSERIES, IN AGE GROUPS FOR THE YEAR ENDED 31ST DECEMBER,
1934.

Nursery.	Whole attendances.				Half attendances.			
	Under 3 years.	3-5 years.	Over 5 years.	Total.	Under 3 years.	3-5 years.	Over 5 years.	Total.
Spring Bank Residential Nursery ..	12,333	..	..	12,333	..	..	..	..
Cobden Place Day Nursery	6,054	1,514	..	7,568	714	166	..	880

Convalescent Treatment for Mothers and Babies and Toddlers.—

As in previous years, the arrangement for the convalescence of mothers with babies through the Leeds Convalescent Society was continued on behalf of the Maternity and Child Welfare Committee. Three beds were reserved by them at the Home at Withernsea for Leeds mothers with babies, the remainder being sent to different seaside and country homes. The mothers sent benefited greatly by the change.

Convalescence was arranged for 88 mothers and babies, and two mothers without babies. The average period of stay at the Convalescent Homes was 13·63 days. The nett cost to the Corporation of this provision was £371 6s. 8d. or an average of £2 2s. 4½d. per case per week.

In addition to the above, 156 children under 5 years were sent for convalescence to Meanwood Convalescent Home. The average stay of each child was 22·7 days and the cost to the Corporation was £3 8s. 4½d. per case. The total cost to the Corporation was £548 os. 4d. of which £14 13s. 0d. was refunded by the parents.

SUMMARY OF CASES TREATED IN THE INFANTS' HOSPITAL, WYTHER.

	Males.	Females.	Total.
Remaining in Hospital, January 1st, 1934	26	19	45
Admitted during the year ..	62	63	125
Discharged during the year ..	57	63	120
Died during the year	3	3	6
Remaining in Hospital, December 31st, 1934	28	16	44

Mortality rate per cent. on admissions 4·8. Average stay in Hospital 95 days.

CLASSIFICATION OF ADMISSIONS ACCORDING TO AGE AND SEX.

Males.		Females.		Total Infants.		Grand Total.
Under 1 year.	Over 1 year.	Under 1 year.	Over 1 year.	Under 1 year.	Over 1 year.	
20	42	10	53	30	95	125

ANALYSIS OF DEATHS DURING 1934.

Cause.	Under one year.		Over one year.		Total.
	M.	F.	M.	F.	
Pink Disease	1	..	..	..	1
Congenital Heart Disease and Broncho-Pneumonia	..	1	..	..	1
Marasmus, Chronic Bronchitis	..	..	1	..	1
Marasmus, Enlarged Thymus Gland	..	..	1	..	1
Marasmus, Bronchitis Enteritis	..	..	1	..	1
Bronchitis, Pneumonia	..	..	..	1	1
TOTAL	1	2	2	1	6

ANALYSIS OF CASES TREATED DURING 1934.

Reason for admission.	Under one year.		Over one year.		Total.
	M.	F.	M.	F.	
Rickets	..	1	7	16	24
Rickets and Bronchitis	..	..	5	3	8
Rickets and Malnutrition	..	..	2	7	9
Spinal Kyphosis (Rickets)	..	..	5	1	6
Rickets with marked deformity	..	..	10	3	13
Malnutrition	3	2	16	18	39
Malnutrition and Bronchitis	..	2	5	7	14
Malnutrition and Otorrhoea	..	..	..	1	1
Malnutrition and Hare Lip	..	..	..	1	1
Malnutrition and attacks of Apnoea	1	..	..	..	1
Malnutrition and Mental Deficiency	1	..	2	..	3
Malnutrition (Dietetic)	3	4	..	..	7
Malnutrition and Pneumonia	1	..	1	1	3
Marasmus	7	1	..	2	10
Marasmus and Chronic Bronchitis	1	1	..	..	2
Marasmus (Tuberculosis)	..	..	1	..	1
Marasmus and enlarged Thymus Gland	1	..	..	..	1
Marasmus, Eczema	1	..	..	..	1
Acute Bronchitis	1	..	1	..	2
Chronic Bronchitis	..	1	..	..	1
Congenital Heart Disease and Broncho Pneumonia	..	1	..	..	1
Bronchiectasis	..	..	2	..	2
Empyema	..	..	1	..	1
Congenital Dislocation of Hip	..	..	..	3	3
Spinal Kyphosis	2	..	..	..	2
Infantile Paralysis	..	..	..	1	1
Still's Disease	..	..	..	1	1
Acute Gastro Enteritis	2	1	..	..	3
Pink Disease	1	..	1	..	2
Convulsions	1	1	..	..	2
Congenital Heart Disease	..	..	..	1	1
Congenital Syphilis	2	..	..	..	2
Cerebral Tuberculoma	..	..	..	1	1
Abdominal Tuberculosis	..	..	1	..	1
TOTAL	28	15	60	67	170

Health Week.—The additional efforts at educational work, which the Maternity and Child Welfare Staff usually carry out during Health Week, were concentrated mostly in assisting at the Health Exhibition held in the Town Hall from September 17th to 26th. The National Association of Maternity and Child Welfare Centres staged an exhibition which included illustrations on the feeding, clothing and care of the infant and toddler. There was a miniature open-air nursery school where models of life-like children and equipment illustrated the right training and environment for the young child, also suitable toys and playthings. Home accidents were strikingly illustrated showing the "traps" to avoid.

The diet and clothing for an expectant mother were also indicated. The Leeds Babies' Welcome Association showed clothing, adaptable cot and sleeping-bag exhibits.

There were always two Health Visitors and Voluntary Workers at the stall, explaining the exhibits, answering questions and giving advice generally. The Superintendent Health Visitor and a few of the Health Visitors also assisted in the talks to school children.

Special Health Talks were also given at the clinics by the Welcome doctors.

Other particulars of Health Week are given on page 288.

Inspection and Supervision of Food.

TABLE I.			
Inspection and Supervision of Food.			
No.	Name.	Address.	Remarks.
1	John Doe	123 Main St.	Inspected 1/1/1910.
2	Jane Smith	456 Elm St.	Inspected 1/1/1910.
3	Robert Brown	789 Oak St.	Inspected 1/1/1910.
4	Mary White	101 Pine St.	Inspected 1/1/1910.
5	James Black	202 Cedar St.	Inspected 1/1/1910.
6	Elizabeth Green	303 Birch St.	Inspected 1/1/1910.
7	William Hall	404 Spruce St.	Inspected 1/1/1910.
8	Anna King	505 Willow St.	Inspected 1/1/1910.
9	Charles Lee	606 Ash St.	Inspected 1/1/1910.
10	Grace Miller	707 Hickory St.	Inspected 1/1/1910.

INSPECTION AND SUPERVISION OF FOOD.

INCLUDING REPORTS BY
THE CHIEF VETERINARY OFFICER
and
THE CITY ANALYST.

MEAT INSPECTION

BY
J. A. DIXON, M.R.C.V.S., *Chief Veterinary Officer.*

Slaughter-houses.—During the year the number of private slaughter-houses was decreased by two, these being registered slaughter-houses which had fallen into disuse and were removed from the register of slaughter-houses by order of the City Council.

SLAUGHTERHOUSES IN USE.

	Number in use on December 31st.					
	1920	1930	1931	1932	1933	1934
Public Abattoir	1	1	1	1	1	1
Private slaughter-houses (registered)	63	44	43	42	41	39
Private slaughter-houses (licensed)	8	8	9	9	9	9
Knackers' Yards	2	2	1	1	1	1

The inspectors paid a total of 6,354 visits to the 48 private slaughter-houses, an average of 132 visits, or approximately 2·5 visits per week, to each slaughter-house.

Although, as stated above, the number of visits paid to private slaughter-houses gives an average of 2.5 visits to each slaughter-house per week, it may be pointed out that as the amount of slaughtering varies so much in the different private slaughter-houses, visits of inspection must necessarily vary also. A number of slaughter-houses are visited twice daily, others receive one visit a day, while some in which little work is carried on are sufficiently covered by a weekly inspection, or when slaughtering is notified in accordance with the Public Health (Meat) Regulations.

The question of the abolition of private slaughter-houses still awaits consideration. The hope that the Government might take action following upon the issue of the Economic Advisory Committee's report on the slaughter of cattle did not materialise and the matter remains in *statu quo*. In the absence of national proposals it will be for the City Council to deal with the subject by the exercise of its powers under the Leeds Corporation Act, 1930.

ANIMALS SLAUGHTERED IN THE PUBLIC ABATTOIR AND IN PRIVATE SLAUGHTERHOUSES.

	Year.	Cattle.	Calves.	Sheep.	Pigs.	Total.
Public Abattoir ..	1932	22,138	9,194	84,794	6,757	122,883
	1933	24,177	11,916	88,068	6,666	130,827
	1934	26,243	16,273	84,231	8,228	134,975
Private Slaughter- Houses ..	1932	14,183	7,793	67,972	44,292	134,240
	1933	13,745	9,857	65,226	43,213	132,041
	1934	12,833	10,764	60,055	41,177	124,829

Meat and other foods condemned as unsound.—The appended table indicates the amount of diseased and unsound meat and other food condemned and disposed of during the year.

MEAT, ETC., DESTROYED BY CONSENT.

	1934.	1933.	1932.	1931.
Beef	197,440 lbs.	157,182 lbs.	157,181 lbs.	160,380 lbs.
Veal	6,609 "	6,014 "	6,826 "	6,115 "
Mutton	12,344 "	11,350 "	10,805 "	9,213 "
Bacon and Ham ..	23 "	495 "	570 "	..
Pork	33,736 "	34,413 "	33,360 "	35,319 lbs.
Offals	120,891 "	137,688 "	112,236 "	96,341 "
Rabbits	14,188 "	10,859 "	15,001 "	10,896 "
Poultry	354 "	655 "	11,996 "	2,119 "
Game	483 "	880 "	198 "	782 "
Cheese	5,742 "	60 "	..	..
Fish	33,569 "	69,805 "	102,653 lbs.	104,649 lbs.
Shellfish	33,257 "	21,179 "	42,576 "	32,889 "
Fruit	12,384 "	12,272 "	7,419 "	23,974 "
Vegetables	109,123 "	87,180 "	84,101 "	129,908 "
Edible fungi	458 "	2,307 "	139 "	12 "
Inedible fungi ..	..	39 "	..	..
Yeast	..	..	..	..
Tinned Goods ..	3,569 lbs.	13,330 lbs.	6,193 lbs.	4,696 lbs.
Sundries	434 "	199 "	793 "	..
TOTALS	584,604 lbs.	565,907 lbs.	592,047 lbs.	617,293 lbs.
No. of Eggs ..	5,906	600	..	..

Tuberculous Carcases.—The number of carcases condemned for tuberculosis during 1934 was as follows :—beef with organs 199, pork with organs 39, and veal with organs 2.

Slaughter of Animals Act, 1933.—This Act came into force on the 1st January, 1934, and was immediately put into operation throughout the city. During the year 187 licences to slaughter or stun animals were granted by the City Council, all of which will expire on December 31st, 1936.

The following cases were taken into court under the Slaughter of Animals Act, 1933.

No.	Section.	Result of Hearing.	Remarks.
1	1	Fined 40/-	Slaughterman
2	1	Fined 10/-	do.
3	1	Fined 20/-	do.
4	3 (1)	Fined 10/-	do.

The following cases were taken into court under the Public Health Act, 1875.

No.	Section.	Result of Hearing.	Remarks.
1	117	Fined 40/- or 14 days' imprisonment	Butcher
2	117	Dismissed	Employee
3	117	Dismissed	Employee
*4	117	Fined 40/-.. .. .	Butcher
*5	117	Fined 20/-.. .. .	Employee

*On evidence submitted by Officers of this Department, proceedings were taken by the Weights and Measures Department against a butcher for an offence against the Sale of Food Order, 1921, for failure to label imported meat as such, and against his employee for aiding and abetting the offence. The butcher and his employee were fined 20/- each.

Shell-fish.—The condition of all shell-fish coming into the city for sale continues to receive special attention.

During the year ten samples of mussels were submitted for bacteriological examination and were found to be satisfactory.

Towards the end of the year the Public Health (Shell-fish) Regulations, 1934 made by the Minister of Health under the Public Health Act, 1875, were issued. These regulations which come into operation on the 1st January, 1935 will afford a greater measure of control over shell-fish from unsatisfactory layings.

Public Health (Meat) Regulations, 1924.—The following is a summary of the cases taken into court under the Regulations during the year.

No.	Article.	Result of Hearing.	Remarks.
1	9	Fined 40/-.. .. .	Butcher
2	9	Dismissed	Employee
3	9	Dismissed	Employee
4	8	Dismissed under the Probation of Offenders Act	Butcher
5	9	Dismissed under the Probation of Offenders Act	Employee
6	21	Fined 40/-.. .. .	Butchers

Food-preparing places.—The following table gives a summary of the work done under Section 44 of the Leeds Corporation Act, 1930.

Applications submitted for registration	..	51
Applications approved :—		
(a) Pork butchers	6	
(b) Beef butchers	40	
(c) Potted meat makers	1	
	—	47
Applications disapproved		4
Number of visits to :—		
(a) Food preparing places	570	
(b) Restaurants	20	
	—	590

The difficulty of dealing with places for the preparation of food where mechanical power is employed still exists, but with the co-operation of H.M. Inspector of Factories great improvements have been obtained in the hygienic conditions of several places, which, as they are subject to registration under the Factory and Workshop Act, 1901, are exempt from the provisions of Section 44 of the Leeds Corporation Act, 1930.

DISEASES OF ANIMALS ACTS

BY

J. A. DIXON, M.R.C.V.S., *Chief Inspector and Veterinary Inspector.*

Tuberculosis Order of 1925.—From a public health point of view tuberculosis is the most important disease dealt with under the Diseases of Animals Acts, and it is gratifying to observe that dairy farmers continue to appreciate the importance of notifying as early as possible any cow which appears to be affected with the disease. During the year 89 reports of suspected tuberculosis

were received of which 45 came from owners as compared with 44 the previous year. Of the remaining 44 cases 5 were reported by veterinary surgeons in general practice, and 39 were found by the Veterinary Officers of the Department during their routine quarterly inspections. It will be observed that whilst cowkeepers and veterinary surgeons are reporting more freely, reliance must still be placed upon regular and routine veterinary inspection.

The total animals examined was 2,660, 2 being tested with tuberculin. Of these, 62 animals were affected with the disease as defined by the Order, 41 of which had a chronic cough and shewed definite clinical symptoms while 17 were affected with tuberculosis of the udder and 4 with tuberculous emaciation. From these figures it would appear that infected cows are being detected in the earlier stages of the disease before emaciation has advanced, and not as formerly when they had become so wasted as to be practically useless. All the 62 animals were slaughtered and at the post mortem it was found that 43 were affected with "advanced" tuberculosis, while in the remaining 19 the disease was not "advanced."

One cow exposed for sale at the Victoria Cattle Market was found to be diseased and slaughtered. Post-mortem examination revealed generalised tuberculosis and the carcase and organs were condemned.

Although the Tuberculosis Order may be regarded as a useful measure from the point of view of both public health and animal health, it does very little towards reducing the incidence of tuberculosis among dairy cattle. Towards the end of the year, the Ministry of Agriculture and Fisheries published a scheme for the establishment of "Attested Herds." The Ministry has set up a Roll of Attested Herds to which will be admitted those herds only which have been definitely freed from tuberculosis by persistent tuberculin testing and the removal of reactors. The scheme is rigid in its requirements and will be operated directly by the Ministry without the assistance of local authorities. As far as the elimination of tuberculosis is concerned the scheme may be regarded as ideal, but the conditions are so onerous that it is doubtful whether it will commend itself to the great majority of dairy farmers.

ANNUAL RETURN OF THE WORKING OF THE TUBERCULOSIS ORDER
 OF 1925, FOR THE YEAR ENDING DECEMBER 31ST, 1934,
 ESTIMATED BOVINE POPULATION .. 3,067.

TOTAL NUMBER OF ANIMALS REPORTED	89
(a) By Owner	45
(b) By Veterinary Advisor to owner	5
(c) By Veterinary Officer acting under the Milk and Dairies Order, 1926	39
ANIMALS EXAMINED	2,660
(a) Cows in milk	2,152
(b) Other Cows or Heifers	462
(c) Other Bovine animals.. .. .	46
ANIMALS TESTED WITH TUBERCULIN	2
ANIMALS FOUND DISEASED	62
(a) Having Tuberculosis of the Udder	17
(b) Giving Tuberculous Milk and showing lesions of Tuberculosis	..
(c) Suffering from Tuberculous Emaciation	4
(d) Affected, but not as in a, b, or c	41
COMPENSATION PAYABLE—	£ s. d.
(a) Full value (0)	0 0 0
(b) Three-fourths value (19)	215 5 0
(c) One-fourth value or 30/- (43)	124 0 0
Total Compensation	£339 5 0
Total Salvage received	62 19 5
Nett Compensation	276 5 7
Recoverable from Government, 75% of Gross Compensation	254 8 9
ADMINISTRATION EXPENSES—	£ s. d.
(a) 1. Veterinary examinations	0 0 0
2. Cost of tuberculin	0 0 6
3. Notification fees	0 12 6
(b) Reference to a Pathological Institute	1 10 6
(c) Valuation of Animals slaughtered	0 0 0
(d) Cost of travelling	42 0 0
(e) Stationery	6 11 0
Total Expenses	£50 14 6

Swine Fever Order of 1908.—During the year the situation regarding swine fever in the city showed an improvement on previous years. There were received 53 reports of suspected swine fever, all of which were investigated by the Veterinary Officers of the Ministry of Agriculture and Fisheries, but in only 8 cases was the diagnosis confirmed, as compared with 15 in the previous year. In the last quarter of the year, not a single case occurred, and the end of the year found the city entirely free from either swine fever or swine fever infected premises.

It may be stated here that every case of unexplained death in pigs is regarded as suspected swine fever and duly reported, which accounts for the discrepancy between the cases reported and those found positive.

Legal proceedings were taken in two instances against pig keepers in the city for offences against the Order, with the results as shown in the table below.

No.	Article.	Result of Hearing.	Remarks.
1	Article 3, Rule 2	Fined £1	Pigkeeper
2	Do.	Case dismissed	do.

Regulation of Movement of Swine Order of 1922.—The administration of this Order has necessitated the issuing of 1,119 licences for the dispersal of 9,433 pigs from the Whitkirk Auction Mart, while 1,664 visits were made to pig-keeping premises to ascertain whether the recently removed store pigs were detained and isolated for the appropriate period.

No proceedings were taken during the year for infringements of the Order.

Parasitic Mange Orders of 1911 and 1918.—Three horses were dealt with under the Orders during the year. The animals were inspected weekly by the Chief Veterinary Officer until they had recovered and were then released from restrictions.

Exportation and Transit of Horses, Asses and Mules Order of 1911.—No horses, asses or mules were despatched from the city for slaughter at British ports during the year.

Anthrax Order of 1928.—During the year two cases of suspected anthrax were reported, but neither was confirmed on microscopic examination of the blood.

Sheep Scab Order of 1928.—No case of sheep scab occurred in the city during the year.

Contact sheep to the number of 96 were received for immediate slaughter in the city and the skins were immersed in an approved sheep dip in accordance with the Order.

Foot-and-Mouth Disease Order of 1928.—No case of this disease occurred in the city during the year, and the city was not affected by the various Orders made by the Minister of Agriculture and Fisheries in connection with outbreaks of foot-and-mouth disease in other parts of the country.

Animals (Landing from Ireland, Channel Islands and Isle of Man) Order of 1933.—The administration of this Order has entailed the issuing of 268 licences for the removal from the Victoria Cattle Market of 876 cattle and 1,224 sheep recently landed from Ireland. In addition to these 340 movement licences were issued for the movement of 3,632 cattle and 8,732 sheep recently landed from Ireland but dispersed without passing through the Victoria Cattle Market.

Irish store cattle to the number of 225 were received in the city, and these were all duly inspected on arrival and further visits paid to see that they were isolated and detained for the prescribed period of six clear days following their arrival, in accordance with the Order.

No proceedings were taken during the year for infringements of the Order.

Importation of Canadian Cattle Order of 1933.—No Canadian cattle were exposed for sale in the Victoria Cattle Market, but the administration of this Order has entailed the issue of 3 licences for the removal of 23 Canadian cattle which were purchased at the port of entry by a wholesale butcher.

Transit of Animals (Amendment) Order of 1931.—This Order has, on the whole, been satisfactorily observed by the persons engaged in the transportation of livestock by road. In accordance

with the Order, stations have been established at the Victoria Cattle Market, the Public Abattoir and Whitkirk Auction Mart, where vehicles are cleansed and disinfected under the supervision of the officers of the Department, immediately after the animals have been discharged.

Importation of Dogs and Cats Order of 1928.—Two foreign performing dogs came to a theatre in the city. These animals were permitted to enter the city on licence and after daily inspections during the week of their stay, when strict isolation was observed, they were re-licensed to another theatre outside the city.

Rabies Order of 1919.—One case of suspected rabies was reported by the police. The suspected dog was placed in isolation and observed for several days at the end of which it was decided that rabies did not exist, but as the dog was a stray, it was destroyed.

General.—The following Orders were issued by the Minister of Agriculture and Fisheries during the year.

- (a) Pennine Range (Movement of Sheep) Order of 1934.
- (b) Pennine Range (Movement of Sheep) Order of 1934 (No. 2).
- (c) Pennine Range (Movement of Sheep) Order of 1934 (No. 3).
- (d) Foreign Hay and Straw (Amendment) Order of 1934.
- (e) Foreign Hay and Straw (Amendment) Order of 1934 (No. 2).
- (f) Sheep Scab (Amendment) Order of 1934.
- (g) Sheep Scab (Amendment) Order of 1934 (No. 2).
- (h) North Uist (Movement of Sheep) Order of 1934.

Veterinary attendance on Corporation Horses.—In addition to the work of the Veterinary Sub-department already mentioned, the veterinary officers are responsible for the attendance on all horses, cattle and pigs belonging to the Cleansing Department at the Cleansing Depots and various farms, the Education Department, the Parks, Allotments and Cemeteries Department, the Public Assistance Department, the Sewerage Department, in fact, all the animals belonging to the Corporation except the horses of the mounted section of the City Police.

These duties entail a considerable amount of work and responsibility on the part of the veterinary officers and during 1934 brought to the Public Health Department an income of £194 18s. 9d.

MILK AND DAIRIES

BY

J. A. DIXON, M.R.C.V.S., *Chief Veterinary Officer.*

Town Produced Milk.—Although the progress of building operations has been continued at an accelerated pace, during the year only 4 dairy farms were vacated and removed from the register, whilst one was added, the total less in numbers being therefore 3, leaving 170 dairy farms on the register at the end of the year. The average number of cows, however, showed an increase of 153, namely, from 2,808 to 2,961, which is probably partly due to the operations of the Milk Marketing Board. The Veterinary Officers continued to make routine quarterly inspections of all dairy cows, cowsheds and dairies in the city, and this entailed 11,855 examinations of cows, when the conditions were found to be fairly satisfactory. At 11,791 (99·46 per cent.) of the examinations the cows were clean, and at 64 (0·54 per cent.) dirty. As regards the health of the 2,961 cows examined, 94 (3·17 per cent.) were found to be diseased, 9 (0·30 per cent.) having tuberculosis of the udder, 11 (0·37 per cent.) generalised tuberculosis, and 74 (2·49 per cent.) diseases other than tuberculosis. In all cases where tuberculosis was diagnosed the animals affected were dealt with under the Tuberculosis Order of 1925.

Although tuberculosis is specially mentioned in this connection, the Veterinary Officers also dealt with other diseased conditions of cows, as mentioned in the Milk and Dairies Act and Order. A special watch has been maintained for cows affected with contagious abortion, but none was discovered, and no case of undulant fever (the consequent disease in man) has been reported to the Department.

The 170 registered dairy farms comprise 305 separate sheds, all of which were kept under close supervision by the Cowsheds and Dairies Inspector. The Veterinary Officers made 1,167 inspections of cowsheds, and the lay inspector 1,907 making a total of 3,074. In addition, 151 visits were paid by the lay inspector in the early morning, to ensure that cleanliness and care were observed then, as at other milking times. At 1,144 (98·03 per cent.) of the Veterinary Officers' visits, the sheds were clean, whilst at the remaining 23 (1·97 per cent.) they were dirty. The number of yards inspected by the Veterinary Officers was 162, and the total number of inspections 644. At 613 (95·19 per cent.) of the visits the yards were clean, and at 31 (4·81 per cent.) dirty.

Country Milk.—Although the Inspectors of the Department are not permitted to visit places outside the city at which milk is provided for consumption within the city, every effort is made to maintain a strict supervision over the milk supplies from outside sources. Samples of country produced milk on arrival in the city are obtained at railway stations and receiving dairies. These are examined for visible dirt, and submitted to the Departmental laboratory for investigation as to their bacterial content, and suitable action is taken in accordance with the Milk and Dairies Act and Order whenever there is reason.

Particular attention was paid during the year to the equipment of the dairies of retail purveyors of milk, and at the beginning of the year the Health Committee instructed the Department to require that all such dairies—particularly those which had adopted the practice of delivering milk in bottles—should be equipped with satisfactory sterilising apparatus. The Milk and Dairies Order provides an alternative to steam sterilisation, but every effort has been made to obtain satisfactory steam sterilising, and before the end of the year the majority of the retail purveyors of milk, as well as the producers, had provided themselves with satisfactory sterilisers.

The following is a summary of the cases taken in to Court for infringements of the Milk and Dairies Order, 1926, during the year.

No.	Article.	Result of Hearing.	Remarks.
1	Article 31 (2)	Fined 10/- (including costs) ..	Roundsman
2	Do.	Fined 5/-	Retailer

Graded Milk and Issue of Licences.—Although the appended table shows the addition of only one licensed pasteuriser during the year, there can be no doubt that the popularity of " Pasteurised " milk continues to expand at a remarkable rate. Pasteurisation is in the hands of a few fairly large firms whose plant and methods are under regular and constant supervision of officers of the Department. There was a marked increase in the number of licences issued for the sale of " Grade A (Tuberculin Tested) " milk and an equally marked decrease in those issued for the sale of " Grade A " milk. The change is accounted for by the fact that one extensive licensed producer of " Certified " milk is now selling a greater quantity of his milk under the designation " Grade A (Tuberculin Tested) " which was formerly sold as " Grade A."

The licence granted to one of the two Producers of "Certified" milk in the City was not renewed at the end of the year by the Ministry of Health.

LICENCES ISSUED UNDER THE MILK (SPECIAL DESIGNATIONS) ORDER, 1923, DURING THE YEAR, AND SHOWING COMPARISON WITH OTHER YEARS.

Description of Licences.	Number in force on 31st December.				
	1930.	1931.	1932.	1933.	1934.
(1) Producers' Licences to use the designation "Grade A" ..	8	8	8	8	8
(2) Dealers' Licences to use the designation "Certified" ..	10	10	20	22	22
(3) Dealers' Licences to use the designation "Grade A (Tuberculin Tested)" :—					
(a) Bottling establishments ..	2	2	2	2	2
(b) Shops	11	10	7	7	50
(4) Dealers' Licences to use the designation "Grade A" :—					
(a) Bottling establishments ..	3	3	3	3	3
(b) Shops	211	207	196	202	152
(5) Dealers' Licences to Pasteurise Milk	3	4	4	4	5

The cows at all the farms producing graded milk are examined monthly. At the two farms producing "Certified" milk all cows are tested with tuberculin before they are added to the herds, and the whole herds are re-tested with tuberculin every six months, whilst the milk is frequently examined as to its bacterial content, and the premises and methods of production are kept under regular supervision and inspection.

Dairy Farms, Milkshops and Milk Sellers.—The following tables show the number of registered dairy farms, milkshops and milk sellers in the city on December 31st, 1934.

DAIRY FARMS.

Number of dairy farms on the register on December 31st, 1933	173
Number added to the register during the year ..	1
Number removed from the register during the year ..	4
Number on register on December 31st, 1934	170

MILKSHOPS.

Number of milkshops on the register on December 31st, 1933. (The total of 532 includes the premises of 34 retail purveyors of milk in the surrounding County area who are registered to sell milk within the area of the Leeds City Council)	532
Number added during the year (including four in the surrounding County area)	11
Number removed from the register during the year ..	7
Number on the register on December 31st, 1934 (including the premises of 38 retail purveyors of milk in the surrounding County area)	536

MILK SELLERS.

Number of milk sellers on the register on December 31st, 1933. (The total of 544 includes 34 retail purveyors of milk with premises in the surrounding County area who are registered to sell milk within the area of the Leeds City Council)	544
Number added during the year (including four retail purveyors of milk in the surrounding County area) ..	15
Number removed from the register during the year ..	9
Number on the register on December 31st, 1934 (including 38 retail purveyors of milk in the surrounding County area)	550

The following visits were paid during the year by the Food and Drugs Inspectors, and Cowsheds and Dairies Inspectors in connection with the Milk and Dairies Acts and Orders :—

	VISITS.
To Milkshops	1,029
To cowsheds	1,907
To railway stations.. .. .	143
To farms or milkshops <i>re</i> infectious disease	6
To food shops and bottled milk stores	1,252

Biological Tests.—During the year 248 samples were taken and submitted to the City Bacteriologist for biological investigation for the presence of the tubercle bacillus. Of these, 229 were ordinary samples, and 19 were special and control samples taken under the Tuberculosis Order of 1925. These 19 samples consisted of 2 special samples taken from cows which were suspected to be suffering from tuberculosis of the udder, and 17 control samples taken from groups of cows to ensure that infected cows had been removed from the herds. Of the ordinary samples, 5 (2·18 per cent.) were returned as tuberculous, whilst 1 (50·0 per cent.) of the special samples, and 2 (11·76 per cent.) of the control samples, were also reported as tuberculous. The percentage of original samples of milk found to be tuberculous is low as compared with the rest of the country.

The accompanying table gives details :—

BIOLOGICAL TESTS.

Ordinary Samples.					No.	Positive.	Negative.
Certified	..	..	..	..	20	..	20
Grade A (T.T.)	..	..	..	..	6	..	6
Grade A	..	..	..	..	53	3	50
Pasteurised	..	..	..	..	11	..	11
Ungraded Milk	..	..	..	..	139	2	137
Total	..	..	..	..	229	5	224

Samples taken under the Tuberculosis Order, of 1925.							
					No.	Positive.	Negative.
Special Samples—							
Ungraded Milk	..	..	..	..	2	1	1
Control Samples—							
Grade A Milk	..	..	..	..	10	1	9
Ungraded Milk	..	..	..	..	7	..	7
Total	..	..	..	..	19	2	17

Public Health (Prevention of Tuberculosis) Regulations, 1925.—

It was found necessary to take action under these Regulations on one occasion, but no difficulty was found in convincing the person concerned that she was not in a fit state of health to be engaged in the dairy business.

Departmental Laboratory.—During the year 883 samples of milk were submitted to the Department laboratory for bacteriological examination. Of this number 163 were of graded milk, 201 pasteurised, 74 taken on delivery at local institutions, 106 at schools, 147 at railway stations, 146 road borne, and 46 from other sources, *i.e.* milk brought to the laboratory by farmers, dairymen and others.

The samples for bacteriological examination were kept at room temperature until the souring point was reached. The average keeping quality of the samples of milk was as follows :—

Graded	..	..	..	..	3·1 days.
Pasteurised	..	..	..	..	2·5 „
Schools	..	..	..	..	2·3 „
Institutions	..	..	..	..	2·4 „
Road borne	..	..	..	..	2·1 „
Station	..	..	..	..	2·0 „

Thirty-two samples, of which 24 were “Certified,” failed to comply with the standard laid down in the milk (Special Designations) Order, 1923; 16 “Certified” (9 from one farm which is not now licensed for the production of “Certified” milk) and 3 “Grade A” samples were from farms within the city, and 8 “Certified” and 5 “Grade A” samples from farms outside the city. In each case appropriate action was taken to prevent recurrence of the offence.

Ice Cream.—Eleven samples of ice cream from local vendors were also submitted for bacteriological examination; the results are shown in the table on page 229.

Milk Samples tested by the Gerber Method.—During the year 30 samples of milk were tested in the Departmental laboratory by the Gerber method, the results being as follows :—

Total.	Genuine.	Deficient in fat only.	Deficient in Solids-not-fat only.	Deficient in fat and Solids-not-fat.
* 30	23	3	3	1

* These were all informal samples.

The average composition of the 30 samples was :—

Fat	..	..	..	..	3.63 per cent.
Solids-not-fat	..	..	..	..	8.69 per cent.
Total solids	..	..	..	..	12.32 per cent.

Miscellaneous.—Twenty samples of water from farms and other premises were examined for the presence of bacillus coli with the following results :—

Containing B. Coli in 1 c.c.	..	..	13
Free from B. Coli in 1 c.c.	..	..	7

The following investigations were also undertaken :—

Milk for the presence of tubercle or other bacilli	54
Sputum for the presence of tubercle or other bacilli	2
Sheep's liver for the presence of tubercle or other bacilli	 1
Blood for the presence of tubercle or other bacilli	1
Horses faeces for the presence of worms	 1

Other work :—

Microscopical slides prepared and examined	..	176
Tubes of media prepared		4,542

As in previous years, the laboratory has been found to be of considerable educational benefit and help to persons engaged in the production and sale of milk—wholesale and retail—and also of interest to others not directly engaged in the business.

SAMPLES EXAMINED AS TO BACTERIAL CONTENT.

Bacterial Content per c.c.	Graded Milk.	Past- eurised Milk.	School Milk.	Institu- tion Milk.	Road borne Milk.	Station Milk.	Ice Cream.	Total.
1-50,000 } 93.3%	152 93.3%	187 93.0%	85 80.2%	67 90.5%	109 74.7%	113 76.9%	3 27.3%	716
50,000— 100,000 } 3.7%	6 3.7%	8 4.0%	9 8.5%		17 11.6%	21 14.3%	1 9.1%	62
100,000— 200,000 } 1.2%	2 1.2%	4 2.0%	6 5.7%	3 4.1%	11 7.5%	8 5.4%	2 18.2%	36
200,000— 500,000 } 1.2%	2 1.2%	2 1.0%	5 4.7%	..	5 3.4%	3 2.0%	3 27.3%	20
500,000— 1,000,000 } ..	..	..	..	1 1.4%	1 0.7%	2 1.4%	2 18.2%	6
1,000,000+ } 0.6%	1 0.6%	..	1 0.9%	3 4.1%	3 2.1%	..	..	8
Total Samples	163	201	106	74	146	147	11	848

SAMPLES EXAMINED AS TO B. COLI CONTENT.

Bacterial Content per c.c.	Graded Milk.	Past- eurised Milk.	School Milk.	Institu- tion Milk.	Road borne Milk.	Station Milk.	Ice Cream.	Total.
B. Coli present } in 1/10 c.c. } 14.7%	24 14.7%	27 13.4%	22 20.8%	13 17.6%	36 24.7%	33 22.4%	1 9.1%	156
„ 1/100 c.c. } 4.9%	8 4.9%	11 5.5%	10 9.4%	7 9.5%	20 13.7%	8 5.4%	1 9.1%	65
„ 1/1000 c.c. } ..	..	32 15.9%	30 28.3%	16 21.6%	37 25.3%	62 42.2%	4 36.4%	181
B. Coli absent { 80.4%	131 80.4%	131 65.2%	44 41.5%	38 51.4%	53 36.3%	44 29.9%	5 45.5%	446
Total Samples	163	201	106	74	146	147	11	848

FOOD AND DRUGS.
FERTILISERS AND FEEDING STUFFS.

Food and Drugs.—The Sampling Officers took 562 formal and 25 informal samples of food other than milk and cream. The total number of formal samples of all kinds taken during the year was 2,306 and informal 96. For the results of the analyses of these samples see the City Analyst's report on page 232.

Fertilisers and Feeding Stuffs Act, 1926.—During the year 67 samples were taken under the above-mentioned Act and submitted to the Agricultural Analyst for examination. Of this number 35 were samples of Fertilisers and 32 Feeding Stuffs. With the exception of 2 Fertilisers and 2 Feeding Stuffs which were taken in a formal manner, the samples were informal in character.

Six samples were found to be deficient in quality—2 fertilisers and 4 feeding stuffs. Further action in respect of the feeding stuffs was impracticable owing to the length of time the material had been in the possession of the purchasers. Of the 4 deficient samples of fertilisers, 2 had been wrongly described on the certificate issued by the manufacturers, 1 sample was not considered, on examination, to come within the scope of the Act, whilst the fourth (Special Potato Manure) on examination revealed such a large deficiency as to suggest that the sample was fraudulent. Further action in this case was impossible owing to the fact that the time limit allowed under the Act had been exceeded.

Leeds Corporation Act, 1930.—Ice Cream.—During the year further improvement has been noted in the conditions under which this commodity is manufactured, the majority of the premises being clean and well kept. Defects or contraventions found have in all cases been immediately rectified.

The open ice-cream freezer though it continues to be seen in the streets, is rapidly disappearing in face of the competition from reputable firms who sell the commodity wrapped or in covered cartons.

The following table shows a summary of the work done during the year.

Number of premises registered for the manufacture and sale of ice cream	8
Number of premises registered for the sale of ice cream	71
Number of premises where registration was refused	10
Withdrawal of application for registration of premises	..
Number of premises voluntarily closed	9
„ „ visits paid to premises	2,616
„ „ contraventions found on premises ..	23
„ „ contraventions removed	23
„ „ persons found manufacturing ice cream on unregistered premises ..	1
„ „ samples taken for bacteriological examination in Departmental laboratory	11

No proceedings were taken during the year for offences under the Act.

MUNICIPAL LABORATORY.

BY

C. H. MANLEY, M.A., F.I.C., *City Analyst.*

The total number of samples analysed in 1934 was 4,010 of which 2,402 were food and drugs, and 67 were fertilisers and feeding stuffs. This is the largest number of samples analysed in any year since the laboratories were opened in July 1928, the comparative figures from 1929 onwards being as follows :—

	1929.	1930.	1931.	1932.	1933.	1934.
Food and Drugs ..	1,962	2,123	1,975	1,993	1,985	2,402
Other Samples ..	850	813	1,068	1,717	1,711	1,608
Total ..	2,812	2,936	3,043	3,710	3,696	4,010

Analyses have been made during the year for ten Corporation Departments, viz., Public Health, Public Assistance (including St. James's Hospital), Waterworks, City Coroner's, City Police, Cleansing, Education, Highways, Tramways and Transport, and Works and Supplies, as well as for the General Infirmary and the West Riding of Yorkshire Regional Smoke Abatement Committee.

The following is a summary of the analyses made during 1934 :—

Samples submitted by inspectors under the Food and Drugs Act, 1928	2,402
Samples submitted by inspectors under the Fertilisers and Feeding Stuffs Act, 1926	67
Samples submitted by inspectors under the Rag Flock Acts, 1911/1928	6
Special samples analysed for the Public Health Department	9
Samples analysed for the Public Assistance Committee	4
„ „ „ „ Waterworks Department	17
„ „ „ „ City Coroner	4
„ „ „ „ City Police	12
„ „ „ „ Cleansing Department	7
„ „ „ „ Education Department	2
„ „ „ „ Highways Department	3

Samples analysed for the Tramways and Trans-				
			port Department ..	1
"	"	"	Works and Supplies	
			Department ..	4
"	"	"	General Infirmary ..	2
"	"	"	West Riding Regional	
			Smoke Abatement Com-	
			mittee :—	
			Rain Gauges ..	60
			Light Tests ..	1,380
			Sulphur Dioxide Tests	24
Consultant Work Analyses	..	..	..	6
TOTAL				4,010

FOOD AND DRUGS.

The table on pages 241 and 242 summarises the samples taken under the Food and Drugs (Adulteration) Act, 1928, along with the number and percentage of adulterations. The percentage of samples found to be adulterated was 7·7 as compared with 9·4 for 1933, and 5·5 for England and Wales in the latter year. Of samples other than milk 1·8 per cent. were adulterated as compared with 4·1 per cent. for the previous year.

Milk.—Of 1,788 samples, 174 (9·7 per cent.) failed to conform to Sale of Milk Regulations, 1901. This not only represents an improvement on the 11·3 per cent. figure for 1933, but incidentally is the lowest annual milk adulteration figure in Leeds for the past seven years, that is, since the appointment of a full time analyst.

Of the 174 samples adulterated 33 contained added water, 125 were fat deficient, and 16 shewed both added water and fat deficiency. The greatest amount of added water was 26·4 per cent., and the greatest fat deficiency 25·0 per cent. All the samples were free from preservatives and colouring matter. Whilst fat deficiency accounted for the greatest number of milks below standard, it is

noteworthy that there has been a marked decline during 1934 in the number of watered samples, the figures for the past five years being :—

		1930.	1931.	1932.	1933.	1934.
Total Milk samples	..	1,530	1,431	1,295	1,446	1,788
Watered milks	..	73	54	74	72	49
Percentage watered	..	4·8%	3·8%	5·7%	5·0%	2·7%

The average composition of all milk samples taken in 1934 was as follows (the 1932 and 1933 figures being given for comparison) :—

		1932.		1933.		1934.
Non-fatty solids	..	8·82%	..	8·79%	..	8·82%
Fat	..	3·64%	..	3·70%	..	3·64%
Total solids	..	12·46%	..	12·49%	..	12·46%

Skimmed Milk.—The 3 samples taken conformed to the requirements of the Sale of Milk Regulations, 1901, the average composition being :—

			MINIMUM REQUIRED.
Non-fatty solids	..	9·28%	8·7%
Fat	..	0·23%	—
Total solids	..	9·51%	

Cream.—All the 24 samples were of satisfactory composition and boric acid preservative was absent in each case.

Eighteen of the samples, presumably sold loose or in cartons, had an average fat content of 50·5 per cent., the maximum figure being 55·9 per cent. In one instance only, did the fat fall below 48·5 per cent., the figure being 26·8 per cent.

The remaining 6 samples were tinned creams. The average fat content of these was 21·6 per cent., the limits being 16·8 and 25·5 per cent.

Butter.—The 38 samples examined were satisfactory, all being milk products, free from preservative, and each containing less than 16 per cent. of water, the average content being 14·4 per cent.

Margarine.—The 28 samples examined were also satisfactory, the average water content being 14·6 per cent. One sample contained 16 per cent., the maximum water content legally allowable.

Condensed and Dried Milks.—The 5 samples of condensed and 4 of dried milk were all of satisfactory composition, conforming to the 1923 regulations as regards their fat contents (26.0 per cent. minimum).

Lard.—Of 31 samples analysed, 1 (3.2 per cent.), viz., No. 1209L, bought on November 28th, was an imitation vegetable substitute prepared by hardening cottonseed oil. The shop-keeper's explanation was that all her customers knew that they were receiving not lard, but "lardine." She was subsequently warned by the Medical Officer of Health in a letter pointing out that in future this commodity must be suitably labelled. In view of the quantity of lard substitutes now on the market it certainly seems desirable that such should be required by law to be sold in wrappers distinctively labelled in letters of a specified size, so that the same distinction may be made between lard and its substitutes as is now made between butter and margarine.

Sago.—The one sample submitted, viz., No. 278L, proved to be 100 per cent. tapioca (compare Annual Report, 1933).

Sausages.—Of 41 samples examined, 3 (7.3 per cent.) contravened the Preservatives Regulations, 1925/27. No. 475L, bought at a shop on April 30th, contained 50 parts of sulphur dioxide preservative per million without declaration of the presence of preservative at the time of sale. Proceedings were instituted on June 7th against the shopkeeper, who was fined £1 with 10s. 6d. costs.

No. 535L, bought on May 16th, contained 45 parts of sulphur dioxide per million without declaration. As the irregularity in this case was satisfactorily explained by the vendors, a warning letter only was sent.

No. 752C, bought on July 19th, contained 180 parts of sulphur dioxide per million without declaration. On the institution of proceedings on September 27th, the defendant was ordered to pay 14s. 6d. costs.

Vinegar.—Of 27 samples, 1 (3.7 per cent.), viz., 550L, bought on May 23rd, contained only 3 per cent. of acetic acid instead of the 4.0 per cent. minimum advocated by the Local Government Board

in 1911 (25.0 per cent. deficiency). The case was heard on July 5th' and the defendant was found guilty and dismissed under the Probation of Offenders Act on payment of 14s. 6d. costs. In this case the vinegar was an artificial one, consisting of a mixture of acetic acid, water and caramel, the shopkeeper having bought a concentrated product from a wholesaler with the very arbitrary directions to add half a pint to a Winchester quart of water. This would involve a dilution of ten to eleven times, but, as there was no information as to the strength of the concentrate, it was impossible to tell whether the fault lay with the retailer or the wholesaler.

Malt Vinegar.—Of 21 samples, 3 (14.3 per cent.) were adulterated.

No. 443L, bought on April 23rd, proved to be an artificial vinegar, and to contain only 3.7 per cent. acetic acid (7.5 per cent. deficient). At the institution of proceedings on June 7th the defendant was ordered to pay 14s. 6d. costs.

No 998L, bought on October 8th, contained only 3.48 per cent. acetic acid (13.0 per cent. deficient). Proceedings were instituted on November 21st, and the defendant fined £1 and ordered to pay £1 1s. costs.

No. 1269L, bought on December 14th, although containing 4.52 per cent. acetic acid, was an artificial vinegar (cf. vinegar No. 550L). On this case being heard on February 5, 1935, the defendant stated that his customers never asked for "malt vinegar," but simply for "vinegar." He was dismissed under the Probation of Offenders Act and his court fees remitted.

Essences.—On account of questions asked in the House of Commons in December, 1933, regarding flavouring essences, informal samples of rum, raspberry, and lemon essences from a local stores were submitted for analysis and found to contain iso-propyl alcohol to the extent of 70, 30, and 55 per cent. respectively.

Boric Ointment.—Of 3 samples, 1 (33.3 per cent.), viz., No. 215C, bought on February 20th, contained 9.25 per cent. boric acid (7.5 per cent. deficient) and 90.75 per cent. paraffin ointment instead of the B.P. 1932 minimum 10 per cent. of the acid. The vendor was warned by letter from the Medical Officer of Health.

Camphorated Oil.—The one sample bought, viz., No. 303C, on March 15th, contained 19·3 per cent. camphor (3·5 per cent. deficient) and 80·7 per cent. olive oil, instead of the 20·0 per cent. B.P. 1932 minimum. The vendor was communicated with.

The remaining food and drug samples were satisfactory. Included in these were 4 informal samples of prescribed medicine and 5 samples of dried mint.

Dried mint has been subject within the past two years to considerable adulteration with *Ailanthus*, or Tree of Heaven, leaves, which, unlike those of mint, contain no essential oil, and are useless for culinary purposes. It is believed the French and other exporters have been partly if not wholly responsible for this adulteration, the wholesalers and retailers for their part being therefore guilty only of technical offences.

FERTILISERS AND FEEDING STUFFS AND OTHER ANALYSES.

Fertilisers and Feeding Stuffs.—Of 67 samples taken under the 1926 Act, 5 fertilisers and 6 feeding stuffs failed to conform to the warranties.

All were informal samples.

Rag Flocks.—All the six samples taken under the 1911 and 1928 Acts conformed with the regulations and did not contain more than 30 parts of chlorine per 100,000, the average figure being 11·4.

This is the fourth year in succession that all the samples have been satisfactory.

Public Health Department. (Special Enquiries).—These consisted of analyses or examinations of bacon, pork pie, palatinoids, water, coal (2 samples), 2 wash liquors from a milk churn cleansing machine, and a scouring reagent.

Swimming Bath Waters.—It will be recalled that as the combined result of the bacteriological examinations of Professor J. W. McLeod and of my chemical analyses (Annual Report, 1933;

pp. 200, 210), installation of filtration-sterilisation plant was last year recommended in three of the four swimming baths (viz., B, C and E) where no treatment of any kind took place. Plant has now been fitted to each of these baths to the consequent advantage of the bathers concerned, both from the standpoint of purity and of safety. Apart from the fact that all the school swimming bath waters in Leeds now receive the same treatment as do the municipal ones, it is noteworthy that a filtration plant pays for itself in five years, through economies in fuel and water.

Public Assistance Committee (including St. James's Hospital).—Two soaps and one margarine were analysed for conformity or otherwise with the City Council specifications, and one urine was examined for lead.

Works and Supplies Department.—One soap and three metal polishes were analysed for this new department, which in the fourth quarter of this year took over the submission of those samples previously sent to me by the Public Assistance Committee.

Waterworks Committee.—The monthly analyses of the city water have been continued and other enquiries dealt with at the request of the Waterworks Manager. The high character of the city water has been maintained throughout the year.

City Coroner.—The lead contents of the kidney, liver, brain and right femur of a master painter were determined, the verdict at the inquest being that death was due to lead encephalopathy, an appreciable amount of lead being found in the brain.

Cleansing Committee.—Seven waters were analysed in connection with a case pending in the Civil Court at the Assizes.

Education Committee.—Two samples of milk were analysed and found satisfactory.

Highways Committee.—One sample of concrete and two waters were analysed.

Transport Committee.—One turpentine substitute was analysed.

Watch Committee.—

(1) Two samples of soil were analysed in connection with a case of entry and assault, one being from the prisoner's shoes and the other from the garden outside the house entered.

(2) *Rex v. Whyman (house breaking charge)*. The stain on the inside leather band of a new black hat was identified as black lead (graphite) and not grease due to ordinary wear. Evidence was given to this effect in the Police Court proceedings on May 25th, and at the Summer Assizes on July 24th.

(3) *Rex v. Sutcliffe*. A partly charred specimen of cotton-wool was examined in connection with an embezzlement charge involving an office fire, the weights of cotton-wool, paraffin and water being determined.

(4) A pathological specimen was examined for the presence of soap with negative results.

(5) *Rex v. Blake (Middleton Woods murder of Emily Yeomans on October 16th)*.

Case heard at the West Riding Assizes, December 12th-15th before Mr. Justice Goddard.

Certain powders were analysed in connection with this case, one of them being a face powder contained in a box found in the prisoner's possession and identified as the dead woman's property by a tear in the lid. The defence having submitted that the box and powder belonged to prisoner's wife, who stated that she had mixed some white Yardley compact with the Phul-Nana powder in her box, evidence was given to the effect that the white lumps in the exhibit box were not those of another face powder, but of pure boracic acid, the composition being :—

Face powder	..	30 grs. (15.0%)
Boracic acid	..	170 grs. (85.0%)
Total	..	200 grs.

Neither of the face powders mentioned contains boracic acid.

Prisoner was found guilty.

(6) One bottle of medicine containing an ergot preparation was analysed.

Regional Smoke Abatement Committee.—The monthly analyses of the rain water and soot collected at the five stations in the city have been continued. The monthly amounts of total solids (dissolved and undissolved) expressed as tons per square mile are tabulated on page 273.

The heaviest deposit occurred at Park Square in September (38·4), and the lightest at Templenewsam in October (3·6).

Light Tests.—The figures in the table on page 274 provide a measure of the average amount of daily sunlight per month expressed in terms of iodine liberated from an acidified solution of potassium iodide exposed in a 1 oz. glass bottle on a white plate for 24 hours.

The station shewing the highest average for the year was Middleton (7·3), and the lowest Hunslet (5·3).

Atmospheric Sulphur Dioxide.—The results of the first full year's tests are recorded on page 271, the 1933 figures being given where available. The average figures are approximately the same as those for 1933, the Park Square figure being just over twice that of Headingley.

In conclusion, I wish to express to my Assistant and Deputy, Mr. A. Houlbrooke, M.Sc., F.I.C., and to Mr. W. Lee, A.I.C. (appointed as from June 1st, 1935, Analyst and Demonstrator at the Harper Adams Agricultural College, Newport, Salop), my sincere appreciation of their valued services and loyal co-operation in the work of this department.

FOOD AND DRUGS (ADULTERATION) ACT, 1928. SAMPLES SUBMITTED
TO THE CITY ANALYST DURING 1934.

Article.	No. examined.			No. adulterated.			Per-centage adultera-tion.
	Formal	Informal	Total	Formal	Informal	Total	
Almonds (Ground) ..	6	..	6	..	..	..	..
Aspirin Tablets ..	1	..	1	..	..	..	..
*Bacon	..	1	1	..	..	..	..
Baking Powder ..	19	..	19	..	..	..	..
Barley	1	..	1	..	..	..	..
*Beer	30	..	30	..	..	..	..
Black Beer ..	3	..	3	..	..	..	..
Bicarbonate of Soda ..	1	..	1	..	..	..	..
Bismuth Lozenges ..	1	..	1	..	..	..	..
Borax	2	..	2	..	..	..	..
Boric Ointment ..	3	..	3	1	..	1	33·3
*Butter	38	..	38	..	..	..	..
Camphorated Oil ..	1	..	1	1	..	1	100·0
Carbonate of Magnesia ..	1	..	1	..	..	..	..
Cheese	8	3	11	..	..	..	..
Chocolate Drops ..	2	..	2	..	..	..	..
Cocoa	16	..	16	..	..	..	..
Cocoa Tablets ..	1	..	1	..	..	..	..
Coconut (Desiccated) ..	2	..	2	..	..	..	..
Coffee	30	..	30	..	..	..	..
Coffee (French) ..	7	..	7	..	..	..	..
Coffee & Chicory Extract	1	..	1	..	..	..	..
Condensed Milk ..	5	..	5	..	..	..	..
*Cordials	21	..	21	..	..	..	..
*Cornflour	1	..	1	..	..	..	..
*Crab and Tomato Paste..	1	..	1	..	..	..	..
*Cream	24	..	24	..	..	..	..
*Cream Cakes ..	..	3	3	..	..	..	..
Cremex	..	1	1	..	..	..	..
Cream of Tartar..	3	..	3	..	..	..	..
Custard Powder ..	5	..	5	..	..	..	..
Dried Milk	..	4	4	..	..	..	..
Epsom Salts	3	..	3	..	..	..	..
Essences	..	4	4	..	..	..	..
*Flour—Bun	1	..	1	..	..	..	..
Flour—Malt	1	..	1	..	..	..	..
*Flour—Self-raising	8	..	8	..	..	..	..
Gin	2	..	2	..	..	..	..
Ground Ginger ..	1	..	1	..	..	..	..
Gravy Salt	2	..	2	..	..	..	..
Health Salts	8	..	8	..	..	..	..
Carried forward ..	260	16	276	2	..	2	..

* Tested for preservative.

FOOD AND DRUGS (ADULTERATION) ACT, 1928. SAMPLES SUBMITTED
TO THE CITY ANALYST DURING 1934—Continued.

Article.	No. examined.			No. adulterated.			Per-centage adultera-tion.
	Formal	Informal	Total	Formal	Informal	Total	
Brought forward ..	260	16	276	2	..	2	..
Honey	1	..	1	..	..	..	..
*Jam	5	..	5	..	..	..	..
*Jellies	11	..	11	..	..	..	..
*Lard	30	1	31	1	..	1	3·2
*Lemonade Crystals ..	4	..	4	..	..	..	..
*Margarine	28	..	28	..	..	..	..
Marshmallow Ointment	1	..	1	..	..	..	..
*Milk	1,717	71	1,788	171	3	174	9·7
*Milk Skimmed	3	..	3	..	..	..	..
Milk Pudding Mixture ..	1	..	1	..	..	..	..
Mint	5	..	5	..	..	..	..
Oatmeal—Malted	1	..	1	..	..	..	..
Olive Oil	3	..	3	..	..	..	..
Parrish's Food	1	..	1	..	..	..	..
*Pearl Barley	9	..	9	..	..	..	..
Peas	8	..	8	..	..	..	..
Pepper	14	..	14	..	..	..	..
*Polony	1	..	1	..	..	..	..
*Potted Meat	10	..	10	..	..	..	..
Prescribed Medicine ..	..	4	4	..	..	..	..
Rice	19	..	19	..	..	..	..
Rice—Ground	1	..	1	..	..	..	..
Rum	7	1	8	..	..	..	..
Sage	2	..	2	..	..	..	..
Sago	1	..	1	1	..	1	100·0
*Sausages	41	..	41	3	..	3	7·3
Semolina	1	..	1	..	..	..	..
Shredded Suet	3	..	3	..	..	..	..
*Sugar	10	..	10	..	..	..	..
*Sugar Demarara	3	..	3	..	..	..	..
*Sultanas	5	..	5	..	..	..	..
Sweet Spirit of Nitre ..	2	..	2	..	..	..	..
Syrup of Figs	1	..	1	..	..	..	..
Tapioca	1	..	1	..	..	..	..
Tea	32	1	33	..	..	..	..
Thyme	1	..	1	..	..	..	..
*Vinegar	26	1	27	1	..	1	3·7
*Vinegar, Malt	21	..	21	3	..	3	14·3
Whiskey	15	1	16	..	..	..	..
Zinc Ointment	1	..	1	..	..	..	..
Total ..	2,306	96	2,402	182	3	185	7·7

* Tested for preservative.

SUMMONSES ISSUED DURING 1934 UNDER THE FOOD AND DRUGS
(ADULTERATION) ACT, 1928.

No. of Sample	Article.	Adulteration or Deficiency.	Fines. £ s. d.	Remarks.
71L	Milk ..	12.5% of added water ..	..	Dismissed under the Probation of Offenders Act on payment of Costs. Retailer.
88L	Milk ..	9.3% of added water ..	..	Dismissed with costs against the Corporation of 20/-, but pending the lodging of an appeal to the High Court by the Corporation, the Stipendiary Magistrate, on stating a case intimated that his previous ruling would be substituted by a new ruling in favour of the Corporation in the event of a similar case being brought to Court. The lodgment of an appeal was withdrawn; producer.
89L	Milk ..	1.7% deficient in fat and 7.9% of added water	..	do.
144L	Milk ..	13.3% deficient in fat ..	..	Dismissed with 40/- costs against the Corporation; retailer.
146L	Milk ..	21.7% deficient in fat ..	..	Dismissed with 40/- costs against the Corporation; wholesaler.
149L	Milk ..	11.7% deficient in fat ..	..	do.
307L	Milk ..	3.8% of added water ..	..	Found guilty and ordered to pay 10/6 costs; retailer.
308L	Milk ..	6.6% of added water ..	..	Found guilty and ordered to pay 14/6 costs; retailer.
354L	Milk ..	18.0% deficient in fat ..	5 0 0	Ordered to pay costs; retailer.
365c	Milk ..	26.4% of added water and 13.3% deficient in fat	..	Found guilty and ordered to pay £3/10/6 costs; retailer.
443L	Malt Vinegar	Found to be an artificial or "wood" vinegar, 7.5% deficient in acetic acid	..	Found guilty and ordered to pay 14/6 costs; retailer.

SUMMONSES ISSUED DURING 1934 UNDER THE FOOD AND DRUGS
(ADULTERATION) ACT, 1928—Continued.

No. of Sample	Article.	Adulteration or Deficiency.	Fines. £ s. d.	Remarks.
475L	Sausages	Contained 50 parts per million of sulphur dioxide preservative	1 0 0	Ordered to pay 10/6 costs; retailer.
480L	Milk ..	4.2% of added water ..	..	Found guilty but dismissed under the Probation of Offenders Act on payment of £2/5/6 costs; producer-retailer.
510L	Milk ..	6.2% of added water and 5.0% deficient in fat	..	Found guilty but dismissed under the Probation of Offenders Act on payment of £2/3/6 costs on two charges; producer.
512L	Milk ..	5.3% of added water and 5.0% deficient in fat	..	
550L	Vinegar	25.0% deficient in acetic acid	..	Found guilty but dismissed under the Probation of Offenders Act on payment of 14/6 costs; retailer.
592C	Milk ..	15.0% deficient in fat ..	..	Dismissed with costs of £2/2/- against the Corporation; producer.
686L	Milk ..	14.0% deficient in fat ..	..	Dismissed under the Probation of Offenders Act on payment of 10/6 costs; retailer.
688C	Milk ..	21.0% deficient in fat ..	2 0 0	Ordered to pay costs; retailer.
720C	Milk ..	5.7% of added water ..	..	Ordered to pay 14/6 costs; retailer.
720L	Milk ..	20.0% deficient in fat ..	2 0 0	Ordered to pay 10/6 costs; retailer.
752C	Sausages	Contained 180 parts per million of sulphur dioxide preservative without declaration of presence at time of sale	..	Ordered to pay 14/6 costs; retailer.
778C	Milk ..	20.0% deficient in fat and 7.6% of added water	..	Ordered to pay £2/12/- costs in respect of two summons (Nos. 778 and 789); producer.
789C	Milk ..	5.0% deficient in fat and 7.9% of added water	..	

SUMMONSES ISSUED DURING 1934 UNDER THE FOOD AND DRUGS
(ADULTERATION) ACT, 1928—Continued.

No. of Sample	Article.	Adulteration or Deficiency.	Fines.			Remarks.
			£	s.	d.	
826L	Milk ..	4.0% deficient in fat and 9.2% of added water	..			Dismissed under the Probation of Offenders Act on payment of 14/6 costs; retailer.
865L	} Milk ..	5.7% of added water ..	..			Found guilty but dismissed under the Probation of Offenders Act on payment of £1/11/- costs; producer.
867L		6.0% of added water ..	..			
880c	} Milk ..	10.0% deficient in fat and 18.1% of added water	2	0	0	Found guilty; producer.
881c		6.7% deficient in fat and 21.3% of added water	2	0	0	
998L	Malt Vinegar	13.0% deficient in acetic acid	1	0	0	Ordered to pay £1/1/- costs; retailer.
1056L	} Milk ..	17.0% deficient in fat and 14.7% of added water	5	0	0	Ordered to pay 10/6 costs; retailer.
1058L		18.0% deficient in fat and 16.6% of added water	5	0	0	
1055c	} Milk ..	4.0% deficient in fat and 12.3% of added water	..			Dismissed under Probation of Offenders Act on payment of £1/1/6 costs; producer.
1060c		3.6% of added water ..	..			
1130L	} Milk ..	11.1% of added water ..	1	0	0	Ordered to pay 10/6 costs; retailer.
1131L		9.1% of added water ..	1	0	0	
1269L	Malt Vinegar	An artificial product prepared from diluted acetic acid coloured with caramel	..			Found guilty but dismissed under Probation of Offenders Act. Court fees remitted.

Sanitary Circumstances.

SANITARY CIRCUMSTANCES.

BY

ERNEST STANDISH, M.R.San.I., *Chief Sanitary Inspector.*

Rivers and Streams.—Close co-operation continued to be maintained between the Health Department and the West Riding Rivers Board, which administers the powers conferred by the Rivers Pollution Prevention Act, 1876, in respect of the Leeds area. During the year an abatement of pollution was secured on one occasion.

Water.—Mr. H. Shortreed, the Waterworks Manager, has kindly furnished me with the following particulars regarding the water supply of the city during 1934.

The year of 1934, like its predecessor, was one in which dry conditions prevailed for considerable periods in the Southern half of the British Isles, during which, in the cases of both upland and underground sources of supply, available "Stocks" of water in many parts of the country sank to extremely low levels.

The average rainfall during 1934 in the Washburn Drainage Area was 31.02 inches, as compared with an average of 34.49 inches for the past 44 years, and as a result of this and also to a diminished consumption (apparently due to a widespread desire to economise) and the prevention of waste, Leeds and the communities dependent upon it went through the year without any restriction or curtailment of this vital service.

The smallest quantity in the reservoirs during the year was on the 24th October, when they held a supply equal to 110 days.

During the year, 49,384 yards of new distribution mains, 3" to 8" diameter, were laid and 1,958 yards of old distribution mains were renewed.

The total average daily consumption for the year ended 31st December, 1934, was 17.75 million gallons, as compared with 18.22 million gallons in the previous year (exclusive of Compensation

Water), the domestic consumption in the City and the area of direct supply being 24.57 gallons per head per day, including waste.

The monthly analyses (chemical and bacteriological) indicate a high standard of purity.

Sewage Disposal.—I have to thank Mr. E. H. Howatson, the Sewerage Engineer, for the following information.

The Thorpe Stapleton Main Sewage Disposal Works continue to function in a satisfactory manner. During the past year work has proceeded on the construction of the new Sludge Press House. The house itself is finished and the installation of the pressing machinery is now proceeding. It is anticipated that pressing operations will commence in the new Press House in a few months time.

A contract has been let for the construction of Sludge Storage Tanks. This work has been commenced and satisfactory progress is being made.

The good results previously obtained in the purification of sewage at the Rodley Sewage Works have been maintained during the past year. No further extensions or alterations have been carried out.

Closet Accommodation.—During the year the Corporation completed the scheme of giving financial assistance to property owners in approved cases in the matter of the cost of conversion of trough-closets into modern pedestal water-closets, and 30 trough-closets were converted under this scheme. The total contribution of the Corporation towards these works amounted to £159 2s. 6d. The average cost per conversion was £7 1s. 5d. as compared with £7 18s. 2d. in 1933. On December 31st, 1934, there remained in the city 1,030 trough-closets, all of these being situate in areas to be dealt with under the Housing Acts.

Thirteen privies and four pail-closets were replaced by modern water-closets during the year.

The position with regard to the various types of sanitary conveniences in the city at the end of the year was as follows :—privies 215 ; pail-closets 181 ; trough-closets 1,030 ; and cistern water-closets approximately 124,539. There were also 346 cess-pools. (See table on page 250.)

TABLE SHEWING NUMBERS OF TROUGH CLOSETS, PRIVIES AND PAIL CLOSETS IN THE CITY DURING THE LAST THIRTY YEARS.

Year.	Trough Closets.	Privies.	Pail Closets.
1905	10,507	1,669	231
1906	10,461	1,193	229
1907	10,424	963	228
1908	10,410	875	202
1909	10,120	851	198
1910	10,047	821	165
1911	9,963	785	164
*1912	9,934	1,284	221
1913	9,790	1,269	217
1914	9,760	1,211	207
1915	9,738	1,047	188
1916	9,725	1,026	185
1917	9,723	1,023	169
1918	9,693	1,022	166
1919	9,655	1,014	166
†1920	9,594	1,051	155
1921	9,521	900	128
1922	9,324	651	111
1923	9,256	558	102
1924	8,781	472	101
1925	8,222	332	94
‡1926	7,685	332	219
1927	6,447	294	197
§1928	4,440	435	267
1929	3,647	360	256
1930	2,772	322	230
1931	1,589	300	227
1932	1,158	248	205
1933	1,063	228	185
1934	1,030	215	181

*Roundhay, Seacroft, Shadwell and Crossgates were added to the city in this year. In this area there were 502 privies and 61 pail closets.

†Middleton was absorbed in this year. In this area there were 148 privies.

‡Portion of Adel was added to the city in this year. In this area there were 65 privies and 136 pail closets.

§Eccup, Alwoodley, Templenewsam and Austhorpe were added to the city in this year. In these areas there were 192 privies and 106 pail closets.

||This is a corrected figure obtained as a result of a recent census.

The existing privies and pail-closets are mostly in rural districts where no sewer is at present available. It may be noted that owing to Town Planning Schemes in these areas thirteen privies were converted into modern pedestal water-closets and connected to sewers recently laid down in the locality.

In connection with the conversion of trough-closets it will be noticed that the number fell from 431 in 1932 to 95 in 1933 and 33 in 1934. A brief summary of the Corporation's activities in this respect is therefore not without interest.

Since the subsidy was increased to 75 per cent. in August, 1923, a total of 8,126 trough-closets have been converted. The amount paid in grants during this period was £58,259 9s. 8d., and it is satisfactory to know that the day of the objectionable trough water-closet is nearly at an end. The conversion of 8,126 trough water-closets in a period of eleven years is a notable achievement.

Comment was made in the report of 1933 on the unsatisfactory position regarding cesspools. The number has been reduced during the year by 18 (22 having been abolished and 4 newly constructed) and negotiations are pending which if successful will further reduce the total during the year 1935.

Public Cleansing.—I am indebted to Mr. S. Thornley, the Director of Public Cleansing, for the following information. Household refuse, collected by the Cleansing Department during 1934, amounted to 160,034 tons, of which 93,074 tons were dealt with at the destructors and 66,960 tons were disposed of at controlled tips and for agricultural purposes.

Ashpits and Ashbins.—During the year 304 ashpits were abolished. On December 31st, 1934, there still remained in the city 425 sunken ashpits. Of this number 196 will disappear in consequence of slum clearance proposals and efforts will be made to get rid of the balance in the near future. Other types of ashpits numbered 5,178.

The ashpit question is at present receiving the serious attention of the Health Committee with a view to their entire abolition and I hope to be able to state in my next report that good progress has been made.

In response to the representations from the Department, 4,170 metal ashbins were provided. Of this number 157 were supplied by the Corporation in default.

Particular attention is being paid by the sanitary inspectors to the misuse of ashbins, and in this connection occupiers are reminded from time to time of their duty to use the receptacles provided in a proper manner.

Public Conveniences.—Besides the need of additional conveniences in various parts of the city there is room for considerable improvement in the way of reconstruction of many of those now existing.

Flushing.—The flushing services continued as previously. The work has been carried out efficiently and during the past year 9,106 flushing operations were carried out in connection with public conveniences, and 177 flushings at private properties. The income derived from private flushings was £83 6s. 1d.

Section 17, Housing Act, 1930.—Progress under this section was not so good as during the five years 1929–1933 largely due to the Slum Clearance Schemes. The check is only temporary, however, and activity will be resumed in the near future.

In connection with the administration of this Section it is gratifying to be able to record that in no instance was it necessary to do the work in default.

Leeds Corporation Act, 1927, Section 95.—During the year 9 cases came under notice for removal to an institution, but in every case it was found possible to persuade them to go voluntarily.

Offensive Trades.—The following table shows the nature and number of scheduled offensive trades which were being carried on in the city at the end of the year.

OFFENSIVE TRADES.

Nature of Trade.					Number of each Trade.
Bone Boiler	..	..	..	..	5
Fellmonger	..	..	..	..	2
Fat Melter	..	..	..	..	11
Glue Maker	..	..	..	..	2
Gut Scraper	..	..	..	..	4
Leather Dresser	..	..	..	..	23
Rag and Bone Dealer	..	..	..	..	33
Size Maker	..	..	..	..	4
Soap Boiler	..	..	..	..	5
Tanner	..	..	..	..	16
Tripe Boiler	..	..	..	..	11
Fish Frier	..	..	..	..	545
Total					661

During the year 2,888 visits of inspection were made to premises in which offensive trades were carried on or in respect of which applications had been received for permission to establish such trades, as compared with 3,705 in 1933.

Fish Frying.—During the year 5 applications were received for permission to establish the offensive trade of a fish frier. Of these 2 were rejected.

Most of the old established fish shops have now been re-conditioned and only a few remain still to be dealt with.

District Sanitary Inspection.—Routine sanitary inspection has continued as in previous years and the amount of work done during 1934 will be seen on reference to the tables on pages 254 and 255.

The number of preliminary notices served during the year for the abatement of nuisances was 7,868 and the number of statutory notices 2,054. Of the latter 1,833 have been effective and 221 were outstanding at the year end.

In connection with common lodging-houses, houses-let-in-lodgings, etc., there were served during the year 693 preliminary notices and 576 statutory notices.

ANALYSIS OF WORK DONE BY DISTRICT INSPECTORS—1934—contd.

	EASTERN DIVISION.	WESTERN DIVISION.	CITY TOTALS.
47. Number of informal notices served	3,606	4,262	7,868
48. Number of statutory notices served.. ..	956	1,098	2,054
NUISANCE ABATEMENT.			
49. Metal ashbins provided	1,783	2,387	4,170
50. Houses cleaned.. .. .	133	23	156
51. Overcrowded houses dealt with	115	163	278
52. Defective roofs, fallpipes and spouting, &c. repaired	1,667	2,804	4,471
53. Disconnection of house drains	96	88	184
54. Other drainage works	305	340	645
55. Houses provided with proper drains ..	20	16	36
56. Houses supplied with town's water	—	2	2
57. Privies abolished or converted into water closets	10	3	13
58. Water closets erected { (a) Outside	1	—	1
(b) Inside	1	6	7
59. Pail closets abolished or converted into water closets	3	1	4
60. Trough closets converted into water closets ..	32	1	33
61. Trough and water closets repaired	781	1,336	2,117
62. Ashpits abolished { (a) Sunken	17	30	47
(b) Other than sunken ..	87	170	257
63. Houses provided with suitable ashes accom- modation	2,230	3,588	5,818
64. Closets cleaned (limewashed, etc.)	79	59	138
65. Yard surfaces repaired or renewed	181	96	277
66. Stopped drains cleared.. .. .	696	706	1,402
67. Other nuisances remedied	1,837	2,336	4,173
68. Other housing defects remedied	431	928	1,359
69. Total houses for which above work done ..	8,558	12,069	20,627
70. Offensive accumulations removed	164	96	260
71. New manure pits or metal receptacles provided	9	7	16
72. Manure pits repaired	2	2	4
73. Pollutions of river or streams abated ..	—	1	1
74. Animals improperly kept removed	10	6	16
75. Offensive urinals dealt with	6	7	13
76. Cesspools filled up	18	4	22
77. Public or private wells abolished	—	—	—
78. Total nuisances and housing defects abated	8,931	12,819	21,750
79. Abated in response to prelim. notices or volun.	7,451	10,739	18,190
80. Abated in response to statutory notices ..	1,480	2,080	3,560
HOUSING ACT, 1930 SECTION 17.			
81. Number of houses where defects found ..	207	445	652
82. Number of houses where defects remedied..	197	416	613
83. Defects remedied { (a) Prelim. Notices or Volun	135	334	469
84. in response to (b) Statutory Notices ..	62	82	144
85. Number of informal notices served	145	245	390
86. Number of statutory notices served.. ..	71	83	154

In addition 230 preliminary notices and 28 statutory notices were served in connection with factories, workshops and work-places.

It will again be seen that the inspection of houses and premises in connection with 5,748 notified cases of infectious diseases and the additional 1,249 visits made chiefly in connection with cases of diphtheria and scarlet fever made heavy claims on the Inspectors' time.

It will be noted that visits on account of special enquiries numbered 3,132. These visits were made chiefly in connection with the disinfestation of furniture infested with bugs either before or after treatment with hydrocyanic acid gas. (See page 264).

Training of Sanitary Inspectors.—Eight student sanitary inspectors received training in the Department during the year.

The scheme for training sanitary inspectors instituted last year resulted in two student probationers completing their first year of training, one being successful in obtaining the Sanitary Inspectors' Certificate of the Royal Sanitary Institute. Two additional students were appointed as first year pupils near the end of the year. I should like to say that the second year pupils are proving themselves useful and a valuable help in the work of the Department.

Applications for Council Houses.—The arrangement by which the Improvements Committee in allocating the available houses grants preferential treatment to overcrowded families and those with members suffering from chronic sickness was continued and necessitated 3,259 visits of inspection during the year. In 1,967 instances gross overcrowding was found and representations were put forward in respect of these and also on the grounds of ill-health and tuberculosis in 380 and 182 cases respectively.

These inspections meant increased work for both the inspectorial and clerical branches of the Department.

Common Lodging Houses.—Strict supervision of the 25 common lodging-houses in the city has been maintained, and it can be safely claimed that the standard of cleanliness in these is high.

COMMON LODGING-HOUSES.

Number registered—				
Men's	22	Beds available	1,251	..
Women's	3	"	116	..
Routine visits to all common lodging-houses..			674	
Visits as to drain tests and abatements ..			25	
Visits to smallpox contacts			..	
Visits for infectious disease (1 case) ..			2	
Preliminary notices served			25	
Statutory notices served			..	
Nuisances found and abated :—			FOUND.	ABATED.
Dirty closets			3	3
Dirty rooms			79	79
Dirty bedding			114	114
Defective or stopped drains			2	2
Defective roofs or eaves spouts			6	6
Other nuisances			80	79
Total			284	283

HOUSES-LET-IN-LODGINGS.

	HOUSES.	ROOMS.
Registered during 1934, let as furnished rooms	15	94
On register at end of 1934	92	632
Houses-let-in-lodgings visited though not registered	117	728
Drains tested 62, in 34 houses		
Drains re-tested —, in — houses		
Visits for inspection of nuisance abatement and requirements of byelaws.. 1,338		
Visits for other causes 359		
„ infectious disease (18 cases) 21		
„ additional inspection .. 1,186		
Preliminary notices served	643	
Statutory notices served	442	
Nuisances—	FOUND.	ABATED.
Dirty or bad bedding	10	10
Dirty rooms	213	202
Overcrowding	78	45
Dirty closets	9	8
Other nuisances	859	678
Structural defects	300	250

During the year it was found necessary on two occasions to take legal proceedings against the Keeper of No. 31, Wharf Street.

At the end of the year there was available in the city the following accommodation in registered premises :—

For Men	21 houses, with 1,220 beds.
For Women	3 houses, with 116 beds.

Included in the above are three registered lodging-houses for men, controlled by the Salvation Army and by the Church Army, with a total of 376 beds.

In the year under review the beds in the 21 men's lodging-houses were occupied on 379,809 occasions, the average number of beds vacant per night being approximately 207. The 116 beds in the women's lodging-houses were occupied on 19,998 occasions, the average number of beds vacant nightly being 62.

It may be noted that the common lodging-house (male) at 3, Dyer Street which ceased to be a lodging-house in September, had accommodation for 355 beds which were occupied on 44,044 occasions up to the date of closure. The house has since been demolished. In addition 55, Low Road, registered for 31 beds (male) was closed from 1st January, 1934.

The table on page 257 sets forth the work carried out in respect of the common lodging-houses during 1934.

A change of one Keeper and 7 Deputies has taken place.

In the women's lodging-houses, in addition to the figure given, 154 children slept on 233 occasions at the common lodging-house in Templar Street.

As many of the common lodging-houses stand in areas included in the Corporation's programme of slum clearance it may be anticipated that there will be a considerable reduction in the total in the next few years. Already in consequence of slum clearance 3 houses (males) have ceased to function.

Houses-let-in-Lodgings.—The control of this type of house continues to be a difficult problem and frequent inspections are necessary.

The new byelaws approved by the Minister of Health became operative this year, and the control over houses-let-in-lodgings is now more satisfactory.

The number of statutory notices served for breaches of the byelaws was 424, as against 150 in 1933, and of these 328 were complied with, as against 122 in 1933.

Notification of the letting of rooms for houses-let-in-lodgings numbered only 58, and 117 houses were found to come within the control of the byelaws. Of these houses 15, containing 94 rooms, have been registered; 80 have been closed or are now occupied by one family, and 22 were served with notices for work to be done to conform with the byelaws.

There have also been visited 217 houses, with 870 rooms, occupied by persons other than the working classes.

Details of the work in connection with houses-let-in-lodgings will be found in the table on page 257.

University Lodgings.—As in previous years the usual procedure has been followed and the lodgings on the register of approved premises for the use of University students were duly inspected and the results reported to the University Authorities. In this connection the following details are given:—

	HOUSES.	ROOMS.
New lodgings inspected during 1934 ..	56	110
Drains tested—191 drains in 56 houses		
Total number of visits to the above houses—64.		

Details of sanitary defects found and rectified are included in the table under houses-let-in-lodgings.

Residential Flats.—The special inspectors concerned paid 21 visits to the 94 flats in the city.

Cellar Dwellings and Underground Sleeping Rooms.—During the year 28 underground sleeping rooms were found. Alternative accommodation was found in 21 cases and the remaining 7 are being dealt with.

The only cellar dwellings remaining in the city are the 9 houses in Bath Street. All are occupied by aged people.

Below are particulars of visits, nuisances found and abated, and notices issued :—

Visits to cellar dwellings	10	
Visits to underground sleeping-rooms ..	28	
Visits on account of nuisance abatement ..	28	
Visits for other causes	..	
Preliminary notices served	21	
Statutory notices served	..	
Nuisances :—		
Underground sleeping-rooms	28	21
Other nuisances	..	..

Tents and Vans.—During the year 12 additional camping-grounds were found, bringing the total to 24. However, 10 of these camping-grounds have been closed and 108 vans and tents removed.

The Stanningley Road encampment has been cleared and the vans dispersed. With the exception of Brewery Yard all the other camping-grounds have been cleared or possess only one or two vans on the site. The subject is at present receiving special attention and I shall deal with it further in my next report.

Legal proceedings were taken against 3 caravan dwellers under Section 48 of the Leeds Corporation Act, 1930.

The following table gives details of the several inspections made :—

Visits to vans (205 vans)	1,464	
Visits to tents (46 tents)	181	
Visits on account of infectious disease ..	1	
Visits to camping grounds	205	
Visits on account of nuisances	289	
Camping grounds closed	10	
Statutory notices served	135	
Nuisances :—		
Dirty camping grounds	1	1
Dirty vans	2	2
Overcrowded vans	17	3
Camping places without sanitary accom- modation	12	10
Tents and vans not habitable	16	35
Other nuisances	43	13

Canal Boats.—The work in connection with the registration and inspection of canal boats has been carried on as in past years.

Legal proceedings were instituted in three instances (one defendant) under the Canal Boats Act, 1877, and the Canal Boats Amendment Regulations, 1925.

CANAL BOATS.

Registered during the year 1934	7
Re-registered and Transferred to fresh owners ..	1
Re-registered owing to structural alterations	..
Struck off register (on revising register)	12
Remaining on register at end of year.. ..	113
Visits of inspection to wharves and locks	632
Complete inspections of boats	474
Cases of infectious disease	..
Cases of overcrowding	..
Dirty cabins	5
Absence of registration certificate	24
Boats not marked with registered number	19
„ not provided with water cask	1
„ requiring painting or repairing	8
„ found to be not registered	9
Number of children of school age found on registered boats—3 boats, 9 children	

Sanitation of Schools.—A separate report is issued by the School Medical Officer and this includes particulars relating to the sanitary circumstances of the Leeds schools.

I would point out however, that the sanitary accommodation at 15 Council Schools and 4 Church Schools is far from satisfactory. These schools are provided with trough-closets of various types ; many are objectionable and all unsatisfactory.

Rat Suppression.—As in past years the Annual Rat Week was held in November when an effort was made to educate the public concerning the damage to health and property occasioned by rats. In addition, a rat film was shown in two cinemas, and thanks to the valuable support given by the Press a good deal of interest was created. The co-operation of the City Engineer's Department,

Cleansing Department, Markets Department and Sewerage Department was enlisted and special measures were taken against sewer rats. Tips and refuse dumps received special attention.

The number of complaints received was 397, as compared with 372 last year, and 371 in 1932. The increase in the number of the complaints indicates an appreciation by the public generally of the fact that the Department is able to give advice on the eradication of these pests. The figures do not, of course, give any indication of the extent to which the city is affected. Particulars of the work done under the Rats and Mice (Destruction) Act, 1919, are as follows :—

Complaints received	..	..	..	..	397
Premises inspected	..	..	..	..	588
Premises cleared	..	..	..	..	195
Rats caught or found poisoned	..	..	..	..	2,625
Visits for purposes of observation of work in progress	..	..	..	..	770
Visits for other purposes—interviews with owners of infested premises and the like	..	..	..	..	211
Informal notices served	..	..	..	..	35
Notices complied with	..	..	..	..	32

Pig Keeping.—Constant supervision has been necessary throughout the year in order to prevent nuisances arising from the keeping of pigs. It is encouraging to note, however, that during the year no legal action had to be taken to ensure compliance with the byelaws.

In connection with the piggeries at Brown Lane allotments, successful arrangements were made with the owners of the land, (on which there are 114 allotments with 75 pig keepers, the remainder being used as stables, poultry runs, stores and lumber yards), for the clearing of the entire site, and up to the end of the year 47 pig keepers had discontinued, and the remainder were making arrangements for moving to other sites or selling their stock. The matter will be alluded to again in my next report.

At the end of the year the total number of persons (excluding farmers) keeping pigs had decreased from 306 in 1933 to 217.

Plans.—The system whereby those plans submitted to the Building Surveyor which deal with schemes involving sanitary works, offensive trades, and houses-let-in-lodgings, etc., are reviewed

by this Department before being finally approved by the Corporation, was continued during 1934. The total number of plans examined and commented upon was 216.

Factory and Workshop Act, 1901.—A complete summary of the work done during the year under the above Act appears on pages 266 and 267.

Close co-operation continued to be maintained between the Department and H.M. Factory Inspectorate.

OTHER VISITS PAID BY MALE WORKSHOPS INSPECTORS.

	Factories.	Workshops.	Workplaces.
Non-abatements	285	176	102
Drain Inspection	77	38	63
Drains tested	40	12	31
Disease enquiries	168	34	38
River pollution	..	..	..
Complaints	194	62	68
Measurement of workrooms ..	..	11	..
Other causes	187	241	84
TOTAL	951	574	386

Work of Women Inspectors.—During the year the two women inspectors carried out their various duties, comprising visiting of outworkers, investigation of outbreaks of infectious diseases in factories, workshops and schools, the routine inspection of workshops and certain restaurants, and the investigation of complaints received from the factory inspectors or other sources relating to sanitary defects affecting the health of female workers.

The following is a summary of the year's work :—

To schools (on account of 2,180 cases) ..	1,375
To absent pupils	117
To factories (231 cases)	214
To workshops (27 cases)	27
To workplaces, including restaurants ..	28
To absent employees	7
Special visits	39

Factories and Workshops.—Part of the work done by the women inspectors under this heading appears on pages 266 and 267.

In addition to that appearing in the table the following visits were paid.

Outworkers' homes	..	..	..	..	454
Outworkers, employers' premises	..	..	..	..	123
Factories	..	..	..	..	19
Workshops (routine and complaint)	..	..	..	..	354
Workplaces and restaurants	do.	..	..	..	1,061
Special visits	..	..	..	..	45
					2,056

Inspections of public sanitary conveniences					
for women	..	..	..	..	343
Nuisances found	97,	abated	91.		

Public Health Act, 1925. Section 45.—Power is given under this Act on the certificate of the Medical Officer of Health or Sanitary Inspector to deal with articles and premises infested with vermin. In dealing with bug infested houses and furniture under the Slum Clearance Schemes, an inspection is made of all houses where re-housing of the slum tenant in a new house is proposed.

Since August, 1934, when it became possible to treat infested furniture by hydrocyanic acid gas at the newly erected disinfecting station, up to the year end 1,323 houses were examined by the Sanitary Inspectors. Of this number, 1,236 were certified as bug infested and 87 were found to be free from vermin.

A record of houses inspected approximately 14 days after fumigation had been carried out shows that 570 houses so treated gave a negative result and 15 houses a positive result. The houses found to be bug infested had all been previously occupied whilst the negative cases were new houses not previously let.

Shops Act, 1934.—This Act became operative on the last day of December. The powers contained in Section 10 thereof have been delegated to the Health Committee. By this Section every shop is required to have adequate lighting and ventilation and to

maintain a reasonable temperature, also to provide sufficient and suitable sanitary conveniences, washing facilities, and where meals are taken in the shop suitable and sufficient facilities for the taking of those meals.

The work done under this Act will be fully reported upon next year.

Public Health Act, 1925. Section 73. It is an offence to distribute any article of food, or any balloon or other toy by any collector or dealer in rags and bones or similar articles. In this connection 5 rag and bone dealers were proceeded against. One defaulter was fined 20s. od. for his first offence and on a second appearance was bound over in the sum of £5 for one month; in three cases a penalty of 10s. od. was imposed, and another case was dismissed under the Probation of Offenders Act on the payment of 4s. od. costs.

Removal of Offensive or Noxious Matters.—The new byelaws became operative on 1st October, 1934. Three persons contravening these Byelaws have been warned and a sharp lookout is being exercised for offenders.

Rag Flock Acts, 1911 and 1928.—During the year 18 visits were made to premises occupied by persons manufacturing or using rag flock. Six samples were taken and submitted to the City Analyst for analysis and all were found to comply with the legal standard of not more than 30 parts of chlorine per 100,000. The average amount of chlorine found to be present was 11·4 parts per 100,000, as compared with 18·3 for the previous year.

This is the fourth year in succession in which all the samples have been satisfactory.

Mortuary Accommodation.—The number of bodies dealt with at Marsh Lane Mortuary during the year was 265, comprising 241 admitted from private houses, workshops, etc., 20 as a result of street accidents, and 4 unclaimed bodies. The number dealt with in the previous year was 262.

There is urgent need for greater and improved mortuary accommodation in the city. The mortuary at Marsh Lane is altogether too small, badly situated and out of date.

FACTORIES AND WORKSHOPS.

I.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions
Factories (Including Factory Laundries.)	877	143	..
Workshops (Including Workshop Laundries.)	1,969	94	..
Workplaces	1,148	39	..
Total	3,994	276	..

2.—DEFECTS FOUND.				
Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	113	111	..	..
Want of ventilation	4	6	..	..
Overcrowding	1	1	..	..
Want of drainage of floors ..	4	4	..	..
Other nuisances	574	548	..	..
Sanitary accom- modation. { insufficient ..	26	21	..	..
{ unsuitable or defective ..	102	95	..	..
Sec. 22 in force. { not separate for { sexes ..	17	14	..	..
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (S. 101)	..	..	..	..
Breach of special sanitary require- ments for bakehouses (SS. 97 to 100)	23	22	..	..
Other offences	..	..	..	..
Total	864	822	..	..

* Including those specified in Sections 2, 3, 7, and 8 of the Factory Act as remediable under the Public Health Acts.

† Exclusive of 3,331 visits to 638 bakehouses by ward inspectors, see page 268.

3, 4, 5.—OTHER MATTERS.

	Number of		
	Lists.	Outworkers.	
Homework :—			
<i>List of Outworkers (S. 107) :—</i>		C.	W.
Lists received twice in the year	300	498	410
„ once in the year	29	32	45
Addresses of \ received from other Authorities ..	100		
outworkers / forwarded to other Authorities ..	..		
Notices to occupiers as to keeping or sending lists ..	403		
Prosecutions.. .. .	..		
Inspection of Homeworkers' premises	454		
<i>Homework in unwholesome premises :—</i>			
Instances	10		
Notices	10		
Prosecutions.. .. .	..		
<i>Homework in infected premises :—</i>			
Instances	8†		
Orders made (S. 110)	8		
Prosecutions (SS. 109, 110)	..		
[Infectious cases removed, disinfection carried out under ordinary powers.]			
Workshops on the Register (S. 131) at the end of year :—			
Ordinary (133 trades)	996		
Domestic (4 trades)	31		
Bakehouses on register as workshops	293		
Do. domestic	345		
Total number of workshops on Register	1,665		
Matters notified to H.M. Inspectors of Factories :—			
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	7		
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5) {	85		
Notified by H.M. Inspector			
Reports (of action taken) sent to H.M. Inspectors..	109		
Other	..		
Underground Bakehouses (S. 101) :—			
Certificates granted during the year	..		
In use at the end of 1934	25		

† 3 Diphtheria, 5 Scarlet Fever.

The above table is that required by the Home Office and represents work done by the male workshops inspectors and by the women inspectors.

BAKEHOUSES.

WARD.	OVERGROUND.			UNDERGROUND.			Total visits to all.
	Em- ployees beyond family.	Work- shop bake- houses.	Domestic bake- houses.	Em- ployees beyond family.	Work- shop bake- houses.	Domestic bake- houses.	
Mill Hill and South	44	in 11	22	..		1	158
Westfield	29	.. 14	25	..		..	159
Blenheim	35	.. 16	7	5	in 3	..	227
Central	161	.. 24	7	2	.. 2	..	86
Woodhouse.. ..	19	.. 10	20	1	.. 1	2	151
North	14	.. 7	8	1	.. 1	1	92
Far Headingley ..	6	.. 5	12	..		..	66
Hyde Park.. ..	19	.. 14	2	7	in 5	..	108
Kirkstall	13	.. 7	14	3	.. 2	..	176
Burmantofts ..	27	.. 12	13	2	.. 1	..	73
Harehills	32	.. 21	12	..		..	214
Potternewton ..	31	.. 10	6	3	in 1	1	45
Roundhay	15	.. 6	2	..		..	57
Cross Gates and Templenewsam ..	31	.. 17	1	..		..	221
Richmond Hill ..	16	.. 9	30	..		..	151
Osmondthorpe ..	24	.. 8	9	..		..	115
East Hunslet ..	13	.. 5	25	..		..	177
Hunslet Carr and Middleton	9	.. 5	4	..		2	115
West Hunslet ..	33	.. 16	13	5	in 2	..	157
Beeston	9	.. 6	10	..		..	68
Holbeck (South) ..	42	.. 5	8	..		..	67
Holbeck (North) ..	83	.. 9	26	..		..	112
Armley and New Wortley	7	.. 5	14	..		..	103
Upper Armley ..	22	.. 13	17	..		..	225
Bramley	21	.. 14	17	..		..	157
Farnley & Wortley	18	.. 6	14	..		..	51
Totals	773	in 275	338	29	in 18	7	3,331

These visits made by Ward Inspectors only. This work is included in the figures in the table on page 254.

SMOKE ABATEMENT.

The table on page 272 shows the work of the smoke inspectors during the year. The average duration of black smoke per observation was 32 seconds as compared with 29 seconds for the previous year, but the number of chimneys found offending against the bye-law decreased from 67 to 55. The ratio of offending chimneys to observations in 1934 was 1 to 129 which works out at a percentage of 0.8 as compared with 1 to 98 and a percentage of 1.0 for the previous year. For the previous five years the average ratio was 1 to 82 or a percentage of 1.2. In all cases offenders were warned by letter either from the Medical Officer of Health or the Town Clerk. The smoke inspectors also visited and advised as to the steps to be taken for preventing the recurrence of the offence.

Besides the proprietary smokeless fuels obtainable from private sources, the Leeds Gas Department is now producing a graded coke which burns in a special grate to be obtained from the Gas Department at a comparatively cheap cost. This coke gives a clear, smokeless fire with very little residue. For those willing to sacrifice the homely but smoky and wasteful coal fire this new method of heating is to be strongly recommended. The citizen can make no better contribution to the public health than by using smokeless fuel for cooking and heating.

West Riding of Yorkshire Regional Smoke Abatement Committee.—The Executive Committee held five meetings during the year and the average attendance was fifteen. During the year the attention of the Committee was occupied by a variety of subjects in connection with smoke abatement, amongst which the most important were :—

- (1) The presence of metallic substances in atmospheric dust.
- (2) The occurrence of cases of carbon monoxide poisoning in garages.

Investigations with respect to (1) are still proceeding and will be made the subject of a special report to the Committee in due course.

The Regional Committee in co-operation with the Leeds Public Health Department arranged a very comprehensive display at the Leeds Health Exhibition held in September, 1934, at the Town Hall,

Leeds. Samples of building stones, bricks, metals and fabrics which had been exposed in the open were displayed to shew the effects of atmospheric pollution.

At the Annual Conference of the National Smoke Abatement Society held in Glasgow, on September 27th—29th, 1934, two resolutions were passed, which in due course were submitted to the Regional Committee for their consideration. The resolutions dealt with (1) Grit Emission and (2) Smoke and Slum Clearance. With reference to the first, it was resolved that this resolution be endorsed and that a communication to that effect be forwarded to the Minister of Health and the various constituent local authorities in the area. With regard to the second, it was resolved to endorse this resolution and to circularize all the constituent authorities strongly commending it to their attention and favourable consideration.

Further details of the work of the Regional Smoke Abatement Committee will be found in the Annual Report of the Executive Committee, copies of which are to be had from the Secretary of the Committee at 12, Market Buildings, Leeds, 1.

Smoke Gauges.—The table on page 273 shows the monthly deposit of soot and ash in English tons per square mile for the years 1933 and 1934. Increases were recorded at Headingley, Park Square and York Road, and decreases at Hunslet and Templenewsam. The station with the highest monthly average was Park Square (30.60) and that with the lowest Templenewsam (7.19).

Sunlight and Daylight Gauges.—The table on page 274 shows the amount of daylight registered at Headingley, Park Square, York Road, Hunslet and Middleton for the years 1933 and 1934. Increases were recorded at Headingley and Middleton, and decreases at Park Square, York Road and Hunslet. The station showing the highest monthly average was Middleton (7.29) and that with the lowest Hunslet (5.34).

Sulphur Pollution of the Atmosphere.—The following table gives the estimation of atmospheric sulphur pollution by the lead peroxide method at Headingley and Park Square for 10 months of 1933 and the year 1934.

ESTIMATION OF ATMOSPHERIC SULPHUR POLLUTION BY LEAD PEROXIDE METHOD.

Weight of SO_3 calculated per 100 sq. cms. of exposed fabric.

Period.	STATIONS.			
	Headingley.		Park Square.	
	1933	1934	1933	1934
January	..	0.107	..	0.204
February	..	0.060	..	0.127
March	0.083	0.060	0.163	0.159
April	0.045	0.045	0.090	0.109
May	0.039	0.034	0.084	0.082
June	0.021	0.010	0.044	0.025
July	0.032	0.031	0.071	0.060
August	0.035	0.043	0.069	0.080
September	0.030	} 0.098	0.062	} 0.196
October	0.052		0.125	
November	0.069	} 0.111	0.154	} 0.187
December	0.113		0.200	
Monthly Average ..	0.052 10 mths.	0.050	0.106 10 mths.	0.102

The work of the smoke inspectors is given in detail in the subjoined table.

(1)					1933	1934
Furnaces inspected	..	..	..	..	1,774	1,759
Observations of chimneys	..	..	..	..	6,539	7,105
Number of minutes of black smoke during observations	..	..	..	..	3,246	3,771
Average duration of black smoke per observation					0 mins. 29 secs.	0 mins. 32 secs.
Number of chimneys offending against the byelaw					67	55
Smoke prevention appliances adapted to furnaces					2	..
Furnaces altered or reconstructed	..	..			47	45
Firms who have adopted smokeless fuel ..					18	9
Chimneys newly erected	..	..	..	..	10	7
Furnaces in connection with new chimneys ..					10	7
Notices served on owners and occupiers ..					67	55
Prosecutions	..	..	..	..	..	..

SMOKE OBSERVATIONS, 1922-1934.

(2)

Year.	Observations of Chimneys.	No. of Chimneys found offending against the byelaw.	Percentage.
1922	3,853	275	7.1
1923	6,007	202	3.3
1924	6,773	113	1.7
1925	4,373	92	2.1
1926	4,114	63	1.5
1927	4,185	58	1.4
1928	3,492	38	1.1
1929	3,384	77	2.3
1930	4,670	80	1.7
1931	6,397	62	1.0
1932	7,066	57	0.8
1933	6,539	67	1.0
1934	7,105	55	0.8

SOOT AND ASH GAUGES.
MONTHLY DEPOSIT IN ENGLISH TONS PER SQUARE MILE.
YEARS 1933 AND 1934.

Period.	STATIONS.									
	Headingley.		Park Square.		York Road.		Hunslet		Temple Newsam.	
	1933.	1934	1933.	1934	1933.	1934	1933.	1934	1933.	1934
January ..	8.9	9.23	32.4	37.41	21.2	21.27	—*	19.64	—*	8.08
February ..	11.5	7.57	29.3	23.84	26.0	22.92	23.2	25.58	9.2	7.27
March ..	9.9	9.36	20.1	32.25	19.1	24.81	22.9	27.64	6.4	7.70
April ..	8.7	12.62	27.8	32.90	22.4	29.48	31.1	33.61	9.2	7.57
May ..	11.7	9.15	30.3	30.68	24.2	25.55	20.4	26.52	8.9	7.17
June ..	5.4	9.99	21.6	24.79	20.7	21.37	32.8	28.71	5.5	8.11
July ..	9.74	10.30	25.21	27.03	33.61	27.11	32.33	31.37	8.42	6.71
August ..	9.15	12.16	31.00	27.44	21.48	22.49	25.50	18.64	7.01	6.19
September ..	7.12	13.50	20.60	38.38	22.90	23.43	21.90	19.22	10.00	8.93
October ..	8.31	9.38	35.38	32.63	25.45	23.58	26.32	24.43	6.22	3.62
November ..	9.08	7.60	23.32	25.48	16.85	17.70	19.65	20.24	4.59	5.61
December ..	8.36	13.42	30.75	34.38	23.94	25.03	20.22	18.89	6.15	9.28
Year ..	107.86	124.28	327.76	367.21	277.83	284.74	276.32 (11 months)	294.49	81.59 (11 months)	86.24
Monthly Average ..	8.99	10.36	27.31	30.60	23.15	23.73	25.12	24.54	7.42	7.19

* Bottle cracked by Frost

TABLE SHOWING AMOUNT OF DAYLIGHT FOR THE YEARS 1933 AND 1934.
(Value expressed as Milligrams of Iodine liberated by the action of daylight on a mixture of dilute Sulphuric Acid and Potassium Iodide Solution).

Period.	STATIONS.									
	Headingley.		Park Square.		York Road.		Hunslet.		Middleton.	
	1933.	1934	1933.	1934	1933.	1934	1933.	1934	1933.	1934
January ..	3.00	2.00	2.53	2.41	2.48	2.70	2.90	1.86	4.22	4.63
February ..	3.87	4.00	4.38	3.98	3.69	4.21	4.19	3.84	5.57	6.55
March ..	5.70	5.43	6.40	4.55	5.73	4.77	6.05	4.86	8.20	6.79
April ..	6.14	6.99	7.04	5.61	6.22	5.95	6.18	5.70	7.12	7.62
May ..	8.37	8.73	8.48	8.09	7.90	7.76	7.76	8.02	9.00	9.60
June ..	8.94	9.53	9.72	8.86	8.92	9.28	8.24	8.49	9.79	10.28
July ..	8.84	10.20	9.50	9.45	9.13	9.92	8.44	9.90	10.79	11.35
August ..	8.03	8.44	8.00	7.86	8.24	7.96	7.80	7.67	9.47	9.44
September ..	6.60	6.97	7.47	6.97	7.24	6.58	6.76	5.33	8.54	8.25
October ..	4.84	5.20	5.03	4.18	4.94	5.20	4.35	4.70	6.52	6.82
November ..	2.88	2.55	2.78	2.24	2.90	2.32	1.76	2.19	4.52	3.49
December ..	1.80	0.96	1.60	1.59	1.92	1.27	0.80	1.49	3.10	2.74
Monthly Average ..	5.75	5.92	6.08	5.48	5.78	5.66	5.44	5.34	7.24	7.29

the first of these is the fact that the housing problem is not a new one. It has been with us for many years, and it is not likely to be solved in the near future.

The second fact is that the housing problem is not a purely economic one. It is a social problem, and it is one that affects the lives of all of us. The third fact is that the housing problem is not a purely local one. It is a national problem, and it is one that affects the lives of all of us.

Housing.

The housing problem is a complex one. It is a problem that has many causes, and it is a problem that has many solutions. The first cause of the housing problem is the fact that the population is increasing. The second cause is the fact that the economy is growing. The third cause is the fact that the government is not doing enough to solve the problem.

The solutions to the housing problem are also complex. They include building more houses, improving the quality of existing houses, and providing financial assistance to low-income families. The government has a role to play in all of these solutions, and it is important that it take action to solve the housing problem.

HOUSING.

In my last report I mentioned that the City Council had decided upon a five years' programme of slum clearance involving the demolition of upwards of 30,000 houses, mostly of the oldest back-to-back type. The year under review, 1934, was the first year of that programme and the particulars set out in the succeeding pages of this section indicate that a good start has been made. I have always emphasized the importance of slum clearance from the point of view of the public health, and in preparing the evidence for the various Official Representations that have been made by me during the year, nothing has been more striking than the unfavourable mortality statistics which have characterized practically every area declared as unhealthy. There are those who seek to criticise this part of the evidence and to minimize its importance. But, if vital statistics have any significance at all they surely indicate the influence of congestion and insanitary conditions on the life and health of the population.

The unfavourable comparison between the statistics of a healthy and an unhealthy area, as demonstrated in the table on page 285, cannot be explained on any other ground than that the people living in the latter are exposed to dangers which do not exist, or exist only to a minor degree, in the former. It therefore follows that with their disappearance the health of the population of these bad areas, and incidentally that of the City as a whole will be lifted on to a higher plane. It remains to be seen whether this will be the result of the five years' programme or not, but I confidently prophesy that it will be so.

Number of Houses.—The total number of houses in the city on December 31st, 1934 was 138,624 made up approximately of 73,549 back-to-back houses and 65,075 through houses.

Empty Houses.—At the same date there were 2,498 unoccupied houses, chiefly of the large old fashioned type.

New Houses.—The number of new houses built during the year was 4,169 of which 140 were back-to-back, 12 cottage flats, 2,700 working class houses mostly of the three bedroom type, and the remainder 1,317 of a larger type. The total number of houses, including flats, built by the City Council since 1921 is 11,008 and the number built by private enterprise, 17,829.

It should be explained, however, that whereas those built by private enterprise were mostly of the larger villa and semi-villa type, those built by the City Council were intended exclusively for the working classes.

A word of explanation is also called for with regard to the 140 back-to-back houses which were built during the year. These were built in accordance with the powers given under Section 43 of the Housing and Town Planning Act, 1909 and re-enacted under Section 17 of the Housing Act, 1925. In other words, they were houses the plans of which had been deposited prior to the passing of the 1909 Act and the building of which it was impossible to prohibit.

Housing Shortage.—The number of applicants for new houses standing in the registers at the Housing Department on December 31st, 1934 was 5,166. All application lists with the exception of that for the "A" or parlour type of house are now closed. Whilst appreciating the circumstances which demanded the closing of the lists to applicants for the smaller type of house, I cannot but deplore the fact that such a step became necessary. Overcrowding in the poorer parts of the city is fairly prevalent, and where that overcrowding is aggravated by the presence of disease such as tuberculosis the need for alleviation becomes extremely urgent. I venture to hope, therefore, that the time is not far distant when the lists can be re-opened especially for cases of tuberculosis and ill-health.

Overcrowding is dealt with in the Housing Bill now before Parliament which if it comes into law will relieve a situation in this and other towns that in recent years has caused much anxiety.

Overcrowding.—The number of notices served by the Department for overcrowding during the year was 1,156 of which 278 were abated.

The arrangement between the Health Committee and the Housing Committee whereby a proportion of new houses available for letting were allocated for the relief of overcrowding, tuberculosis, or other grounds ceased to operate on December 31st, 1934. I have already alluded to this in the previous paragraph.

Verminous Houses.—Although the subject of bug infestation is alluded to in another part of this report, it is perhaps appropriate I should say a few words on the subject here. As indicated in my previous report owing to the widespread nature of the bug pest it became necessary to consider ways and means of dealing with it in order to protect the new houses. The special scheme launched in August of last year and fully described on page 67 was conceived wholly and solely for the purpose of dealing with the problem, which, owing to the slum clearance activities of the Corporation, had become acute. There is no doubt, however, that even apart from these activities the time had certainly arrived when in view of the growing urgency and importance of the matter it would have been no longer possible for the Corporation to remain inactive. Since the opening of the Disinfestation Station at Stanley Road the furniture and effects of every tenant moved from an infested slum dwelling to a new house have undergone disinfestation, and it is gratifying to report that in no single case where the tenant has gone into a house not previously occupied has there been re-infestation. Such cases of re-infestation, as have occurred have been in houses previously tenanted and probably infested at the time of removal. The facilities now provided for the disinfestation of furniture offers to the slum tenant an opportunity of starting

life afresh in new and healthy surroundings, free from the haunting fear that the torment he has escaped will in due course return.

Particulars of the number of houses dealt with at the Station and the results are given on page 68.

Unfit Houses.—The number of houses inspected and found not to be in all respects reasonably fit for human habitation was 806, of which 144 were repaired in response to notices served under Section 17 of the Housing Act, 1930.

In addition, 20,627 were found to be defective in some respect or other and were repaired. During the year 12 houses were represented as "individual unfit houses" under Sections 19, 20 and 21 of the Housing Act, 1930. The total number of demolitions under this heading was 10.

There were also 12 houses which because of their condition were demolished in anticipation of formal proceedings.

Unhealthy Areas.—Being the first year of the Corporation's five years' programme of slum clearance it was necessary that the number of houses represented as unfit for human habitation should reach the appointed quota. We have had experience in Leeds of delay in matters of this kind and how difficult it is to make up time when once it is lost. A strenuous endeavour was therefore made to have all the official representations due in 1934 made and confirmed by the City Council before December 31st. To do this meant the augmentation of the staff of housing inspectors, as well as of the clerical staff, and incidentally, it also involved an increase in the staff of other departments directly or indirectly affected by the proposals. Even so, to keep ahead of the clock meant hard work and on occasions considerable overtime. Here I should like to pay a tribute to the senior housing inspector and his staff for the assiduous manner in which they applied themselves, sometimes

under great difficulties, to the tasks set them. It is greatly to their credit that never once did they fail to meet the demands made upon them, and the quality of their work left nothing to be desired.

During the year 8 areas were represented under Section 1 of the Housing Act, 1930 as unhealthy areas. Details of these are given in the table on page 284.

In connection with two of the above-mentioned representations, namely Marsh Lane and Marlborough Street, Local Enquiries were held by the Ministry of Health in June and October respectively. The first extended over a period of 6 days and the second over a period of 9 days, which in neither case includes the time—three weeks in each case—devoted by the Inspector of the Ministry of Health to his personal inspections of the areas. The number of objectors was 49 to the Marsh Lane Order and 88 to the Marlborough Street Order.

During the year Confirming Orders were received in connection with Marsh Lane Unhealthy Area and with the following areas represented during the previous year, namely, Bells' Buildings, Albion Terrace, Isle Lane, Newtown and York Road Unhealthy Areas.

Demolition.—During the year demolitions were completed in the Cavalier Street, Woodhouse Street and Albion Terrace (Hunslet) areas, whilst work is in progress in the following areas, Meadow Lane, Isle Lane, and Bell's Buildings. Up to December 31st, the only areas completely cleared were West Street, Cavalier Street, Woodhouse Street, and Albion Terrace (Hunslet).

A start has now been made on the remaining portion of the old York Street and Quarry Hill Area (represented in 1900) which as it will be remembered consists of about 700 houses. The proposal is to utilize this site for the construction of a large block of residential flats, plans for which have already been approved, and it is fully expected that building operations will commence before the end of the current year.

TABLE SHEWING THE NUMBER OF HOUSES ERECTED IN LEEDS DURING THE LAST THIRTY-THREE YEARS, ENDED 31ST MARCH, 1935.

Year.	By Private Enterprise.	By Leeds City Council.	Total.
1903	2,572	..	2,572
1904	2,923	..	2,923
1905	2,442	..	2,442
1906	1,748	..	1,748
1907	1,135	..	1,135
1908	919	..	919
1909	836	..	836
1910	584	..	584
1911	505	..	505
1912	350	..	350
1913	220	..	220
1914	287	..	287
1915	228	..	228
1916	146	..	146
1917	51	..	51
1918	5	..	5
1919	4	..	4
1920	7	..	7
1921	104	92	196
1922	118	930	1,048
1923	108	1,810	1,918
1924	354	264	618
1925	593	358	951
1926	1,044	332	1,376
1927	1,522	856	2,378
1928	1,553	830	2,383
1929	1,254	618	1,872
1930	1,696	976	2,672
1931	913	738	1,651
1932	1,439	1,195	2,634
1933	1,758	689	2,447
1934	2,990	710	3,700
1935	3,180	854	4,034
Totals	33,588	11,252	44,840

TABLE SHEWING THE TOTAL AMOUNT OF HOUSING WORK DONE
BY THE LEEDS CITY COUNCIL TO 31st MARCH, 1935.
ASSISTED SCHEMES. (1919 ACT).

NAME OF ESTATE.	Sewers laid. Length in yds.	Roads formed, pitched and ashed. Length in yds.	No. of Houses and Flats for which Contracts have been signed.	No. of Houses and Flats com- pleted	No. of Houses and Flats on which work has been com- menced including those in previous column.
Hawksworth Wood ..	4,436	5,109	402	402	402
Wyther House ..	3,857	4,048	492	492	492
Meanwood	4,394	5,931	800	800	800
Crossgates	4,510	6,063	488	488	488
Middleton	4,239	5,477	697	697	697
Ivy House	Existing	Existing	46	46	46
Section 12/3 Houses	do.	do.	398	398	398
Demonstration Houses, Meanwood	included	above.	6	6	6
Totals	21,436	26,628	3,329	3,329	3,329
OTHER THAN ASSISTED SCHEMES (including 1923, 1924 and 1930 Acts).					
Wyther House ..	1,058	1,595	184	184	184
Meanwood	3,387	3,761	584	584	584
Crossgates	included	in A.S.	176	176	176
Middleton	10,492	11,604	2,035	2,031	2,035
Hollin Park	2,647	2,396	345	345	345
York Road	7,904	9,805	1,763	1,759	1,763
Harehills	690	787	112	112	112
Hawksworth	639	541	206	206	206
Greenthorpe	1,161	1,290	216	216	216
Southfield	465	539	98	98	98
Dewsbury Road ..	2,635	1,536	616	336	414
Westfield	3,082	2,709	440	440	440
Potternewton	2,783	3,025	720	640	720
East End Park (pur- chased for re-housing)	Existing	Existing	192	192	192
Sandford House ..	2,772	..	36	36	36
Torre	1,963	2,396	478	458	478
Hillidge Road	44	66	32	32	32
Gipton	16,400	16,778	2,804	78	1,420
Totals	58,122	58,828	11,037	7,923	9,451
Grand Totals ..	79,558	85,456	† 14,366	11,252	12,780

† Includes 2,512 Flats (1,612 completed).

The above figures include Shops and Practitioners houses.

Since 1st April, 1928, the Halton Housing Estate comprising 118 (Assisted Scheme) Houses and 22 (1923 Act) Houses has been taken over by the Leeds City Council but is not incorporated in the above statements.

HOUSING ACT, 1930.

Table shewing the number of houses examined by the Medical Officer of Health as part of the general survey of the town during the year ending December 31st, 1934, and the numbers represented or otherwise dealt with, pursuant to the Housing Acts, with the corresponding figures for 1932 and 1933.

	1932.	1933.	1934.
Number of new houses erected during the year ..	2,516	3,103	4,169
(i) By the Local Authority	814	576	888
(ii) By other bodies and persons	1,702	2,527	3,281
1. <i>Inspection of dwelling-houses during the year.</i>			
(1) Total number of dwelling-houses inspected for housing defects under Public Health or Housing Acts and the number of inspections made	12,269	14,931	21,243
(2) Number of dwelling-houses (included under Sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925, and the number of inspections made	409	83	75
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	642	1,188	4,516
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	1,837	1,612	652
2. <i>Remedy of Defects during the year without Service of Formal Notices.</i>			
Number of defective dwelling-houses rendered fit in consequence of informal action taken by the Local Authority or their Officers	1,236	1,081	469
3. <i>Action under Statutory Powers during the year.</i>			
A.—Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930.			
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	736	467	154
(2) Number of dwelling-houses which were rendered fit after service of Formal Notices :—			
(a) By owners	735	391	144
(b) By Local Authority in default of owners ..	3	..	..
B.—Proceedings under the Public Health Acts.			
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	24,477	24,058	22,241
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—			
(a) By owners	24,871	23,445	20,627
(b) By Local Authority in default of owners ..	..	..	..
C.—Proceedings under Sections 19, 20 and 21 of the Housing Act, 1930.			
(1) Number of dwelling-houses in respect of which Demolition or Closing Orders were made	17	16	12
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	..	17	18

OFFICIAL REPRESENTATIONS MADE IN THE FIRST YEAR OF THE CORPORATION'S
PROGRAMME UNDER SECTION I OF THE HOUSING ACT, 1930, WITH DETAILS
OF HOUSES, POPULATION AND DATES OF REPRESENTATION.

Area.	Scheme.	Number of Houses.	Other Build- ings.	Popula- tion.	Date of Representation.
Marsh Lane	{ 5 Areas Compulsory Purchase 1 Area Clearance }	1,214	70	4,308	7th Feb., 1934.
Marlborough Street and Little Queen Street ..	8 Areas Compulsory Purchase ..	871	41	2,975	19th April, 1934. } 13th June, 1934.
Cromwell Street, Burmantofts ..	Compulsory Purchase ..	622	12	2,116	
Water Lane, Holbeck ..	Compulsory Purchase ..	134	5	488	
Camp Field, Holbeck ..	Compulsory Purchase ..	141	..	525	
Hunslet Hall Road ..	Compulsory Purchase ..	42	10	116	
Land Court, Water Lane ..	{ Part Clearance Part Compulsory Purchase .. }	46	4	139	
Cottage Street, York Road	Compulsory Purchase ..	109	3	375	
	TOTALS	3,179	145	11,042	
Individual Unfit Houses ..	Under Housing Act, 1930, Section 19	12	..	31	Jan. to Dec., 1934
	GRAND TOTALS	3,191	145	11,073	

VITAL STATISTICS OF UNHEALTHY AREAS REPRESENTED FROM 1923 TO 1934 WITH COMPARATIVE
FIGURES FOR A HEALTHY AREA AND THE CITY.

	West Street.	Cavalier Street.	Wood-house Street.	Meadow Lane.	Newtown.	Isle Lane.	York Road.	Marl-borough Street.	Marsh Lane.	Cromwell Street.	Sweet Street	Regent Street	Burley Hill Healthy Area.	City.			
	1922-1931					1923-1932					1924-1933			1925-1934		1924-1933	
Population ..	694	381	276	977	864	894	2,272	2,975	4,308	2,116	3,578	800	1,753	—			
Number of Houses ..	222	103	83	229	245	229	603	871	1,214	622	1,069	268	475	—			
Density of Houses per Acre on site ..	65	78	44	65	77	63	76	65	61	68	76	85	42	3.54			
Persons per Acre ..	202	288	145	280	260	217	286	220	217	232	256	255	175	12.73			
Persons per House ..	3.1	3.7	3.3	4.3	3.5	3.9	3.8	3.4	3.5	3.4	3.3	3.0	3.7	—			
Rooms per House ..	2.2	2.4	2.8	2.5	2.4	2.4	2.3	2.5	2.3	2.5	2.4	2.4	3.0	—			
Persons per Bedroom	2.44	2.70	1.85	2.82	2.57	2.73	2.84	1.54	2.65	2.28	2.5	2.1	1.85	—			
Death-rate ..	23.6	21.8	13.0	23.6	18.2	21.4	20.3	21.8	23.5	19.6	19.5	17.0	9.2	13.5			
Birth-rate ..	35.3	30.4	25.4	26.5	32.1	29.1	29.5	26.8	33.3	28.2	29.0	27.8	9.2	15.9			
Infant Mortality Rate	176	147	86	158	141	131	116	112	134	156	122	162	74	86			
Death-rates from :—																	
Measles ..	0.14	1.05	..	0.20	1.16	0.67	0.57	0.20	0.51	0.43	0.36	0.50	0.11	0.10			
Whooping Cough ..	0.86	0.79	0.36	0.82	0.69	0.56	0.48	0.37	0.63	0.47	0.34	0.88	—	0.12			
Influenza ..	0.58	0.26	0.36	0.30	0.58	0.45	0.92	0.47	0.91	0.95	0.31	0.75	0.17	0.43			
Phthisis ..	3.31	2.10	0.36	1.43	1.50	2.13	1.89	2.35	2.81	2.32	1.37	0.38	0.29	0.96			
Other Tuberculous Diseases ..	0.29	0.79	1.09	0.20	0.46	0.56	0.62	0.44	0.49	0.43	0.48	0.63	0.11	0.21			
Cancer ..	2.16	1.05	0.72	2.15	1.50	1.19	1.41	1.78	1.46	1.56	1.73	1.38	1.08	1.44			
Heart Diseases ..	2.31	1.51	2.90	5.12	1.27	2.35	2.42	3.60	2.92	2.50	4.08	2.63	1.60	2.11			
Respiratory Diseases	4.90	4.99	2.17	4.20	3.24	5.03	4.62	4.20	4.90	3.21	3.58	3.25	1.31	2.12			
Diarrhoea ..	0.86	1.84	0.36	0.92	1.97	0.89	0.84	0.74	1.14	0.85	0.61	1.50	0.17	0.26			
Nephritis and Bright's Disease	0.86	0.26	0.36	1.02	0.23	0.45	0.26	0.57	0.26	0.38	0.50	0.50	0.17	0.38			
Accidents and Violence ..	1.01	0.52	0.36	0.82	0.93	1.01	0.40	0.64	0.95	0.24	0.64	0.75	0.46	0.42			
Other Diseases ..	6.34	6.56	3.98	6.45	4.63	6.15	5.85	6.42	6.50	6.24	5.48	3.88	3.76	4.96			

Health Education and Propaganda. Staff Changes.

HEALTH EDUCATION AND PROPAGANDA.

BY

JAMES SHARPE, M.B., F.R.F.P.S., D.P.H.,

Deputy Medical Officer of Health.

"More than any other single activity of government, a public health service can only be effective if it is received and practised by an enlightened people. They are partners here, and must take a sensible and intelligent share; for the matter is domestic and personal, an issue to be determined by man's will, or it is nothing."

SIR GEORGE NEWMAN.

The above quotation indicates the modern view regarding the responsibility resting upon the people to maintain their bodies in a state of health. To do this effectively, simple teaching in the art of healthy living is essential.

Health Week.—Whilst several of the methods of health propaganda usually associated with Health Week were repeated, the week, in 1934, took the form primarily of a Health Exhibition. The exhibition was staged in the Town Hall and was opened by the Right Honourable Arthur Greenwood, P.C., M.P. (Ex-Minister of Health). It lasted nine days and the total attendance was 57,247.

The exhibition was organised by the Central Council for Health Education and the Leeds Committee for Social Hygiene and Health Publicity, the local arrangements being in the hands of Dr. E. Ashworth Underwood, the Deputy Medical Officer of Health. There were 48 stands and the Ministry of Agriculture and Fisheries, and the Public Health, Electricity, Gas and Housing Departments of the Corporation were amongst those exhibiting.

A number of health posters designed and painted by school-children in Leeds were displayed in the crypt of the exhibition. Forty prizes were given for these efforts. School-children to the number of 3,000 also visited the exhibition by arrangement with the Leeds Education Committee.

A special course of eight lectures was arranged in connection with the exhibition. These were held in the Civil Court at the Town Hall each evening at 8 p.m. and were well attended, the average number present being 350. Health films (sound and silent) were also shown in this room during the afternoons and evenings.

During Health Week we were again fortunate in securing the active co-operation of the Education and Transport Departments of the Corporation. The Insurance Committee for the Borough of Leeds also rendered valuable assistance.

This year the number of dinner-hour health talks at factories and workshops by various lecturers was increased to 19. Addresses were also given at the Leeds Rotary Club and the Y.M.C.A.

"The Mystery of Life," a sound dialogue film, depicting the story of life and of evolution was shown at three large cinemas by kind permission of the managers. This film was also shown to approximately 6,500 senior elementary school-children on selected mornings in eleven cinemas. By arrangement with the Health and Cleanliness Council, a travelling cinema showed a series of health films in various districts of Leeds, indoor and outdoor, during the week. The total estimated attendance at these showings was 6,330.

Publicity was further obtained by the use of special posters displayed at points of vantage throughout the city and at various factories. By the courtesy of the General Manager of the Transport Department, 650 of these posters were exhibited in the tramcars. A large quantity of leaflets and booklets was distributed in the exhibition and at the various meetings held in connection therewith. Press publicity was given to the extent of 492 column inches.

As in past years, demonstrations and lectures for the benefit of Boy Scouts and Girl Guides were arranged, and were greatly appreciated. Valuable assistance was again given by ministers of religion in their sermons and church magazines.

Wayside Pulpits.—The display of Health slogans on the 11 existing wayside pulpits continued to attract popular attention.

Leeds Committee for Social Hygiene and Health Publicity.—During the year four meetings were held. The Committee continued to be responsible for the general supervision of health publicity in the city. In so doing it is rendering a valuable public service which merits recognition and the warmest thanks, not only of the Council, but of the citizens as a whole.

The total number of addresses given on health subjects during 1934 was 129, as compared with 94 for the previous year.

STAFF CHANGES.

W. M. Smith, M.B., Ch.B., appointed Public Vaccinator for No. 15 Vaccination District, February, 1934, in place of D. M. Sutherland, M.B., Ch.B., resigned January, 1934.

E. W. Hardman, M.B., Ch.B., appointed Public Vaccinator for No. 19 Vaccination District, April, 1934, in place of A. E. Rock, M.R.C.S., L.R.C.P., resigned February, 1934.

W. Pearce, M.R.C.S., L.R.C.P., appointed Public Vaccinator for No. 6 Vaccination District, May, 1934, in place of J. Friend, L.S.A., resigned July, 1934.

E. A. Underwood, M.A., B.Sc., M.B., Ch.B., D.P.H., Deputy Medical Officer of Health and Chief Sanitary Inspector resigned July, 1934.

James Sharpe, M.B., F.R.F.P.S.G., D.P.H., appointed Deputy Medical Officer of Health, July, 1934.

Ernest Standish, M.R.S.I., appointed Chief Sanitary Inspector, September, 1934.

Appendices.

APPENDIX 1.

MINISTRY OF HEALTH TABLES. TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1934 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un- corrected Number.	Nett.		Number.	Rate.	Of Non- residents registered in the District.	Of Resi- dents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1924	471,600	8,862	8,558	18.1	6,824	14.5	435	358	921	108	6,747	14.3
1925	472,900	8,518	8,180	17.3	6,286	13.3	570	321	748	91	6,037	12.8
1926	473,400	8,437	8,065	17.0	6,285	13.3	531	308	748	93	6,062	12.8
1927	477,600	8,075	7,790	16.3	6,438	13.5	578	338	629	81	6,198	13.0
1928	474,800*	7,978	7,665	16.1	6,419	13.5	545	259	606	79	6,133	12.9
1929	478,500	7,725	7,426	15.5	8,289	17.3	657	266	722	97	7,898	16.5
1930	478,500	7,905	7,568	15.8	6,235	13.0	544	239	512	68	5,930	12.4
1931	486,400	7,557	7,219	14.8	6,810	14.0	553	249	552	76	6,506	13.4
1932	484,900	7,368	7,004	14.4	6,771	14.0	550	248	617	88	6,469	13.3
1933	485,000	7,070	6,643	13.7	6,851	14.1	538	261	537	81	6,574	13.6
1934	486,250	7,691	7,190	14.8	6,666	13.7	619	244	513	71	6,291	12.9

Area of District in acres (land and inland water) } 38,105
Total population at all ages at the 1931 Census 482,809

* Population adjusted to allow for change in boundary during the year. The mid-year population after the change is 476,500.

APPENDIX 2.

TABLE II. CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE CALENDAR YEAR 1934

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								Total Cases removed to Hospital.
	At all Ages.	At Ages—Years.						65 and upwards.	
		Under 1.	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.		
Small-pox	..	..	..	..	..	..	..	..	..
Cholera (C.) Plague (P.)	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	2,231	14	456	1,458	203	90	10	..	2,200
Erysipelas	418	14	17	15	28	118	162	64	171
Scarlet Fever.. .. .	2,711	2	651	1,665	237	145	11	..	2,412
Measles	10,576	496	5,408	4,492	114	60	4	2	47
German Measles	2,495	53	634	1,698	73	37	..	..	56
Typhus Fever	..	..	..	..	..	..	..	..	..
Enteric Fever	8	..	..	3	2	2	1	..	5
Relapsing Fever (R.) Continued Fever (C.)	..	..	..	..	..	..	..	..	..
Puerperal Fever	53	..	..	..	16	36	1	..	14
Puerperal Pyrexia	139	..	..	..	51	88	..	..	6
Cerebro-Spinal Meningitis	18	4	4	2	3	3	2	..	2
Poliomyelitis	3	..	1	2	..	..	..	..	..
Ophthalmia Neonatorum	54	54	..	..	..	..	..	..	..
Encephalitis Lethargica	1	..	..	1	..	..	..	..	..
Malaria	..	..	..	..	..	..	..	..	..
Dysentery	12	..	5	..	..	..	1	6	..
Other Diseases	453	15	89	213	78	50	6	2	453
Pulmonary Tuberculosis	617	3	12	57	155	219	149	22	335
Other forms of Tuberculosis	172	5	32	56	45	29	4	1	39
Pneumonia (Acute Primary)	675	34	171	140	77	115	100	38	3
" (Acute Influenzal)	64	3	11	10	7	11	18	4	..
TOTALS	20,700	697	7,491	9,812	1,089	1,003	469	139	5,743

Isolation Hospital or Hospitals, Sanatoria, &c. :—City Fever Hospital, Seacroft and Killingbeck.

In addition to the 335 Pulmonary Tuberculosis and 39 Tuberculosis (Other Forms), removed, 18 Pulmonary Tuberculosis and 15 Tuberculosis (Other Forms), were admitted to "The Hollies," Westwood Lane, and 97 Pulmonary Tuberculosis were admitted to Gateforth Sanatorium which is outside the City. They are included in the 617 and 172 notified.

TABLE II. (continued).

TOTAL CASES NOTIFIED IN EACH LOCALITY, (e.g., Parish or Ward) of the District.																											
NOTIFIABLE DISEASE.	Mill Hill and South.	Westfield.	Blenheim.	Central.	Woodhouse.	North.	Far Headingley.	Hyde Park.	Kirkstall.	Burmantofts.	Harehills.	Potternewton.	Roundhay.	Cross Gates and Templenewsum.	Richmond Hill.	Osmondthorpe.	East Hunslet.	Hunslet Carr and Middleton.	West Hunslet.	Beeston.	Holbeck (South).	Holbeck (North).	Armley and New Wortley.	Upper Armley.	Bramley.	Farnley and Wortley.	City.
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera (C) Plague (P) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Group)	119	69	106	103	97	40	67	31	52	175	105	66	25	60	84	136	179	101	91	39	48	98	121	57	82	80	2,231
Erysipelas	21	22	21	17	10	13	12	9	24	34	16	11	6	11	14	26	31	17	16	10	12	16	9	11	10	19	418
Scarlet Fever.. ..	102	96	105	101	78	66	75	47	162	121	90	82	60	109	157	155	115	154	100	82	72	122	140	108	94	118	2,711
Measles	426	626	349	412	508	386	457	278	331	393	338	397	322	433	427	656	524	740	377	350	310	529	324	196	105	382	10,576
German Measles	81	72	82	138	99	26	43	53	88	147	116	79	28	93	81	139	109	94	138	107	85	193	149	93	23	139	2,495
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	1	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	1	..	1	..	8
Relapsing fever (R) Continued fever (C)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	1	..	25	2	2	1	1	1	2	4	..	..	..	1	1	3	..	3	..	..	1	1	..	1	2	1	53
Puerperal Pyrexia	2	1	51	4	4	1	1	..	1	40	..	..	1	..	8	..	1	2	1	1	1	2	1	11	4	2	139
Cerebro-Spinal Meningitis	5	1	..	1	..	..	..	..	..	1	1	..	..	2	..	3	1	..	..	..	..	2	..	..	..	1	18
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	3
Ophthalmia Neonatorum	1	1	9	4	1	1	3	1	..	8	..	1	..	1	7	..	1	1	1	1	4	1	2	2	1	2	54
Encephalitis Lethargica	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	..	..	..	..	..	..	..	..	..	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12
Other Diseases	26	29	17	14	11	7	14	6	21	23	13	12	8	29	19	24	17	43	22	14	14	22	15	10	18	5	453
Pulmonary Tuberculosis	21	36	34	33	23	17	10	12	21	43	16	22	15	8	43	24	27	27	31	16	16	28	33	20	19	22	617
Other Forms of Tuberculosis	5	8	4	7	9	4	2	5	8	11	5	3	6	5	23	10	4	9	3	3	4	8	5	6	8	7	172
Pneumonia (Acute primary)	28	44	21	29	32	15	20	10	42	42	15	15	13	12	57	29	32	38	26	16	22	35	21	14	22	25	675
Do. (Acute Influenzal)	2	1	3	5	5	1	..	3	1	12	3	4	..	..	4	5	1	1	1	3	1	1	..	1	2	4	64
TOTALS	841	1,007	827	871	879	578	705	456	753	1,066	719	692	485	767	925	1,210	1,041	1,230	807	642	590	1,060	821	530	391	807	20,700

APPENDIX 3.

CAUSES OF, AND AGES AT DEATH DURING THE CALENDAR YEAR 1934.

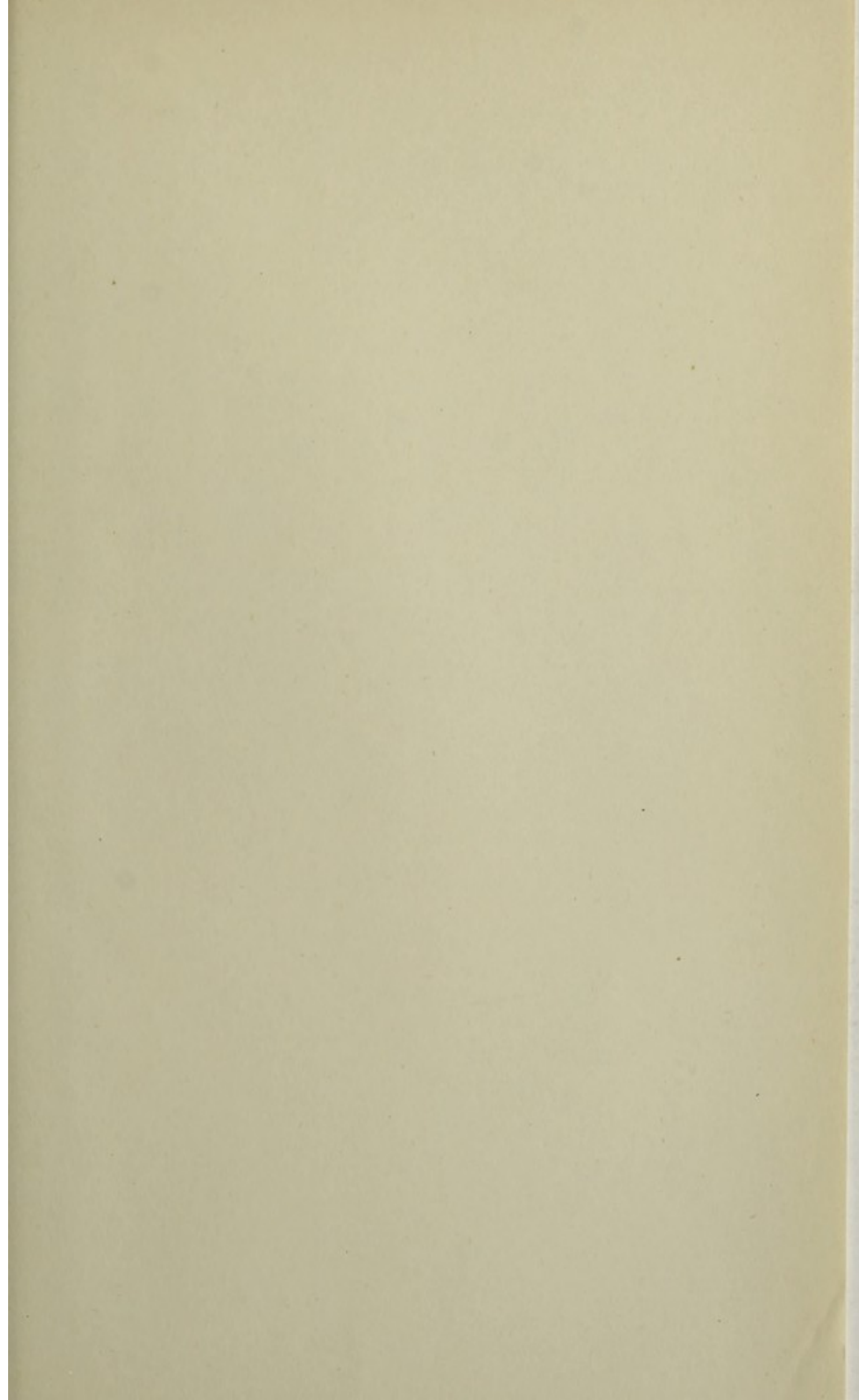
REGISTRAR GENERAL'S FIGURES.

CAUSES OF DEATH.	Sex.	All Ages.	0-	1-	2-	5-	15-	25-	35-	45-	55-	65-	75-
All Causes	M.	3,284	283	59	85	90	116	136	195	391	662	745	522
	F.	3,014	231	45	79	115	109	156	168	279	463	687	682
1. Typhoid and Para-typhoid Fevers	M.	1	..	..	..	..	..	..	..	..	..	..	..
	F.	1	..	..	..	1	..	..	..	..	..	..	..
2. Measles	M.	40	11	15	10	4	..	..	..	..	..	..	..
	F.	52	17	15	17	3	..	..	..	..	..	..	..
3. Scarlet Fever	M.	8	..	..	4	2	..	2	..	..	..	..	..
	F.	7	..	..	2	4	1	..	..	..	..	..	..
4. Whooping Cough	M.	7	2	3	2	..	..	..	..	..	..	..	..
	F.	18	7	3	7	1	..	..	..	..	..	..	..
5. Diphtheria	M.	71	..	5	29	34	1	1	..	1	..	..	..
	F.	84	3	2	19	56	3	1	..	..	..	..	..
6. Influenza	M.	14	..	..	..	..	..	2	2	2	6	2	..
	F.	19	1	..	..	..	1	..	..	1	4	6	6
7. Encephalitis Lethargica	M.	4	..	..	..	..	..	..	..	..	3	..	1
	F.	5	..	..	..	..	..	3	..	1	..	1	..
8. Cerebro-spinal Fever	M.	6	3	2	..	..	1	..	..	..	..	..	..
	F.	9	3	1	..	1	..	1	..	2	..	..	..
9. Tuberculosis of respiratory system	M.	242	1	..	..	1	32	46	50	53	45	13	1
	F.	153	1	..	3	3	47	44	23	22	5	5	..
10. Other Tuberculous Diseases	M.	35	1	3	9	6	4	2	3	4	..	2	1
	F.	32	3	4	2	7	8	3	1	2	1	..	1
11. Syphilis	M.	9	2	..	..	..	..	..	2	2	2	1	..
	F.	4	1	..	..	..	..	..	1	2	..	..	..
12. General Paralysis of the insane—tabes dorsalis	M.	24	..	..	..	..	1	3	6	5	9	..	..
	F.	7	..	..	..	..	..	4	1	2	..	..	..
13. Cancer, malignant disease	M.	404	..	..	1	1	3	3	16	61	134	136	49
	F.	392	..	..	..	..	..	12	34	66	114	106	60
14. Diabetes	M.	36	1	..	..	..	..	1	1	1	11	14	7
	F.	50	..	..	..	..	1	1	3	7	13	19	6
15. Cerebral Hæmorrhage, &c.	M.	182	..	..	..	..	..	2	4	18	39	77	42
	F.	215	..	..	..	..	..	3	17	49	85	61	61
16. Heart Disease	M.	649	..	1	..	3	15	18	22	86	144	202	158
	F.	658	..	..	1	5	6	18	24	60	123	213	208
17. Aneurysm	M.	12	..	..	..	..	1	1	1	3	1	4	1
	F.	3	..	..	..	..	1	..	..	1	..	1	..
18. Other circulatory diseases	M.	254	..	..	..	..	..	..	..	8	39	101	106
	F.	246	..	..	..	..	..	..	3	4	29	75	135
19. Bronchitis	M.	141	6	3	..	..	2	..	6	19	37	42	26
	F.	83	9	2	1	1	..	..	1	3	6	25	35
20. Pneumonia (all forms)	M.	224	31	11	13	7	5	15	28	36	38	34	6
	F.	139	27	8	11	4	9	6	9	12	16	22	15
21. Other respiratory diseases	M.	33	..	2	3	..	2	..	3	5	8	7	3
	F.	27	1	..	2	..	1	1	2	3	5	5	7
22. Peptic Ulcer	M.	43	..	..	..	..	..	1	7	11	20	4	..
	F.	8	..	..	..	..	..	..	1	1	2	3	1
23. Diarrhœa, &c.	M.	50	41	3	..	..	2	..	..	1	..	2	1
	F.	33	22	1	1	1	1	..	..	..	3	3	1
24. Appendicitis	M.	12	..	1	..	1	3	1	..	4	..	1	1
	F.	11	..	..	..	..	..	2	4	3	1	1	..
25. Cirrhosis of Liver	M.	11	..	..	..	..	..	..	2	4	3	2	..
	F.	3	..	..	..	1	..	..	..	..	2	..	..
26. Other diseases of Liver, &c.	M.	11	..	..	..	..	1	..	..	..	2	5	3
	F.	22	..	..	..	..	..	..	..	4	5	8	5
27. Other digestive diseases	M.	47	5	2	2	3	2	2	4	4	10	8	5
	F.	50	2	1	1	3	1	5	6	7	9	11	4
28. Acute and Chronic Nephritis	M.	95	..	..	..	1	6	6	6	13	29	18	16
	F.	96	1	..	..	2	4	11	8	12	22	24	12
29. Puerperal Sepsis	F.	15	..	..	..	..	2	8	5	..	..	..	..
30. Other puerperal causes	F.	19	..	..	..	..	2	13	4	..	..	..	..
31. Congenital debility, Malformation, and premature birth	M.	141	140	..	..	1	..	..	..	..	..	..	..
	F.	121	117	1	1	..	..	..	1	..	..	1	..
32. Senility	M.	53	..	..	..	..	..	..	..	..	1	10	42
	F.	81	..	..	..	..	..	..	..	..	8	73	..
33. Suicide	M.	39	..	..	..	..	4	4	7	9	11	4	..
	F.	22	..	..	..	..	..	3	5	6	6	2	..
34. Other Violence	M.	138	7	1	5	10	18	11	16	14	25	11	20
	F.	91	7	1	5	7	2	10	1	7	9	18	24
35. Other defined diseases	M.	248	32	7	7	16	13	15	9	27	45	45	32
	F.	235	9	6	6	15	19	14	25	36	35	44	26
36. Causes ill-defined or unknown	M.	1	..	..	..	..	..	..	..	..	..	1	..
	F.	3	..	..	..	..	..	..	..	..	..	1	2

APPENDIX 4.

INFANT MORTALITY. CALENDAR YEAR 1934. NETT DEATHS FROM STATED CAUSES
AT VARIOUS AGES UNDER 1 YEAR OF AGE.

CAUSES OF DEATH.	Under 1 day.	1-7 days.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under 1 year.
{ Small-pox	..	..	..	..	..	..	..	..	..	..	..
Chicken pox	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	1	2	13	12	28
Scarlet fever	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	..	..	..	..	..	..	2	2	1	4	9
Diphtheria	..	..	..	..	..	..	2	..	..	1	3
Influenza	..	..	..	..	..	..	..	..	..	1	1
Erysipelas	..	..	..	..	..	..	..	..	1	1	2
{ Tuberculous Meningitis	..	..	..	..	..	..	..	1	1	2	4
Abdominal Tuberculosis	..	..	..	..	..	..	..	..	..	..	..
{ Other Tuberculous Diseases	..	..	..	..	..	..	..	..	..	2	2
Meningitis (not Tuberculous)	..	..	..	..	..	..	..	1	..	3	4
Convulsions	2	4	2	1	1	10	3	3	2	2	20
Bronchitis	..	..	..	..	..	..	2	3	3	3	11
Pneumonia (all forms)	..	1	1	4	4	10	11	7	16	10	54
Other diseases of respiratory organs	..	..	..	..	..	..	..	1	1	..	2
{ Diarrhoea	..	..	..	1	2	3	22	24	18	5	72
{ Enteritis	..	..	..	..	..	..	..	..	..	..	..
Gastritis	..	1	..	1	..	2	..	..	..	..	2
Syphilis	..	1	..	..	..	1	1	..	1	..	3
Rickets	..	..	..	..	..	..	..	..	..	..	..
Suffocation, including overlying	5	1	..	1	1	8	5	1	..	..	14
Injury at birth	10	6	3	..	1	20	..	..	..	..	20
Atelectasis	9	10	1	..	..	20	1	..	..	..	21
{ Congenital Malformations	5	13	7	2	2	29	14	5	2	1	51
Premature birth	50	44	10	4	4	112	7	..	2	..	121
{ Atrophy, Debility and Marasmus	3	5	5	1	2	16	5	2	..	..	23
Other Causes	3	12	3	2	1	21	9	3	8	5	46
Totals	87	98	32	17	18	252	85	55	69	52	513



APPENDIX A

Table A.1. Summary of the data used in the analysis.

The table lists the variables used in the analysis, their units, and the number of observations.

Variable	Unit	Number of observations
Age	Years	1000
Gender	Male/Female	1000
Marital Status	Married/Single/Divorced	1000
Education	Years	1000
Income	Dollars	1000
Health	Good/Bad	1000
Religion	Protestant/Catholic/Jewish/Muslim	1000
Region	North/South/West	1000
Time	Years	1000