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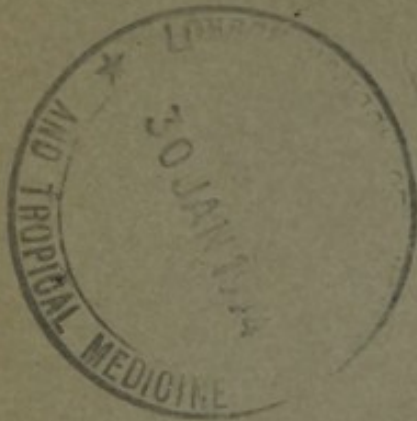


CITY OF LEEDS

**ANNUAL REPORT
OF THE
MEDICAL OFFICER
OF HEALTH**

FOR THE YEAR 1964

79614



CITY OF LEEDS

CONTENTS

	PAGE
HEALTH COMMITTEE AND SUB-COMMITTEES	vi
PUBLIC HEALTH STAFF	vii
INTRODUCTION	1
NATURAL AND SOCIAL CONDITIONS	2
INFECTIOUS AND OTHER DISEASES	10
TUBERCULOSIS	10
TEMPERATURE	16
NATIONAL HEALTH SERVICE	17
Care of the Sick	17
Mortality	18
Health Visiting	23
Home Help Services	29
Vaccination and Immunisation	29
Child Welfare	30
Preventive Care and Appliances	35
Home Help Services	40
Medical Health Services	41
REPORT OF THE CHIEF PUBLIC HEALTH INSPECTOR	44
REPORT OF THE CITY ANALYST	46
INDEX	47

REPORT

ON THE

HEALTH

OF THE CITY

FOR THE YEAR 1964

BY

Professor D. B. BRADSHAW, M.A., M.B., B.Ch., B.A.O., D.P.H.
Medical Officer of Health and Principal School Medical Officer.

CITY OF LEEDS

REPORT

ON THE

HEALTH

OF THE CITY

FOR THE YEAR 1904

Printed and Sold by the City Engineer, Leeds, at the City Hall, Leeds.

CONTENTS

	PAGE
HEALTH COMMITTEE AND SUB-COMMITTEES	iv
PUBLIC HEALTH STAFF	vi
INTRODUCTION	ix
NATURAL AND SOCIAL CONDITIONS: VITAL STATISTICS ..	2
INFECTIOUS AND OTHER DISEASES	20
TUBERCULOSIS	28
DISINFESTATION AND DISINFECTION	46
NATIONAL HEALTH SERVICE ACT, 1946:	
CARE OF MOTHERS AND YOUNG CHILDREN (S.22) ..	56
MIDWIFERY (S.23)	68
HEALTH VISITING (S.24)	75
HOME NURSING (S.25)	79
VACCINATION AND IMMUNISATION (S.26)	82
AMBULANCE SERVICE (S.27)	89
PREVENTION, CARE AND AFTER-CARE (S.28)	95
HOME HELP SERVICE (S.29)	108
MENTAL HEALTH SERVICES (S.51)	111
REPORT OF THE CHIEF PUBLIC HEALTH INSPECTOR ..	132
REPORT OF THE CITY ANALYST	226
INDEX	252

HEALTH COMMITTEE

LORD MAYOR (Alderman Mrs. Lizzie Naylor, J.P.)

Chairman: Alderman Mrs. WINIFRED SHUTT (to May, 1964)

Councillor W. M. JONES (from May, 1964)

<p>Alderman F. NAYLOR</p> <p>„ Mrs. WINIFRED SHUTT (from May, 1964)</p> <p>Councillor Mrs. VYVYAN M. CARDNO</p> <p>„ L. WALSH, M.B., Ch.B. (to June, 1964)</p> <p>„ W. M. JONES (Deputy Chairman to May, 1964)</p> <p>„ G. I. ADDLESTONE</p> <p>„ R. D. FIELDING (from May, 1964)</p> <p>„ Mrs. JEAN BELL (from May, 1964)</p>	<p>Councillor D. W. BRADLEY, LL.B., L.A.M.T.P.I.</p> <p>„ St. JOHN BINNS, J.P.</p> <p>„ B. EMMETT (to May, 1964).</p> <p>„ G. R. LLOYD (Deputy Chairman from May, 1964)</p> <p>„ K. GOULD</p> <p>„ G. SOMERS</p> <p>„ Mrs. LOUIE ELLEN HENSON</p> <p>„ W. J. PRICHARD, M.Com. (from October, 1964)</p>
--	--

EX-OFFICIO MEMBERS:—

Representatives of Leeds Medical Committee (National Health Service)
invited to attend in an advisory capacity:—

Dr. J. H. E. MOORE; Dr. J. D. SINSON; Deputy, Dr. W. ADAMS

SUB-COMMITTEES

SUB-HEALTH (MATERNITY AND CHILD WELFARE) COMMITTEE

Chairman: Alderman Mrs. WINIFRED SHUTT (to May, 1964)

Councillor G. R. LLOYD (from May, 1964)

<p>Alderman Mrs. WINIFRED SHUTT (from May, 1964)</p> <p>Councillor Mrs. VYVYAN M. CARDNO</p> <p>„ L. WALSH, M.B., Ch.B. (to June, 1964)</p> <p>„ W. M. JONES</p>	<p>Councillor G. SOMERS</p> <p>„ Mrs. JEAN BELL (from May, 1964)</p> <p>„ W. J. PRICHARD, M.Com. (from October, 1964)</p>
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CO-OPTED MEMBERS:—

Mrs. E. E. BIBBY Mrs. J. McMURRAY (from September, 1964)

SUB-HEALTH (MENTAL HEALTH SERVICES) COMMITTEE

Chairman: Alderman F. NAYLOR

Alderman Mrs. WINIFRED SHUTT	Councillor W. M. JONES (from May, 1964)
Councillor G. R. LLOYD (to May, 1964)	„ K. GOULD (from May, 1964)
„ Mrs. VYVYAN M. CARDNO	„ Mrs. JEAN BELL (from May, 1964)
„ Mrs. LOUIE ELLEN HENSON	

CO-OPTED MEMBERS:—

Mrs. A. R. INCE, M.B.E. Mrs. S. MURRAY Mrs. N. BILLINGTON

SUB-HEALTH (SANITATION, FOOD AND DRUGS) COMMITTEE

Chairman: Councillor W. M. JONES

Alderman Mrs. WINIFRED SHUTT	Councillor G. SOMERS
Councillor G. I. ADDLESTONE	„ K. GOULD (to May, 1964)
„ D. W. BRADLEY, LL.B., L.A.M.T.P.I.	„ G. R. LLOYD (from May, 1964)
„ St. JOHN BINNS	„ R. D. FIELDING (from May, 1964)
„ B. EMMETT (to May, 1964)	

PUBLIC HEALTH STAFF

Medical Officer of Health and Principal School Medical Officer	Professor D. B. BRADSHAW, M.A., M.B., B.Ch., B.A.O., D.P.H.
Deputy Medical Officer of Health and Deputy School Medical Officer	G. E. WELCH, M.B., B.S., D.P.H.

Medical Staff and Nursing Staff

Chief Assistant School Medical Officer	SHEILA F. SCHOFIELD, M.B., Ch.B., D.C.H., D.P.H.
Senior Medical Officer for Mental Health Services	J. M. McALPIN, M.B., Ch.B., (to 30.4.64) JOYCE E. MARSHALL, M.B., Ch.B., D.P.H., D.P.M., (from 1.10.64)
Honorary Assistant Medical Officer of Health. (By arrangement with the University of Leeds)	A. N. MACPHAIL, M.C., M.D., Ch.B., D.P.H., Lecturer in Public Health, University of Leeds
Senior Medical Officer for Maternity and Child Welfare	MARGARET ORMISTON, M.B., Ch.B., D.P.H.
Assistant Medical Officers for Maternity and Child Welfare	DOREEN CRAWSHAW, M.B., Ch.B., (from 1.5.64) ISOBEL B. ALEXANDER, M.B., Ch.B. EUGENIE C. ILLINGWORTH, B.Sc., M.D., M.B., Ch.B., M.R.C.S., L.R.C.P., D.R.C.O.G., D.C.H. JESSIE I. ROSIE, M.B., Ch.B., D.P.H. MOIRA C. ROBERTSON, M.A., B.M., B.Ch., D.P.H. BARBARA M. BROOKE, M.B., Ch.B. FRANCES E. SMITH, M.B., Ch.B., D.P.H. JAMESINA FELGATE, M.B., Ch.B., ETHEL MAY WRIGHT, M.B., Ch.B., D.C.H. JANET SHAW, M.B., Ch.B., M.R.C.O.G., (from 1.6.64)
Senior Medical Officer (Geriatrics)	ELIZABETH M. HARGREAVES, M.B., Ch.B., D.P.H.
Assistant Medical Officer of Health in charge of Immunisation	R. D. HALL, M.B., Ch.B., (to 30.6.64)
Superintendent Health Visitor and School Nurse	JOYCE M. AKESTER, S.R.N., S.C.M., D.N.(Lond).
Health Visitor Tutor in Sole Charge	MAUREEN CLANCY, S.R.N., H.V. Tutor Cert.
Supervisor of Midwives	EVELYN MANN, S.R.N., S.C.M., M.T.D.
Superintendent, Part II Midwifery Training School	PAMELA BIRD, S.R.N., S.C.M., M.T.D. (to 30.11.64)
Superintendent Nurse, Home Nursing Service	KATHLEEN E. WHALLEY, S.R.N., S.C.M., H.V. & Q.N. Cert.

Chief Public Health Inspector and Deputy

Chief Public Health Inspector ..	J. GOODFELLOW, F.R.S.H., M.A.P.H.E.
Deputy Chief Public Health Inspector	J. H. WYATT, M.A.P.H.I.

City Analyst and Deputy

City Analyst	R. A. DALLEY, F.R.I.C.
Deputy City Analyst	L. A. PERKIN, B.Sc., LL.B., F.R.I.C.

Senior Administrative and Clerical Staff

Administrative Officer	A. BATLEY
Accountant	H. A. CORLETT, F.C.A.
Chief Assistant (Finance)	J. PEACOCK
Chief Assistant (Administration)	W. WILSON, A.C.I.S.
Chief Assistant (Sanitation)	J. R. MOIR
Senior Assistant (Statistics)	E. RENSHAW
Senior Assistant (Maternity and Child Welfare)	Miss F. CHEW
Senior Assistant (Central Clinic)	B. WILSON

Disinfestation Officer	C. W. LAMB, M.R.S.H., F.R.E.S.
Chief Ambulance Officer	J. H. DAYKIN, F.I.A.O., L.M.R.S.H.
Home Help Organiser	Mrs. DOROTHY W. ALFORD (to 22.8.64) Miss F. M. P. HASSALL (from 5.10.64)
Mental Health Officer	D. CROWTHER

Consultants to the Health Committee

Consultant Adviser in Tuberculosis ..	G. F. EDWARDS, M.B.E., M.B., B.S., M.R.C.P., M.R.C.S.
Consultant Adviser, Infectious Diseases	E. C. BENN, M.B., Ch.B., D.P.H.
Consultant in Child Health	Professor W. S. CRAIG, B.Sc., M.D., F.R.C.P.E., F.R.S.E., M.R.C.P.
Consultant Adviser in Venereal Diseases	J. A. H. HANCOCK, L.R.C.P., M.R.C.S.

PUBLIC HEALTH DEPARTMENT

STAFF

<i>Class of Employees</i>	<i>No. employed at 31/12/64</i>
Public Health Inspectors	50
Female Public Health Inspector	1
Student Probationer Public Health Inspectors	21
Condemned Meat Room Attendant	1
Investigation Officers	4
Assistant Analysts	6
Health Visitors	72
Student Health Visitors	9
Midwives (including part-time)	59
Dispensers (including part-time)	14
Physiotherapists (including part-time)	5
Immunisation Nurse	1
Chiropodists (including part-time)	7
Chiropodists (sessional)	9
Social Workers	3
Day Nurseries	127
District Nurses (including part-time)	69
Home Attendants	2
B.C.G. Nurse	1
Infectious Diseases Visitors	2
Clerical Staff	113
Welfare Foods	4
Red Court Hostel (Midwifery Training)	30
Convalescent Home, Southport	3
Mental Health Services	130
Central Ambulance Station Staff	145
General Disinfection and Disinfestation	23
Personal Disinfection and Disinfestation	6
Flushing Staff	11
Public Convenience Lighting	1
Mortuary Service	7
Rodent Operatives	8
Lavatory Attendants	29
Lavatory Cleaners	1
Caretakers and Cleaners	42
Home Helps (including part-time)	468

City of Leeds

PUBLIC HEALTH DEPARTMENT,
25 EAST PARADE,
LEEDS I.

Tel. No. Leeds 3-0661

October 1965.

To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I present herewith the Annual Report of the Medical Officer of Health of the City of Leeds for the year 1964.

The Registrar General estimated the population of the city as 508,790 at the mid-year, a marked fall as compared with the previous year's estimate of 513,800 and for which he offers no explanation.

The general death-rate for the city was down—11.5 as compared with 12.3 for the previous year—due mainly to reductions in the rates for coronary disease, other heart diseases, bronchitis and pneumonia. It is probable that most of these are "random" variations and do not represent changes in trends. The death-rates for the principal causes of death were as follows, the figures in brackets being the rates for 1963:—

Cancer (all sites)	..	..	..	..	2.30	(2.26)
Cancer of lung and bronchus	..	..	..	..	0.63	(0.62)
Coronary disease..	..	..	..	..	2.67	(2.80)
Other heart disease	..	..	..	..	0.97	(1.17)
Cerebral haemorrhage, etc.	..	..	..	..	1.40	(1.48)
Bronchitis	..	..	..	..	0.78	(1.01)
Pneumonia	..	..	..	..	0.84	(1.00)

**Vital
Statistics**

Infectious Diseases

Once again there were no cases of poliomyelitis or diphtheria during the year. The number of notifications of food poisoning and of scarlet fever rose somewhat but notifications of all the other infectious diseases were below those of 1963. The downward trend in tuberculosis notifications continued and, for the first time since records have been kept, the notifications of tuberculosis (all forms) were below 300. The maximum incidence of tuberculosis is now in older men, probably a relic of infection contracted many years ago when the disease was more common. In welcoming the satisfactory overall trends in this disease, Dr. Edwards rightly draws attention to two disquieting points—a small rise in the number of notifications of patients aged under 35 years and a small rise in the number of deaths.

Veneral Disease

Dr. Hancock's report shows that a disproportionately large number of cases of gonorrhoea occur in certain immigrant groups and indicates some of the reasons for this. New infections with syphilis are still very uncommon in Leeds but there can be no assurance that incidence will remain low.

Home Nursing

During the year five candidates sat for the National Certificate in District Nursing and all were successful in obtaining the Certificate.

New Premises

In April, Alderman Mrs. W. Shutt (who was at that time Chairman of the Health Committee) opened a new clinic in the Burmantofts area. This clinic provides accommodation for the Health Committee's services and also for the Education Committee's School Health Service. It is situated conveniently alongside the local shopping centre.

The building is on two floors, the ground floor having a main entrance and waiting area with direct access to a covered pram park. Off the waiting area are counters where Welfare Foods can be obtained, and also where a cup of tea may be had while waiting. Opening off the waiting room is a weighing room, having access to an ante-room, leading to the doctor's consulting room. Accommodation for health visitors is provided and there are specialist rooms for chiropody, physiotherapy and sunray treatment.

On the first floor are two dental surgeries with waiting and recovery rooms; also a medical waiting room and rooms for speech therapy and eye testing and for the treatment of minor ailments.

This is proving a very popular clinic and may well need to be extended in the near future.

Another new clinic was opened in August by the Lord Mayor, Alderman Mrs. L. Naylor, J.P. This is in Armley, in the main shopping street. The City Architect has used a sloping site cleverly, so as to give entry at ground level to both floors.

The building has been planned on a schedule of accommodation similar to the clinic for Seacroft but, having regard to the steep and restricted nature of the site, the Maternity and Child Welfare Clinic is planned on an upper floor above the school clinic with the entrance from the top of Theaker Lane. The school clinic on the lower floor is entered from a point lower down Theaker Lane.

The upper floor containing the Maternity and Child Welfare clinic is accessible directly from a point near the top of Theaker Lane and also across a paved and planted court from Town Street. This part of the building has been planned to provide the most convenient point of entry, bearing in mind the requirements for easy access with prams.

The lower floor contains the schools medical and dental sections of the clinic.

In her section of the report, Dr. Ormiston refers to the changes which are taking place in the work of the clinics. It is interesting to note that the number of pre-school children attending clinics is steadily increasing. With the decline in serious physical illnesses in our children, we are able to devote more attention to questions of normal development, not only physical but mental and emotional, and to the "at risk" child, that is to say the child whose personal and family medical history suggests that he is more at risk than his fellows of developing some defect or other. A great deal of valuable preventive work can be done by giving special attention to this group.

**Maternity
and Child
Welfare
Clinics**

The arrangements for immunisation of young children at the clinics have progressively changed. At one time special monthly sessions were held for immunisation only, but immunisation is now integrated in the ordinary work of the clinics. This is more convenient for the mothers and has led to substantial economies. It

is pleasing to record that approximately 75 per cent. of the population aged under 20 years have been vaccinated against poliomyelitis and more than 80 per cent. of our children against diphtheria. It is thanks to this that no case of poliomyelitis or diphtheria was recorded during 1964.

Changes in the work of the maternity clinics are more difficult to assess. It is clear that many general practitioners are undertaking more ante-natal and post-natal care for their patients and, indeed, three of them use Local Authority premises for this purpose. The tendency for maternity patients to return home from hospital within a couple of days of confinement poses problems for the Local Authority who must provide post-natal care. If, in the future, the "48-hour" discharge from maternity wards becomes the usual thing, the domiciliary midwifery service will need to be recast.

Already the sum total of changes in the work of the clinics necessitated considerable changes in the organisation and staffing of the clinics.

Congenital Defects

The layout of the birth notification form has been revised to allow the inclusion of information on defects apparent at birth. Children with congenital defects are placed on the "At Risk" Register and receive special supervision by the health visitors.

Health Visiting

Miss Akester and Dr. McPhail published, during the year, a survey of the work of the health visitor entitled "Health Visiting in the Sixties". Presented in somewhat controversial terms, this is basically an evaluation of the work of the health visitor—what problems come to her, how effectively does she deal with them? There is a pressing need for evaluation in every part of the health services if we are to use staffs and material resources effectively.

Staff

Dr. E. M. Hargreaves took up appointment in January as Senior Medical Officer (Geriatrics). This is a new post with duties in both Health and Welfare Services Departments and it reflects the growth in importance of the services which the Local Authority provides for the aged. Broadly speaking, the Senior Medical Officer (Geriatrics) is available to advise on medical matters affecting the care of the aged (but does not provide general practitioner treatment), co-ordination of the many Local Authority services used

by old people and liaison with the Geriatric Departments of local hospitals. During the year she began—on a trial basis—“preventive” sessions for old people at two clinics. These are intended to investigate medical and social problems and to help and advise old people in finding solutions.

In April, Dr. J. M. McAlpin, Senior Medical Officer for Mental Health, left Leeds to take up a senior post in the Scottish Home and Health Department. Dr. McAlpin had been with us since 1950 and played a major part in the development of our Mental Health Services. His successor in office is Dr. Joyce E. Marshall, who has had a wealth of experience in the field of Mental Health.

In August Mrs. D. W. Alford retired. She was our first Home Help Organiser, having been appointed in 1948. She is a founder-member of the Institute of Home Help Organisers. Mrs. Alford was always a strong advocate of training courses for Home Helps and she would, no doubt, applaud the excellent courses which commenced at the Branch College of Institutional and Domestic Economy shortly after her retirement. She is succeeded by Miss F. M. P. Hassal.

It is again my privilege to thank my colleagues in other Departments of the Corporation; their help throughout the year has been greatly appreciated.

Acknowledgements

In conclusion, I wish to place on record my sincere thanks to the Chairman, Deputy Chairman and Members of the Health Committee for their continued interest and helpful support throughout the year.

I am,

Ladies and Gentlemen,

Your obedient Servant,

D. B. BRADSHAW.

SUMMARY OF VITAL STATISTICS

1964

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

AVERAGE HEIGHT ABOVE SEA LEVEL 250 feet.

AREA OF CITY	40,613.5 Acres
HOME POPULATION (Registrar General's Estimate) ..	508,790
ESTIMATED NUMBER OF HOUSES	178,181
RATEABLE VALUE	£20,587,710
SUM REPRESENTED BY A PENNY RATE	£83,620

	Average	
	1964	1954-63
BIRTH RATE (births per 1,000 living)	18.8	16.6
DEATH RATE (deaths per 1,000 living)	11.5	11.7
NATURAL INCREASE OF POPULATION (Excess of births over deaths in the year)	3,758	2,517
INFANT MORTALITY RATE (Deaths under 1 year per 1,000 births)	25	25
DEATH RATE from Pneumonia and Bronchitis ..	1.62	1.25
DEATH RATE from Cancer	2.30	2.12
DEATH RATE from Diarrhoea and Enteritis (under 2 years) per 1,000 births	1.56	0.74

	Cases	Case- rate	Deaths	Death- rate
SCARLET FEVER	233	0.46	1	0.002
DIPHTHERIA .. .. .	..	..	..	..
POLIOMYELITIS .. .. .	..	..	..	..
MEASLES	5,984	11.76	2	0.004
WHOOPING COUGH	739	1.45	1	0.002
RESPIRATORY TUBERCULOSIS ..	258	0.51	33	0.06
OTHER FORMS OF TUBERCULOSIS ..	22	0.04	2	0.004

VITAL STATISTICS

RELATING TO MOTHERS AND INFANTS

(in accordance with Ministry of Health Circular 1/60)

	1964	1963	Average 1959-63
LIVE BIRTHS—			
Number	9,588	9,503	9,005
Rate per 1,000 population	18.8	18.5	17.5
ILLEGITIMATE LIVE BIRTHS PER CENT. OF TOTAL LIVE BIRTHS ..			
	9.8	8.9	7.8
STILL BIRTHS—			
Number	168	158	168
Rate per 1,000 total births (live and still) ..	17.2	16.4	18.4
TOTAL BIRTHS (live and still)	9,756	9,661	9,173
INFANT MORTALITY—			
Number of deaths under 1 year of age	237	259	220
Infant mortality rate per 1,000 live births	24.7	27.3	24.4
Legitimate infant mortality rate	22.8	26.3	23.7
Illegitimate	42.6	36.6	32.9
NEO-NATAL MORTALITY RATE			
(First four weeks) per 1,000 live births	15.5	17.9	16.5
EARLY NEO-NATAL MORTALITY RATE			
(Deaths under 1 week per 1,000 live births)	14.3	15.5	14.5
PERI-NATAL MORTALITY RATE			
(Stillbirths and deaths under 1 week combined per 1,000 <u>total</u> births)	31.3	31.6	32.6
MATERNAL MORTALITY—			
Number of maternal deaths (including abortion)	3	2	3
Maternal mortality rate per 1,000 <u>total</u> births	0.31	0.21	0.37

STATISTICAL SUMMARY

RELATING TO DEATHS AND BURIALS

IN THE DISTRICT OF COLUMBIA FOR THE YEAR 1900

Total Deaths	1,000	1,000	1,000	1,000	1,000	1,000
Total Burials	1,000	1,000	1,000	1,000	1,000	1,000
Total Deaths (Male)	500	500	500	500	500	500
Total Deaths (Female)	500	500	500	500	500	500
Total Deaths (White)	800	800	800	800	800	800
Total Deaths (Colored)	200	200	200	200	200	200
Total Deaths (Foreign Born)	100	100	100	100	100	100
Total Deaths (Native Born)	900	900	900	900	900	900
Total Deaths (Married)	600	600	600	600	600	600
Total Deaths (Single)	400	400	400	400	400	400
Total Deaths (Under 15)	150	150	150	150	150	150
Total Deaths (15 to 64)	450	450	450	450	450	450
Total Deaths (65 and over)	400	400	400	400	400	400
Total Deaths (Infants)	50	50	50	50	50	50
Total Deaths (Children)	100	100	100	100	100	100
Total Deaths (Adults)	850	850	850	850	850	850
Total Deaths (Seniors)	100	100	100	100	100	100
Total Deaths (Total)	1,000	1,000	1,000	1,000	1,000	1,000

Natural and Social Conditions

Vital Statistics

NATURAL AND SOCIAL CONDITIONS

Area.—The area of the city is 40,613·5 acres.

Population.—The Registrar General's estimate of the home population of the city at mid-1964 was 508,790.

Dwelling-houses.—The total number of dwelling-houses in the city at December, 1964, was 178,181.

Rateable Value.—The rateable value of the city at 1st April, 1965, was £20,587,710 and the estimated product of a penny rate was £83,620. The comparable figures at 1st April, 1964, were £20,240,880 and £82,125.

Principal Industries.—Engineering, wholesale clothing, woollen and worsted manufacture and printing continue to be the city's principal industries. Approximate numbers of persons employed in these industries are as follows:— engineering (including metal manufacture, vehicle manufacture, metal goods and precision instruments) 45,000; wholesale clothing 40,000; woollen and worsted manufacture 11,000 and printing 12,000. Approximately 41,000 persons are employed in distributive trades. These figures are not strictly related to the population of the city as, of course, they include persons not resident in the city.

The average level of unemployment during the year was 0·9 per cent.

Meteorology.—The number of hours of bright sunshine recorded during the year was 1,282·5. The sunniest month was May with a daily average of 7·06 hours and the month with the least sunshine was December with a daily average of 0·85 hours. The sunniest day of the year was May 26th with 13·50 hours and the daily average for the whole year was 3·51 hours.

The total rainfall for the year was 19·28 inches. The month with the least rain was January with a total of 0·07 inches; the month with the most rain was March with 3·49 inches. Taking the four quarters of the year, the rainfall in the first quarter was 5·50 inches; in the second 5·43; in the third 4·28 and in the fourth 4·07 inches.

The month with the highest average temperature was August with 63·34°F and the lowest December with 39·91°F.

VITAL STATISTICS

BIRTHS

The births registered in the city during the year numbered 10,897. Of these, 1,427 born to parents not residing in Leeds were transferred to the areas in which the home addresses were situated, whilst 118 born outside the city to Leeds parents were transferred in, making a nett total of 9,588 births (comprising 5,024 males and 4,564 females).

The birth-rate was 18·8 per thousand of the home population, as compared with 18·5 for the previous year and an average of 17·5 for the previous five years. The birth-rate for the city was higher than that for England and Wales which was provisionally 18·4 per thousand of the population.

The birth-rate as adjusted by the Area Comparability Factor (Births) was 18·8.

Excess of Births over Deaths.—The excess of births over deaths or the “natural increase of population” was 3,758 as compared with 3,172 for the previous year and an average of 2,517 for the previous ten years.

Illegitimate Births.—Of the 9,588 nett births registered, 938 or 9·8 per cent. were illegitimate as compared with 847 or 8·9 per cent. for the previous year and an average of 706 or 7·8 per cent. for the previous five years.

Stillbirths.—The nett number of stillbirths registered during the year was 168, comprising 97 males and 71 females. The rate per thousand of the population was 0·33 as compared with 0·31 for the previous year. Expressed as a percentage of the total births (live and still) the rate was 1·7 as compared with 1·6 for the previous year. Of the 168 stillbirths registered, 32 or 19·0 per cent. were illegitimate. The ratio of registered “still” to registered “live” births was 1 to 57, as compared with 1 to 60 in the previous year.

DEATHS

The gross number of deaths registered in the city was 6,255, giving a gross death-rate of 12·3, as compared with 13·1 for the previous year. The inward transferable deaths numbered 477 and outward transferable deaths 902, which, after adjustment, leaves a nett total of 5,830 deaths debitabale to the city.

The corresponding death-rate was 11·5 as compared with 12·3 for the previous year and an average of 12·0 for the previous five years. The provisional death-rate for England and Wales was 11·3.

Area Comparability Factor.—The Registrar General supplies an Area Comparability Factor (A.C.F.) and this, when multiplied by the crude death-rate, gives an adjusted death-rate which is comparable with a similarly adjusted death-rate for any other area. An adjusted death-rate makes allowance for any difference in the population structure, by sex and age, from that of England and Wales as a whole. An A.C.F. is also supplied for the adjustment of the crude birth-rate.

The A.C.F. (Deaths) for Leeds was 1.14 and this, when applied to the crude death-rate of 11.5, gave an adjusted death-rate of 13.1.

The following table gives the vital statistics, including crude and adjusted birth and death-rates, of London Administrative County and the twelve principal cities of England and Wales.

	Population	Birth-rate		Death-rate		Infant Mortality Rates		Peri-natal Mort. Rate	Stillbirth rate (per 1,000 total births)
		Crude	Ad-justed	Crude	Ad-justed	-1 yr.	-1 mth.		
London Admin. County	3,185,000	20.0	17.2	11.0	11.7	21	15	28	15
Birmingham	1,106,040	20.2	20.0	10.7	12.5	21	14	30	17
Liverpool	729,140	21.4	20.1	11.2	13.6	22	13	29	18
Manchester	644,500	20.6	20.6	12.0	14.1	29	18	35	20
Leeds	508,790	18.8	18.8	11.5	13.1	25	16	32	17
Sheffield	490,930	17.1	17.3	12.2	12.9	18	13	26	16
Bristol	432,070	17.4	17.9	11.9	11.5	18	12	23	12
Nottingham	311,850	20.0	19.8	11.6	13.0	23	16	34	20
Hull	300,320	20.0	19.4	10.5	13.0	22	13	29	17
Bradford	298,220	19.5	20.3	13.0	13.4	27	15	31	18
Leicester	267,050	19.1	20.4	12.5	12.4	23	16	32	19
Stoke-on-Trent	263,910	16.8	16.8	11.3	14.4	17	11	29	20
Newcastle upon Tyne ..	260,750	17.3	17.3	12.2	13.5	25	16	32	18

Causes of Death.—The principal causes of death during 1964 are given below (International List numbers in brackets):—

Coronary disease (420)	.. .. .	1,356
Malignant and lymphatic neoplasms (140-205)	.. .. .	1,170
Cerebral haemorrhage, etc. (330-334)	.. .. .	714
Heart disease (410-416, 421-443)	.. .. .	493
Bronchitis (500-502)	.. .. .	398
Pneumonia (490-493, 763)	.. .. .	425
Other circulatory diseases (444-468)	.. .. .	279

The above group of diseases accounted for 4,835 or 82.9 per cent. of the total deaths as compared with 5,233 or 82.6 per cent. last year.

The table on page 9 sets out the causes of death in accordance with the International Statistical Classification of Diseases, Injuries and Causes of Death.

Deaths in Age Groups.—The table on page 11 sets out the deaths according to age groups. The aggregate number of deaths of children in the age groups -1, 1-2 and 2-5 was 260 or 4.5 per cent. of the total deaths, as compared with 283 or 4.5 per cent. in the previous year and an average of 253 or 4.1 per cent. for the previous five years. The number of deaths in all the age groups under 45 years was 555 or 9.5 per cent. as compared with 578 or 9.1 per cent. in the previous year. In the remaining age groups over 45 years the deaths numbered 5,275 or 90.5 per cent. as compared with 5,753 or 90.9 per cent. in the previous year.

Cremations.—Out of a total of 5,830 Leeds deaths during the year, the number of bodies disposed of by cremation was 3,004 or 51.5 per cent. as compared with 3,209 or 50.7 per cent. in 1963. Of this number, 2,172 were cremated at Lawnswood and the remainder, 832, at Cottingley. The total number of cremations represents a decrease of 205 on the figure for the previous year and an increase of 10 on the average number of cremations for the previous five years.

Public Mortuary.—The number of bodies received into the Public Mortuary during 1964 was 843 as compared with 874 in 1963. The number of autopsies performed was 644. Arrangements were made by relatives or friends for the disposal of 798 bodies and by the Welfare Services Department for 44.

INFANT MORTALITY

The number of deaths of children under one year of age during 1964 was 237 (males 143, females 94), as compared with 259 (males 143, females 116) in 1963. The infant mortality rate was 25 as compared with 27 for the previous year and an average of 24 for the previous five years. The provisional infant mortality rate for England and Wales was 20.

Illegitimate Infant Mortality.—Of the 938 illegitimate births, 40 died before reaching the age of one year, which is equal to an infant mortality rate of 43 as compared with 37 last year.

Causes of Death.—The principal causes of death of infants under one year of age during the year, in order of numerical importance, were prematurity 68 (28.7 per cent.), congenital malformations 45 (19.0 per cent.), pneumonia 34 (14.3 per cent.) and post-natal asphyxia and atelectasis 26 (11.0 per cent.).

Respiratory diseases were responsible for 45 or 19.0 per cent. of the total deaths under one year of age; in 1963 the number was 59 or 22.8 per cent. and the average for the previous five years was 40 or 18.2 per cent. For further details of causes of death of infants under one year of age, see the tables on pages 12 and 13.

Prematurity.—The number of deaths from prematurity was 68. The death-rate from prematurity per thousand live births was 7.1 as compared with 4.9 for the previous year and an average of 5.3 for the previous five years. There were 18 deaths assigned to other diseases of early infancy in which prematurity was mentioned on the death certificate.

Deaths in Age Groups.—Of the total (237) infant deaths, 74 or 31.2 per cent. took place on the first day; 137 or 57.8 per cent. in the first week; 149 or 62.9 per cent. in the first month; 37 or 15.6 per cent. between one and three months; 29 or 12.2 per cent. between three and six months; 11 or 4.6 per cent. between six and nine months; and 11 or 4.6 per cent. between nine and twelve months.

Neo-Natal Mortality.—The number of deaths occurring in the first month of life was 149 or 21 less than in the previous year, the corresponding neo-natal mortality rate being 15.5 as compared with 17.9 in 1963.

Of the total deaths under one year of age, 62.9 per cent. occurred in the first month and of deaths in the first month 49.7 per cent. occurred on the first day, 91.9 per cent. in the first week and 94.6 per cent. in the first two weeks.

Peri-Natal Mortality.—The term “peri-natal mortality” is used to measure infant mortality due to causes operating before, during and immediately after birth and includes stillbirths and deaths of infants in the first week of life. The peri-natal mortality rate is calculated per thousand total births (live and still). The rate for 1964 was 32 as compared with 32 for the previous year and an average of 33 for the previous five years.

MATERNAL MORTALITY

The number of mothers who lost their lives in childbirth during the year was 3 as compared with 2 in the previous year. The corresponding maternal mortality rate per thousand total births (live and still) was 0·31 as compared with 0·21 for the previous year and an average of 0·37 for the previous five years.

The causes of death were as follows:—

- (1) 1a. Pulmonary embolism
 b. Leg vein thrombosis
- (2) 1a. Acute pulmonary oedema
- (3) 1a. Haemorrhage
 b. Ruptured tubal pregnancy

PRINCIPAL CAUSES OF DEATH

International List Nos.	Diseases	No. of deaths in 1964 (nett)	No. of deaths in 1963 (nett)	Death rate 1964
001-008	Tuberculosis, respiratory	33	25	0.06
010-019	Tuberculosis, other forms	2	..	0.00
020-029	Syphilitic disease	5	7	0.01
055	Diphtheria .. .. .	..	..	..
056	Whooping Cough	1	..	0.00
057	Meningococcal infections .. .. .	..	1	..
080	Acute poliomyelitis .. .. .	..	1	..
085	Measles	2	2	0.00
Remainder of 001-188	Other infective and parasitic diseases	9	6	0.02
151	Malignant neoplasms : Stomach	119	154	0.23
162, 163	Lung, bronchus	321	316	0.63
170	Breast	98	105	0.19
171-174	Uterus	45	40	0.09
Remainder of } 140-203 } 205 } 204 }	Other malignant and lymphatic neoplasms ..	553	513	1.09
260	Leukaemia, aleukaemia	34	29	0.07
260	Diabetes	30	37	0.06
330-334	Vascular lesions of central nervous system ..	714	759	1.40
420	Coronary disease, angina	1,356	1,438	2.67
440-443	Hypertension with heart disease	60	76	0.12
Remainder of } 410-443 }	Other heart disease	433	524	0.85
444-468	Other circulatory disease	279	248	0.55
480-483	Influenza	5	10	0.01
490-493 } 763 }	Pneumonia	425	513	0.84
500-502 } 470-475 } 510-527 }	Bronchitis	398	518	0.78
	Other diseases of the respiratory system ..	35	59	0.07
540, 541 } 543, 571 } 572, 764 }	Ulcer of stomach and duodenum	46	46	0.09
	Gastritis, enteritis and diarrhoea	34	29	0.07
590-594	Nephritis and nephrosis	23	32	0.05
610	Hyperplasia of prostate	12	10	0.02
640-689	Pregnancy, childbirth and abortion	3	2	0.01
750-759	Congenital malformations	55	56	0.11
Residual	Other defined and ill-defined diseases	440	495	0.86
E810-E835 } E800-E802 } E840-E962 }	Motor vehicle accidents	72	60	0.14
	All other accidents	133	149	0.26
E963 } E970-E979 }	Suicide	50	70	0.10
E964, E965 } E980-E999 }	Homicide and operations of war	5	1	0.01
	Totals	5,830	6,331	11.46

CAUSES OF AND AGES AT DEATH DURING THE CALENDAR YEAR, 1964.

International List Nos.	Cause of Death	Nett Deaths at the subjoined ages of "Residents" whether occurring within or outside the District.										*Total Hospital Deaths in the District
		All Ages	Under 1 year	1 & under 2 years	2 & under 5 years	5 & under 15 years	15 & under 25 years	25 & under 45 years	45 & under 65 years	65 & under 75 years	75 and upwards	
001-008	Tuberculosis, respiratory ..	33	..	..	..	..	..	4	19	9	1	28
010-019	Tuberculosis, other forms ..	2	..	..	1	..	..	..	1	..	..	5
020-029	Syphilitic disease	5	..	..	..	..	..	..	2	2	1	2
055	Diphtheria .. ..	..	..	..	..	..	..	..	..	..	..	..
056	Whooping Cough	1	1	..	..	..	..	..	..	..	..	1
057	Meningococcal infections ..	..	..	..	..	..	..	..	..	..	..	..
080	Acute poliomyelitis .. ..	..	..	..	..	..	..	..	..	..	..	..
085	Measles	2	..	..	..	2	..	..	..	..	..	3
Remainder of 001-138	Other infective and parasitic diseases	9	..	1	..	1	..	2	4	..	1	13
	Malignant neoplasms :											
151	Stomach	119	..	..	..	..	..	2	38	43	36	74
162, 163	Lung, bronchus	321	..	..	..	..	1	15	153	113	39	210
170	Breast	98	..	..	..	..	..	9	43	27	19	65
171-174	Uterus	45	..	..	..	..	..	6	20	8	11	38
Remainder of 140-203, 205	Other malignant and lymphatic neoplasms ..	553	..	1	..	3	1	30	192	166	160	441
204	Leukaemia, aleukaemia ..	34	..	..	1	1	..	2	10	14	6	40
260	Diabetes	30	..	..	1	..	..	3	8	6	12	30
330-334	Vascular lesions of central nervous system	714	..	..	..	..	1	12	148	215	338	546
420	Coronary disease, angina ..	1,356	..	..	..	..	..	30	416	433	477	683
440-443	Hypertension with heart disease	60	..	..	..	..	..	1	13	16	30	24
Remainder of 410-443	Other heart disease	433	..	..	..	..	2	20	97	87	227	224
444-468	Other circulatory disease ..	279	..	..	..	1	..	5	51	77	145	201
480-483	Influenza	5	..	..	..	..	..	..	1	2	2	..
490-493, 763	Pneumonia	425	34	..	..	4	2	4	48	89	244	332
500-502	Bronchitis	398	3	..	1	1	1	4	104	132	152	248
470-475 } 510-527 }	Other diseases of the respiratory system ..	35	8	..	..	..	2	2	12	7	4	26
540, 541	Ulcer of stomach and duodenum	46	..	..	..	..	..	2	13	18	13	39
543, 571 } 572, 764 }	Gastritis, enteritis and diarrhoea	34	12	3	1	..	1	..	1	8	8	37
590-594	Nephritis and nephrosis ..	23	..	..	..	..	..	5	11	6	1	32
610	Hyperplasia of prostate ..	12	..	..	..	..	..	..	2	1	9	16
640-689	Pregnancy, childbirth and abortion	3	..	..	..	..	..	3	..	..	..	4
750-759	Congenital malformations ..	55	45	2	1	1	..	..	3	3	..	86
Residual	Other defined and ill-defined diseases ..	440	130	1	2	7	11	18	70	70	131	458
E810-E835	Motor vehicle accidents ..	72	..	..	2	3	16	14	20	4	13	63
E800-E802 } E840-E962 } E963	All other accidents	133	4	1	4	2	8	13	21	18	62	93
E970-E979 } E964, E965 }	Suicide	50	..	..	..	..	5	11	23	9	2	13
E980-E999 }	Homicide and operations of war	5	..	..	..	..	..	1	..	4	..	5
	Totals	5,830	237	9	14	26	51	218	1,544	1,587	2,144	4,080

*Total Deaths whether of "Residents" or "Non-Residents" in Hospitals and Institutions in the District.

DEATHS IN AGE GROUPS (NETT), 1954-1964

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
1954	198 <i>3.4%</i>	13 <i>0.2%</i>	19 <i>0.3%</i>	28 <i>0.5%</i>	30 <i>0.5%</i>	273 <i>4.7%</i>	1,546 <i>26.9%</i>	3,648 <i>63.4%</i>	5,755
1955	194 <i>3.3%</i>	17 <i>0.3%</i>	11 <i>0.2%</i>	39 <i>0.7%</i>	48 <i>0.8%</i>	273 <i>4.7%</i>	1,507 <i>25.9%</i>	3,727 <i>64.1%</i>	5,816
1956	216 <i>3.7%</i>	17 <i>0.3%</i>	17 <i>0.3%</i>	22 <i>0.4%</i>	39 <i>0.7%</i>	263 <i>4.6%</i>	1,488 <i>25.8%</i>	3,700 <i>64.2%</i>	5,762
1957	207 <i>3.6%</i>	9 <i>0.1%</i>	14 <i>0.2%</i>	34 <i>0.6%</i>	44 <i>0.7%</i>	244 <i>4.2%</i>	1,558 <i>26.8%</i>	3,711 <i>63.8%</i>	5,821
1958	218 <i>3.6%</i>	11 <i>0.2%</i>	16 <i>0.3%</i>	26 <i>0.4%</i>	38 <i>0.6%</i>	249 <i>4.2%</i>	1,512 <i>25.5%</i>	3,862 <i>65.1%</i>	5,932
1959	213 <i>3.5%</i>	17 <i>0.3%</i>	20 <i>0.3%</i>	29 <i>0.5%</i>	47 <i>0.8%</i>	227 <i>3.7%</i>	1,600 <i>26.1%</i>	3,967 <i>64.8%</i>	6,120
1960	199 <i>3.4%</i>	11 <i>0.2%</i>	26 <i>0.4%</i>	30 <i>0.5%</i>	44 <i>0.8%</i>	221 <i>3.8%</i>	1,517 <i>26.2%</i>	3,743 <i>64.6%</i>	5,791
1961	206 <i>3.2%</i>	12 <i>0.2%</i>	18 <i>0.3%</i>	35 <i>0.5%</i>	48 <i>0.7%</i>	235 <i>3.7%</i>	1,619 <i>25.2%</i>	4,240 <i>66.1%</i>	6,413
1962	222 <i>3.6%</i>	16 <i>0.3%</i>	21 <i>0.3%</i>	19 <i>0.3%</i>	59 <i>1.0%</i>	242 <i>3.9%</i>	1,535 <i>24.9%</i>	4,059 <i>65.8%</i>	6,173
1963	259 <i>4.1%</i>	8 <i>0.1%</i>	16 <i>0.3%</i>	31 <i>0.5%</i>	46 <i>0.7%</i>	218 <i>3.4%</i>	1,656 <i>26.2%</i>	4,097 <i>64.7%</i>	6,331
1964	237 <i>4.1%</i>	9 <i>0.2%</i>	14 <i>0.2%</i>	26 <i>0.4%</i>	51 <i>0.9%</i>	218 <i>3.7%</i>	1,544 <i>26.5%</i>	3,731 <i>64.0%</i>	5,830

DEATHS FROM STATED CAUSES UNDER ONE YEAR OF AGE

International List Nos.	Cause of Death	1963	1964	% of total deaths under one
010	Tuberculosis of meninges and central nervous system .. ..	..	..	..
Rest of 001-019	Tuberculosis, other forms .. ..	..	..	..
020	Syphilis .. .. .	..	..	..
050	Scarlet fever .. .. .	..	..	..
055	Diphtheria .. .. .	..	..	..
056	Whooping Cough .. .. .	..	1	0.4
057	Meningococcal infections	1	..	..
085	Measles	2	..	..
340	Meningitis (non-meningococcal) ..	2	4	1.7
480-483	Influenza .. .. .	..	..	..
490-493	Pneumonia (4 weeks—1 year) ..	36	29	12.2
500-502	Bronchitis	3	3	1.3
560, 561, 570	Intestinal obstruction, hernia ..	8	3	1.3
571, 572	Gastro-enteritis (4 weeks—1 year)	8	11	4.6
751	Spina bifida and meningocele ..	6	7	3.0
754	Congenital malformations of circulatory system	14	20	8.4
750, 752, 753 } 755-759 } 760-761 } 762 } 763 } 764 } 765-768 } 770 } 769 } 771-773 } 774-776 } E924 }	All other congenital malformations	19	18	7.6
	Birth injuries	27	14	5.9
	Post-natal asphyxia, atelectasis ..	42	26	11.0
	Pneumonia of newborn (—4 weeks)	8	5	2.1
	Diarrhœa of newborn (—4 weeks)	1	1	0.4
	Other infections of newborn ..	1	1	0.4
	Hæmolytic disease of newborn ..	6	4	1.7
	Other diseases peculiar to early infancy	4	1	0.4
	Prematurity	47	68	28.7
	Accidental mechanical suffocation	1	..	..
Rem. of E800-999	Other violent causes .. .. .	..	4	1.7
Residual	All other causes	23	17	7.2
	Totals	259	237	..

INFANT MORTALITY 1964. NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER ONE YEAR OF AGE.

International List Nos.	Cause of Death	-1	1	2	3	4	5	6	1-2	2-3	3-4	Total		Total -1 year
		day	day	days	days	days	days	days	weeks	weeks	weeks	m'ths	m'ths	
010	Tuberculosis of meninges	..	..	..	..	..	..	..	..	..	..	..	..	..
Rest of 001-019	Tuberculosis, other forms	..	..	..	..	..	..	..	..	..	..	..	..	..
020	Syphilis	..	..	..	..	..	..	..	..	..	..	..	..	..
050	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..
055	Diphtheria	..	..	..	..	..	..	..	..	..	..	..	..	..
056	Whooping Cough	..	..	..	..	..	..	..	..	..	..	..	..	..
057	Meningococcal infections	..	..	..	..	..	..	..	..	..	..	..	..	..
085	Measles	..	..	..	..	..	..	..	..	..	..	..	..	..
340	Meningitis (non-meningococcal or tuberculous)	..	..	..	..	..	..	..	..	..	..	..	..	..
480-483	Influenza	..	..	..	..	..	..	..	..	..	..	..	..	..
490-493	Pneumonia (4 weeks-1 year)	..	..	..	..	..	..	..	..	..	..	..	..	..
500-502	Bronchitis	..	..	..	..	..	..	..	..	..	..	..	..	..
560, 561, 570	Intestinal obstruction, hernia	..	..	..	..	..	..	..	..	..	..	..	..	..
571, 572	Gastro-enteritis (4 weeks-1 year)	..	..	..	..	..	..	..	..	..	..	..	..	..
751	Spina bifida and meningocele	..	..	..	..	..	..	..	..	..	..	..	..	..
754	Congenital malformations of circulatory system	3	1	6	..	..	..	..	..	..	..	..	..	..
Rest of 750-759	All other congenital malformations	..	..	..	..	..	..	..	..	..	..	..	..	..
760, 761	Birth injuries	4	1	3	1	..	2	..	..	..	..	..	..	..
762	Post-natal asphyxia, atelectasis	6	2	2	2	1	..	..	..	..	..	..	..	..
763	Pneumonia of newborn (-4 weeks)	17	4	3	..	..	1	..	..	..	..	..	..	..
764	Diarrhoea of newborn (-4 weeks)	1	..	1	..	..	..	..	..	..	..	..	..	..
765-768	Other infections of newborn	..	..	..	..	..	..	..	..	..	..	..	..	..
770	Haemolytic disease of newborn	..	..	..	..	..	..	..	..	..	..	..	..	..
769, 771-773	Other diseases peculiar to early infancy	..	..	..	..	..	..	..	..	..	..	..	..	..
774-776	Prematurity	39	16	7	1	2	1	..	..	..	..	..	..	..
E924	Accidental mechanical suffocation	..	..	..	..	..	..	..	..	..	..	..	..	..
Rest of E800-999	Other violent causes	..	..	..	..	..	..	..	..	..	..	..	..	..
Residual	All other causes	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals		74	26	22	5	4	4	2	4	7	1	149	37	237

INFANT MORTALITY DURING THE FOURTEEN YEARS 1951-1964 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
1951	8,044	125	15.5	141	17.5	36	4.5	40	5.0	19	2.4	11	1.4	247	31
1952	7,740	126	16.3	144	18.6	28	3.6	37	4.8	11	1.4	11	1.4	231	30
1953	7,932	160	20.2	182	22.9	31	3.9	21	2.6	16	2.0	11	1.4	261	33
1954	7,584	118	15.6	135	17.8	24	3.2	21	2.8	12	1.6	6	0.8	198	26
1955	7,630	123	16.1	136	17.8	19	2.5	26	3.4	7	0.9	6	0.8	194	25
1956	8,033	131	16.3	153	19.0	28	3.5	21	2.6	9	1.1	5	0.6	216	27
1957	8,429	124	14.7	150	17.8	18	2.1	23	2.7	10	1.2	6	0.7	207	25
1958	8,379	130	15.5	152	18.1	19	2.3	30	3.6	8	1.0	9	1.1	218	26
1959	8,353	130	15.6	149	17.8	22	2.6	24	2.9	7	0.8	11	1.3	213	25
1960	8,789	108	12.3	131	14.9	30	3.4	21	2.4	12	1.4	5	0.6	199	23
1961	8,921	123	13.8	132	14.8	30	3.4	26	2.9	8	0.9	10	1.1	206	23
1962	9,458	147	15.5	160	16.9	19	2.0	27	2.9	12	1.3	4	0.4	222	23
1963	9,503	147	15.5	170	17.9	33	3.5	35	3.7	11	1.2	10	1.1	259	27
1964	9,588	137	14.3	149	15.5	37	3.9	29	3.0	11	1.1	11	1.1	237	25

MINISTRY OF HEALTH TABLES.
TABLE I.

VITAL STATISTICS OF LEEDS C.B. FOR 1964 AND PREVIOUS YEARS.

YEAR	Population estimated to Middle of each Year	BIRTHS			TOTAL DEATHS REGISTERED IN THE AREA		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE AREA			
		Un-corrected Number	Nett		Number	Rate	Of Non-residents registered in the Area	Of Residents not registered in the Area	Under 1 Year of Age		At all Ages	
			Number	Rate					Number	Rate per 1,000 Nett Births		
1	2	3	4	5	6	7	8	9	10	11	12	13
1946	481,570	10,267	9,886	20.5	6,795	14.1	570	389	401	41	6,614	13.7
1947	492,140	11,394	10,875	22.1	6,982	14.2	567	378	552	51	6,793	13.8
1948	501,900	9,938	9,234	18.4	6,106	12.2	600	396	321	35	5,902	11.8
1949	504,900	9,146	8,447	16.3	6,757	13.4	630	324	254	30	6,451	12.8
1950	509,700	8,857	8,113	15.9	6,437	12.6	579	396	250	31	6,254	12.3
1951	503,030	8,700	8,044	16.0	6,983	13.9	595	409	247	31	6,797	13.5
1952	504,800	8,250	7,740	15.3	6,446	12.8	597	443	231	30	6,292	12.5
1953	505,500	8,465	7,932	15.7	6,354	12.6	643	186	261	33	5,897	11.7
1954	507,200	8,185	7,584	15.0	6,224	12.3	649	180	198	26	5,755	11.3
1955	507,400	8,259	7,630	15.0	6,295	12.4	647	168	194	25	5,816	11.5
1956	508,600	8,640	8,033	15.8	6,270	12.3	693	185	216	27	5,762	11.3
1957	509,790*	9,023	8,429	16.5	6,309	12.4	695	207	207	25	5,821	11.4
1958	510,100†	8,995	8,379	16.4	6,393	12.5	778	317	218	26	5,932	11.6
1959	513,300	9,045	8,353	16.3	6,481	12.6	787	426	213	25	6,120	11.9
1960	514,760	9,483	8,789	17.1	6,205	12.1	863	449	199	23	5,791	11.2
1961	511,650	9,769	8,921	17.4	6,835	13.4	919	497	206	23	6,413	12.5
1962	514,640	10,424	9,458	18.4	6,648	12.9	905	430	222	23	6,173	12.0
1963	513,800	10,608	9,503	18.5	6,752	13.1	883	462	259	27	6,331	12.3
1964	508,790	10,897	9,588	18.8	6,255	12.3	902	477	237	25	5,830	11.5

Total population at all ages at the 1961 Census 510,676

Area of Leeds C.B. in acres (land and inland water) } 40,613.5

* Population used for calculating vital statistics to allow for change in boundary.
† Mid-year population after change in boundary

TABLE II. CASES OF INFECTIOUS DISEASES ORIGINALLY NOTIFIED BEFORE ALTERATION OF DIAGNOSIS DURING THE CALENDAR YEAR 1964.

NOTIFIABLE DISEASE	NUMBER OF CASES NOTIFIED.																		Total Cases removed to Hospital						
	At all Ages		At Ages—Years.														M.	F.							
	M.	F.	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		65 and upwards										
..	..	..	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Anthrax .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	481	450	39	37	175	124	93	75	31	50	92	107	41	40	10	17	23	20	..	..	..	..	..	..	..
Encephalitis, acute { Infective .. .. .	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.. .. . { Post-infectious	1	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	7	78	..	6	17	18	12	6	7	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Food poisoning	75	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malaria .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	3,035	2,947	169	139	1,701	1,729	1,147	1,065	14	11	3	3	1	..	..	..	..	..	..	..	..	..	..	..	..
Meningococcal infections	1	16	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia neonatorum	12	..	12	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paratyphoid fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia (acute primary)	249	244	9	8	20	13	11	10	19	8	36	42	84	69	70	94	141	132	..	..	..	..	..	..	..
Pneumonia (acute influenza)	10	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis	3	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal pyrexia .. .. .	..	141	..	..	..	..	..	..	..	71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet fever	126	114	1	1	40	38	82	72	2	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid fever .. .. .	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping cough	313	435	46	52	159	265	105	110	..	1	2	3	..	1	1	3	36	48	..	..	..	..	..	..	..
Smallpox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Non-notifiable diseases	402	356	91	83	87	80	56	46	30	43	36	23	57	41	45	40	403	355	..	..	..	..	..	..	..
Totals	4,715	4,804	370	343	2,201	2,267	1,507	1,385	104	193	195	276	203	165	135	175	701	653	..	..	..	..	..	..	..
Respiratory tuberculosis	152(20)	106(14)	2	..	6	4	12(1)	7(1)	17(2)	23(2)	47(8)	43(9)	59(7)	26(2)	9(2)	3	68	35	..	..	..	..	..	..	..
Other forms of tuberculosis	11(2)	11	..	..	1	..	1	1	2	4	5(2)	6	2	..	..	..	6	1	..	..	..	..	..	..	..

The figures shown in brackets are "Transfer in" Cases and are included in totals.

CITY OF LEEDS
VITAL STATISTICS 1920 - 1964

Year	Population	Live Births	Birth Rate	Deaths	Death Rate	INFANT MORTALITY			TOTAL MORTALITY			MATERIAL MORTALITY			DIARRHEA AND ENTERITIS			TUBERCULOSIS (ALL FORMS)			CANCER			Deaths from Respiratory Diseases (Inc. Influenza Per 100,000)	DIPHTHERIA			SCARLET FEVER		MEASLES		WOUNDING - COLOUR		Year
						Deaths - 1 year	Rate per 1,000 live births	Per-Nata Mortality Rate	No.	Rate per 1,000 total births	Deaths from Sepsis	Deaths from other causes	Total Deaths	Rate per 1,000 live births	Deaths under 5 years	Death Rate per 1,000 births	Deaths	Death Rate	Deaths	Death Rate	Deaths	Death Rate	Cases		Deaths	No. of persons (intermittent)	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases		Deaths
1920	445,913	21,229	47.7	5,591	12.5	1,232	110	49.3	...	...	...	29	28	57	5.07	140	12.5	998	1.95	492	1.10	1,573	355	64	...	1,305	17	5,459	148	...	100	1920	
1	465,500	20,144	43.3	6,285	13.5	997	98	41.3	...	...	...	8	30	38	3.73	184	15.1	941	1.37	554	1.19	1,360	665	38	...	1,520	14	309	5	...	72	1	
2	466,700	19,253	41.3	6,470	13.9	935	101	43.3	...	...	...	14	18	32	3.49	92	9.9	955	1.40	595	1.27	1,357	470	28	...	2,722	33	9,931	151	...	115	2	
3	469,000	18,654	40.0	6,586	14.0	773	80	41.8	...	...	...	10	35	45	5.18	118	13.6	932	1.95	574	1.22	1,270	368	20	...	2,154	31	4,683	90	...	31	3	
4	471,600	18,558	39.4	6,747	14.3	924	108	38.7	...	...	...	9	24	33	3.86	103	12.0	957	1.40	630	1.33	1,277	280	27	...	1,260	20	6,654	46	...	87	4	
5	472,000	18,200	38.6	6,937	14.7	748	91	37.8	...	...	...	24	21	45	5.50	149	18.2	999	1.27	666	1.28	1,262	422	30	...	1,166	15	5,100	39	...	47	5	
6	473,400	18,052	38.1	7,062	14.9	748	93	38.7	...	...	...	14	27	41	5.88	147	18.2	985	1.24	657	1.39	1,099	374	26	...	796	5	7,076	19	...	110	6	
7	477,000	17,900	37.5	7,198	15.1	629	81	35.2	...	...	...	14	24	38	4.88	88	11.3	958	1.17	649	1.36	1,070	439	28	...	773	6	8,569	117	...	44	7	
8	476,800	17,665	37.0	7,333	15.4	600	70	37.3	...	...	...	14	22	36	4.70	103	13.7	942	1.14	640	1.47	970	634	21	...	94	3,515	18	3,638	21	...	35	8
9	478,300	17,446	36.5	7,568	15.8	772	97	42.3	1,909	47	74	10	23	33	24.21	86	11.6	921	1.30	684	1.43	2,037	530	26	...	107	107	3,456	104	...	107	9		
1930	478,000	17,358	36.3	7,590	15.9	331	42	38.2	68	10	22	34	4.05	34	4.5	933	1.11	728	1.54	798	994	54	...	179	2,383	23	913	2	...	32	1930
1	480,400	17,219	35.8	7,696	15.9	352	48	37.2	...	...	...	17	17	30	5.14	68	9.4	927	1.08	740	1.53	1,047	995	86	...	318	1,497	12	10,955	56	...	43	1
2	484,900	17,044	35.1	7,809	16.1	317	48	36.4	...	...	...	8	13	21	2.86	106	15.1	493	1.02	760	1.57	966	889	48	...	1,524	931	8	3,540	57	...	41	2
3	485,000	16,843	34.7	7,974	16.5	337	48	36.6	...	...	...	15	13	27	3.87	104	15.7	499	1.03	760	1.46	1,148	1,057	88	...	720	1,900	9	3,973	23	...	28	3
4	486,200	16,649	34.4	8,091	16.6	313	43	35.0	...	...	...	15	14	29	3.86	76	10.6	495	0.95	801	1.05	711	2,231	156	...	2,453	2,711	10	10,576	90	...	25	4
5	487,000	16,441	33.8	8,233	16.9	263	44	33.1	...	...	...	8	16	24	3.18	68	8.6	485	0.89	803	1.06	732	1,335	60	...	30,064	2,082	5	1,541	4	...	48	5
6	489,800	16,249	33.2	8,366	17.1	220	41	30.0	...	...	...	10	14	24	3.13	71	9.7	498	0.83	843	1.24	803	799	39	...	1,937	1,868	12	8,744	49	...	28	6
7	491,866	16,049	32.6	8,573	17.4	191	37	28.7	...	...	...	6	11	17	2.74	95	8.0	498	0.83	777	1.58	950	941	44	...	1,135	2,434	5	3,273	9	...	19	7
8	494,000	15,844	32.1	8,785	17.6	169	34	27.1	...	...	...	3	12	14	1.76	94	12.3	397	0.80	879	1.28	625	948	33	...	1,172	1,717	8	6,797	18	...	13	8
9	497,000	15,649	31.5	8,997	17.9	142	31	25.8	...	...	...	2	13	15	1.60	54	7.7	413	0.85	847	1.24	662	447	30	...	894	960	2	1,673	2	...	13	9
1940	498,000	15,466	31.0	9,213	18.3	114	28	24.2	...	...	...	2	13	15	2.00	44	6.4	467	1.00	728	1.65	990	301	11	...	1,167	643	...	4,364	8	128	2	1940
1	499,000	15,289	30.4	9,433	18.7	87	25	22.7	...	...	...	2	13	15	2.40	44	6.0	468	0.86	849	1.80	740	570	22	...	13,208	839	3	2,000	11	2,105	25	1
2	500,000	15,114	30.0	9,660	19.1	60	23	21.7	...	...	...	2	13	15	2.82	32	4.4	357	0.77	888	1.92	589	707	25	...	15,101	1,576	1	7,810	10	1,554	32	2
3	503,000	14,941	29.7	9,898	19.5	38	20	20.8	...	...	...	4	15	19	1.44	40	5.3	378	0.83	906	2.00	608	334	11	...	16,415	1,598	1	2,410	14	1,284	14	3
4	504,000	14,776	29.3	10,147	20.0	26	18	19.4	...	...	...	12	12	17	1.77	76	8.9	316	0.70	915	2.03	608	354	9	...	7,483	1,913	3	678	...	1,213	6	4
5	505,000	14,616	28.9	10,404	20.4	16	16	18.6	...	...	...	4	10	14	1.75	88	11.3	318	0.70	969	2.15	740	149	2	...	7,210	1,190	...	9,480	21	990	10	5
6	505,000	14,461	28.6	10,672	20.9	9	14	17.8	...	...	...	8	12	1.18	53	5.4	388	0.60	960	1.99	719	132	6	...	6,822	964	...	805	1	1,633	13	6	
7	507,000	14,311	28.2	10,949	21.4	3	12	17.1	...	...	...	8	9	0.81	122	11.2	342	0.70	947	1.94	887	51	1	...	8,273	1,272	1	6,794	10	1,312	19	7	
8	509,000	14,166	27.8	11,236	22.0	2	11	16.5	...	...	...	2	2	0.22	61	6.6	277	0.55	959	1.91	714	29	1	...	10,338	1,578	...	3,967	4	1,550	6	8	
9	509,000	14,017	27.5	11,533	22.7	2	10	15.9	...	...	...	1	8	0.94	51	5.5	274	0.54	1,006	1.99	940	5	...	8,665	786	1	3,260	5	1,018	6	9		
1950	510,000	13,874	27.2	11,840	23.4	1	8	15.3	...	...	...	1	4	0.60	13	1.6	193	0.38	1,002	2.08	753	20	1	...	7,464	566	...	5,663	3	2,409	6	1950	
1	512,000	13,735	26.8	12,157	23.9	1	7	14.7	...	...	...	1	4	0.61	7	0.9	182	0.30	1,011	2.00	1,272	2	...	8,134	574	...	7,060	3	1,603	4	1		
2	513,000	13,604	26.5	12,484	24.3	1	6	14.0	...	...	...	1	5	0.96	7	0.9	123	0.24	1,011	2.12	1,066	2	...	7,456	794	...	6,915	3	1,637	...	2		
3	514,000	13,479	26.2	12,821	24.7	1	5	13.2	...	...	...	1	3	0.62	11	1.6	120	0.24	994	1.96	1,023	1	...	6,510	699	...	6,825	4	1,769	1	3		
4	515,000	13,358	25.9	13,168	25.2	1	4	12.5	...	...	...	1	4	0.64	8	1.1	87	0.17	1,010	2.03	808	...	...	6,837	622	1	701	...	812	...	4		
5	517,000	13,241	25.6	13,525	25.8	1	4	11.8	...	...	...	1	4	0.61	9	1.2	70	0.14	1,072	2.11	767	...	...	6,439	603	...	11,243	3	593	...	5		
6	518,000	13,128	25.3	13,892	26.4	1	3	11.1	...	...	...	1	5	0.61	11	1.3	64	0.13	986	1.94	890	...	...	6,660	446	...	993	...	1,381	...	6		
7	519,000	13,019	25.1	14,269	27.1	1	3	10.4	...	...	...	1	3	0.55	2	0.2	54	0.10	1,069	2.10	768	...	...	5,994	465	...	9,968	3	575	...	7		
8	520,000	12,914	24.8	14,656	27.8	1	2	9.7	...	...	...	1	2	0.52	2	0.2	54	0.10	1,066	2.08	867	1	...	5,368	678	...	866	...	665	...	8		
9	521,000	12,813	24.6	15,053	28.5	1	2	9.0	...	...	...																				

CITY OF LEEDS

VITAL STATISTICS 1920-1964

Year	MARRIAGES			DEATHS		BURIALS		Total
	1920	1921	1922	1920	1921	1920	1921	
1920	1,200	1,150	1,100	1,500	1,450	1,400	1,350	2,950
1921	1,180	1,130	1,080	1,480	1,430	1,380	1,330	2,910
1922	1,160	1,110	1,060	1,460	1,410	1,360	1,310	2,870
1923	1,140	1,090	1,040	1,440	1,390	1,340	1,290	2,830
1924	1,120	1,070	1,020	1,420	1,370	1,320	1,270	2,790
1925	1,100	1,050	1,000	1,400	1,350	1,300	1,250	2,750
1926	1,080	1,030	980	1,380	1,330	1,280	1,230	2,710
1927	1,060	1,010	960	1,360	1,310	1,260	1,210	2,670
1928	1,040	990	940	1,340	1,290	1,240	1,190	2,630
1929	1,020	970	920	1,320	1,270	1,220	1,170	2,590
1930	1,000	950	900	1,300	1,250	1,200	1,150	2,550
1931	980	930	880	1,280	1,230	1,180	1,130	2,510
1932	960	910	860	1,260	1,210	1,160	1,110	2,470
1933	940	890	840	1,240	1,190	1,140	1,090	2,430
1934	920	870	820	1,220	1,170	1,120	1,070	2,390
1935	900	850	800	1,200	1,150	1,100	1,050	2,350
1936	880	830	780	1,180	1,130	1,080	1,030	2,310
1937	860	810	760	1,160	1,110	1,060	1,010	2,270
1938	840	790	740	1,140	1,090	1,040	990	2,230
1939	820	770	720	1,120	1,070	1,020	970	2,190
1940	800	750	700	1,100	1,050	1,000	950	2,150
1941	780	730	680	1,080	1,030	980	930	2,110
1942	760	710	660	1,060	1,010	960	910	2,070
1943	740	690	640	1,040	990	940	890	2,030
1944	720	670	620	1,020	970	920	870	1,990
1945	700	650	600	1,000	950	900	850	1,950
1946	680	630	580	980	930	880	830	1,910
1947	660	610	560	960	910	860	810	1,870
1948	640	590	540	940	890	840	790	1,830
1949	620	570	520	920	870	820	770	1,790
1950	600	550	500	900	850	800	750	1,750
1951	580	530	480	880	830	780	730	1,710
1952	560	510	460	860	810	760	710	1,670
1953	540	490	440	840	790	740	690	1,630
1954	520	470	420	820	770	720	670	1,590
1955	500	450	400	800	750	700	650	1,550
1956	480	430	380	780	730	680	630	1,510
1957	460	410	360	760	710	660	610	1,470
1958	440	390	340	740	690	640	590	1,430
1959	420	370	320	720	670	620	570	1,390
1960	400	350	300	700	650	600	550	1,350
1961	380	330	280	680	630	580	530	1,310
1962	360	310	260	660	610	560	510	1,270
1963	340	290	240	640	590	540	490	1,230
1964	320	270	220	620	570	520	470	1,190

There was a very high mortality rate among the children of the poor in the early part of the century. The mortality rate was high because of the lack of knowledge of the causes of the diseases and the lack of effective treatment. The mortality rate was high because of the lack of knowledge of the causes of the diseases and the lack of effective treatment.

During the middle of the century, the mortality rate among the children of the poor began to decline. This was due to the fact that the causes of the diseases were beginning to be understood and effective treatments were being developed.

The mortality rate among the children of the poor continued to decline during the latter part of the century. This was due to the fact that the causes of the diseases were now well understood and effective treatments were being widely used.

Infectious and other Diseases

The mortality rate among the children of the poor continued to decline during the latter part of the century. This was due to the fact that the causes of the diseases were now well understood and effective treatments were being widely used.

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INFECTIOUS AND OTHER DISEASES

G. E. WELCH, M.B., B.S., D.P.H.

Deputy Medical Officer of Health

Deputy School Medical Officer.

Although 1964 was expected to be a non-epidemic year for measles, 5,984 cases were notified as compared with 6,709 last year (an epidemic year) and 2,436 in 1962. The trial scheme for the use of measles vaccine was not, therefore, extended to the city.

For the second year in succession, no case of poliomyelitis or diphtheria was notified in Leeds. To keep these diseases under control, we must not relax our efforts to ensure that all children are given the necessary doses of vaccine.

Once again it is a pleasure to record thanks to Dr. G. B. Ludlam and his staff at the Public Health Laboratory for much help and advice during the year, and also thanks to Dr. E. C. Benn at Seacroft Hospital.

Public Health Act, 1961.—Under Section 41 of Part III of this Act, 12 persons were excluded from work during the year and paid compensation for loss of earnings.

Scarlet Fever.—The number of accepted cases of scarlet fever during the year was 233 as compared with 137 last year and 183 in 1962. Of the cases, 9 were treated in Seacroft Hospital. The case-rate was 0·46 as compared with 0·27 in 1963. There was one death.

Smallpox, Typhoid and Paratyphoid Fevers, Typhus, Plague and Cholera.—No case of smallpox, paratyphoid fever, typhus, plague or cholera occurred during the year.

There was one case of typhoid fever during the year, a male aged 25 years. This man, a Pakistani, returned to England in November after being out of the country for 10 months. He was admitted to Seacroft Hospital in the early part of December and, although faeces and urine specimens were negative, *Salmonella typhi* Vi-phage type E.i was isolated from his blood culture. He had been ill on landing in this country and had obviously contracted the infection in Pakistan. After treatment in hospital, he was later discharged as symptom free. Specimens from all contacts gave negative results.

During the outbreak of typhoid fever in Aberdeen, visits were made to 46 families in the city who were said to have been in the area of Aberdeen. Specimens obtained were all negative.

During the year 7 chronic typhoid carriers were kept under observation. One of these carriers gave 3 negative results and was considered free from infection. Two other cases were referred to the Department by medical practitioners for second opinions; both were visited and diagnosed as polymyositis and rubella respectively.

Measles.—Although this disease has a tendency to recur in epidemic form in alternate years, the number of accepted cases was very high—5,984 as compared with 6,709 last year (an epidemic year) and 2,436 in 1962. 156 cases were treated in Seacroft Hospital.

Whooping Cough.—The incidence of this disease continues high. Accepted cases totalled 739 as compared with 1,053 last year and 81 in 1962.

Puerperal Pyrexia.—There were 141 accepted cases of puerperal pyrexia during the year as compared with 94 last year and 140 in 1962. Of the total, 126 occurred in hospitals and 15 in the practices of general medical practitioners and midwives. Two cases were treated in Seacroft Hospital. There were no deaths.

Ophthalmia Neonatorum.—There were 28 accepted cases of ophthalmia neonatorum during 1964 as compared with 23 in 1963 and 21 in 1962. One case was treated in Seacroft Hospital.

Erysipelas.—Accepted cases of this disease numbered 19 as compared with 30 last year. Of these, 2 were treated in Seacroft Hospital. There were no deaths.

Malaria.—No case of this disease was notified during the year.

Anthrax.—No case of anthrax was notified during the year.

Dysentery.—There was a slight reduction in the total number of cases notified during the year, 886 as compared with 987 last year and 1,749 in 1962. There were no deaths.

Of the 886 cases, 882 occurred at home, 3 in hospitals and one in a day nursery. The number treated in Seacroft Hospital was 21 or 2·4 per cent. of the total. Of the cases, 125 were *Sonne*, 12 *Flexner*, one *Boydii* and one *Amoebic*, whilst the remaining 747 were not typed.

An outbreak of *Sonne* dysentery occurred in a County Primary school; 19 cases were confirmed but the source of infection was not traced.

Acute Poliomyelitis (including Polioencephalitis).—No case of this disease was notified during the year.

Acute Encephalitis.—No case of acute encephalitis (infectious or post-infectious) was notified during the year and no deaths were recorded.

Meningococcal Infection.—There were 2 accepted cases of meningococcal infection during the year as compared with 7 last year. Both these cases were treated in Seacroft Hospital. There were no deaths.

Food Poisoning.—The number of accepted cases of food poisoning or suspected food poisoning showed an increase, 195 as compared with 124 in 1963 and 168 in 1962. Salmonella infections showed a substantial increase—76 as compared with 33 last year, and of these 28 were admitted to Seacroft Hospital.

Outbreaks of suspected food poisoning were reported to the Department during the year as follows:—

(1) In January, workpeople at an engineering firm in the city were reported to have been taken ill following a meal eaten in the canteen. Samples of food were taken for bacteriological examination but no food poisoning organisms were isolated. Faeces specimens taken from the workpeople who were affected were also negative. The likely cause of the outbreak was a toxin food poisoning due to reheating of meat products,

(2) Later in the year, 35 people in a home for aged people were taken ill following a meal. The symptoms in all cases were similar, abdominal pains and diarrhoea. Four patients were removed to hospital for further treatment. Food samples were taken and submitted to the Public Health Laboratory for detailed examination and also swabs from the meat slicing machine, the mincing machine and the can opener. Faeces specimens were taken from all food handlers in the kitchen staff but all were negative. None of the investigations revealed any infective cause for the outbreak but it was almost certainly caused by a toxin form of food poisoning due to the reheating of meat.

(3) In August, an assistant in a pork shop in Otley, who resided in Leeds, was diagnosed as *Salmonella typhimurium*. The same type of food poisoning organisms were isolated from two other cases in Leeds who had purchased from this shop. Specimens of meat products taken from the shop were bacteriologically examined but all were found to be negative. Further investigations were carried out at the main depot of this pork shop in Leeds; although meat samples were investigated without result, two employees were found to be symptomless carriers of *Salmonella livingstone*. Both were excluded from work and paid compensation.

(4) In October and November, 18 cases of *Salmonella typhimurium* type 104 were isolated from 15 different families. A check on the meat products eaten by these families revealed that sausages purchased by four of the households were obtained from retail shops who had the same supplier. Further investigations were made at the depot of this supplier in Leeds and food samples taken revealed that the same type of food poisoning organism was isolated from minced beef which had been made on the premises.

Salmonella infections.—The *Salmonella* organisms isolated were as follows:—

S. typhimurium	..	..	..	..	..	53
adelaide	..	..	..	..	..	15
bredeney	..	..	..	..	..	2
panama	..	..	..	..	..	2
anatum	..	..	..	..	..	1
minnesota	..	..	..	..	..	1
muenchen	..	..	..	..	..	1
senftenberg	..	..	..	..	..	1

During the year nine persons were found, on faecal testing, to be symptomless excretors of Salmonella organisms; one of these cases was admitted to Seacroft Hospital. 39 other persons gave faeces which were positive for Salmonella not considered food-borne.

Unconfirmed Food Poisoning.—Included in the total of actual or suspected food poisoning cases were 116 which occurred in different households and which were bacteriologically negative. None of these cases required admission to hospital.

Comment.—The increase in the number of cases of food poisoning is disappointing after three years during which the incidence of the condition had fallen steadily. There seems little doubt that this rise was due to the increased incidence of Salmonella infections in meat, which was demonstrated by bacteriological examinations of carcasses in shops and slaughterhouses.

Diarrhoea and Enteritis.—The number of deaths of children under two years of age from diarrhoea and enteritis during the year was 15 as compared with 10 in 1963. The death-rates per thousand live births were 1.56 and 1.05 respectively.

Venereal Diseases.—The number of deaths assigned to venereal diseases was 5 which is equal to a death-rate of 0.01 per thousand of the population. The corresponding figures for 1963 were 7 and 0.01 respectively. For details of the work of the Treatment Centre at Leeds General Infirmary, see page 96.

Influenza.—There were 5 deaths from influenza during the year as compared with 10 in 1963. The death-rates were 0.01 and 0.02 respectively.

Pneumonia.—Accepted cases during the year numbered 598, of which 580 (97.0 per cent.) were primary and 18 (3.0 per cent.) influenzal. The corresponding figures for 1963 were 662, of which 621 (93.8 per cent.) were primary and 41 (6.2 per cent.) influenzal. There were 425 deaths from all forms of pneumonia (including 5 deaths from pneumonia of the newborn), as compared with 513 last year. The mortality rates were 0.84 and 1.00 respectively.

Bronchitis.—There were 398 deaths assigned to this disease as compared with 518 in the previous year. The death-rates were 0·78 and 1·01 respectively.

Malignant and Lymphatic Neoplasms (Cancer).—The appended table gives details of deaths assigned to malignant and lymphatic neoplasms during 1964. The total of 1,170 deaths in this group of diseases is 13 more than last year's total. The corresponding death-rate was 2·30 per thousand of the population.

1964 Cause of Death*	Age Groups																All Ages		Grand Total				
	-1		1-		2-		5-		15-		25-		45-		65-		75-			M	F		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F					
Malignant Neoplasms:																							
Buccal cavity and pharynx (140-148)														7	2	3	2	2	2	12	6	18	
Oesophagus (150)														5	6	2	5	4	2	11	13	24	
Stomach (151)										1	1	23	15	30	13	14	22	68	51	119	119		
Other digestive organs (152-159)										9	6	32	39	32	32	21	54	94	131	225	225		
Trachea, lung and bronchus (162-163)								1	..	11	4	128	25	101	12	27	12	268	53	321	321		
Other respiratory organs (160, 161, 164, 165)														5	2	2	3	2	..	9	5	14	
Breast (170)														9	..	43	..	27	..	19	..	98	
Cervix uteri (171)														3	..	11	..	6	..	6	..	26	
Other parts of uterus (172-174)														3	..	9	..	2	..	5	..	19	
Male genital organs (177-179)	10	..	10	..	14	..	34	..	34
Skin (190-191)														1	1	2	..	1	..	2	1	6	7
Bone and connective tissue (196-197)										1	..	..	2	2	1	1	2	1	5	5	10	10
All other sites (Rem. of 140-199)							1	1	..	..	5	5	29	40	32	33	17	29	84	108	192	192
Neoplasms of lymphatic tissues																							
(200-203)			1	..	..	..	1	..	..	..	2	2	5	3	4	3	1	7	14	15	29	29
Leukaemia and alcukaemia (204)						1	1	..	..	..	..	2	4	6	6	8	3	3	14	20	34	34
Mycosis fungoides (205)																							
Total			1	..	..	1	3	1	1	1	28	36	251	205	223	148	107	164	614	556	1,170	1,170

*International List Numbers are shown in brackets.

Incidence of Blindness.—I am indebted to the Welfare Services Officer for the following statistical information regarding the admission of persons to the Register of Blind and Partially Sighted during the year.

A. FOLLOW-UP OF REGISTERED BLIND AND PARTIALLY SIGHTED PERSONS

(i) Number of cases registered during the year in respect of which para. 7 (c) of Forms B.D.8 recommends :—	CAUSE OF DISABILITY			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
(a) No treatment	19	7	..	87
(b) Treatment (medical, surgical or optical) ..	85	31	1	90
(ii) Number of cases at (i)(b) above which on follow-up action have received treatment ..	25	14	..	45

B. OPTHALMIA NEONATORUM

(i) Total number of cases notified during the year	28
(ii) Number of cases in which:—	
(a) Vision lost .. .. .	..
(b) Vision impaired .. .. .	..
(c) Treatment continuing at end of year .. .. .	..

TUBERCULOSIS STATISTICS

The following table shows the number of cases of tuberculosis reported in the State of New York during the year 1914.

The number of cases in the State of New York for the year 1914 was 10,000.

Table with 2 columns: Sex, and Number of cases. The table contains data for males and females, and a total row.

The total number of cases of tuberculosis reported in the State of New York for the year 1914 was 10,000.

Tuberculosis

The number of cases of tuberculosis reported in the State of New York for the year 1914 was 10,000.

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TUBERCULOSIS STATISTICS

The number of cases on the register at the end of 1964 was 2,493 as compared with 2,551 at the end of 1963, a decrease of 58.

Notifications.—During the year 258 cases of respiratory tuberculosis (of which 34 were transfers from other areas) and 22 non-respiratory (of which 2 were transfers from other areas) were notified, making a total of 280 cases of which 36 were transfers. Compared with the previous year there was a decrease of 30 in the respiratory notifications and no change in the non-respiratory notifications. Compared with the average of the previous five years there were decreases of 89 in the respiratory notifications and 10 in the non-respiratory notifications.

The case-rate of respiratory tuberculosis was 0.51, of non-respiratory 0.04 and of all forms of the disease 0.55 as compared with 0.56, 0.04 and 0.60 respectively for the previous year.

Of the total cases of respiratory tuberculosis, 12.4 per cent. were children under the age of 15 years, 15.5 per cent. persons between 15 and 25 years and 72.1 per cent. were in the remaining age groups. The corresponding figures for the previous year were 5.9 per cent., 17.7 per cent. and 76.4 per cent., respectively.

With regard to the non-respiratory type of disease, 13.6 per cent. were children under 15 years and 86.4 per cent. were persons over 15 years. The corresponding figures for the previous year were 9.1 and 90.9 per cent. respectively.

Of the total cases, 147 were notified by the Senior Chest Physician, 16 were notified by general medical practitioners, 81 came from hospitals and 36 were transfers from other areas.

The number of cases of tuberculosis not heard of until time of death was 12 (10 respiratory and 2 non-respiratory), including 2 posthumous notifications, an increase of 2 as compared with the figure for the previous year.

Out of a total of 35 deaths from all forms of tuberculosis, 4 died within 7 days of notification, 3 died between 7 and 28 days after notification and 2 died between 28 days and 12 months after notification.

The following tables give details of notifications of tuberculosis received during the year.

RESPIRATORY

Ages	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total
Males..	2	6	12 (1)	17 (2)	24 (5)	23 (3)	30 (4)	29 (3)	9 (2)	152 (20)
Females	..	4	7 (1)	23 (2)	27 (7)	16 (2)	17 (2)	9	3	106 (14)
Totals	2	10	19 (2)	40 (4)	51 (12)	39 (5)	47 (6)	38 (3)	12 (2)	258 (34)

NON-RESPIRATORY

Ages	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total
Males..	..	1	1	2	3 (2)	2	1	1	..	11 (2)
Females	1	4	5	1	..	..	..	11
Totals	..	1	2	6	8 (2)	3	1	1	..	22 (2)

Figures in brackets are 'Transfer In' cases and are included in the totals.

Site	Males	Females	Total
Central nervous system	4	1	5
Abdominal	2	..	2
Spine	..	..	..
Bones and joints	..	2	2
Skin	..	..	..
Lymphatic system	4	4	8
Genito-urinary system	1	3	4
Other sites	..	1	1
Totals	11	11	22

Deaths.—Deaths from all forms of tuberculosis during the year numbered 35 of which 27 were males and 8 females. In the previous year the total was 25 of which 15 were males and 10 females. Respiratory tuberculosis accounted for 33 and non-respiratory for 2. The death-rate from respiratory tuberculosis was 0.06, from non-respiratory 0.00 and from all forms of the disease 0.07 as compared with 0.05, nil and 0.05 respectively for the previous year.

RESPIRATORY TUBERCULOSIS
AGES AT DEATH

1964	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total
Males	1	..	4	11	10	26
Females	1	2	2	2	..	7
Totals	2	2	6	13	10	33
Average 10 years 1954-63	1	3	6	9	12	15	46

NON-RESPIRATORY TUBERCULOSIS. DEATHS

1964	Tubercular meningitis	Abdominal	Bones and Joints	Other tubercu- losis	Total
Males	1	..	..	1
Females	1	1
Totals	..	1	..	1	2

AGES AT DEATH

1964	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total
Males	..	1	..	..	..	..	..	..	..	1
Females	1	..	..	1
Totals	..	1	..	..	..	..	1	..	..	2
Average 10 years 1954-63	1	..	..	1	1	1	4

The following table gives details of notifications of and deaths from tuberculosis during the years 1950-1964:—

TUBERCULOSIS

YEAR	DEATHS						NOTIFICATIONS					
	Respiratory tuberculosis		Non-respiratory tuberculosis		All forms tuberculosis		Respiratory tuberculosis		Non-respiratory tuberculosis		All forms tuberculosis	
	Deaths	Death-rate	Deaths	Death-rate	Deaths	Death-rate	Cases	Case-rate	Cases	Case-rate	Cases	Case-rate
1950	178	0.35	15	0.03	193	0.38	521	1.02	98	0.19	619	1.21
1951	166	0.33	16	0.03	182	0.36	476	0.95	104	0.21	580	1.15
1952	113	0.22	10	0.02	123	0.24	476	0.94	97	0.19	573	1.14
1953	111	0.22	9	0.02	120	0.24	420	0.83	91	0.18	511	1.01
1954	83	0.16	4	0.01	87	0.17	470	0.93	80	0.16	550	1.08
1955	67	0.13	3	0.01	70	0.14	488	0.96	85	0.17	573	1.13
1956	56	0.11	8	0.02	64	0.13	484	0.95	62	0.12	546	1.07
1957	47	0.09	5	0.01	52	0.10	397	0.78	41	0.08	438	0.86
1958	54	0.11	2	0.00	56	0.11	365	0.71	21	0.04	386	0.75
1959	45	0.09	5	0.01	50	0.10	380	0.74	39	0.08	419	0.82
1960	35	0.07	3	0.01	38	0.08	360	0.70	37	0.07	397	0.77
1961	28	0.05	5	0.01	33	0.06	371	0.73	33	0.06	404	0.79
1962	24	0.05	2	0.00	26	0.05	337	0.65	27	0.05	364	0.70
1963	25	0.05	..	..	25	0.05	288	0.56	22	0.04	310	0.60
1964	33	0.06	2	0.00	35	0.07	258	0.51	22	0.04	280	0.55

**REPORT ON THE WORK OF THE TUBERCULOSIS
DEPARTMENT OF THE LEEDS CHEST CLINIC**

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Epidemiology.—*General.*—The notification rate (all forms) is falling slowly and is down by about 10 per cent. on last year. Contrariwise, the death-rate from tuberculosis has risen compared with each of the previous three years. The annual deaths from tuberculosis are now less than 40 and, hence, small variations in the numbers produce apparently large variations in the death-rate.

Notifications.—The fall in tuberculosis notifications (all forms) has been most marked in the 35-65+ age groups where there has been a substantial reduction compared with previous years, but there has been some increase in notifications of respiratory tuberculosis in the 1-35 age group. For the first year since records have been kept, the total notifications number less than 300. Notifications of non-respiratory tuberculosis continue to be insignificant at 22 cases in the year, representing a case-rate of 0.04. Tuberculosis, especially pulmonary tuberculosis, occurs more frequently in men than women in the proportion of 3 to 2.

Deaths.—The increase in the number of deaths has been entirely in the 55-65+ age group. Although the number of deaths is higher than last year, it is still below the average for the previous decade (1954-1963) in all age groups. Tuberculosis has become a more frequent cause of death in the elderly than in the young (in contrast to the past); it causes more male deaths than female in the same proportion as the notifications, i.e. 3 to 2. Table 2 (Deaths of cases notified in 1964) shows that about 60 per cent. of the deaths occurred within one year of notification and, of these, more than 90 per cent. died, either without their disease being diagnosed, or within one month of diagnosis. Only 2 other patients diagnosed in 1964 died within that year, and this low death-rate is due to the use of the anti-tuberculous drugs. There is reason for believing that when a two-years course of antibiotic treatment has been conscientiously completed, subsequent risk of death from tuberculosis

is extremely small (probably a fraction of 1 per cent.). Therefore the greater mortality risk from tuberculosis now exists at the time of initial illness and diagnosis. Once treatment has been started, this risk begins to fall dramatically and, after one month's treatment, represents a risk of less than 1 per cent. Few of the other once major killing diseases have been so controlled in the short span of 15 years, but this dramatic change must not be allowed to lull us into false security. It is ever more necessary to be watchful, for tuberculosis may rise again from the small residual nucleus of infectious cases, unless we are constantly on our guard.

Tuberculosis Register (*Table 1*).—The number of individuals in Leeds who require treatment or observation for tuberculosis continues to decline year by year and for the first time is less than 2,500 (about 0.5 per cent. of the population). The same preponderance of males to females is present. It is of interest that, although the number on the Register fell, nearly 100 fewer cases were classified as recovered during the year. This probably has a simple explanation, but it needs watching.

Principal Thoracic Causes of Death (*Table 3*).—The overall pattern of respiratory diseases as a cause of death remained surprisingly constant during the past five years. There are, of course, annual variations but roughly 2,500 people die each year from certain of the commoner thoracic disorders. Remembering that tuberculosis was once the main thoracic cause of death, it is interesting to observe that in Leeds during 1964 for each death from tuberculosis, 10 people died from lung cancer, 12 from bronchitis, 15 from pneumonia and 40 from coronary artery disease.

Primary Tuberculous Disease (*Table 4*).—The proportion of new notified cases of tuberculosis due to primary tuberculous disease has returned to the 1962 level of 8.5 per cent. Thus the epidemiological change which was tentatively anticipated in the past does not appear to be confirmed. Although primary infection is being delayed longer and longer into adolescence and early adult life, the incidence of primary tuberculous disease—as distinct from infection—remains a fairly constant proportion of those who develop tuberculous disease of any kind.

Case Finding Methods (*Table 5*).—The number of cases investigated by the methods most frequently employed has again increased (M.M.R. excluded—see *Table 7*). But the number of new cases of active pulmonary tuberculosis found fell from 174 to 146, which probably reflects a fall in incidence in the general population. This fall is reflected in the results of the most frequently used case-finding methods. The Exclusion X-Ray Service (*Table 6*) is still proportionately one of the more effective procedures, albeit that increasingly more people must be X-rayed to find the same number of cases of active tuberculosis. Conversely, routine X-ray methods are valuable in finding pulmonary tuberculosis in old people as shown in *Table 8* (Welfare Services Geriatric X-Rays) but the amount of active tuberculosis in this selected group is relatively small.

Tuberculosis Contact Service (*Tables 9, 10 and 11*).—Less than half the new contacts tuberculin tested gave a negative response; but of the positive reactors the proportion found with active disease remains constant at about 14 per 1,000. Tuberculin testing thus reveals a higher proportion of cases than does the exclusion X-ray service and has thus become the second most important case-finding technique.

Tuberculin Surveys.—More than 50 per cent. of all new contacts of all ages attending the Contact Clinic were tuberculin negative (*Table 11*) and practically all accepted vaccination with B.C.G. The variation of the tuberculin response in different sections and age groups of the community is shown in *Table 12* (B.C.G. Scheme, 1964) and *Table 13* (Leeds University Tuberculin Survey, 1964, which refers mainly to freshmen undergraduates). Of the new University undergraduates, 23 per cent. were tuberculin negative, whilst the comparable proportion in Local Authority College full-time students was 40 per cent., in Secondary Grammar and Technical school children 84 per cent., in County Secondary and Comprehensive Schools 88 per cent., and in County Primary school children 90 per cent. The earlier schools B.C.G. campaigns probably account for the higher incidence of Mantoux positivity among students over school-leaving age.

TUBERCULOSIS REGISTER

	Respiratory			Non-Respiratory			Total
	M.	F.	Total	M.	F.	Total	M. & F.
ON REGISTER AT 31.12.63..	1,368	897	2,265	112	174	286	2,551
ADDED TO REGISTER:							
Cases notified in 1964 ..	132	92	224	9	11	20	244
Transfer-in Cases	20	14	34	2	..	2	36
Cases returned	7	1	8	..	..	..	8
Totals	159	107	266	11	11	22	288
TAKEN OFF REGISTER:							
Diagnosis not confirmed ..	5	2	7	..	..	..	7
Re-diagnosed N.R. to R. ..	..	..	..	1	..	1	1
Recovered	103	79	182	2	5	7	189
Transferred-out	34	25	59	..	..	..	59
Lost sight of	16	3	19	2	..	2	21
Deaths from tuberculosis ..	19	5	24	1	..	1	25
Deaths from other causes ..	33	6	39	..	5	5	44
Register Revision .. ..	..	..	..	..	..	..	..
Totals	210	120	330	6	10	16	346
Cases on register at 31.12.63 plus cases added in 1964 ..	1,527	1,004	2,531	123	185	308	2,839
Minus cases taken off 1964 ..	210	120	330	6	10	16	346
Plus N.R. to R. .. ..	..	..	..	..	..	..	..
CASES ON REGISTER AT 31.12.64	1,317	884	2,201	117	175	292	2,493

(Table 1)

DEATHS OF CASES NOTIFIED IN 1964

No. of tuberculosis cases not heard of until time of death	{ Posthumous notifications .. 2 Registrars' Returns .. 10 }	.. 12
No. of deaths within 28 days of notification .. ..	.. ..	7
.. .. deaths in other patients notified in 1964 .. ..	.. ..	2
.. .. deaths in patients notified before 1964 .. ..	.. ..	16

(Table 2)

(N.B.—Cases not heard of until time of death.—This figure (12) includes deaths where tuberculosis was mentioned in Part II of the death certificate, the deaths being assigned to causes other than tuberculosis. It is, therefore, not possible to strike a balance between this figure plus the 25 deaths listed below it and the number of tuberculosis deaths (35). The figures of 25 and 35 relate to deaths assigned to tuberculosis).

PRINCIPAL THORACIC CAUSES OF DEATH

	1960	1962	1964	
			All deaths	Men 45+
Pulmonary tuberculosis ..	35	24	33	25
Cancer of lung	266	333	322	257
Bronchitis	381	488	398	279
Coronary artery disease ..	1,206	1,347	1,356	783
Pneumonia	359	436	425	161
Totals	2,247	2,628	2,534	1,505
All accidents (for comparison)	174	195	205	60

(Table 3)

INCIDENCE OF PRIMARY TUBERCULOUS DISEASE

Type of Tuberculosis	1961	1962	1963	1964
Respiratory (Total)	325	300	269	224
Primary pulmonary tuberculosis ..	22	28	14	19
Primary pul. tub. as % of total ..	6.8	9.3	5.2	8.5

(Table 4)

CASE FINDING METHODS

Method	No. of new patients so investigated	No. of new cases of pulmonary tuberculosis found	Ratio per 1,000 examinations		
			1964	1963	1962
G.P. Letters	1,849	45	24	33	44
Exclusion X-ray Service	7,203	58	8	10	10
Routine X-Ray for other purposes	468	1	2.1	3	..
Contact examinations ..	3,545	27	7.6	8	11
M.M.R.	20,873	15	.7	.6	1.0
Total	33,938	146	4.3	4.7	6.1

(Table 5)

EXCLUSION X-RAY SERVICE DISCOVERY RATE

	1964	1962	1960
Total attendances ..	7,203	5,766	5,360
New cases of pulmonary tuberculosis ..	58	60	70
Ratio per 1,000 examinations	8	10	13

(Table 6)

MASS MINIATURE X-RAY SERVICE

Age-Groups	Nos. examined		Nos. with presumed inactive pulmonary tub.		Nos. with presumed active pulmonary tub.	
	M.	F.	M.	F.	M.	F.
0-14 .. .. .	↓	↓	..	..	..	..
15-24	↓	↓	..	1	3	2
25-34	↓	↓	..	1	1	..
35-44	↓	↓	5	4	3	3
45-59	↓	↓	8	4	5	2
60+	↓	↓	3	2	1	1
Total by sexes	12,998	7,875	16	12	13	8
Grand total	20,873		28		21	

(Table 7)

WELFARE SERVICES GERIATRIC X-RAYS

Age-Groups	Nos. X-Rayed	Abnormal Films
40-59	1	..
60-69	20	1
70-79	51	8
80+	65	3
Totals	157	12

(Table 8)

NEW CONTACTS SEEN IN 1964

New Contacts seen	1,794
Tuberculin negative	525
Tuberculin negative given B.C.G.	513
New born babies given B.C.G.	423
Tuberculin positive	730
Tuberculin positive found with pul. tub.	26
Tuberculin positive found with pul. tub. with primary disease	19
Tuberculin positive found with pul. tub. with adult disease	7

(Table 9)

	All Contacts	New Only	Old Only
Nos. of Contacts seen	3,545	1,794	1,751
Nos. with Pul. Tub.	27	26	1
Incidence per 1,000	7.6	14.5	0.57

(Table 10)

WORK DONE IN CONTACT DEPARTMENT

	1963	1964
1. Nos. of contacts examined:	3,537	3,545
(a) No. of new contacts seen	1,959	1,794
.. (b) No. of old contacts seen	1,578	1,751
2. Nos. of tuberculin positive contacts:	2,758	2,808
(a) Followed up in Chest Clinic	2,530	2,587
(b) Followed up by M.M.R. Unit	228	221
3. Nos. of tuberculin negative contacts:	1,007	958
(a) No. given B.C.G. vaccination	995	936
(b) No. refused B.C.G. vaccination	12	22
4. Nos. of cases of Pulmonary Tuberculosis discovered:		
Among new contacts seen for first time	28	26
5. Ratio per 1,000 of new cases of pulmonary tuberculosis discovered:		
Among new contacts	14.3	14.5

(Table 11)

B.C.G. SCHEME 1964

Colleges and Schools	No. given Mantoux test	Positive	Negative	Absentees	No. given B.C.G.
Colleges: Full-time students	141	77 (54.6%)	54	10	54 (38.3%)
Secondary Grammar and Technical ..	1,914	276 (14.4%)	1,549	89	1,549 (80.9%)
County Secondary and Comprehensive	2,893	336 (11.6%)	2,305	252	2,305 (79.7%)
County Primary ..	333	37 (11.1%)	271	25	271 (81.08%)
Totals	5,140	649 (12.6%)	4,125	366	4,125 (80.25%)

(Table 12)

TUBERCULIN SENSITIVITY OF MEMBERS OF THE UNIVERSITY OF
LEEDS (With acknowledgments to Dr. R. J. Still)

	Males	Females	Total
(1) No. of persons receiving Heaf Test ..	1,088	430	1,518
(2) No. of persons returning for Test reading	763	385	1,148
(3) No. of (2) Heaf Positive	593	294	887
(4) No. of (2) Heaf Negative	170	91	261
(5) Percentage of (2) Heaf Positive	78%	76%	77%
(6) Percentage of (2) Heaf Negative	22%	24%	23%
(7) No. of (4) accepting B.C.G.	118	46	164
(8) Percentage of (4) accepting B.C.G. ..	69%	51%	63%

(Table 13)

TUBERCULOSIS—SOCIAL WORK

BARBARA M. R. NORTHROP, M.A.

Senior Tuberculosis Almoner

During 1964 the work of the Almoner's Department for the patients of the Chest Clinic continued as before. 1,622 patients and their relatives were interviewed at the Clinic and 518 applications for help were made to the Special Services Committee. One pint of milk per day was supplied free of charge to 147 tuberculous patients. A scheme was introduced in 1963 to enable patients who have officially recovered from their tuberculosis to receive free milk if they are still substantially disabled as a result of their previous tuberculous disease. Only three patients qualified in 1964 for the continuation of the grant and one of these died during the year.

Ten years ago the number of loans to patients of bedsteads and mattresses complete with bedding totalled 52 in a year. This year, for the first time, no such loan was made. This reflects the altered situation in regard to hospital beds and the treatment of tuberculous patients. Infectious patients can now be admitted to hospital rapidly instead of having to wait for months at home, and are non-infectious when they return home.

213 grants of clothing were made to patients and their families. Gifts from well-wishers enabled second-hand furniture and soft furnishings to be supplied to 7 patients during the year. Unfortunately, several offers of furniture had to be declined because of lack of storage space at the Disinfestation Centre.

Co-operation with Other Departments.—Grateful thanks are due to all statutory departments, both inside and outside Leeds Corporation, which have co-operated so helpfully with the Almoner in 1964 for the benefit of patients. Departments concerned included the Convalescence and Home Help Sections of the Health Department, the Care of Children, Education and Welfare Services Departments, the Ministry of Labour, the Yorkshire Electricity Board and the North Eastern Gas Board. As always, the National Assistance Board was a major source of help to patients; 172 patients were referred for allowances and 11 for assistance in kind,

Voluntary Organisations.—Without the help of the voluntary organisations, many patients would find their domestic problems insuperable and, once again, voluntary bodies have worked tirelessly throughout the year to ease the patients' load of worries. The Leeds Chest and Heart Association made grants to 239 patients. The regular weekly grocery order which raises the family's standard of living is of great value and 149 orders were started or continued during the year.

In winter, many patients find the cold weather particularly trying and 21 coal orders were given to ensure adequate warmth for the recipients. An electric fire was provided for one patient. In summer the cost of convalescence becomes a problem for the patients who need rest and change; 15 grants were made to cover the cost of a convalescent holiday. Fuel bills and debts are not limited to any time of the year and 34 grants were made towards these items. A patient in hospital greatly appreciates visitors and the cost of fares to relatives was paid in 10 instances. Other needs which were met were the cost of decorating, curtains, a carpet and gas stoves where these were needed in new houses or when the existing stoves became unserviceable. Miscellaneous grants included an electric iron, repairs to a lock following a burglary, a plumber's bill and the payment of money stolen from gas and electric meters. The help given by the Leeds Chest and Heart Association is, as always, warmly appreciated.

Many patients owe a debt of gratitude to the Leeds District Aid in Sickness Fund, which has made 59 grants during the year. 10 were to pay electricity bills and 8 to cover the cost of convalescent holidays. Rent and rent arrears were paid for 7 patients and clothing was provided for 6 others. Cash grants were made to 12 patients who were in urgent need of immediate assistance. Grants were also made for a variety of needs such as a coal bill, a gas bill, other debts, lino, removal expenses, bedding, electric fires and glass for a broken window.

Owing to the generous help given by these organisations, only 10 requests for assistance needed to be made to other bodies, and 4 of these were for patients outside the Leeds area. 3 patients were referred to the Morley Chest and Heart Association, which always

responds very readily to requests for help, and one to the Women's Voluntary Service at Morley. The Ministry of Pensions was asked to provide clothing for a war pensioner's child and the R.A.F. Benevolent Fund for an ex-member of the R.A.F. The Royal Army Ordnance Corps and B.L.E.S.M.A. were asked to pay outstanding bills for electricity. The Spastic Society was approached for help for the spastic child of one patient, and the Leeds Convalescent Charities paid for convalescence for a patient, the nature of whose disease prevented him from being referred for convalescence in the usual way.

Non-Tuberculous Patients.—In the first month of 1964, an average of one patient a day with a suspected bronchial carcinoma came to the Almoner's notice. The total number of suspected cases by the end of the year was 260, an increase of over 100 on last year. 32 of these proved to be suffering from illnesses other than cancer. Of the remainder, 25 died before they could be contacted, one returned to work, 6 were still in hospital at the end of the year and 11 were admitted to hospitals other than chest hospitals and were under the care of the almoners at these hospitals. Offers of help were made to all other patients and their families and 22 were found to be in need of assistance. The National Society for Cancer Relief made regular cash grants for extra comforts and for fares, provided bedding, clothing and coal, paid electricity bills, debts and the cost of convalescence.

At one time, with patients from 1963 still receiving help, 18 patients were receiving weekly grants, the largest number yet. Help was also given when necessary to other non-tuberculous patients. 24 grants of second-hand clothing were made. 56 patients were referred to the National Assistance Board for allowances and 3 for grants in kind. 14 were recommended for the help of the Ministry of Labour in finding employment. 8 patients were referred to other statutory bodies and 34 to voluntary bodies.

General.—The Almoner was in greater demand as a speaker in 1964 than every before. She gave her usual lectures to district nursing students, student nurses from Killingbeck Hospital, and health visitor students. In addition, she spoke about the work of

the Department at meetings at four churches and was again asked to speak to a group of senior girls at Lawnswood High School. She also spoke to school-leavers at a secondary modern school. In October, she addressed a Conference organised by the Chest and Heart Association in Northampton on "The Social and Psychological Aspects of Chest Diseases" and, in the same month, she spoke on the social side of bronchitis at another conference in Leeds, also organised by the Chest and Heart Association. Finally, in December she described the social help available to patients of the Chest Clinic at a Conference for General Practitioners which was held at Killingbeck.

During the year, the Almoner's Department was visited by students from Leeds University and the Probation Department, and by others from as far afield as Ghana, Jamaica and Nigeria.

Kind friends of the Clinic made their heart-warming gestures of goodwill at Christmas; 281 children from 81 families received gifts from the Leeds Workpeople's Hospital Fund and *The Yorkshire Post*, and 100 patients were delighted to receive extra coal from the Leeds Chest and Heart Association, which also provided extra groceries for other patients. It is always good to know that families hampered by ill-health and reduced incomes do not go without all the pleasures of Christmas.

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DISINFESTATION AND DISINFECTION

C. W. LAMB, F.R.S.H., F.R.E.S.

Disinfestation Officer.

The Disinfestation and Disinfection Section is situated at Stanley Road, Harehills.

The Centre includes an administrative block, high and low pressure steam disinfection plant, a chemical disinfection unit, an insecticide store with mixing machinery, a large hydrogen cyanide fumigation plant, a clinic building for the treatment of pediculosis and scabies with facilities for the cleansing of neglected cases and containing a lecture room and a museum for educational purposes, a modern fully automatic boilerhouse for the production of process steam and heating, garage accommodation for some twenty vehicles and a large furniture store for departmental storage.

Personal Disinfestation.—This Section, housed in the clinic block, is supervised by a State Registered Nurse assisted by one male and two female attendants. The Clinic building has at one end a section for the treatment of *pediculus capitis*. During 1964, 2,493 (2,125 in 1963) persons were given 2,519 treatments, 2,195 being children of school age and below. In connection with these cases 1,350 homes were visited, advice given and arrangements for treatment made by the visitors, both of whom are qualified nurses. Close collaboration was maintained with the School Health Service.

The figures show an increase of 15 per cent. in head infestations generally and 10 per cent. in children of school age and below and can be attributed no doubt to the prevailing long hair styles of the teenager.

The other end of the Clinic building is designed for the treatment of *pediculus corporis*, *phthirus pubis* and scabies cases. Cases of *pediculus corporis* numbered 641 (590 in 1963) mainly vagrants. A number of persons coming under the definition of the National Assistance Act, 1948, Section 47, were cleansed and disinfested before admission to home or hospital.

During the year 886 persons (513 in 1963) were treated for scabies, of whom 334 were of school age and under, 481 contacts received prophylactic treatment and 391 houses were visited. These cases are referred for treatment by the Skin Department of Leeds General Infirmary and by general practitioners. There were 23 cases (19 in 1963) of *phthirus pubis*.

General Disinfestation.—This sub-section is supervised by an assistant officer employing six house disinfestation operators and one hydrogen cyanide operator.

In collaboration with the Housing Department and in relation to the rehousing of slum dwellers 912 dwellings were subjected to insecticidal spray treatment. Of this number 896 were in connection with bed bug infestations, half of this number, i.e. 448 were bug infested slum properties and the other half Corporation houses sprayed prophylactically to receive the tenants of these properties. Apart from structural treatment 7,422 articles of bedding were treated by a low pressure steam process. 16 insecticidal treatments were applied in connection with tenants coming from woodworm infested dwellings, involving the treatment by HCN fumigation of 403 pieces of furniture. In all, 1,532 visits of inspection were made by the Technical Assistant in relation to the Rehousing programme.

In connection with the general disinfestation of Corporation properties 55 houses became either infested or re-infested by bed bug, mainly because of the introduction of some second-hand verminous article of furniture or bedding. Woodworm infestations were treated in 141 Corporation houses involving the HCN fumigation of 105 articles of furniture. In addition, Estate Offices reported infestations by cockroaches, steam fly, clover mite, golden spider beetle, etc. Of these, the clover mite or red spider presents the biggest problem in disinfestation: it is difficult to control and can only be eradicated by persistent treatment. Infested turf has caused outbreaks of the mite in redevelopment areas; it does not occur in the absence, before development, of vegetation on the site.

Other Corporation Departments have taken advantage of the facilities offered by the Disinfestation Section. Woodworm infestations in properties owned by the Waterworks Department, general disinfestation measures in schools for the Education Department, the treatment of geriatric patients and their homes for the Welfare Services Department, fly nuisances from the river for the Transport Department, window flies from the Knostrop Filter Beds for the City Engineer's Department, all were fitted in the heavy programme of the Centre.

The Leeds Hospital Groups and the United Leeds Hospitals continued to entrust their disinfestation problems to the Disinfestation Section, and a number of neighbouring local authorities were assisted mainly in relation to woodworm and bed bug eradication in 32 premises.

Methods of disinfestation vary according to the type and degree of infestation. The Disinfestation Officer is constantly in touch with the Natural History Department of the British Museum; the Pest Infestation Laboratory and the Technical Departments of Insecticide Manufacturers, both at home and abroad, co-operate excellently. A survey of damage by wood-boring insects and by wood destroying fungi was carried out during the year in conjunction with the Forest Products Research Laboratory of the Department of Scientific and Industrial Research and with the co-operation of the Director of Housing and interesting data will be made available in due course.

General Disinfection.—This sub-section is supervised by an assistant officer in whose charge are four steam operators who manipulate one High Pressure Current Steam Disinfector and two Low Pressure Current Steam Disinfectors. Two bedding van men and a general stores vehicle with driver and attendant are engaged on departmental transport, including the delivery of stores. The foreman steam operator maintains the automatic Steam Boiler under the supervision of the Technical Assistant of the Drainage Flushing Section who is also a qualified Boiler House Operator.

Disinfection was carried out after cases of tuberculosis, acute anterior poliomyelitis and enteric diseases.

During the year 183 houses were visited, 365 rooms disinfected by formaldehyde aerosol and 26,223 articles, including beds, disinfected by steam.

Steam is provided by a modern oil-fired and fully automatic plant which produces on an average 26,000 lbs. of steam per week. Only one high pressure steam disinfector for bacteriological disinfection is in use. For all other purposes, formaldehyde disinfection is used. Special apparatus producing the aerosol form of this disinfectant has given excellent results, and only when found to be too severe in its use, propylene glycol has taken its place for air disinfection. Chlorinated phenol, white and black disinfectant fluids complete a formidable array of disinfectants used at the Centre.

Transport.—Medical Loan Requisites were distributed in collaboration with the Chest Clinic and disinfected before re-distribution. The articles loaned included blankets, sheets, pillowcases, bedsteads and mattresses. 84 homes were visited, 247 articles delivered involving 531 miles in transport.

The distribution of Welfare Foods and stores to Infant Welfare Centres and Day Nurseries required one stores van which completed 12,011 miles.

Under the Medical Requisites Loan Scheme, the Section undertook the collection and delivery of invalid chairs, spinal carriages, mattresses, etc. 749 visits involving 4,473 miles were made and 1,080 appliances were thoroughly cleansed, disinfected, inspected and repaired, where necessary, before distribution. Storage space of approximately 120 sq. yds., for medical loan requisites is provided over the HCN garage. Surplus furniture from discontinued Nurses or Midwives homes can also be stored until required for re-use.

Incontinent Laundry Service.—This is now well established and is limited to a maximum of 40 patients per day. The service is a great help in the home nursing of patients suffering from incontinence. The latter are visited daily and four clean draw sheets per patient exchanged for the previous day's soiled linen. A specially designed laundry van is used for this purpose and an average number of 35 patients per day received attention. 9,030 visits were made involving 17,690 miles.

The laundering was carried out at the South Lodge Laundry by arrangement with the Welfare Services Committee, and included the repair of sheets. The excellent co-operation of the Laundry Manager ensured smooth running of the service; not always easy when the number of sheets fluctuated, especially at holiday periods.

Public Conveniences.—This sub-section is supervised by an assistant officer and there are three squads, each consisting of two men with a motor vehicle carrying equipment for flushing and cleansing the conveniences.

The three squads are responsible for the general maintenance and cleanliness of the city's conveniences. Situated in 63 locations, 33 are combined structures, serving both sexes. Only 5 conveniences have full time attendants, one for males, one for females and three serving both sexes. A convenience at Crossgates, for males and females, is attended for certain hours of the day only, one convenience at Roundhay has a full time attendant on the female side only, and the conveniences for both sexes at Oakwood is attended only when large functions take place at Roundhay Park. There are 28 conveniences for men only (urinals) of which 11 have a water closet attached.

During the year 23,108 visits were paid to the unattended conveniences for cleansing purposes. At the same time, defects and structural damage were reported to the Officer-in-Charge. Wilful damage amounted to £617 9s. 5d. in unattended public conveniences, an increase of £144 1s. 5d. on the previous year.

The maintenance of automatic electrical switchgear and emergency repairs is done by a squad of two men, trained by the City Lighting Department. Inspections are carried out daily, and this service prevents accidents when lighting fails, especially important when a convenience is below ground level and reached by a flight of steps. During 18,633 visits paid, 720 lighting repairs were effected.

Public Sewer Flushing.—This sub-section is supervised by an assistant officer with two squads of drainage flushers, equipped with motor vehicles and the necessary appliances such as drain rods, drain plugs, smoke machine and a Mono Sludge Pump mounted on a trailer. These squads work under the direction of Public Health Inspectors in connection with (i) cleansing public sewers under the Public Health Act, 1936, Section 23, (ii) testing drains in the investigation of unsatisfactory drainage conditions of a building under the Public Health Act, 1936, Section 39, (iii) removal of stoppages from drains and (iv) pumping out flooded cellars, inspection chambers, etc. This service is available to other Corporation Departments, e.g. Housing Department, City Engineer's Department, Markets Committee, Parks and Cemeteries Department; to private contractors and property owners. Contract work for the regular cleansing of drainage systems of private schools, several banks and some of the larger firms has been undertaken. Whereas the cost of cleansing of public sewers is a charge upon the Health Committee, the cost of all other works of cleansing, investigation and pumping has been recovered from the ordering body. The demand for this specialised work is on the increase and at times the two squads are fully booked for several days ahead; 1,159 (1,286 in 1963) public sewers were cleansed and 38,824 (38,585 in 1963) private drains were tested and/or cleansed.

By the establishment of this service the Health and Housing Committees have effected a substantial saving in the cost of public sewer cleansing and other drainage investigations; there has also been a saving in time, stoppages being cleared in most instances on the same day that they are brought to the Section's notice.

DISINFESTATION CENTRE
REPORT OF WORK DONE FOR YEAR 1964.

I. DISINFESTATION**A. WORK CARRIED OUT AT REQUEST OF HOUSING DEPARTMENT****(a) Re-Housing**

	Bed Bugs	Wood-Worm	Niptus	Others	Total
No. of visits of inspection					<u>1,532</u>
No. of dwellings disinfested by insecticide.. .. .	896	16	—	—	912
No. of articles disinfested by steam	7,422	—	—	—	7,422
No. of articles disinfested by HCN	—	403	—	—	403
(b) General					
No. of visits of inspection					<u>179</u>
No. of dwellings disinfested by insecticide.. .. .	55	141	15	165	376
No. of articles disinfested by steam	311	—	—	215	526
No. of articles disinfested by HCN	—	105	—	—	105
B. WORK CARRIED OUT FOR OTHER SOURCES					
No. of visits of inspection					<u>116</u>
*No. of premises disinfested by insecticide.. .. .	119	53	7	742	921
No. of articles disinfested by steam	1,067	—	—	1,688	2,755
No. of articles disinfested by HCN	—	120	1	18	139

*For Outside Authorities 32 *For Leeds 889

2. TREATMENT OF VERMINOUS PERSONS

	School Age	Others	Total
(a) <i>Pediculus Corporis</i>			
No. of homes visited	—	—	73
No. of persons treated	23	618	641
(b) <i>Pediculus Capitis</i>			
No. of homes visited.. .. .	—	—	1,350
No. of persons treated	2,195	298	2,493
No. of treatments involved	2,209	310	2,519
(c) <i>Scabies</i>			
No. of homes visited	—	—	391
No. of persons treated	334	552	886
No. of contacts treated	165	316	481
No. of re-infections	1	10	11

(Continued)

3. DISINFECTION		City	Outside Authorities
No. of houses visited		183	—
No. of rooms disinfected		365	—
No. of articles disinfected		26,223	—

4. PUBLIC CONVENIENCES	No. of Visits	No. of flushings	
		Drains	W.C.s.
Visits paid for cleansing purposes	23,108	35,021	32,352
	Total	Lighting	Repairs
Visits paid for inspection of lighting and emergency repairs	18,633	720	—

5. PUBLIC SEWERS			
No. of public sewers cleansed			1,159
No. of private drains tested and cleansed			38,824

6. TRANSPORT			
<i>(a) Medical Loan Scheme</i>			
No. of houses visited			749
No. of articles delivered			1,080
No. of miles involved			4,473
<i>(b) Chest Clinic</i>			
No. of houses visited			84
No. of articles delivered			247
No. of miles involved			531
<i>(c) Delivery Service</i>			
Miles run for Babies' Welcomes and Day Nurseries in connection with deliveries of stores			12,011

7. INCONTINENT LAUNDRY SERVICE			
No. of visits paid			9,030
No. of miles involved			17,690
Average No. of patients			35 per day

GENERAL INFORMATION

THE FOLLOWING INFORMATION IS FOR YOUR INFORMATION

GENERAL INFORMATION		SPECIAL INFORMATION	
1. Name of the person or organization	2. Address	3. Telephone number	4. Date of birth
5. Occupation	6. Education	7. Marital status	8. Religion
9. Political affiliation	10. Social Security number	11. Military service	12. Other information
13. Date of last contact	14. Date of next contact	15. Date of last visit	16. Date of next visit
17. Date of last call	18. Date of next call	19. Date of last letter	20. Date of next letter
21. Date of last meeting	22. Date of next meeting	23. Date of last interview	24. Date of next interview
25. Date of last report	26. Date of next report	27. Date of last summary	28. Date of next summary
29. Date of last update	30. Date of next update	31. Date of last review	32. Date of next review
33. Date of last check	34. Date of next check	35. Date of last audit	36. Date of next audit
37. Date of last inspection	38. Date of next inspection	39. Date of last evaluation	40. Date of next evaluation
41. Date of last assessment	42. Date of next assessment	43. Date of last analysis	44. Date of next analysis
45. Date of last study	46. Date of next study	47. Date of last research	48. Date of next research
49. Date of last investigation	50. Date of next investigation	51. Date of last inquiry	52. Date of next inquiry
53. Date of last examination	54. Date of next examination	55. Date of last inspection	56. Date of next inspection
57. Date of last check	58. Date of next check	59. Date of last review	60. Date of next review
61. Date of last audit	62. Date of next audit	63. Date of last evaluation	64. Date of next evaluation
65. Date of last analysis	66. Date of next analysis	67. Date of last study	68. Date of next study
69. Date of last research	70. Date of next research	71. Date of last inquiry	72. Date of next inquiry
73. Date of last investigation	74. Date of next investigation	75. Date of last examination	76. Date of next examination
77. Date of last inspection	78. Date of next inspection	79. Date of last check	80. Date of next check
81. Date of last review	82. Date of next review	83. Date of last audit	84. Date of next audit
85. Date of last evaluation	86. Date of next evaluation	87. Date of last analysis	88. Date of next analysis
89. Date of last study	90. Date of next study	91. Date of last research	92. Date of next research
93. Date of last inquiry	94. Date of next inquiry	95. Date of last investigation	96. Date of next investigation
97. Date of last examination	98. Date of next examination	99. Date of last inspection	100. Date of next inspection

National Health Service Act 1946

- Section 22 CARE OF MOTHERS AND YOUNG CHILDREN
 - Section 23 MIDWIFERY
 - Section 24 HEALTH VISITING
 - Section 25 HOME NURSING
 - Section 26 VACCINATION AND DIPHTHERIA IMMUNISATION
 - Section 27 AMBULANCE SERVICE
 - Section 28 PREVENTION, CARE AND AFTER-CARE
 - Section 29 DOMESTIC HELP
 - Section 51 MENTAL HEALTH SERVICES
-

SECTION 22**CARE OF MOTHERS AND YOUNG CHILDREN**

MARGARET ORMISTON, M.B., Ch.B., D.P.H.

Senior Medical Officer for Maternity and Child Welfare

FEATURES OF THE YEAR

1. The main feature of 1964 was the establishment, in January, of all immunisation and vaccination procedures as a routine service at all child health centres in the city except four. These centres were excluded as attendances at their monthly immunisation clinics were considered to be too large for them to be integrated comfortably into the ordinary child health session. Later in the year, however, two of the four centres found it possible to do so.

The transition of this measure from the category of special to routine was not without its difficulties and upsets, but these were quickly overcome by the enthusiastic acceptance of the change by the mothers and the determined efforts made by all members of staff to smooth its passage.

2. Two purpose-built community care centres, which include facilities for the care of mothers and young children were opened during the year. In March, the centre at Burmantofts commenced public service, replacing the Ellertofts Maternity and Child Welfare Centre, and, in September, the Armley Centre moved to its new premises.

In November, a second session at rented premises in the Cookridge area was started owing to heavy demand for the service. This extra session has been greatly appreciated by the mothers and the work is undertaken by health visitors and voluntary helpers.

3. The downward trend in the number of expectant women attending ante-natal clinics and the number of women attending for post-natal examination continued during the year as more and more general practitioners undertook these services on behalf of their patients.

4. The number of children, not yet at school, attending child health centres rose from 29.8 per cent. in 1963 to 32.4 per cent. of the pre-school population in 1964. In any comparison two points should be kept in mind, (a) that the birth rate is rising and (b) that protective procedures were available throughout the year at the vast majority of child health sessions and that many children attend solely for this service.

5. The steady increase of Health Education programmes at all centres was maintained throughout the year.

6. Care for the unmarried mother was obtained outside the city on behalf of 23 Leeds residents compared with 4 in 1963.

7. National Dried Milk for infants and dietary supplements for mothers and children continued to be issued at all the centres. While the sale of Milks decreased, it is pleasing to report that the sales for Cod Liver Oil and Orange Juice increased noticeably during the year.

8. The number of places available within the Day Nursery Service remained constant throughout the year. The Saturday morning service, afforded by two day nurseries, was discontinued in March, as the demand was negligible.

9. The number of pre-school children being minded daily, under registration with the Corporation, increased from 948 in 1963 to 1,208 in 1964. Those minders concerned to register do provide a satisfactory standard of care. It is the unregistered child minder arrangement where standards are usually extremely low, that causes dismay. The extent of this is not known but it is suspected to be substantial.

LEEDS BABIES' WELCOME ASSOCIATION

Members of this Association continued to attend regularly at each maternity and child welfare centre and to give their valuable assistance at all sessions. The work undertaken by them included routine documentation, immunisation clerical work, assisting with the weighing of children, organising play corners for toddlers, welcoming new attenders and maintaining the social atmosphere so necessary to the smooth running of the clinics. Members also continued to play an active part in the health education programmes by constantly bringing to the notice of mothers that "Safety in the Home" is of paramount importance, laying stress particularly on the hazards of fire, and ordering made-to-measure fireguards on behalf of mothers.

(A) EXPECTANT AND NURSING MOTHERS

(i) **Ante-Natal Care.**—Expectant women, due to be confined in hospital or maternity home, attended, in the main, local authority centres for their ante-natal supervision until the 34th week of pregnancy, when they were transferred to the care of the hospital. In addition to the medical and obstetrical supervision of the women and associated services, e.g. chest X-ray examination and priority dental service, instruction was given in ante-natal relaxation and education on all aspects of the hygiene of pregnancy, child-rearing and preparation for parenthood was conducted in small groups as well as individually.

The increasing tendency for general practitioners to undertake the ante-natal care of their "hospital-booked" patients and to use the associated services and health education facilities provided by the local authority continued throughout the year. This was reflected in a decrease in the number of expectant women attending clinics to receive the whole range of services available.

The service provided for expectant women, who have arranged for confinement in their own home, is described in Section 23 of this Report.

(ii) **Ante-Natal Clinics.**—There were 22 centres providing ante-natal care in 1964, affording 2,166 sessions throughout the year. At all sessions departmental medical officers and health visitors were in attendance. In addition, 1,392 sessions were conducted on behalf of "home-booked" patients by domiciliary midwives, using the facilities provided at the centres.

Three general practitioners continued to use local authority premises for the ante-natal care of their patients during the year.

(iii) **Attendances at Ante-Natal Clinics.**—The number of expectant women who attended centres was 5,947 or 59.3 per cent. of the expectant woman population. Of these, 4,030 were new cases, and the total number of attendances made was 19,912. In 1963, the corresponding totals were 6,641, 4,527 and 23,153.

For ante-natal relaxation and education classes 631 women made 3,434 attendances. The figures for 1963 were 554 and 2,962 respectively.

(iv) **Post-Natal Care.**—It is important that women, recently delivered, undertake post-natal examination to ensure that health is maintained and no resultant disability exists. The number of women who avail themselves of this service continues at a very low level and their failure to do so leads to unnecessary ill-health during their reproductive years.

(v) **Attendances at Post-Natal Clinics.**—Post-natal examination and supervision was available at all the centres, and 550 women made 590 attendances during the year, In 1963, the figures were 691 and 790 respectively. The majority of women attend hospital clinics or their general practitioner for post-natal review.

(vi) **Provision for the Care of the Unmarried Mother.**—Arrangements with the three homes in the city, run by voluntary organisations for the care of the unmarried mother, continued throughout the year. To these are admitted Leeds residents recommended by the Health Department and for whom the Health Committee accept financial responsibility for a period of four months. Where there are exceptional circumstances or by lack of local accommodation, cases from Leeds are admitted to homes outside the city.

The number of women requiring this care is increasing and, in 1964, 23 women (23·5 per cent.) were accommodated outside the city.

The number of admissions is given below along with the 1963 and 1962 figures for comparison.

Mother and Baby Home	No. of Mothers admitted		
	1964	1963	1962
Mount Cross Salvation Army Home	24	32	20
St. Margaret's Roman Catholic Home	23	21	15
Browning House, Church of England Home	28	31	18
Homes outside Leeds	23	4	1
Total	98	88	54

(B) CARE OF YOUNG CHILDREN

While "child welfare" still includes detection of defect and deviation from normality in physical development and environmental health, the promotion and maintenance of mental and emotional health is now its prime objective. It is in the first five years of life that foundations can be laid for personality development, for prevention of maladjustment and for emotional and social

well-being. To ensure that these foundations are adequate is the responsibility of all parents. The role of workers in the field of Child Health is to assist parents and prospective parents by giving skilled advice and anticipatory guidance on child development in all its aspects and by helping to establish sound principles of family and community life.

Demand for this type of service is on the increase and the need is, perhaps, greatest in the new housing areas where communities have not yet reached stability.

(i) **Child Health Centres.**—There were 28 centres in operation at the end of the year—7 purpose-built, 7 adapted premises and 14 premises occupied on a sessional basis—affording 2,768 sessions in all throughout the year. At all sessions medical officers and health visitors are in attendance so that mothers may have skilled advice on, and discussion of, all aspects of her child's developmental progress. From January, all immunisation and vaccination procedures were available as a routine service at 24 centres. The remaining 4 large centres continued to have monthly inoculation sessions undertaken by a team from the Immunisation Section. It was considered that attendances at these centres were too great to allow them to be integrated comfortably into the ordinary child health session. Later in the year, however, two of the four centres found it possible to make the change from "special" to "routine" service.

From time to time in the centres group discussions, demonstrations and informal talks, suitably illustrated by film, film-strip or other visual aid, were organised on varying aspects of child development and the maintenance of health and social well-being. This work was undertaken by health visitors in the main, but midwives, physiotherapists and other "specialists" ably assisted in this service.

(ii) **Attendances at Child Health Centres.**—The number of pre-school children attending child health centres was as follows:—

(a) Children born in 1964	..	5,630 (57.5 per cent.)
(b) Children born in 1963	..	5,272 (57.0 per cent.)
(c) Children born 1959/62	..	3,869 (14.6 per cent.)
Total, aged 0-5 years	..	14,771 (32.4 per cent.)

The total number of attendances made by these children was 87,328. In 1963, 13,177 pre-school children made 77,918 attendances. The average attendance per child was 5.9, the same figure as in 1963.

(iii) **Facilities for Consultant Advice.**—Child Health Centres are regarded as essentially “well-baby” clinics and clinical consultants do not attend. Consultant opinion in several specialities is, however, available to departmental medical officers.

(a) *Paediatric Consultative Clinic.*—Three clinics were held monthly by arrangement with the University Department of Paediatrics and Child Health to which departmental medical officers, at discretion, referred pre-school children for expert clinical advice. The number of children so referred during the year was 51, the same as in 1963.

(b) *Deafness Diagnosis Clinic.*—Pre-school children suspected of deafness after screening tests for hearing have been carried out, are referred to the School Health Service Deafness Diagnosis Clinic, where a consultant otologist is in attendance. In 1964, 4 children were referred; in 1963 the number was 5.

(c) *Ophthalmic Clinic.*—Pre-school children with eye defects are referred to the consultant ophthalmologist in attendance at a special clinic for school children. In 1964, 161 children were referred; the number was 141 in 1963.

(d) *Orthopaedic Clinic.*—Pre-school children suffering from postural or orthopaedic defect are referred to the consultant orthopaedic surgeon in attendance at the School Health Service Orthopaedic Clinic. In 1964, 151 children were examined; in 1963, the number was 155.

(iv) **Special Clinics.**—(a) *Ultra-Violet Radiation Clinics.*—Ultra-violet radiation treatment is provided at six centres throughout the city. Treatment is offered to debilitated children on recommendation from departmental medical officers, general practitioners and paediatricians. During 1964, 208 children made 2,882 attendances at these centres. In 1963, the numbers were 368 and 3,835 respectively.

(b) *Remedial Exercises.*—Specific exercises for a wide variety of complaints are provided for pre-school children referred by orthopaedic and paediatric consultants as well as by local authority staff. In 1964, 198 children made 2,116 attendances. In 1963, the numbers were 182 and 2,349 respectively.

(C) OTHER PROVISIONS FOR EXPECTANT AND NURSING MOTHERS AND YOUNG CHILDREN

(i) **Supplies of Welfare Foods.**—The main distribution centre for welfare foods and dietary supplements continued to be located in the Public Health Department at East Parade, with subsidiary centres at all Child Health Clinics. The amount of National Dried Milks (full-cream and half-cream) issued during 1964 showed a slight decrease as did the amount of Vitamin A and D tablets.

It is pleasing to note that the quantity of Cod Liver Oil and of Orange Juice issued during the year rose markedly.

Commodity	1964	1963	1962
National Dried Milks	130,683	131,074	132,566
Cod Liver Oil	13,471	11,990	12,674
Vitamin "A" and "D" Tablets ..	11,117	11,931	12,981
Orange Juice	101,532	92,903	85,476

(ii) **Dental Care.**—Dental care for expectant and nursing mothers and young children is undertaken by the School Dental Service. The report of the Senior Dental Officer of the work undertaken in 1964 for these groups is set out below.

No. of Cases	Expectant and Nursing Mothers	Pre-school children
No. examined	228	117
No. where treatment commenced ..	182	117
No. where treatment completed ..	94	117

Treatment Provided	Expectant and Nursing Mothers	Pre-school children
Scalings and gum treatment ..	110	..
Fillings	117	..
Extractions	230	185
General anaesthetics	53	117
Dentures—full	45	..
partial	40	..
Radiographs	6	..

(iii) **Care of Premature Infants.**—During 1964, there were 596 live births notified of infants weighing $5\frac{1}{2}$ lbs. or less at birth. Of these, 509 were born in hospital and 87 were born either at home or in a nursing home. 26 of the latter group were transferred subsequently to hospital for further care. Of the 61 remaining at home or in a nursing home, 59 required the skilled nursing care undertaken by the Premature Baby Midwife Service, necessitating 1,572 visits in all.

The number of premature infants who died within 24 hours of birth was 51, and of these 46 were born in hospital. Of the 5 born at home or in a nursing home, 3 were transferred immediately to hospital but died and 2 died at home.

To facilitate the immediate removal of these infants to hospital, when required, a portable incubator was in use to provide the special conditions necessary.

The Premature Baby Midwife Service, in addition to those infants mentioned above, undertook the after-care of 612 infants on discharge from hospital. The total number of visits to these cases was 6,795 during the year. The figures for 1963 were 535 and 6,528 respectively.

(iv) **Day Nurseries.**—The Corporation provides seven day nurseries in the city. To these are admitted children, aged 3 months to 5 years, whose mothers are in full-time employment. A few special cases within this age-group are admitted on medical grounds.

All the nurseries are approved for the training of Nursery Nurse students.

In March, the two day nurseries open on a Saturday morning, were closed because of lack of demand.

PLACES AND ATTENDANCES AT DAY NURSERIES

Day Nursery	Number of Places		Number of Attendances		Daily Attendances	
	1964	1963	1964	1963	1964	1963
Quarry Hill ..	50	50	10,161	9,958	40·0	39·4
Blenheim Lodge	50	50	9,542	8,284	37·6	32·5
Harehills ..	50	50	10,892	8,407	43·0	33·2
Hunslet Hall ..	50	50	13,184	12,280	52·0	47·9
Armley	55	55	9,832	10,046	38·7	39·3
Meanwood ..	35	55(35)	7,777	6,471	30·7	25·3
Burley Park ..	50	75(50)	11,666	9,382	46·0	37·1
Totals ..	340	385(340)	73,054	64,828	288·0	254·7
% Attendance					84·7%	74·9%

(v) **Nurseries and Child Minders Regulation Act, 1948.**—During 1964, applications were received from 42 persons desiring registration with the local authority as child minders and from 5 persons desiring premises to be registered as nurseries.

The following table shows the number of registered daily minders and nurseries, together with the permitted number of children minded:—

	Child Minders	Nurseries
No. on Register at 31.12.63	67	16
Permitted No. of children at 31.12.63 ..	398	550
No. registered during 1964	37	5
No. of applications refused	5	..
No. of registrations cancelled	23	..
No. on Register at 31.12.64	81	21
Permitted No. of children at 31.12.64 ..	513	695

(vi) **Convalescence.**—During 1964, 56 mothers and 61 pre-school children were referred by departmental medical officers for a period of convalescence at the Local Health Authority's home in Southport, because of ill-health and debility. In 1963, 42 mothers and 46 children were referred.

(vii) **Children Neglected or Ill-treated in their Homes.**—While many aspects of the Child Health Service, both preventive and supportive, may help to prevent the break-up of families, there are certain specific matters relating to multi-problem families which fall to be dealt with under this heading as the children are at risk of neglect.

The Co-ordinating Committee for Neglected Children, comprising representatives of statutory and voluntary services giving aid to these problem families, met regularly each month to consider cases referred to it. In addition, special case conferences of field workers concerned with families were quickly convened when conditions within the family were considered to be urgent. The needs and problems of the family as a whole were considered, and agreement reached as to how the available services and help, both statutory and voluntary, could best be applied to meet these needs and to alleviate the problems.

During 1964, 30 new cases involving 124 children were considered, 24 of them having been subject to case conference discussion prior to referral to one or other agency. In addition, 8 cases, previously notified, were reviewed. In 1963, the respective figures were 17 new cases involving 81 children and 10 review cases.

(D) MISCELLANEOUS

(i) **Registered Nursing Homes.**—The following table gives particulars of nursing homes registered with the local health authority in 1964:—

	No. of Homes	No. of Beds provided		
		Maternity	Other	Total
Registered during 1964..	..	..	..	..
Cancelled during 1964 ..	..	..	..	..
Registered at 31.12.64 ..	9	65	84	149

(ii) **Nursing Agencies Act, 1957.**—The licence of one nursing agency was renewed during the year.

SECTION 23

MIDWIFERY

MARGARET ORMISTON, M.B., C.h.B., D.P.H.,

Senior Medical Officer for Maternity and Child Welfare

AND

EVELYN MANN, S.R.N., S.C.M., M.T.D.,

Supervisor of Midwives

Six general points may first be mentioned.

1. The Local Health Authority continued to be the designated Local Supervising Authority on behalf of the Central Midwives Board.
2. The Ministry of Health launched a nation-wide recruitment campaign during the early summer, directed mainly towards the married midwife. Disappointingly few midwives were recruited locally and, unfortunately, this result was reflected throughout the country.
3. The Maternity Liaison Committee, comprising representatives from the Hospital Maternity Services, the General Practitioner Service and the Local Authority Midwifery Service, continued to meet throughout the year. A successful meeting with the corresponding Ilkley/Otley Committee took place in April when matters of common interest to both areas were discussed.
4. The close relationship between general practitioner and midwife was maintained during the year, with good co-operation and exchange of information accruing to the benefit of the patient confined at home. Facilities at the Corporation's ante-natal clinics for blood tests, appointments for chest X-ray examinations and ante-natal relaxation and health education classes were used frequently by the general practitioner on behalf of his patients.

5. Requests for hospital confinement continued to outnumber the available beds but no patient was refused a hospital bed if there was any medical, obstetrical or social reason necessitating institutional confinement.

6. A disquieting feature during 1964 was the marked rise in the number of patients, whose discharge from hospital was unplanned and took place before the 10th day of the puerperium, in spite of an increase in the number of planned discharges at 48 hours after delivery. This did throw an added burden on to the domiciliary service as in the vast majority of cases no arrangements were made for the domestic care of the patients.

Notification of Intention to Practise to the Local Supervising Authority.—During 1964, 241 midwives notified their intention to practise in the Leeds area, but, by the 31st December, 1964, 64 of these had left practice or had moved out of the area. Of the 177 midwives in practice at the end of the year, 101 were employed in hospitals, 13 in maternity homes, 2 as private midwives and 61 were in municipal service.

Notification of Births.—All births, live and still, after the 28th week of pregnancy, occurring within the Local Health Authority area are notified to the Medical Officer of Health. Adjustments, that is transfers out of and into the area, are then made according to the mother's place of residence.

The following table sets out these figures for 1964:—

	Live Births		Still Births		Total Births	
	Actual	Adjusted	Actual	Adjusted	Actual	Adjusted
Domiciliary ..	2,847	2,846	12	12	2,859	2,858
Institutional ..	8,149	7,019	197	158	8,346	7,177
Total ..	10,996	9,865	209	170	11,205	10,035

The total number of notified births to Leeds patients during the year was 10,035. Of these, 7,177 (71.5 per cent.) took place in hospitals or maternity homes and 2,858 (28.5 per cent.) were domiciliary cases. In 1963, the figures were 6,925 (69.8 per cent.) and 2,992 (30.2 per cent.) respectively.

DOMICILIARY MIDWIFERY SERVICE.

(i) **Staff Matters.**—(a) *Number of Midwives.*—At 31st December, 1964, there were 48 full-time midwives (including 5 wholly engaged in the care of premature and sick babies) and 12 part-time midwives employed by the Corporation with 1 Non-Medical Supervisor and 1 Assistant Non-Medical Supervisor. (Two part-time midwives undertake social investigations only and do not, therefore, notify their "intention to practise").

This number of staff compares with 45 full-time, 10 part-time, and 1 supervisor employed at 31st December, 1963.

During the year 2 full-time midwives retired from practice; 10 full-time and 3 part-time resigned; 13 full-time and 7 part-time were appointed to the staff and 2 part-time midwives transferred to the full-time staff.

The Assistant Non-Medical Supervisor commenced duties on 1st September, 1964.

(b) *Teacher Midwives.*—Of the 48 full-time midwives on the staff at the end of the year 23 were approved by the Central Midwives Board as teachers of pupil midwives, 5 having been approved during the year. The respective figures for 1963 were 45, 28 and 5. They undertake the practical training of the pupil midwives (see Midwifery Training School below).

(c) *Postgraduate Courses.*—During the year one midwife was successful in obtaining the Midwife Teachers Diploma. To comply with statutory requirements 11 midwives attended approved post-graduate courses; 4 attended special courses in relaxation, parent-craft and group teaching; 2 attended refresher courses in practical and theoretical Midwifery prior to returning to practice after an interval of more than 10 years, and 1 midwife attended a special course in the care of premature and sick babies, before joining the Premature Baby Unit staff.

(d) *Supervision of Midwives.*—All midwives were interviewed weekly at the Health Department by the Non-Medical Supervisor, and towards the end of the year help was given to her by the Assistant Supervisor. There were 113 inspection visits to midwives in their own homes as well as 141 other visits made in connection with the domiciliary service.

The Non-Medical Supervisor made several visits to midwives and to institutions for the Local Supervising Authority.

(e) *Annual Leave and Routine Off-duty.*—All midwives were able to have the statutory 6 weeks leave during 1964. In October, the average number of hours that full-time domiciliary midwives are required to be on call was reduced from 96 to 87 per week.

(f) *Transport Facilities.*—While the majority of midwives employed by the Corporation are car owners, a number, especially amongst the newly qualified, can rarely afford the expense of a car on first entering employment, so the domiciliary service in July obtained for their exclusive use 2 mini-vans. Later in the year, it was found possible to make available for use by the midwifery staff a further 4 vans from the "pool" maintained at the Central Ambulance Station.

This has increased the mobility of the service and has helped to keep the service running smoothly.

(ii) **Work Undertaken by Domiciliary Midwives.**—Domiciliary midwifery is changing in character. As more beds become available for hospital confinement, due mainly, as yet, to planned early discharge schemes rather than by the provision of new beds, fewer women are making arrangements for delivery at home. The increase in the number of early discharges, both planned and unplanned, is reflected in the fact that more maternity nursings were undertaken on the district than ever before. Associated with this increase in hospital deliveries, there was an ever-increasing demand made on the district midwife to undertake visits to the home of the hospital-booked patient, mainly in connection with planned early discharge and with follow-up of hospital ante-natal clinic defaulters.

In 1964, municipal midwives attended 2,859 domiciliary deliveries or 25.6 per cent. of the total number of actual births notified (11,205). The respective numbers for 1963 were 2,981 (or 26.6 per cent.) and 10,787. Post-natal visits were made to 2,152 women discharged from hospital before the 10th day of the puerperium or lying-in period, in addition to all "domiciliary" patients. In 1963, the number was 1,844.

The following table is a summary of the work undertaken for the year. Figures for 1963 are given for comparison.

Work undertaken	1964	1963
Ante-natal visits to patients' home ..	18,517	16,832
Attendance at births	2,858	2,981
Post-natal visits to (a) domiciliary cases ..	39,743	40,044
(b) patients discharged from hospital before 10th day	9,148	6,337
Number of patients in (b)	2,152	1,844
Bookings for home confinement	3,741	3,707
Average number per booking midwife	87	90
Social investigations in connection with:		
(a) application for hospital beds	2,486	1,973
(b) planned early discharge	829	758
Follow-up of hospital clinic defaulters ..	816	644
Attendance by patients at Midwives' Ante-natal clinics	25,585	24,301

(iii) **Premature Baby Unit.**—During the year the staff employed in this Unit was raised from 4 to 5 full-time midwives because of the increase in work in this special field. The work undertaken by the Unit is summarised below with comparative figures for 1963.

Work undertaken	1964	1963
No. of babies born at home requiring Unit	73	75
No. of babies born in hospital and discharged to the care of Unit	612	535
Total No. of visits involved	8,367	7,978

(iv) **Medical Assistance.**—Notification is received from midwives when medical aid is required from the general practitioner service. There were 809 notifications during 1964 compared with 844 in 1963. There were 6 notifications of emergencies under Section 14 of the Midwives Act, 1951, compared with 7 in 1963.

(v) **Inhalational Analgesia.**—All municipal midwives are qualified to administer trilene and gas/air analgesia and each midwife is provided with the approved apparatus. Trilene continues to be used at most domiciliary confinements, but gas/air is given in a few selected cases. Every patient, prior to confinement, is certified by the general practitioner as to her fitness to receive inhalational analgesia.

(vi) **Maternity Outfits.**—A sterilised and sealed pack containing all dressings required at confinement is provided by the local health authority and was issued to every patient booked for domiciliary confinement. In addition, a smaller supply of dressings was available to patients delivered in hospital but discharged home for maternity nursing before the 10th day of the puerperium.

Maternity packs were also available for domiciliary confinements attended by midwives in private practice and for Leeds patients in the two private maternity homes and in mother and baby homes in the city.

MIDWIFERY TRAINING SCHOOL

The training school at Redcourt Hostel continues to attract applicants for Part II training from different parts of the country. The fact that the whole of the six months' training is devoted to district work is found by the pupil midwives to give them greater knowledge of normal midwifery and a wider insight and experience of the varying social and environmental conditions which prevail. This is particularly valuable to the midwife who intends to practise domiciliary midwifery.

The training was supervised by the Midwifery Tutor, who was also the Superintendent of the Training School until November, when the post became vacant. At that time teaching and supervision of pupils was undertaken by the Assistant Non-Medical Supervisor with the approval of the Central Midwives Board.

Domiciliary midwives, who are approved teachers, worked, as before, in close liaison with the Tutor and subsequently with the Assistant Non-Medical Supervisor. Each teaching midwife was responsible for one or two pupils and instructed them in their practical work and supervised the conduct of cases allotted to them. On the theoretical side lectures were given on all prescribed subjects by personnel approved by the Central Midwives Board.

During 1964, 41 pupil midwives completed their training, one more than in 1963. All were successful in the final examination.

At 31st December, 1964, there were 23 pupil midwives in training.

SECTION 24

HEALTH VISITING

MARGARET ORMISTON, M.B., Ch.B., D.P.H.,
Senior Medical Officer for Maternity and Child Welfare

AND

JOYCE M. AKESTER, S.R.N., S.C.M., D.N. (London),
Superintendent Health Visitor

The work of the health visitors continued to increase during 1964 and, although the establishment was also increased from 64 to 67, the demands of the service were only met with difficulty. Pressure on the staff is indicated by the increase in the average number of visits per health visitor, which rose to 2,662 from 2,585 in 1963 and 2,452 in 1962. The total number of visits for the year was 169,494 compared with 165,446 in 1963 and 160,570 in 1962.

The following table gives details of the visits made during the year:—

	No. of Persons Visited	Total No. of Visits
Children born in 1964	10,577	32,127
Children born in 1963	9,718	29,689
Children born in 1959-62	26,047	65,549
Persons aged 65 and over	668	1,244
No. included in line above who were visited at special request of a G.P. or hospital	104	120
Mentally disordered persons	74	159
No. included in line above who were visited at special request of a G.P. or hospital	27	32
Persons discharged from hospital (other than mental hospitals)	164	186
No. included in line above who were visited at special request of a G.P. or hospital	69	83
No. of tuberculous households visited	2,093	3,719
No. of households visited on account of other infectious diseases	227	262
Persons visited <i>re</i> rehousing on medical grounds	1,340	1,582
Other adults	4,110	6,345
Children aged 5-15	3,156	4,000
Daily minders	376	701
Adoption visits	179	248
Ineffectual visits .. .. .	..	23,683

The health visitors also made 8,646 attendances at clinic sessions,

Home Visiting.—The selective visiting of infants and young children continued. New family record cards, designed by members of the staff, were brought into use in the autumn and these provide for simpler and better individual and family reports, as well as the special records of children "at risk".

All newly notified cases of tuberculosis were visited and arrangements made for the examination of contacts. Eight health visitors continued to maintain close liaison with the Chest Physician.

The number of visits to tuberculous households decreased by 1,007 which is a reflection of the reduced number of cases of tuberculosis in the city. To some extent, visits to patients suffering from other chest conditions have replaced visits to tuberculous patients. Language difficulties arose sometimes when tuberculosis occurred among the immigrant population and the employment of an interpreter, when necessary, was useful.

Visits to applicants for rehousing on medical grounds, which have been increasing steadily every year, totalled 1,582 compared with 1,159 in 1963 and 869 in 1962.

Close contact with the officers of the Mental Health Section was maintained and the problems of visiting the mentally sick and subnormal were discussed at a series of group meetings with the Senior Medical Officer for Mental Health Services.

Three health visitors continued to undertake part-time venereal disease visiting and the total number of visits was 502, an increase of 83. In 1963 the number of visits was 419 and in 1962, 360.

Visits to children aged 5 to 15 years increased sharply from 2,751 in 1963 to 4,000.

The steadily rising number of registered daily minders in the city accounted for a total of 701 visits compared with 604 in 1963.

Health Education.—There were more requests for talks and lectures to adult and youth groups. Discussion groups are now a well-established feature of ante-natal clinics and these were held regularly wherever facilities permitted. The staff of two clinics, St. Nicholas and Seacroft, ran an evening mothers' club with considerable success.

The film "To Janet a Son", which is an account of normal pregnancy and childbirth, was shown in various parts of the city in the spring and autumn and was a popular attraction to evening audiences of mothers and fathers.

Health education for the elderly was a new development at Burmantofts Clinic where a geriatric clinic was opened in December.

As in previous years, the Superintendent Health Visitor and Health Visitor Tutor gave lectures to the student nurses at St. James's Hospital and the Leeds General Infirmary respectively.

Practical Training of Students.—Health visitors, district nursing and social science students were all accepted for practical training. During the summer an experiment was carried out in connection with the training of domestic science teachers. Students attended welfare centres for half-a-day a week and helped generally. They appear to enjoy the experience of contact with mothers and babies and to benefit from it.

In October, for the first time, groups of medical students were shown round Seacroft and Armley Clinics and the purpose and function of the clinic were discussed with them.

Special Survey.—An investigation of the relationship of Health Visiting and General Practice was carried out in March. This was designed to provide information on the practical difficulties of attachment of health visitors to family doctors. As might be expected in a large urban authority, the findings showed that many doctors were practising in the area of each health visitor, and the areas of practice of general practitioners extended over large numbers of health visiting areas. It was obvious that attachment would result in much greater travelling time and the value of the health visitor in a defined area, where she is known, would be lost.

An account of this research was published in "The Lancet" in August and permission was given for it to be published in "Care Conference" and "The Nursing Mirror" in 1965.

HEALTH VISITOR TRAINING

MAUREEN CLANCY, S.R.N., H.V. Cert.,

Health Visitor Tutor

The Health Visitors' Training Course, 1963-64, was completed by 50 students, of whom 10 were sponsored by Leeds City Council.

There was no alteration in the overall pattern of the course but the content of the lecture and the practical work programme was under constant review to ensure that the needs of the students were met. The large number of students involved presented certain difficulties in making practical work arrangements and placed an added burden on those Departments of the Local Authority who help with the training. However, the increased co-operation and generosity of all concerned with the students ensured that the standard of instruction remained as high as it always has been.

Each student had the opportunity of observing the work of the Health Visitor within the framework of County Borough and County Council administration and spent two weeks during the Easter vacation receiving continuous instruction from the various Departments of her sponsoring Local Authority.

In addition to observing the work of the child care officers, welfare officers and mental welfare officers, it was felt that it would be desirable for the student health visitors to meet students of other disciplines and a joint meeting was arranged with students taking the two-year social work training. This was a most successful session and it is hoped to increase this contact with students whose training includes certain subjects which are to be found also in the Health Visitors' Training Course.

During the year the Council for the Training of Health Visitors issued a new syllabus, due to come into operation in the Course starting in October, 1965, and work is already in hand preparing for this. The Royal Society of Health remains the examining body until July, 1965, but the 48 members of the class who were successful in the examination this year will receive a certificate from the Training Council in addition to the R.S.H. Certificate.

All Leeds students passed the examination at the first attempt and took their place on the city's health visiting staff.

SECTION 25

HOME NURSING

KATHLEEN E. WHALLEY, S.R.N., S.C.M.

Superintendent Home Nurse

The following tables give the sources and classification of new cases treated during 1964, with comparative figures for 1962 and 1963.

SOURCES OF CASES 1962-64

	1962	1963	1964
General practitioners	4,739	4,593	4,410
Hospitals	1,871	1,899	2,036
Direct application and/or relatives, etc.	156	147	107
Totals	6,766	6,639	6,553

CLASSIFICATION OF CASES 1962-64

Classification	1962		1963		1964	
	New Cases	Visits	New Cases	Visits	New Cases	Visits
Medical ..	4,619	179,536	4,500	179,402	4,462	179,778
Surgical ..	1,590	37,857	1,626	34,928	1,562	36,950
Children under 5 years ..	446	3,959	407	3,477	406	3,508
Pneumonia ..	30	284	33	368	40	422
Tuberculosis ..	18	598	20	609	44	2,069
Maternal complications ..	57	545	49	392	36	270
Ophthalmia neonatorum ..	..	..	2	19	2	11
Infectious diseases ..	6	45	2	22	1	5
Totals ..	6,766	222,824	6,639	219,217	6,553	223,013

There were 6,553 new cases during the year, this being 86 less than in the previous year. Visits carried out totalled 223,013, an increase of 3,796 as compared with the previous year. Of the 6,553 patients, 2,467 received injection treatment or various types, necessitating 95,878 visits.

The following table gives the number of patients nursed aged 65 and over:—

			Patients	Visits
1962	..	..	3,051	138,568
1963	..	..	3,109	139,926
1964	..	..	3,008	140,348

In response to Ministry of Health Circular 14/63, arrangements were made to supply incontinence pads for patients being nursed at home. Substantial numbers of pads were supplied during the year, free of charge, and the measure undoubtedly contributed to the effective nursing of patients at home. The laundry service for drawsheets, for cases of severe incontinence, continued as described in the section on Disinfection and Disinfestation (see page 50). Difficulty in disposal did not restrict the service but, by the end of the year, they were increasing and consideration was being given to the setting-up of special collection arrangements.

Staff—The nursing staff is as follows:—

			Full-time	Part-time	Staff in terms of full-time
December, 1962	..	..	64*	11	69.5
„ 1963	..	..	59	11	64.5
„ 1964	..	..	64	8	68

*includes 7 students

In February of 1964 two attendants were employed full-time to carry out such duties as the bathing and dressing of elderly people. This has proved successful.

A Course for the National Certificate of District Nursing was held from January to April. 5 students completed the course and were successful in obtaining the certificate.

There are 12 motor cars available for use in the more distant areas of the city.

Medical Requisites Loan Scheme.—The arrangements for the loan of sick-room equipment and medical requisites continued to be operated from the depot in Market Buildings. During the year 2,638 articles were loaned as compared with 2,824 in the previous year, and 2,471 returned as against 2,792. There were 6,228 applications for extensions of loan periods and 721 persons defaulted with regard to the conditions of loan.

The following table shows the classification of medical requisites loaned during the year.

CLASSIFICATION OF MEDICAL REQUISITES

Articles	Loaned	Returned
Air rings	352	352
Bed pans	570	548
Mackintosh sheets	554	508
Back rests	314	315
Urinals	223	197
Cradles	131	160
Commodes	126	104
Crutches	24	26
Fracture Boards	34	15
Rubber bed pans	6	7
Bed trays and tables	5	5
Dunlopillo mattresses	9	12
Wheel chairs	93	95
Complete bed with pulley	10	10
Relaxation chairs	5	3
Hydraulic hoist	2	1
Stand pulleys	12	12
Stretchers .. .. .	..	1
Single bed	10	6
Mattress	6	3
Bed with cot sides	3	2
Walking sticks	5	4
Walking sticks, adjustable	16	4
Walking aid, Tripod	29	12
Walking aid, Zimmer	47	32
Chiron Alarms	1	1
Aeropreen Mattresses	4	2
Sputum mugs	1	2
Dietary scales	1	2
Bed blocks	12	4
Ripple Beds	1	1
Sani-chair	1	1
Feeding cups	16	14
Self-propelled wheelchair	14	9
Stair chair	1	1
Totals	2,638	2,471

SECTION 26

VACCINATION AND IMMUNISATION

G. E. WELCH, M.B., B.S., D.P.H.

Deputy Medical Officer of Health,

Deputy School Medical Officer.

Dr. R. D. Hall resigned as Assistant Medical Officer for Immunisation on 30th June, 1964.

At the beginning of the year, the policy was introduced of having immunisations and vaccinations carried out by the clinic staff at each session at the infant welfare clinics, instead of at special monthly sessions carried out by the immunisation team based on the Central Clinic. It was hoped that by thus making immunisation sessions more frequent and more readily available to mothers that a higher rate of protection could be achieved in the child population. In fact, there was an enormous increase in the clinic immunisations, amounting to a 33 per cent. increase on the previous year in the case of diphtheria immunisation. Since there was no reduction in the amount of immunisation carried out by family doctors, this represents a real gain in community protection and justifies the considerable extra work which was necessary by clinic staffs.

The outbreak of typhoid at Aberdeen accounts for the continued increase in the number of T.A.B. injections given during the year.

Oral poliomyelitis vaccine continued to be used during the year and visits were made to all schools in an effort to vaccinate all children at the age of five years who had received no protection, and also to give a booster dose to children who had completed a primary course before entering school. The number of doses of oral vaccine given up to the end of the year was 33,680, of which 14,632 were given by general practitioners.

Injections given against diphtheria, whooping cough, tetanus, poliomyelitis, smallpox, etc., during the year amounted to 48,234 of which 21,637 were given by general practitioners.

Poliomyelitis Vaccination.—The following table shows the progress of the vaccination scheme since 1956 (Salk vaccine only).

Year of Birth	Number of persons vaccinated with 2 injections								Total
	1956/57	1958	1959	1960	1961	1962	1963	1964	
1920-32 .. ..	..	..	..	6,641	8,080	716	52	1	15,490
1933-42	27	1,445	19,738	3,861	4,299	488	73	3	29,934
1943	21	3,063	743	122	209	30	..	..	4,188
1944	21	4,379	889	91	189	19	2	..	5,590
1945	27	4,155	836	61	136	11	1	..	5,227
1946	37	5,419	1,197	74	126	20	1	..	6,874
1947	2,918	3,376	1,096	83	199	34	..	..	7,706
1948	2,654	2,989	968	95	175	29	2	..	6,912
1949	2,291	2,957	872	90	215	21	2	..	6,448
1950	2,137	3,002	867	109	209	26	2	..	6,352
1951	1,095	3,899	897	95	224	27	1	..	6,238
1952	587	4,067	1,007	125	231	28	5	..	6,030
1953	620	2,337	1,653	297	494	40	2	..	5,443
1954	458	2,193	1,791	324	546	50	3	..	5,365
1955	538	2,224	1,845	314	501	55	3	..	5,480
1956	407	2,393	2,058	353	552	57	3	1	5,824
1957	7	2,516	2,724	470	616	54	4	..	6,391
1958 .. ..	..	385	4,043	1,023	799	65	6	..	6,321
1959 .. ..	..	..	518	3,445	1,472	97	8	..	5,540
1960 .. ..	..	..	..	544	4,540	342	9	..	5,435
1961 .. ..	..	..	..	..	666	727	29	1	1,423
1962 .. ..	..	..	..	..	..	19	77	2	98
1963 .. ..	..	..	..	..	..	..	2	12	14
1964 .. ..	..	..	..	..	..	..	..	1	1
Expectant mothers ..	4	988	2,749	*	*	*	*	..	3,741
Other groups ..	..	405	394	16	51	1	..	..	867
Totals ..	13,829	52,192	46,885	18,233	24,529	2,956	287	21	158,932

*Expectant mothers included in the respective years of birth.

All 21 Salk injections were given by general practitioners, who also gave 17 third injections and 5 fourth injections.

Oral Vaccine.—The following table gives the number of persons who have received 3 doses of oral vaccine since 1st March, 1962.

Year of Birth	1962	1963	1964
1922-32	2,694	599	417
1933-42	1,699	649	720
1943-60	4,375	1,277	2,450
1961	2,755	1,007	487
1962	536	3,191	732
1963 .. ..	..	534	4,058
1964 .. ..	..	..	963
Others .. ..	..	..	33
Totals	12,059	7,257	9,860

The total for 1964 includes 4,557 by general practitioners. 103 third doses of oral vaccine were given to complete treatment after two Salk injections, including 101 by general practitioners. The number of children given reinforcing doses of oral vaccine after three Salk injections, or three orals or two Salk plus two orals was 3,991, of which 860 were given by general practitioners.

Smallpox Vaccination.—The numbers of vaccinations and revaccinations performed during the year are shown in the following table:—

	Under 1 year	1-4 years	5-14 years	15 and over	1964 Total	1963 Total
Vaccinated (a)	27	1,432	27	147	1,633	1,366
(b)	410	1,325	60	6	1,801	1,331
Re-vaccinated						
(a)	3	18	74	1,251	1,346	980
(b)	..	38	75	52	165	247
Totals	440	2,813	236	1,456	4,945	3,924

(a) by clinic staff.

(b) by general practitioners.

ISSUE OF PROPHYLACTIC MATERIAL TO PRACTITIONERS

Material	1962	1963	1964
Diphtheria (P.T.A.H.) ..	..	..	204 doses
Diphtheria (T.A.F.)	627 doses	655 doses	493 ..
Diphtheria (F.T.)	415 ..	144 ..	.. ..
Combined diphtheria and whooping cough	333 ..	378 ..	267 ..
Whooping cough vaccine ..	1,104 ..	420 ..	321 ..
Diphtheria/Tetanus/Pertussis	11,656 ..	13,109 ..	12,311 ..
Combined diphtheria and tetanus	1,073 ..	1,653 ..	1,321 ..
Combined whooping cough and tetanus	42 ..	78 ..	..
Tetanus only	3,467 ..	6,830 ..	6,590 ..
Polio vaccine—"Salk" ..	6,777 ..	698 ..	111 ..
Polio vaccine—oral	72,115 ..	32,272 ..	26,750 ..

Diphtheria Immunisation.—The percentage of children under 5 years immunised against diphtheria was 66.0 as compared with last year's figure of 65.4.

The following table shows the extent of diphtheria immunisation work during the year.

Prophylactic	Clinic doctors:—		General Practnrs.	Total
	I.W.C.'s	Schools		
Diphtheria only ..	14	40	71	125
Diphtheria/Tetanus	245	1,118	67	1,430
Diphtheria/ Whooping Cough ..	..	..	49	49
Whooping Cough/ Tetanus .. ..	..	..	..	..
Triple Antigen ..	3,278	..	3,619	6,897
Whooping Cough only	6	..	78	84
Tetanus only ..	19	..	1,690	1,709
Diphtheria/Tetanus/ Whooping Cough/ Polio .. ..	..	..	27	27
1 Tetanus/ 2 Diphtheria/Tetanus	23	..	..	23
Total protected against Diphtheria	3,560	1,158	3,833	8,551
Total protected against Whooping Cough	3,284	..	3,773	7,057
Total protected against Tetanus ..	3,565	1,118	5,403	10,086
Refresher Doses:—				
Diphtheria only ..	47	2,627	318	2,992
Diphtheria/Tetanus	205	776	450	1,431
Diphtheria/ Whooping Cough ..	..	..	38	38
Triple Antigen ..	1,691	..	633	2,324
Whooping Cough/ Tetanus .. ..	..	..	..	..
Whooping Cough only .. ..	..	..	..	..
Tetanus only ..	20	..	1,321	1,341
Diphtheria/Tetanus /Whooping Cough/ Polio .. ..	..	..	1	1
3 injections— Diphtheria/Tetanus	..	..	43	43

During the year the diphtheria immunisation campaign in schools was continued and, as a result, 1,118 young children were given the full course of injections for protection against diphtheria and tetanus. 2,627 diphtheria booster doses and 776 diphtheria/tetanus boosters were also given.

Estimates of the Child Population immunised against Diphtheria.

—Estimates of the child population immunised against diphtheria at 31st December, 1964, and in previous years are shown in the following table.

Year	Percentage in age group			
	0-4 years	1-4 years	5-14 years	0-14 years
1952	72.5	79.3	94.5	86.4
1953	70.5	78.0	94.0	85.8
1954	67.1	73.3	96.1	86.1
1955	65.2	72.2	95.0	85.0
1956	64.0	70.6	94.3	84.2
1957	61.0	66.9	94.5	83.3
1958	59.6	65.0	93.6	82.1
1959	58.8	62.7	91.5	80.4
1960	59.3	62.8	90.6	79.7
1961	64.8	76.9	89.8	81.0
1962	64.2	75.8	94.9	83.7
1963	65.4	77.4	91.4	81.9
1964	66.0	76.8	91.8	82.2

The table on page 88 shows the progress of the diphtheria immunisation scheme since its inception.

Inoculations for Travellers going Overseas.—The number and type of inoculations are shown below (for completed courses).

Smallpox vaccination ..	1,569
T.A.B.	1,522
Cholera	1,048
Tetanus	2,006
Typhus .. ..	..
Yellow Fever	793

Whooping Cough Immunisation.—The following table shows the progress of whooping cough immunisation since 1947. The percentage of children under 5 years protected is approximately 70 per cent.

Year			Number immunised against Whooping Cough
1947	..	..	975
1948	..	..	908
1949	..	..	1,016
1950	..	..	1,537
1951	..	..	3,801
1952	..	..	3,892
1953	..	..	4,877
1954	..	..	5,276
1955	..	..	4,593
1956	..	..	5,238
1957	..	..	4,894
1958	..	..	6,504
1959	..	..	6,102
1960	..	..	6,099
1961	..	..	8,269
1962	..	..	5,641
1963	..	..	5,952
1964	..	..	7,057

Examination of Convalescents.—During the year 568 applicants for convalescence, including 455 children, were medically examined.

Voluntary Workers.—We are grateful to the Ladies of the Leeds Babies' Welcome Association for assistance at Immunisation Clinics.

SECTION 27

AMBULANCE SERVICE

J. H. DAYKIN, F.I.A.O., L.M.R.S.H.

Chief Ambulance Officer

Although there has been an overall increase in both patients and mileage in 1964, the increase in patients carried is not so marked as last year. Mileage for ambulances has increased by 17,000 miles and for all vehicles together by 19,800 miles. The number of stretcher cases removed by Accident or Emergency vehicles dropped by 973 to a total of 11,066 but the number of sitting-cases carried by sitting-case car from accident or emergency calls increased by 116 to a total of 400 in the year. The use of properly equipped radio-controlled sitting-case cars for emergency work has proved quite satisfactory since many patients collected from emergencies are well able to sit in a fast car for transport to hospital. The number of non-emergency stretcher cases has risen by 3 per cent. to 68,371, an increase of 2,045 in the year. Non-emergency sitting cases have increased 2 per cent. to 184,645, an increase of 3,626 in the year. Repayment cases, however, have fallen markedly from 4,218 in 1963 to 2,212 in 1964, a decrease of 2,006 cases. The grand totals reveal an increase of 2,813 persons and bodies removed over the grand totals of the previous year, an increase of 1.06 per cent.

CASES REMOVED IN 1964

	Directly Provided Service	Other, including Hospital Car Service	Transport by Rail	Total	Compari- son with 1963
Mileage:					
Ambulance (2/4 stretcher) ..	445,880	..	8,210	454,090	+17,037
All vehicles	1,112,862	11,307	13,899	1,138,068	+19,881
No of Persons Carried:					
Accident Emergency—					
Stretcher cases	11,066	..	..	11,066	—973
Sitting cases	400	..	..	400	+116
Non-Emergency—					
Stretcher cases	68,297	..	74	68,371	+2,045
Sitting cases	181,659	2,911	75	184,645	+3,626
Repayment cases	2,212	..	..	2,212	—2,006
Total No. carried	263,634	2,911	149	266,694	+2,808
Mortuary Service:					
Bodies removed	1,000	..	..	1,000	+5
GRAND TOTALS	264,634	2,911	149	267,694	+2,813

COMPARATIVE TABLE

	1959	1960	1961	1962	1963	1964
Cases :—						
Ambulance ..	73,460	75,720	77,108	77,071	82,583	79,437
S.C. vehicles ..	163,265	176,642	175,704	177,663	181,303	187,257
Total ..	236,725	252,362	252,812	254,734	263,886	266,694
Mileage :—						
Ambulance ..	366,698	389,221	411,912	414,165	437,053	454,090
S.C. vehicles ..	486,804	535,220	574,294	639,882	681,134	683,978
Total ..	853,502	924,441	986,206	1,054,047	1,118,187	1,138,068

“999” Calls.—Emergency calls totalled 12,220, an increase of 12·3 per cent. on 1963. Due to the efforts of the Police, the number of false calls has decreased. Some disquiet is felt, however, regarding calls made by members of the public for very trivial matters. It is not uncommon for an ambulance to travel at considerable speed and risk, from one side of the city to the other, to deal with minor ailments such as cut fingers, bruises and toothache. All calls are answered, however, since there is little means of establishing the nature of the emergency before the arrival of an ambulance. Traffic congestion in the city is growing worse daily and considerable anxiety is felt when ambulances are required to force their way through densely crowded streets during peak hours, to answer emergency calls. There is little indication of improvement in this direction, however, and the matter is receiving attention by all concerned.

Staff.—During the year an experiment has been carried out using cleaning staff recruited from an Epileptic Home and Mental Health Institutions. The experiment has been completely satisfactory and there can be nothing but praise for the way in which these members of the staff have overcome their disabilities and now carry out their duties. There have been no additions to the official staff and only minor changes have taken place in the driving staff.

Vehicles.—Six new ambulances have been purchased to replace two Morris NVS and four Daimler DC27 ambulances which had reached the end of their useful life. The new vehicles are admirable and the driving staff are well satisfied with the construction and

internal layout. A specially designed vehicle for carrying spastic children was authorised and is on order. This vehicle will carry a number of the specially adapted wheelchairs in which spastic children travel and attend school and is fitted with a mechanical ramp at the rear to facilitate the loading and unloading of the wheelchairs. When not in use for spastic children, the vehicle will be available for normal sitting-case work and can be used for ambulance work should the need arise. Delivery of this vehicle is anticipated early in the new year. Beyond this addition, the establishment of vehicles remains as in 1963 and is as follows:—

Ambulances, authorised and held	..	..	31
Sitting-case ambulances	..	..	22
Sitting-case cars	..	..	8
Mortuary Service vehicles	..	..	2

A sitting-case ambulance, due for disposal, was adapted as a mobile chiropody clinic. It was fitted with a chair, drill and hot water storage under the advice of officers of the Chiropody Section. The vehicle, which is stationed at Western Station, Armley, is driven by a chiropodist and is taken daily to locations in all parts of the city to visit patients who would otherwise require transport to chiropody centres. A further sitting-case ambulance, which was no longer fit to carry patients, has been adapted for use as Emergency Control and Equipment Unit. It carries a considerable amount of stretchers, blankets and First Aid equipment, together with rescue equipment likely to be required at the scene of a major disaster. It is fitted with radio and emergency warning signs and is constructed for use as a local control point for ambulances wherever required in the city.

Accidents.—There were 79 accidents in which Ambulance Service vehicles were involved. This is an increase of 17 as compared with last year.

Equipment.—Although there have been no notable changes in the pattern of Ambulance Service equipment now in use, research continues and consideration is being given to fitting suction apparatus in all ambulances.

Radio Telephony.—A slight modification to the radio telephone system has been carried out to produce a "talk through" facility. A switch fitted on the remote control unit at Ambulance Service Headquarters may be used to enable messages from vehicles on the road to be received by all other vehicles at the same time as they are received at Ambulance Service Headquarters. Such a system has many advantages. It enables officers, whilst on the road, to make radio contact with the drivers of ambulances and ambulance drivers to speak to each other in cases of difficulty of location of new property. Further, a doctor at an Accident and Emergency Unit is able to give advice to an ambulance crew engaged in dealing with an emergency call.

Vehicle Maintenance.—The well-established procedures of vehicle maintenance have continued quite satisfactory throughout the year.

Civil Defence Training.—It was not found possible to carry out very much staff training in Civil Defence last year. Members of the Ambulance Service took part in two large Civil Defence exercises during the year, namely Exercise "Due North" and Exercise "Survival II". Two officers of the Ambulance Service qualified as Local Instructors in the Ambulance and First Aid Section in December. A Regional Study was held in Sheffield in the summer at which a number of officers of the Ambulance Service attended and at which the Chief Ambulance Officer was invited to give a Paper to the Ambulance and First Aid Section of the Conference on "Mobilisation of Ambulance Columns in War."

Co-operation with Other Authorities.—The co-ordination scheme continues to work extremely well. A meeting was held during the year of elected representatives and officers of all the authorities who participate in the scheme, to discuss the possibility of a joint increased charge. It was agreed that, irrespective of type of vehicle, a charge of 3/9d. per mile would be made between co-ordinating authorities.

Liaison with Hospitals.—Liaison with hospitals, both at officer level and at Ambulance Liaison Committees, continues satisfactorily. Discussions have taken place between representatives of both hospitals and of the Local Authority regarding design of Accident

and Emergency Unit entrances and ambulance routes in the projected new hospitals. Agreement was reached with Leeds "A" Group Hospital Management Committee to install a radio telephone in the Accident and Emergency Unit at St. James's Hospital for use by doctors and ambulance crews in the event of serious accidents. Discussions are proceeding between Local Authorities, the United Leeds Hospitals and the Leeds "A" and "B" Group Hospital Management Committees on the standardisation of stretcher canvasses and poles. It was proposed and agreed that once a standard design has been achieved, stretcher canvasses would be interchangeable between hospitals and Ambulance Services at any time. The practice is designed to reduce the number of movements of patients from stretcher to bed, etc., and to reduce the waiting time by ambulance crews for equipment when their patients have been handed over.

Hospital Car Service.—The number of patients carried by the Hospital Car Service has increased slightly during 1964. The Area Officer is, however, meeting increasing resistance from members of the public to place their cars at the disposal of out-patients.

Major Accident Organisation.—In the latter part of 1963, discussions took place with the Leeds Hospitals, Police and Fire Services with a view to staging a very large and realistic mock major incident. The proposal was received with enthusiasm by all concerned and on Sunday, January 26th, 1964, at 11 a.m., a "999" call alerted all emergency services and Accident and Emergency Units at hospitals, to deal with Exercise "Majax". A total of 128 "casualties" had been placed in a partly demolished mill in Woodhouse Lane, Leeds, and, with the aid of minor explosives and smoke generators controlled by the Fire Service, the after effects of a very violent explosion in a factory at work were excellently simulated. Emergency services were quickly on the scene, the Fire Brigade arriving at 11.3 a.m., the Police at 11.5 a.m. and the Ambulance Service at 11.6 a.m. By 11.25 a.m. all fires were under control and by 11.28 a.m. 23 ambulances had been committed. All casualties had been cleared by 12.5 p.m. and by 12.30 p.m. the site was declared closed. The exercise disclosed a number of flaws in the existing Major Accident Scheme and from reports received was adjudged to be a complete success. The exercise received full coverage from the local and national press, from radio and both television channels.

Competitions.—It was not found possible to hold an Ambulance Service Competition in 1964. The winners of the 1963 Competition were again entered in the Regional Competition organised by the National Association of Ambulance Officers. The team representing this Service were not, however, successful although their conduct in the competition deserved special merit.

Staff Training.—Only a small quantity of training for ambulance crews was achieved during the year. It was felt that since the Ministry of Health Working Party was now concentrating on training matters it would perhaps be better to wait for the report of that body to be published before embarking on particular training schemes.

The Expansion of the Ambulance Service.—Considerable discussion has taken place upon the possible expansion of the Ambulance Service to meet the demands now being made upon it by hospitals, general practitioners and members of the public. Western Station, Greenhill Road, Armley, was re-opened in January, 1964, as a fully operative Station under the control of a Station Officer. It houses 9 vehicles and has a staff complement of 19. This Station deals with most emergency calls arising on the western quarter of the city and most out-patients whose journeys commence or finish in the Western Station area.

SECTION 28

PREVENTION CARE AND AFTER-CARE

Other aspects are dealt with on pages 34 and 40 (TUBERCULOSIS) and page 123 (MENTAL HEALTH)

HEALTH EDUCATION AND PUBLICITY

Local Activities.—As in previous years, speakers were provided from many sections of the Department to address clubs and associations of various kinds on a wide variety of health topics. The scheme for payment of a small fee to members of the staff undertaking this work proved very helpful, especially in cases where speakers undertook a course of lectures. There was also an increase in the amount of health education carried out at clinics by means of discussion groups, film shows, etc.

Hygiene.—Publicity material bearing on the clean handling of food was issued to catering establishments in the city.

Smoking and Health.—Following an approach by the Secretary of the British Temperance Association, the Health Committee accepted the offer of the Association to organise a five-day anti-smoking clinic and agreed to participate in the campaign and bear the cost of the accommodation and publicity. The first course was held in April and over 300 people attended, while so many more wished to register that a further clinic was arranged and held in July. The clinics consisted of five meetings on successive evenings and in each case a "reunion" meeting was held a few weeks later. The clinics were felt to have been very successful and over 90 per cent. of these registering completed the full five-day course. Of those attending the first course, 80 per cent. had given up smoking over the five days and two weeks later 56 per cent. were still not smoking. The Association was able to arrange a follow-up six months later which revealed that 40 per cent. were still not smoking, 40 per cent. had started again but reduced their consumption by 75 per cent., and 10 per cent. had never stopped but had cut down their consumption more than 75 per cent. There seems no doubt that this type of clinic is one of the most effective methods of giving help to those wishing to give up the habit.

VENEREAL DISEASES

J. A. H. HANCOCK, L.R.C.P., M.R.C.S.,

Physician in Charge,

Department of Venereology

The General Infirmary, Leeds.

Dr. R. D. Catterall, who took charge of the Department of Venereology in 1959, resigned in April, 1964, and it is a pleasant task to pay tribute to his valuable work during his tenure of the appointment.

Table 1 shows the total of cases dealt with in the Department during 1964.

Gonorrhoea.—There was a total of 784 gonococcal infections; 610 of these were in men and 174 in women. This is a decrease of only 17 in comparison with 1963 and figures for the first quarter of 1965 suggest that the small decline in incidence, which began three years ago, has now been reversed. Infections in persons below the age of 18 years accounted for only 3 per cent. of the total, and there were only 5 infections in patients below the age of 16 years. 422 (54 per cent.) infections were in patients from the indigenous population; patients originating from the West Indies, Pakistan and Eire contributed the majority of the remaining 362 cases. Table 2 shows the trends of incidence of infection among the major racial groups during the last three years.

There was no case in which it could be shown that an immigrant had brought infection direct from overseas; there continues to be evidence, especially among Pakistanis, that the infection in their community originates from white prostitutes and then tends not to spread beyond their community. The girls implicated pose a major problem because they are itinerant; having visited a house of Pakistanis, they then move on to a different neighbourhood and so defy any attempts to trace them and treat them. This seems to

be an increasing practice and may partially account for the disproportionately large number of infections in men compared with the number of women attending for treatment during the past two years. There seems to be a definite improvement in the situation which obtained with men from the West Indies. More are settling down to a stable family life now that they have been joined by their wives and there has been a striking decline in the numbers contracting infections.

During the year there have been sporadic cases of infection with strains of gonococci which are partially resistant to penicillin. These organisms have not caused any great difficulty in treatment and they have not persisted for any great length of time in the community.

Non-Specific Urethritis.—Figures of the incidence of this condition in male patients have increased relentlessly throughout England and Wales since 1951. The accompanying graph shows that the same may be said of the pattern of incidence in the Leeds area during the last ten years. The total of cases in male patients for the year 1964 was 489, an increase of 104 over the total for 1963. 123 female sexual partners of men with non-specific urethritis were examined and treated during the year. Approximately 0.5 per cent. of men with non-specific urethritis go on to develop the systemic complication, Reiter's Disease. 22 patients developed first attacks of this disease during the year. When it is appreciated that each patient with Reiter's Disease has a liability to recurring attacks of arthritis of the order of 15 per cent. per annum, it will be seen that this complication causes a good deal of persisting ill-health.

Syphilis.—Since 1952 the amount of early syphilis in this city has been astonishingly small. There were two years—1957 and 1959—when not a single case was diagnosed and in 1964 there were only 9 cases seen in the Department. Three of these cases were in homosexual males living in Bradford, one of whom caught the disease in

Leeds. The only woman infected was a resident of Bradford. Out of the 5 infections in patients resident in Leeds, two were contracted in London, one in South Africa, one possibly in Bradford and the origin of the fifth was unknown. Throughout England and Wales there has been a small but definite increase in the number of infections of early syphilis in recent years and there are, therefore, no reasons for complacency. The increase must soon become evident in this city and it may occur suddenly and rapidly.

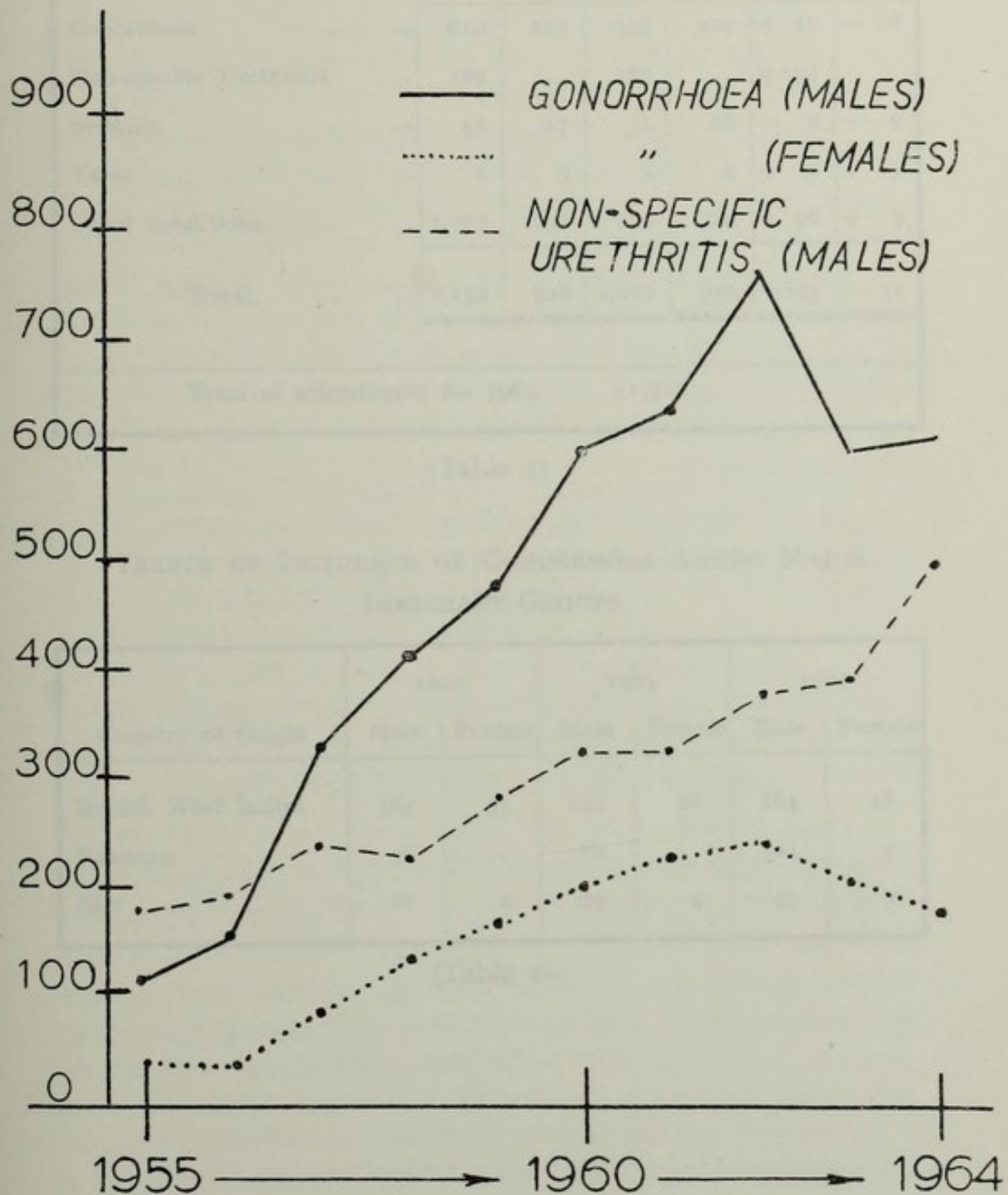
During the 20 years since the introduction of penicillin the figures of incidence of cases of late syphilis treated in the public clinics have borne little relationship to the amount of disease in the community because many physicians are prepared to manage their cases without reference to a venereologist. Such cases do not, therefore, enter the national statistics. None the less, despite the limitations of the published figures, it has now become evident that the considerable increase of cases of late syphilis which was expected to occur about 15 to 20 years after the war has not materialised. The reasons for this are uncertain but the most probable explanation is that during the intervening years many persons will have had curative doses of penicillin given for the treatment of other conditions at a time when their latent syphilis was unsuspected. It is not known whether the small decrease in cases of late syphilis during 1964 is of any significance.

Yet again, no cases of early congenital syphilis was diagnosed, a convincing tribute to the alertness of the members of the Maternity Services in the city.

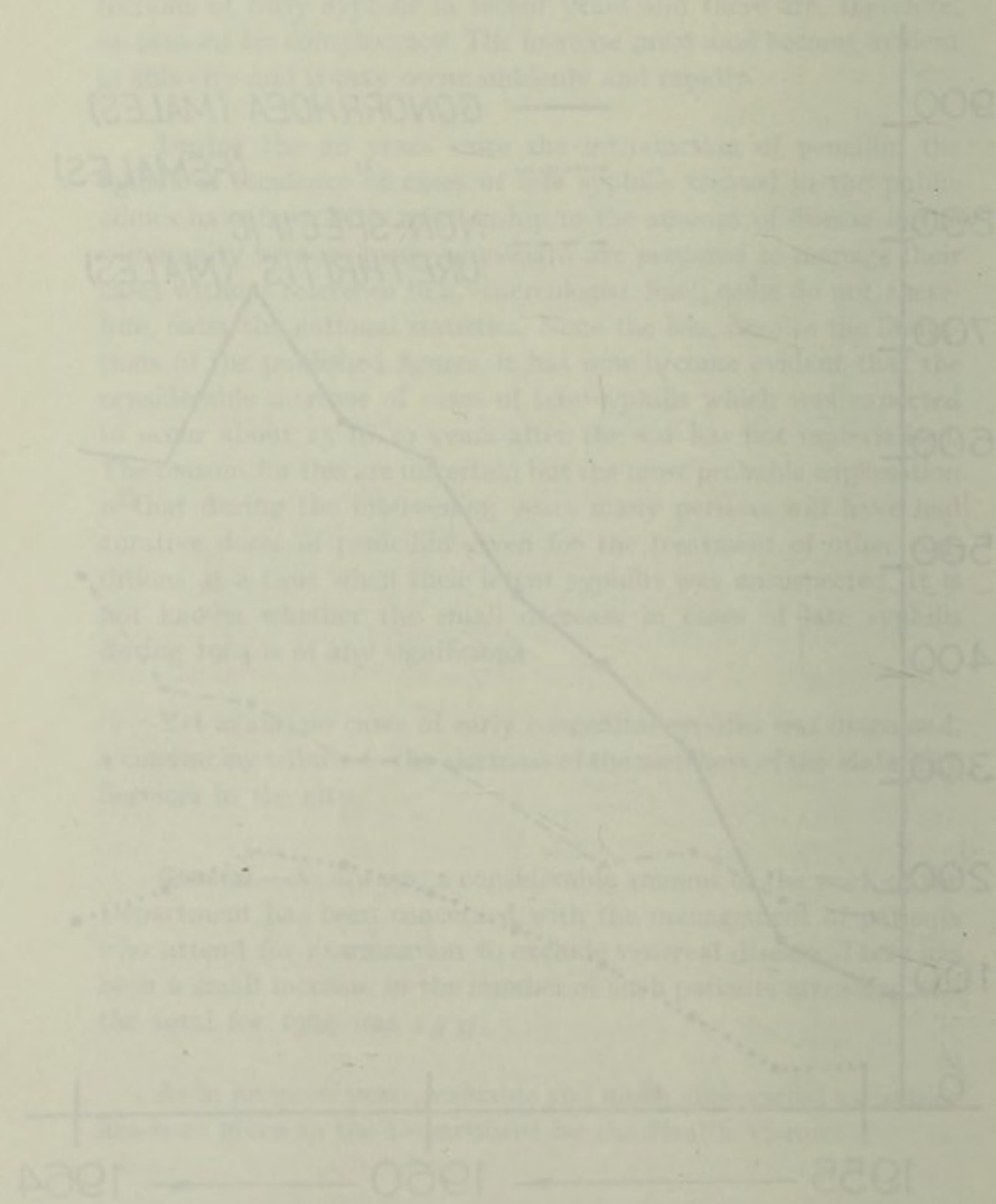
General.—As always, a considerable amount of the work of the Department has been concerned with the management of patients who attend for examination to exclude venereal disease. There has been a small increase in the number of such patients attending and the total for 1964 was 1,737.

As in previous years, valuable and much appreciated assistance has been given to the Department by the Health Visitors.

INCIDENCE OF GONORRHOEA AND NON-SPECIFIC URETHRITIS DURING THE PAST DECADE



INCIDENCE OF GONORRHOEA AND NON-SPECIFIC URETHRITIS DURING THE PAST DECADE



NEW CASES REGISTERED AT THE VENEREAL DISEASES CLINIC AT
THE GENERAL INFIRMARY AT LEEDS

	Year 1964		Year 1963		Increase or Decrease	
	M.	F.	M.	F.	M.	F.
Gonorrhoea	610	174	599	202	+ 11	- 28
Non-specific Urethritis ..	489	..	385	..	+104	..
Syphilis	42	17	51	26	- 9	- 9
Yaws	6	5	5	2	+ 1	+ 3
Other conditions	1,005	732	979	729	+ 26	+ 3
TOTAL	2,152	928	2,019	959	+133	- 31
Total of attendances for 1964 .. 11,427.						

(Table 1)

TRENDS OF INCIDENCE OF GONORRHOEA AMONG MAJOR
IMMIGRANT GROUPS

Country of Origin	1962		1963		1964	
	Male	Female	Male	Female	Male	Female
British West Indies ..	363	33	242	21	164	18
Pakistan	58	..	62	..	104	1
Eire	27	2	23	4	35	3

(Table 2)

MEDICAL SOCIAL WORK

(General)

ISOBEL B. PATON

Medical Social Worker

During the year 138 cases were referred to the Social Workers by medical practitioners, almoners, National Assistance Board officials, Probation Officers and other social agencies.

After-Care of Patients discharged from Hospital.—These patients are visited regularly and the Almoners informed as to their progress or otherwise. Their requests for home help, chiropody, clothing, bedding, etc. are attended to. Information is given regarding outings, competitions, wireless for the bedridden and, when possible, decorating.

During the year 671 patients awaiting admission to the Geriatric Unit of St. James's Hospital were visited. Patients and their families are advised by the family doctor that they will be visited by a social worker. As well as a social history being obtained for the Geriatric Consultant, the Social Workers are able to reassure the patient and his family regarding pension books, personal belongings and other requirements in hospital. Advice is given about National Assistance, the loan of medical requisites, etc.

From January onwards, requests are made by families for temporary admission of chronic sick patients to hospital to enable these families to arrange a holiday or rest and frequently to have a patient's room decorated.

During the year 463 visits were made to new cases, 2,044 to old cases; 107 visits were received from new cases and 52 from old cases. 553 visits were paid to hospitals, the Magistrates' Court and other social agencies in the city. 15 visits were made for the Home Help Assessor and five for the Convalescent Section. Eleven cases were visited in respect of a request for a 100 per cent. grant for adaptations necessary under the Clean Air Act, 1956.

Social Care of the Unmarried Mother.—During 1964, 194 women and girls having an illegitimate child were visited. In 152 cases it was the first child, in 24 the second, in 7 the third, in 3 the fourth and in one, the fifth. Seven married women having illegitimate children were referred for help.

Of the 194 cases referred, 45 girls were to be married, 45 were returning home from hospital, 31 were returning to lodgings and 3 to relations. 17 girls applied for admission to Mount Cross Home, 5 to Browning House and one to St. Margaret's Home. One girl went to the Salvation Army Home in Manchester, one to the Bradford Mother and Baby Home. 5 cases were referred to the Roman Catholic Social Worker and 3 to the Church of England Social Worker. 15 girls arranged for a home confinement, 2 girls left the district, 14 girls were returning to live with the putative father and 3 hoped to marry later. Two girls went to a private nursing home, one girl was found not to be pregnant, 2 girls were unable to be traced and one girl was referred to the Children's Department.

Most of the girls attended the Department's Infant Welfare Centre in the district where they resided. A few were referred by their family doctor. 22 girls were assisted in obtaining affiliation orders; when necessary, legal aid was obtained.

After-Care.—The after-care of girls who are admitted to a Mother and Baby Home is mostly done by the Matron and staff of the Home. Where necessary, the Senior Social Worker helps with lodgings for girls who cannot return to their own homes.

General.—During the year, the Senior Social Worker attended the monthly meetings of St. Margaret's Committee and Mount Cross Mother and Baby Home. She attended the quarterly meetings of the Leeds Council of Social Service Old People's Welfare Committee and some meetings of the voluntary workers. When possible, she has attended the Epilepsy Association meetings.

From January to July, supervision was given two days a week to a student taking the Younghusband Certificate in social work at the Leeds College of Commerce.

The Yorkshire Evening Post donated 96 food parcels which were taken to housebound old people. These parcels are greatly appreciated by the recipients, most of whom are ex-patients from the Geriatric Unit at St. James's Hospital. Toys for one family were also obtained. The social workers are very much indebted to the Women's Voluntary Service for clothing, to the Matron of Browning House for help with a perambulator and to the many friends who have donated clothing, bedding, furniture, books and a television set.

CONVALESCENT TREATMENT

During the year 1,747 applications for convalescent treatment were received, 27 were brought forward from 1963, making a total of 1,774 as compared with 1,651 for the previous year.

Of this number, 1,268 were sent to convalescent homes, 483 applications were withdrawn or refused and 23 were held over until 1965.

The following table gives details of the number of adults and children sent for convalescence and the number of weeks per patient:—

	Adults	Children
Number sent for convalescence	762	506
Weeks away	1,524	1,114
Extensions (weeks) .. .. .	..	4
Total number of weeks away	1,524	1,118
Average number of weeks per stay	2	2

A new convalescent home for men was opened at Blackpool with accommodation for 50 patients. Very good reports have been received from the patients who have been sent there. The remainder of the homes used by the Local Authority are all well organised and provision for the health and comfort of the patients is very satisfactory. A marked improvement is seen in many cases, particularly in those suffering from nervous or depressive illnesses.

A charge of £2 2s. is made to each adult person receiving two weeks convalescent treatment.

Applications for children increased considerably during the year and, as it was not possible to accommodate them all, some were referred to the Leeds Children's Holiday Camp who gave priority to sick and needy children.

Throughout the year the W.V.S. very kindly provided clothing for several adults and children prior to going away and, along with three voluntary escorts, have given valuable help in escorting children to convalescent homes.

During the year 152 women, 127 babies and one "teenage" girl were sent to the Southport Home. The Ambulance Service has again provided transport for children and mothers with babies. 568 patients attended the Central Clinic for medical inspection prior to admission to convalescent homes.

The allocation of patients to the various homes is shown as follows:—

Home	Adults	Babies	Child- ren	Total
Southport (Mother and Baby Home)	152	127	1	280
Blackpool (Horncliffe)	236	..	27	263
Blackpool (Delton)	70	..	1	71
Bridlington (Yorkshire Foresters)	106	..	3	109
St. Annes (Ormerod)	..	..	102	102
St. Annes (Blackburn)	88	..	..	88
St. Annes (Seabright)	107	..	..	107
Morecambe (Craig)	..	..	138	138
St. Annes (Rochdale Home)	..	..	107	107
Southport (Jewish Home)	..	..	..	..
Harrogate (Metcalf Smith)	3	..	..	3
Filey (W.V.S.)	..	..	..	..
Totals	762	127	379	1,268

The following table gives monthly statistics of cases sent for convalescence:—

	Adults	Mothers and Babies		Children	Total
		(M)	(B)		
January	11	..	..	4	15
February	13	..	..	7	20
March	20	..	..	10	30
April	43	12	14	32	101
May	89	23	24	39	175
June	97	15	17	52	181
July	112	13	15	44	184
August	84	17	20	54	175
September	88	15	16	44	163
October	74	17	21	50	162
November	13	..	..	17	30
December	6	..	..	26	32
Total	650	112	127	379	1,268

CHIROPODY

During the year 980 applications for treatment were received. 49 of the applications were cancelled before treatment was arranged and 157 were awaiting an appointment at 31st December. The introduction of a State Register of Chiropodists resulted in the anticipated increase in staff.

During the year one part-time chiropodist ceased employment and 2 full-time and 7 part-time chiropodists commenced employment. The total number of chiropodists employed at 31st December was 5 full-time and 10 part-time, providing 2,356 clinic sessions and 842 home treatment sessions over the year. Patients receiving treatment at the end of the year numbered 3,053; a total of 3,198 sessions was worked, providing 19,580 treatments over the year. Of these treatments, 3,681 were in patients' homes and 2,538 treatments were given to patients who were transported to the clinics.

Fortnightly sessions at the Deaf and Dumb Institute resulted in 262 treatments being given during the year and treatment was provided for residents of St. Anne's Lodge, St. Anne's Lane, Leeds, 6, by monthly sessions.

The chiropody clinic held in the Park Square Annexe was discontinued on 10th July, 1964. A chiropody clinic was opened at Seacroft Clinic on 14th January, working two sessions per week. A clinic was also opened at Burmantofts Clinic on 4th May and this is now working 8 sessions per week.

The mobile chiropody unit commenced operations on 7th July for use in areas where there are no suitable static clinic premises. Weekly sessions commenced at Ireland Wood and West Park. The mobile unit is very popular and further sessions were started in October in the grounds of Kirkdene Welfare Services Hostel, Leeds, 5, and outside Holbeck Clinic, where there is a persistent waiting list. The Unit works alternate weeks between the two districts,

On 5th October, Armley Clinic moved into new purpose-built premises and the chiropody sessions were then increased from one to three per week.

Voluntary workers from the Leeds Council of Social Service carried out reception duties at some clinics where transport is provided and their help is much appreciated. The service is still restricted to the three priority groups, namely, old people, the physically handicapped and expectant mothers on recommendation from general practitioners.

In the following table, details are given of the applications received during 1964 and how they were dealt with:—

No. of patients receiving treatment at 31.12.63..	2,597
No. awaiting appointment at 31.12.63	682
No. of patients died, or withdrawn, at 31.12.63..	373
	<hr/>
	3,652

Applications received during year

Pensioners referred by general practitioners ..	943
Physically handicapped under pensionable age referred by general practitioners	30
Expectant mothers referred by Maternity and Child Welfare doctors
Expectant mothers referred by general practitioners	7
	<hr/>
	980

Total	<hr/> <hr/> 4,632
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Disposal

Attending clinics by own means of transport ..	2,796
Attending clinic by transport provided	554
Receiving domiciliary treatment	703
Awaiting appointment	157
Died or withdrawn	422
	<hr/>
	4,632

Chiropody treatment is provided at the following centres:—

- Armley M.C.W. Clinic, Theaker Lane, Leeds, 12.
- Balks House M.C.W. Clinic, Walker Lane, Leeds, 12.
- Bramley M.C.W. Clinic, Town Street, Bramley, Leeds, 13.
- Burmantofts M.C.W. Clinic, Beckett Street, Leeds, 9.
- East Leeds M.C.W. Clinic, Harehills Lane, Leeds, 9.
- Holbeck M.C.W. Clinic, Nineveh Road, Leeds, 11.
- Leafield M.C.W. Clinic, King Lane, Leeds, 17.
- Middleton M.C.W. Clinic, Middleton Park Avenue, Leeds, 10.
- Seacroft M.C.W. Clinic, The Green, Seacroft, Leeds, 14.
- Mobile Chiropody Unit: Ireland Wood; Spen Lane; Kirkdene Hostel, Kirkstall Road; Holbeck Clinic.
- Welfare Services Department, 79, Roundhay Road, Leeds, 7.

SECTION 29

HOME HELP SERVICE

Miss MARGARET HASSALL, A.I.H.H.O.

Organiser

At 31st December, 1964, the Home Helps numbered:—

Whole-time	..	..	..	63
Part-time	..	..	..	377
Nominee cases	..	..	..	25
				<hr/>
				465
				<hr/> <hr/>

During the year 4,479 applications for help were received. Over 800 cases were withdrawn for reasons including (i) the death of the patient, (ii) removal of the patient to hospital, (iii) private arrangements having been made in the meantime for the care of the patient, (iv) the cost of the proposed service and (v) emergency over before help could be provided.

The 3,639 cases helped are classified as follows:—

Aged 65 and over at first visit	..	..	2,792
Aged under 65 at first visit:			
Chronic sick and tuberculosis	..	..	194
Mentally disturbed	..	..	2
Maternity	..	..	438
Others	..	..	213

These cases were referred to the Home Help Service by the Welfare Services Department, hospitals, general medical practitioners, district nurses, midwives, the Chest Clinic and relatives, friends and neighbours (the latter group accounted for the greater number of cases—58 per cent.).

In the above statistics each case is only counted once, although help may have been provided intermittently from January to December. The following details given about one case in one year only, show the amount of work which often has to be given:—

No. of cases	.. .. .	1
Allocations in the year	.. .. .	6
No. of attendances by Home Help	.. .. .	150
		(3½ days per week)
Hours given to case by Home Help	.. .. .	600
No. of visits paid by Administrative Staff	.. .. .	6

Out of the 150 attendances by the Home Help, 8 hours were given by A who then went sick. B was placed as she was awaiting a confinement case and could transfer without difficulty; after 12 hours this lady had to be allocated to her confinement case. C was then allocated and serviced 48 hours, when she had to leave as her husband was ill. B was again allocated between cases and took over for another 16 hours. Again she had to be transferred to an emergency case and a new Home Help, D, was allocated; she worked 8 hours and then decided she did not like this type of work. After much trouble and switching round another case, A was re-allocated and continued on the case.

Some of these allocations had to be made by telegram at very short notice. Others were made by letter or by seeing the Home Help concerned on a Friday afternoon (when all the Home Helps come into the office). Yet, statistically, all the work adds up to just "one case".

The last two months of 1964 saw more applications for employment as Home Helps than the Department has ever known, but there are still difficulties. Women who were brought up to regard familiar domestic work, either in their own homes or in the homes of others, as being full-time highly-skilled employment are now

coming to retirement and their places are being taken by women who have had to regard this type of work as something to be fitted in, in the time left over from their other work. By worldly standards the service has little to offer in competition with other employment, but it does offer a unique opportunity to serve one's fellows and the rewards of such opportunity are not tangible in a world where tangible benefits mean so very much.

A "training school" week has been held at the Branch College of Domestic Economy for Home Helps (16 at a time) and has proved very successful. The trained Home Helps are now being issued with a smart outdoor uniform. Three more of these training weeks have been arranged and more are planned for the autumn of 1965. Thanks are due to the Education Committee and the Principal of the Branch College for providing these facilities and for their co-operation.

During the year a new scheme was started for cleaning really dirty homes and payment of an additional amount for the Home Helps undertaking these duties has been authorised. During the year 21 cases were dealt with at a cost of £15 12s. 6d. and more of these cases are being referred for cleaning up.

SECTION 51

MENTAL HEALTH SERVICES

JOYCE E. MARSHALL, M.B., Ch.B., D.P.H., D.P.M.

Senior Medical Officer for Mental Health Services

D. CROWTHER,

Mental Health Officer

ADMINISTRATION

The Service is administered by a Mental Health Sub-Committee consisting of seven elected representatives and three co-opted members having experience of the work. Meetings are held monthly.

The staff comprises a Senior Assistant Medical Officer, a Mental Health Officer, four Senior Mental Welfare Officers, seven Mental Welfare Officers and four Welfare Assistants.

One of the Mental Welfare Officers is at present taking the University of Leeds Training Course for Psychiatric Social Work and two of the Welfare Assistants are now in the second year of training on the "Younghusband" Course at the Leeds College of Commerce.

It is with regret that we record the departure of Dr. J. M. McAlpin, who left in April, 1964, to take up a post in the Scottish Department of Health. Dr. J. E. Marshall was appointed to replace him and took up duties on 1st October, 1964.

In March, Mr. D. Crowther joined the Mental Health Section as Mental Health Officer. He is a Psychiatric Social Worker with wide experience. The post of Mental Health Officer is newly created; the duties may include work in any part of the field of mental disorder but, in particular, the officer is responsible to the Senior Medical Officer for Mental Health for the day-to-day supervision of the work of the Mental Welfare Officers and for advising them on

difficulties; for the running of the Mental Health Hostels and the supervision of the work of the Wardens; for the work of the sheltered workshops and training centres; for liaison with employers with a view to obtaining suitable work for the workshops and to placing patients in suitable employment (in collaboration with the Disablement Resettlement Officers).

A teacher-supervisor was also appointed but did not take office until 1965; this post will be described in next year's report.

Mr. V. J. G. Bosworth, Senior Psychiatric Social Worker, left in September, 1964, to take up the post of Lecturer at the Leeds College of Commerce. He was a most valuable member of the staff and is much missed. His post has not been filled.

The administrative headquarters of the Mental Health Section is in the Public Health Department at East Parade, where the services for the mentally subnormal are based. There being insufficient accommodation for all the staff, two Mental Welfare Officers have an office in Park Square. The community services for the care and after-care of mentally ill patients are conducted from the Unit of the Mental Health Section which is attached to the Psychiatric Department of St. James's Hospital. Three Senior Mental Welfare Officers, two Mental Welfare Officers and two Welfare Assistants work from this Unit.

The two branches of the Mental Health Section, although geographically separate, maintain close contact and function as one service. All Mental Welfare Officers, except two, now undertake work in both the fields of mental illness and mental subnormality. Only the Senior Mental Welfare Officers, however, carry out statutory hospital admissions of mentally ill and subnormal patients.

The city has been divided into four sectors for the purposes of community care and one group of Mental Welfare Officers (with a Welfare Assistant) assigned to each of the four areas. This appears to meet the needs of the service more adequately than did the previous arrangement whereby each Mental Welfare Officer was concerned with the patients of one hospital psychiatrist.

There has been no change in the number of establishments provided in the Mental Health Service. Residential accommodation comprises two hostels for the care and rehabilitation of patients recovering from mental illness, namely East Leeds Hostel for 40 women patients and Rutland Lodge for 34 men, and Armley Grange Hostel for 20 mentally subnormal women. Nowell House has 12 short-stay places for mentally handicapped children from approximately 2 to 14 years. East Leeds and Stanningley are the two junior training centres. Armley Training Centre caters for mentally subnormal and severely subnormal girls over 16 years and women; the North Leeds Training Centre caters for men and older boys.

MENTAL ILLNESS

(Report of Mr. T. S. Hawksworth)

There was an increase of 148 in the number of cases referred, 1,775 as against 1,627 in 1963.

The Mental Welfare Officers were concerned in the admission of 1,033 patients to various hospitals; these comprised 565 on an informal basis and 468 on Compulsory Orders, increases of 35 and 70 respectively.

Admissions of elderly persons continued at about the same rate as the previous year, 175 as against 179. Every endeavour is made to avoid the admission of elderly persons to mental hospitals and, wherever possible, the Geriatric Unit at St. James's Hospital and the Welfare Services are used.

The number of interviews in patients' own homes, at East Parade and the Local Authority Wing at St. James's Hospital increased by 156, 4,882 as against 4,726 in 1963. Interviews in the wards and Occupational Therapy Department decreased by 129, 712 as against 841; this reduction is, no doubt, accounted for by the work done at St. James's Hospital by the Student Psychiatric Social Workers.

Active after-care cases at the year end numbered 421, an increase of 131, as compared with the previous year, and the total cases dealt with 1,069, an increase of 14.

Mental Welfare Officers attended case conferences at High Royds, Stanley Royd and Scalebor Park Hospitals, and also the clinical meetings held weekly at St. James's Hospital.

Talks on the Mental Health Act and the Local Authority Services have been given to student nurses at St. James's Hospital, and visits have been arranged for them at various centres.

RESIDENTIAL CARE AND REHABILITATION OF THE MENTALLY ILL

Residential care and rehabilitation is provided in the East Leeds and Rutland Lodge Hostels. The majority of patients came from psychiatric hospitals, chiefly from High Royd. All patients are invited to call to meet the staff and to see the hostel before they are asked to decide if they wish to come. One Mental Welfare Officer is responsible for the case work at each hostel and visits for one evening session weekly and at other times when necessary.

East Leeds Hostel (*Warden—Mrs. Southern*).—In summer Miss Taylor, the Warden, resigned and was replaced by Mrs. D. Southern (previously Deputy Warden).

The year began with 21 women in residence and ended with 26. Admissions and discharges are set out in the following table:—

	Admitted	Discharged
Home	17	21
Lodgings	6	8
St. James's Hospital	13	5
High Royds Hospital	9	7
Stanley Royd Hospital	1	—
Meanwood Park Hospital	2	—
Ida and Robert Arthington Hospital	1	—
Armley Grange Hostel	2	2
Welfare Services Hostel	—	1
Left without notice	—	2
	—	—
	51	46
	—	—

Of the 26 residents in the hostel at the end of the year, 15 were in full-time employment, 5 were available for work and, pending placement in suitable posts, were engaged in domestic work in the Hostel. 6 of the residents were unfit for any type of full-time employment but were actively engaged in minor domestic chores which did not over-tax their limited capabilities. All residents, whether in full-time employment or not, are encouraged to perform some duties in the Hostel as part of their rehabilitative training. This has proved most successful and has enabled the Mental Welfare Officers to place a number of the residents in suitable domestic-type employment. The Hostel kitchen is in charge of a full-time cook.

To stimulate interest in handcrafts, etc., the residents are encouraged to make maximum use of the Occupational Therapy room, where basic skills in needlework, knitting, embroidery, etc., are developed. Residents who are not in full-time employment spend most afternoons in this way and those who are working during the day have free use of the facilities provided during the evenings. The response is most encouraging and it is felt that this type of activity is a very suitable alternative to the relaxation offered in the television and reading rooms.

All residents, especially those in full-time employment, are encouraged to be thrifty and most have been able to save a proportion of their earnings, many being quite self-supporting and able to enjoy regular holidays at their own expense. A noticeable feature of the winter activities was a joint party arranged by the Mental Welfare Officers and the Warden for the Hostel residents and members of the Psychiatric Social Club. Both groups of patients enjoyed the evening. We were pleased to welcome Mr. Bosworth among the visitors and patients who had known him in the Department were able to meet him again.

During the second half of the year, admissions were limited in numbers because there was no Deputy Warden. Thanks are due to the officers of the Ministry of Labour and the National Assistance Board for their sympathetic understanding and ready co-operation and assistance in all cases.

Rutland Lodge Hostel (*Warden—Mr. Round*).—This Hostel provides care and services for patients discharged from mental hospitals who are considered unable or not ready to accept responsibilities of life in the community. During the year 24 patients were admitted from various hospitals and 26 left to their own homes or to lodgings. At the end of the year 31 men were in residence, of whom 18 were in regular full-time employment and likely to return to independent life in the community. Of the other 13, at least half are classified as unemployable and likely to require permanent accommodation and care. Eleven of the patients who are not in outside employment carry out household duties.

MENTAL SUBNORMALITY

The number of subnormal and severely subnormal patients reported during the year and the numbers on the register are shown in Tables II and III of the Appendix.

Patients under guardianship are visited regularly. It has not been found necessary to admit any further patients to this form of care.

The number of patients of all ages who were under informal supervision during the year has increased by 20 over the 1963 figures. The number in hospital has fallen by 20. Work carried out by the Mental Welfare Officers includes guiding and supporting these patients, introducing them to the Ministry of Labour or National Assistance Board and to the adult Training Centres, attendance at Court if needed and generally acting as guides and friends.

RESIDENTIAL CARE AND REHABILITATION OF THE MENTALLY SUBNORMAL

Armley Grange Hostel provides long-term residential accommodation for 20 patients and there are two boarding houses run privately where mentally subnormal men and youths are cared for. A Mental Welfare Officer is attached to Armley Grange, visits regularly, gives friendly help and advice and assists in placing patients to work. A close and friendly association is maintained

between the owners of the two boarding houses and the Mental Welfare Officers who visit regularly, assist the patients in shopping for their personal needs and in the care of their earnings, finding of work or introduction to the Senior Training Centre.

Nowell House (*Matron—Miss Webster*).—This short-stay hostel provides 10 places for subnormal and severely subnormal children of approximately 3 years to 14 years of age.

During the year, 180 children were admitted. This includes two children from other local authority areas who were accepted. The demand for places is difficult to meet at times, especially during the public and school holidays. Children are admitted where the need arises, for example, during a mother's confinement or family illness, to afford temporary relief to a family, or to enable parents to take a holiday. The children in the Hostel attend the East Leeds Junior Training Centre during term time.

Armley Grange Hostel (*Warden—Mrs. Petty*).—At the end of 1964, 19 women were in residence, 13 of whom were in full-time employment outside the Hostel in laundry work. The remainder, because of age or infirmity, being unfit for work assist with some of the minor chores in the Hostel. Two of the patients were transferred to one of the Welfare Services Department's Homes and this has proved to be a successful move.

There was a relatively high turnover of residents, leaving the Hostel to live with relatives or in other suitable accommodation. There was no difficulty in replacing them as there is always a demand for hostel places for ambulant subnormal patients.

As in previous years, groups of patients enjoyed holidays by the seaside and there were no disturbances or serious illness amongst the residents. An outstanding feature of the year's work has been the generosity of the various voluntary organisations concerned with mental health.

DAY TRAINING CENTRES FOR THE MENTALLY SUBNORMAL

East Leeds Junior Training Centre (*Mrs. G. Jones—Supervisor*).—The number on the roll at the year end was 121. During the year 20 children left, two of whom went to the E.S.N. School, and 25 were admitted and 2 re-admitted.

School Events.—We went by coach on three occasions in July to the coast at Barmston, when the owner of the beach camp kindly provided each child with a stick of "Bridlington Rock". On one occasion another friend bought ice-cream for the children (70 in all).

The Harvest Festival Service in September was conducted by Rev. D. Cherry of Seacroft. Parents and friends were invited to a display of Maypole and Country Dancing, and Movement to Music, given by the children.

On December 15th several children took part in the Christmas Concert, which was enjoyed by a large audience. At the Christmas Party, Mr. Naylor (Mental Welfare Officer) was Father Christmas and distributed presents provided by the car drivers and *The Yorkshire Evening Post*.

We are grateful to the Parents' Association for their efforts on behalf of the children throughout the year, especially on the following occasions. At Easter, each child was given an Easter egg; on the three outings to the seaside, a hot cooked meal was served at a cafe for each child and member of the staff; sweets and ice-cream were also provided.

On Bonfire Day, fireworks and "parkin pigs" were bought for the children; before breaking-up for the Christmas holidays, each child had a present and a box of chocolates given by the Association. Also, we very much appreciate their gift of a tape recorder.

Stanningley Junior Training Centre (*Miss I. Bye*).—The year ended with 125 children on roll. During the year three left the district, 4 boys transferred to North Leeds, one girl to Armley Grange and one spastic girl to Hawksworth Hall Assessment Centre. One child died. 19 children were admitted and one re-admitted.

Three trainee assistant supervisors were accepted for the Leeds Training Course. Six more trainees have been appointed. The staff have taken full advantage of lectures and conferences held at the University and elsewhere. There are seven members on the Refresher Course, three attended the Halifax Conference and four attended a Spastic Conference at Harrogate.

The "Honyhoide" experiment was repeated and we have had two or three girls from that school each week, along with the usual influx of students and visitors.

The annual school outing to Filey went with a swing and, for once, the weather was kind. An innovation was an outing to Otley paddling pool. We took the babies and some of the spastic children, also a picnic lunch—everyone had a wonderful time. This visit was made possible by the kindness of the Leeds Variety Artists' Association who provided the transport and sweets for each child.

Our grateful thanks are due to Pudsey Ladies' Circle for the Christmas Party Entertainer, Leeds Girls' High School for toys and clothes collected at their Toy Service, *The Yorkshire Evening Post* for their generous gift of toys, and also for an additional gift of toys from a section of the school transport.

The Parents' Association has continued to be very active. They sent 10 children and 2 members of the staff to Scarborough for a week's holiday during the summer.

The year was rounded off with a Dance held at the Mecca Ballroom and the Christmas Bazaar held at school. Although these functions were not as successful financially as before, they were enjoyed by all who attended.

North Leeds Training Centre and Sheltered Workshop (*Mr. H. Wardman*).—The number of trainees on the register rose from 133 in January to 142 in December, an increase of 8 over the figures for 1963. During the year, 36 trainees entered the Centre for a period

of assessment and training, 19 left for full-time employment in open industry (an increase of 4 over last year's figures) and 8 patients from Meanwood Park Hospital attended for a time. Of the latter 8, one was placed in outside work and the remainder returned to the hospital.

An encouraging aspect of our work has been the increase in interest shown by industrial concerns since the training at the Centre became more industrially orientated towards the end of the year. The concrete products section considerably increased its output and the woodworking machining unit was partly reorganised, a programme of planned development was introduced into the light engineering departments and, by the end of the year, we were producing work of a high standard for a number of outside contractors. Income from work done was estimated at £6,400, making improvements in wages and incentive bonuses, paid to the trainees, possible.

Many new items of equipment were introduced into the Centre and the trainees have shown aptitude in operating lathes, drilling and grinding machines, band saws, presses and planing machines. We are grateful to the Parents' Association, the Stanningley Junior Training Centre Parents' Association and the Leeds and District Society for Mentally Handicapped Children for their generous donations which have enabled us to accelerate various development projects. We are grateful, too, for the help and encouragement given by one of our contractors who loaned us several machines which are in constant use.

Day Nursery toys are repaired and seedboxes made, in addition to the production of work for outside firms.

Routine medical inspections of the patients were begun, parents being invited to attend, and some useful discussions were held at these sessions.

Miss Binden, Assistant Supervisor, unfortunately became ill in the spring and remained absent for the rest of the year. She was very much missed.

The Centre football team played regularly throughout the season and enjoyed the whole-hearted support of the staff and trainees.

Members and staff went to Filey for their annual outing; the fine weather added greatly to their enjoyment of the day.

Pioneer Laundry (*Mrs. Wager*).—There are now 32 girls and one man fully employed. They are paid according to ability and receive, in addition, a midday meal and travel tokens. One woman left to take up canteen work outside and is receiving the full commercial rate of pay. A new "Breezette" Tumbler Drier was installed during the year.

The patients made their annual outing to Bridlington and enjoyed good weather. The pantomime was visited at Christmas.

Attendance has been well maintained during the year.

Armley Grange Training Centre (*Mrs. K. Taylor*).—In January there were 54 pupils on the register, rising to 60 in September. The year has been a very busy one, socially and productively. We had an enjoyable outing in May to Flamingo Park Zoo, the highlight being when the trainer of the repining dolphin thanked us for cheering and clapping, rousing the dolphin into activity to the delight of the spectators. We had a record number of seven 21st birthday parties. Sales of handcrafts totalled over £350, an increase of more than £50 over the previous year, and there is every reason to hope that our output will continue to increase as the girls become more proficient in the use of sewing machines and learn the more difficult handcrafts.

The Leeds Branch of the National Society for Mentally Handicapped Children provided an extra hand sewing machine and there is a steady demand for our handwork at "Mencap House" where the standard and quality of our goods is appreciated. Our new trainees' kitchen was finished just before Christmas; we shall be able to increase the subjects on the curriculum and also the sales.

Eight of the girls come to the Centre by public transport; the remainder are brought by staff-escorted mini-buses. The average attendance for the year was 91 per cent.

The year ended with the Christmas Dinner Party and gifts for everyone, including a tin of toffee each from the Armley Grange Parents' Association.

Medical Care of Patients attending Training Centres.—*Children.*—Routine medical inspections are carried out by one of the School Medical Officers and every child found to have a physical defect is sent for treatment and kept under regular review. In addition, the School Health Service, through its orthopaedic team, continues to advise on the management and treatment of children with cerebral palsy and other orthopaedic conditions.

Miss Rogers, Remedial Gymnast, commenced duties at Stanningley Training Centre at the beginning of January.

Adults.—Routine medical inspection of men and boys at the North Leeds Training Centre and of women and girls at the Armley Grange Training Centre was begun. It is intended to carry out a yearly check. A chiropodist paid weekly visits to the North Leeds Centre and treated patients referred from the medical inspection. Some patients from both Senior Centres attended a chiropody session held elsewhere until treatment was completed. Patients requiring other forms of treatment were referred to their family doctors.

Patients in Hospital.—There is still a shortage of hospital places for both children and adults but the waiting list is somewhat shorter.

Holidays.—No group holiday was arranged this year but eight individual holidays were arranged by one of the Senior Mental Welfare Officers.

Film.—There were 51 bookings of the film "Towards a Happier Life". The film continues to be in fairly heavy demand.

PREVENTION, CARE AND AFTER-CARE

Primary Prevention.—It is recognised that prevention of mental illness should start in the Maternity and Child Welfare field. We are fortunate in that our colleagues in the Maternity and Child Welfare Department are aware of this and a close association with them is maintained. An advisory clinic for parents who have a child who is, or is suspected of being, mentally handicapped was begun on 11th November, 1964, at Harehills Lane M. and C.W. Clinic, and is held monthly.

The Senior Assistant Medical Officer pays the first home visit to all under fives who have been referred for advice by the health visitors, with the consent of the family doctor (the majority of these children being mentally handicapped); for purposes of mental assessment and to offer help and support to the parents, further visits are paid as required, the Mental Welfare Officer introduced and the family put in touch with the facilities offered by the Mental Health Service.

Regular discussions are held with groups of health visitors and they call freely to discuss their cases with us. It is hoped to extend these preventive measures in the future when time and staffing permit.

The provision of day training centre places for under fives, and of short-stay accommodation in Nowell House Hostel and in Meanwood Park Hospital are most valuable as measures to prevent mental illness in families with a mentally handicapped child, by diminishing stress, by providing opportunities for contact with parents similarly afflicted and by the friendliness and helpful advice of the training centre staff. Indeed, the provision of these services is a valuable preventive measure for the families of patients of all ages. It is hoped that hostel accommodation for the mentally subnormal of all ages will be extended in the near future as in this particular field the need is not yet met.

Particularly valuable preventive service in this field for the subnormal is provided by the sheltered workshop and the industrial training unit of the North Leeds Training Centre for older boys, where the self-respect of the patient is restored and confidence built up in many cases by enabling the subnormal individual to engage in something resembling a working week as do normal people. This reduces the opportunity to go astray or to become withdrawn or depressed—these latter being common reactions in those who feel useless or unwanted.

Secondary Prevention.—Secondary prevention, which aims to reduce the duration of mental illness and prevent relapse, is carried out by the Mental Welfare Officers who encourage and assist those patients who are suffering from a mental illness to seek treatment early. They establish contact with patients before they leave hospital and give their continued contact and support after discharge.

The weekly evening Social Club run by those Mental Welfare Officers who are not engaged in emergency admission work is a useful service in this field.

Tertiary Prevention.—Tertiary prevention, which aims to reduce disability and prevent lasting defect, is more difficult to apply. Where patients have become clinically ill and their mental function impaired, improvement can sometimes be obtained by their participation in the work of the adult training centres, to which they are introduced. Others are taken into the two hostels, resuming work by easy stages.

TRAINING OF STAFF

At the beginning of the year, one officer was in his second year of the "Younghusband" Course which he duly completed in July; two others were in their first year and moved into the second year of the Course at the beginning of September.

One Mental Welfare Officer was accepted for the newly created Psychiatric Social Workers' Course at the University of Leeds in October.

Four members of the Junior Training Centre staffs were enrolled as first-year students in the new two year full-time "Scott" training course for teachers of the mentally handicapped at the Leeds College of Commerce. This is a development in which the Health Committee has taken great interest and it is anticipated that when further staff are appointed to the training centres they will be given the opportunity of undergoing similar training.

Other members of the staff, both field workers and training centre staffs, took advantage of various refresher courses. In this way, officers are able to keep abreast with developments in the Mental Health Services.

The Mental Health Section also played an active part in the training of students from other Local Authorities and social agencies. During the year 66 students were received, either as observers or for periods of practical work placement.

APPENDIX

TABLE I

CASES DEALT WITH BY MENTAL WELFARE OFFICERS

	Males	Females	Total
1. Calls received	753	1,022	1,775
2. Visits paid	799	1,368	2,167
3. Informal admissions :—			
St. James's Hospital	81	129	210
High Royds Hospital	78	136	214
Stanley Royd	45	51	96
Scalebor Park	15	23	38
Other Hospitals	6	3	9
Total informal admissions dealt with by Mental Welfare Officers.. .. .	225	342	567
4. Patients admitted under Compulsory Orders, Sections 25 and 29 :—			
St. James's Hospital	58	95	153
High Royds Hospital	43	100	143
Stanley Royd Hospital	31	43	74
Scalebor Park Hospital	4	7	11
Other Hospitals	5	5	10
Total	141	250	391
5. Patients admitted under Treatment Orders, Section 26 :—			
High Royds Hospital	19	20	39
Stanley Royd Hospital	17	6	23
Scalebor Park Hospital .. .. .	..	1	1
Other Hospitals	14	..	14
Total	50	27	77
TOTAL ADMISSIONS	416	619	1,035

TABLE II
MENTAL ILLNESS: CARE AND AFTER-CARE

	Males	Females	Total
After-care cases at 1.1.64	95	195	290
Referrals, Table III	200	432	632
Hospital cases, St. James's	52	95	147
	347	722	1,069
Cases ceasing to have after-care	238	410	648
Active after-care cases 31.12.64	109	312	421
After-care visits	1,053	2,996	4,049
Office interviews	300	533	833
Hospital interviews	355	357	712
	1,708	3,886	5,594
Social Reports	28	30	58
Other Reports	69	98	167
	97	128	225

TABLE III

	NEW REFERRALS			RE-REFERRALS			TOTAL REFERRALS
	M.	F.	T.	M.	F.	T.	
St. James's	40	123	163	23	33	56	219
High Royds	35	70	105	49	109	158	263
Stanley Royd	3	7	10	4	10	14	24
Scalebor Park	2	5	7	2	2	4	11
G.P.'s	2	9	11	..	4	4	15
Miscellaneous	22	32	54	18	28	46	100
TOTALS	104	246	350	96	186	282	632

TABLE IV

SUBNORMALITY: PATIENTS ASCERTAINED DURING 1964

	Males	Females	Total
1. (a) Cases reported by Local Education Authority :—			
(i) Ineducable children ..	22	13	35
(ii) At 15 years—on leaving school	10	6	16
(b) Other cases reported during 1964..	37	21	58
Total number of cases reported during the year	69	40	109
2. Disposal of cases reported during the year :—			
(i) Placed under informal supervision	66	40	106
(ii) Placed under guardianship ..	..	..	..
(iii) Admitted to hospital	3	..	3
(iv) Died or removed .. .. .	..	..	..
Totals	69	40	109

TABLE V

SUBNORMALITY: PATIENTS ON THE REGISTERS AT 31ST DECEMBER, 1964

	Males	Females	Total
(a) Under Informal Supervision ..	497	312	809
(b) Under Guardianship	3	1	4
(c) In Hospitals	422	401	823
(d) In Hostels	8	24	32
Totals	930	738	1,668

TABLE VI

SUBNORMALITY: TRAINING CENTRES AND SHELTERED WORKSHOPS

Centre	No. of Places	Male		Female		Total on Register
		Under 16	Over 16	Under 16	Over 16	
Training Centres						
Stanningley ..	150	72	4	51	3	130
East Leeds ..	118	77	..	38	..	115
Armley Grange	60	..	..	..	56	56
North Leeds ..	150	11	118	..	..	129
		160	122	89	59	430
Sheltered Workshops						
North Leeds	15	..	9	..	..	9
Pioneer Laundry ..	35	..	1	..	31	32
		..	10	..	31	41
Totals ..		160	132	89	90	471

Chief Public Health Inspector

TABLE VI

PROBATIONARY TRAINING CENTERS AND SHIPYARD WORKSHOPS

Year	Probationary Training Centers	Shipyard Workshops	Total
1940	1	1	2
1941	1	1	2
1942	1	1	2
1943	1	1	2
1944	1	1	2
1945	1	1	2
1946	1	1	2
1947	1	1	2
1948	1	1	2
1949	1	1	2
1950	1	1	2
1951	1	1	2
1952	1	1	2
1953	1	1	2
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2029	1	1	2
2030	1	1	2
2031	1	1	2
2032	1	1	2
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2036	1	1	2
2037	1	1	2
2038	1	1	2
2039	1	1	2
2040	1	1	2
2041	1	1	2
2042	1	1	2
2043	1	1	2
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2046	1	1	2
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2050	1	1	2
2051	1	1	2
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2081	1	1	2
2082	1	1	2
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2086	1	1	2
2087	1	1	2
2088	1	1	2
2089	1	1	2
2090	1	1	2
2091	1	1	2
2092	1	1	2
2093	1	1	2
2094	1	1	2
2095	1	1	2
2096	1	1	2
2097	1	1	2
2098	1	1	2
2099	1	1	2
2100	1	1	2

TABLE V

PROBATIONARY TRAINING CENTERS AND SHIPYARD WORKSHOPS

Category	Male	Female	Total
(a) Under Supervision	100	100	200
(b) Under Guardianship	1	1	2
(c) In Hospitals	100	100	200
(d) In Schools	1	1	2
Total	202	202	404

HOUSING ACTS, 1936-1961*Repair, Individual Demolition, Clearance and Overcrowding*

J. GOODFELLOW, F.R.S.H., M.A.P.H.I.

Chief Public Health Inspector

AND

A. O. WHEATLEY

*Supervisory Public Health Inspector,
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Number of Houses.—The total number of houses and flats in the city on 31st December, 1964, was 178,181, made up of 46,600 back-to-back houses and 131,581 through houses and flats.

New Houses.—The number of permanent new houses and flats completed during the year was 3,218; of these, 2,212 were built by the Corporation and 1,006 by other bodies and persons. The Local Authority converted 45 houses into 120 flats; 37 houses were converted into 80 self-contained flats by private owners.

Housing Shortage.—The number of applications for houses on the registers at the Housing Department on 31st December, 1964, was 9,328 of which 6,818 were regarded as inadequately housed. This represents a very substantial reduction when compared with last year's figure of 16,618 applications. The reduction is in large measure due to the periodical review of applications, which resulted in the deletion of many applications from the registers.

Overcrowding.—There are 50,618 occupied dwellings on the municipal estates and the average percentage of overcrowding fell from 0·20 last year to 0·18; 23 families who were living in overcrowded privately owned houses have been rehoused in municipal dwellings. There were no applications for licences to permit temporary overcrowding.

The number of certificates of permitted numbers issued during the year was 8.

Housing Repairs and Rents Act, 1954, and Housing Act, 1957.—

No houses in Clearance Areas were considered to be of a sufficiently good standard to be retained as providing accommodation of a standard which is adequate for the time being.

HOUSING ACT, 1957, PART IV.—OVERCROWDING

January 1st to December 31st, 1964

	1964
Number of new cases of overcrowding discovered in houses owned by the Corporation	24
Number of cases of overcrowding in houses owned by the Corporation which have been relieved	23
Number of overcrowding cases relieved during the year in course of slum clearance operations	11
A. No. of applications for Municipal dwellings known to be statutorily overcrowded	104
B. No. of Municipal Estate dwellings provided to relieve statutory overcrowding	23

Unfit Houses.—During the year 12,157 dwelling-houses were surveyed and examined and 3,985 nuisances and housing defects remedied. Houses numbering 1,275 found to be defective in one respect or another were repaired in response to notices served under the Public Health Act.

When private owners failed to remedy urgent housing defects or serious nuisances after the service of statutory notices, the Department carried out the necessary work as a matter of urgency. Such work in default was carried out to 52 houses under the Public Health Act at a cost of £547 12s. 10d., this amount being recovered from the owners.

Demolition of Individual Unfit Houses.—The number of Demolition Orders made was 13. In the case of 40 houses, the demolition of which was inexpedient because of structural considerations, Closing Orders were made under Section 17, Proviso to Sub-Section 1 of the Housing Act, 1957, whilst one Closing Order was also made on part of a building.

The number of houses demolished was 78. During the year 50 families consisting of 160 persons affected by either Demolition or Closing Orders were rehoused by the City Council, while 12 families found their own accommodation; a further 72 houses were demolished by other Corporation Departments.

Clearance Areas.—During the year 50 areas comprising 2,645 houses were officially represented to the City Council; the occupants totalled 6,628. Included in these representations were certain areas which had been originally shown on the Leeds Slum Clearance Map published in 1934—popularly known as the “Red Ruin” Map—which set out the then intended programme of large scale slum clearance for the years 1934 to 1939. That programme had inevitably been delayed by the 1939-45 war. Because of other priorities, it was not possible to represent the last of the “Red Ruin” areas until 1964.

14 Public Inquiries were held in respect of 76 areas, comprising 2,922 houses.

No. of Houses	Clearance Areas	Date of Inquiry
79 ..	Goodwin Road (Tong Road) Nos. 1 to 3 ..	7.1.64
99 ..	Rothsay Street (Elland Road) Nos. 1 to 5 ..	7.1.64
534 ..	Burmantofts (Shakespeare Street) Nos. 1 to 3	18.2.64
970 ..	Hunslet (Anchor Street) Nos. 1 to 12 ..	25.8.64
175 ..	Hunslet (Low Road) Nos. 1 to 5 ..	25.8.64
393 ..	Town Street (Bramley) Nos. 1 to 34 ..	23.9.64
17 ..	Whingate Nos. 1 and 2	3.11.64
78 ..	Dewsbury Road (Parkfield Street) ..	3.11.64
263 ..	York Road (Temple View Road) Nos. 1 to 3	3.11.64
44 ..	York Road (All Saints Street)	3.11.64
20 ..	Benson Street (Sheepscar) Nos. 3 to 6 ..	17.11.64
197 ..	Woodhouse (Craven Road)	17.11.64
25 ..	Armley Road (Arkwright Street)	17.11.64
28 ..	Hunslet (Smeaton Street)	17.11.64

The following table shows the number of houses examined by the Medical Officer of Health as part of the general survey of the city during the year ended 31st December, 1964, and the numbers represented or otherwise dealt with, pursuant to the Public Health Act and Housing Acts.

	1962	1963	1964
Number of new houses erected during the year	2,946	2,717	3,218
(i) By the Local Authority	1,478	1,523	2,212
(ii) By other bodies and persons	1,468	1,194	1,006
1 Inspection of dwelling-houses during the year.			
(1) Total number of dwelling-houses inspected for housing defects under Public Health or Housing Acts and the number of inspections made	19,695	15,105	12,157
(2) Number of dwelling-houses (included under Sub-head (1) above) which were inspected and recorded under the Housing Consolidation Regulations, 1925, and the number of inspections made	9,351	7,718	3,985
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	219	2,409	2,710
(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	3,579	3,019	1,275
2 Remedy of Defects during the year without Service of Formal Notices.			
Number of defective dwelling-houses rendered fit in consequence of informal action	1,885	1,873	638
3 Action under Statutory Powers during the year.			
A.—Proceedings under Section 9 of the Housing Acts, 1936 and 1957.			
(1) Number of dwelling-houses in respect of which notices were served requiring repairs .. .. .	..	..	..
(2) Number of dwelling-houses which were rendered fit after service of Formal Notices :—			
(a) By owners .. .. .	..	..	..
(b) By Local Authority in default of owners .. .. .	..	..	..
B.—Proceedings under the Public Health Acts.			
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	1,849	3,019	1,275
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—			
(a) By owners	1,338	956	357
(b) By Local Authority in default of owners	9	9	52
C.—Proceedings under Sections 17 and 18 of the Housing Act, 1957.			
(1) Number of dwelling-houses in respect of which			
(a) Demolition Orders were made	33	30	13
(b) Closing Orders were made :—			
(i) S. 18, H.A., 1957 .. .. .	..	6	1
(ii) S.17(1), H.A., 1957	135	71	40
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	42	16	19

The Ministry of Housing and Local Government has "confirmed" 21 areas comprising 1,022 houses as compared with 33 areas, involving 1,941, in the previous year.

The average number of persons per house in all areas represented during the year was 2.50, the same as in 1963. The number of houses demolished in confirmed Clearance Areas during the year was 1,790.

12,845 enquiries about the position of houses in relation to the City Council's Slum Clearance Programme were answered.

Well Maintained Payments.—The number of well maintained payments awarded during the year was 340. This number may increase in the years ahead due to the rising standard of houses affected by slum clearance action.

The routine established for dealing with awards includes informing both owners and occupiers of the dwellings concerned of the intended allocation of the payment. In adjudicating on the sometimes conflicting claims of the parties, and in seeking their probably opposing views on claim and counter-claim before the Local Authority determines to whom payment shall be made, the routine now established has been found expeditious and flexible enough to meet all the varying circumstances.

On the legal interpretation which governs current action very few payments are made to occupiers; not more than 2 per cent. were made during 1964. This is because "maintenance" work is normally the duty of the owner. Tenants' work is generally under the heading of "improvement" rather than "maintenance" and so fails to qualify for "well maintained payments".

The table below gives a summary of action under the Demolition, Closing and Clearance Sections of the Housing Act, 1957.

	1962	1963	1964
SECTION 17—HOUSING ACT, 1957:—			
No. of houses represented for demolition ..	46	22	17
No. of Demolition Orders made	33	30	14
No. of families concerned	28	26	17
No. of persons concerned	87	72	37
SECTION 17 (1).—HOUSING ACT, 1957:—			
No. of dwellings represented for closing	145	79	35
No. of Closing Orders made	135	71	42
No. of families concerned	131	73	33
No. of persons concerned	410	234	120
SECTION 18—HOUSING ACT, 1957 (Parts of Buildings):—			
No. of dwellings represented for closing	3	4	1
No. of Closing Orders made .. .. .	..	6	1
No. of families concerned .. .. .	..	6	1
No. of persons concerned .. .. .	..	31	1
No. of undertakings accepted from owners ..	64	168	129
No. of houses demolished	1,938	1,619	1,868
No. of houses (Parts of Buildings) closed ..	1	4	1
No. of houses closed	101	105	85
No. of families re-housed by Corporation at 31.12.64 (S.S. 17, 17(1) and 18, H.A., 1957)	99	107	50
No. of families awaiting re-housing at 31.12.64 (S.S. 17, 17(1) and 18, H.A., 1957)	66	40	21
No. of families who found own accommodation at 31.12.64 (S.S. 17, 17(1) and 18 H.A., 1957) ..	9	14	12
No. of families re-housed at 31.12.64 (S.42, H.A., 1957)	2,012	1,474	1,476
No. of families who found own accommodation (S.42, H.A., 1957)	378	489	369
No. of houses referred for opinion but not represented	178	209	165
No. of dwellings represented (S. 17, 17(1) and 18 H.A., 1957) which stood in Slum Areas	152	20	33

Housing (Financial Provision) Act, 1958—Section 3 (2) (a).—Certificates of unfitness were furnished in respect of 9 houses owned by the City Council and 58 were demolished.

Certificates of Disrepair.—Details of the numbers of applications for Certificates of Disrepair and applications for cancellations of Certificates of Disrepair which have been dealt with since the

Rent Act, 1957, came into force on 6th July, 1957, until 31st December, 1964, are given in the following table:—

RENT ACT, 1957. First Schedule

APPLICATIONS FOR CERTIFICATES OF DISREPAIR	
(1) No. of applications for certificates	1,365
(2) No. of decisions not to issue certificates	31
(3) No. of decisions to issue certificates :—	
(a) in respect of some but not all defects	1,047
(b) in respect of all defects	257
(4) No. of undertakings given by landlords under Paragraph 5 of the First Schedule	1,011
(5) No. of undertakings refused by Local Authority under proviso to Paragraph 5 of the First Schedule	4
(6) No. of certificates issued	258
APPLICATIONS FOR CANCELLATION OF CERTIFICATES OF DISREPAIR	
(7) Applications by landlords to Local Authority for cancellation of certificates	179
(8) Objections by tenants to cancellation of certificates	77
(9) Decisions by Local Authority to cancel in spite of tenant's objections	36
(10) Certificates cancelled by Local Authority	137

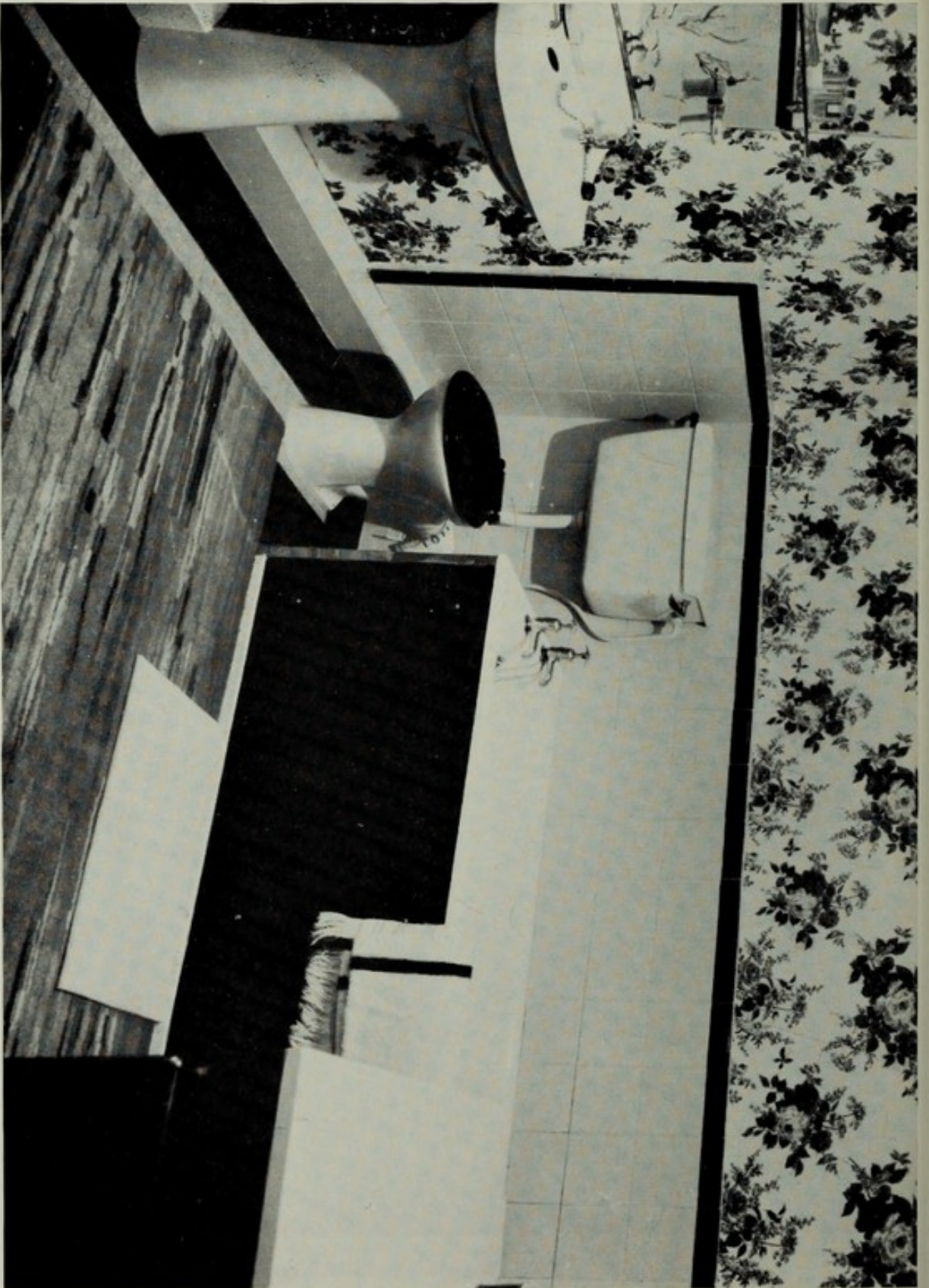
Improvement Grants and Standard Grants.—The position from the commencement of the scheme for both improvement grants and standard grants is as follows:—

	Total from 16.7.53 to 31.12.63	Total from 16.7.53 to 31.12.64
Preliminary applications for Improvement Grant and/or Standard Grant received	8,471	10,448
Number of applications for Improvement Grant and/or Standard Grant withdrawn	1,034	1,227
Number of applications for Standard Grant refused	83	95
Number of houses not suitable for Improvement Grant	1,690	1,775
Formal applications for Standard Grant received	602	791
Formal applications for Improvement Grant received	3,140	4,251
Formal applications for Standard Grant approved by Local Authority	534	708
Formal applications for Improvement Grant approved by Local Authority	2,743	3,764
Number of houses improved—Standard Grants	410	582
Number of houses improved—Improvement Grants	2,124	2,984



IMPROVEMENT GRANT.

Work in progress on improvement grant at old stone cottage to provide improved water supply, internal closet, bathroom, hot water supply, drainage and cesspool. The photograph shows the existing chemical closet and the new drainage.



IMPROVEMENT GRANT.

Bathroom containing bath, wash hand basin and water closet provided in the old stone cottage referred to in previous photograph.

Improvement by Area Procedure.—The City Council's arrangements for Area Improvement remain unchanged. Full details were set out on pages 128 and 129 of last year's report.

40 areas comprising 5,581 houses had been approved up to the end of 1964. Of 4,472 formal applications for improvement grants from private owners, 2,329 related to owner-occupied houses and 2,143 to rented houses.

Conversion Areas.—The City Council has continued its interest in the conversion into flats and maisonettes of houses which are, by present-day standards, too large for occupation by single families and which are the subject of a number of lettings without the provision of adequate facilities. Such houses should be properly converted into flats and maisonettes so that each occupier enjoys satisfactory self-contained accommodation.

Generally, such houses tend to be grouped in neighbourhoods and it is convenient to deal with them on an "area" basis after full preliminary surveys. Following survey, an initial approach is made to owners informing them that improvement grants and loans are available to meet the cost of conversion of houses into self-contained flats and maisonettes and that if they do not wish themselves to convert the houses, the City Council would be glad to acquire the houses and convert them.

Where owners are not willing either to improve their houses or to sell them to the Corporation, the City Council usually makes Compulsory Purchase Orders. The Ministry held Public Inquiries during the year in connection with such Compulsory Purchase Orders as follows:—

Name of Area	No. of houses	Date
Studley Grange C.P.O. No. 5 ..	3 ..	12.5.64
Studley Grange C.P.O. No. 6 ..	12 ..	1.10.64

Since 1954, 25 such compulsory purchase orders in connection with 163 houses in multiple occupation have been made and confirmed as follows:—

Studley Grange ..	..	100
Sholebroke Avenue ..	..	43
Belle Vue Road ..	..	6
Miscellaneous Areas ..	..	14

SUMMARY OF ACTION UNDER SECTION 42 OF THE HOUSING ACT, 1957

CLEARANCE AREA	Representation			Order Made		Public Local Inquiry Held	Confirmation	
	Date	No. of Houses	Population	Date	Type		Date	No. of Houses
Town Street (Bramley) Nos. 1 to 34..	18.2.60	393	878	{ 5.2.64 5.2.64 5.2.64 7.10.64	{ C.P.O. (part) C.O. (part) C.O. (part) C.O. (part)	23.9.64 23.9.64 23.9.64 ..	.. 15 3 ..
Hugh Street (Tong Road) Nos. 1 and 2	17.3.60	193	537	4.1.61	C.P.O.	30.5.61	193	
Radnor Street (Wellington Road) ..	17.3.60	86	211	1.2.61	C.P.O.	30.5.61	86	
Burmantofts (Burns Street)	21.4.60	509	1,348	1.2.61	C.P.O.	13.6.61	504	
Oban Square (Armley) Nos. 1 and 2..	19.5.60	50	90	3.5.61	C.P.O.	19.9.61	42	
Bedford Terrace (Sheepsbar) Nos. 1 and 2	19.5.60	60	165	2.1.63	C.P.O.	2.7.63	52	
Springfield Place (Little Woodhouse) Nos. 1 to 6	14.7.60	203	965	2.8.61	C.P.O.	10.10.61	198	
Springfield Place (Little Woodhouse) Nos. 7 to 9	15.9.60	302	1,212	2.8.61	C.P.O.	10.10.61	302	
Rothsay Street (Elland Road) Nos. 1 to 5	15.9.60	99	242	31.8.63	C.P.O.	7.1.64	93	
Leek Street (Hunslet) Nos. 1, 2 and 3	14.11.60	394	1,048	4.4.62	C.P.O.	11.9.62	391	
Sackville Street (Sheepsbar) Nos. 1 to 4	14.11.60	294	758	1.5.63	C.P.O.	8.10.63	287	
Woodbine Square (Little Woodhouse Street)	14.11.60	23	57	2.8.61	C.P.O.	..	23	
Grove Road (Hunslet)	14.12.60	264	790	7.11.62	C.P.O.	23.4.63	265	
St. George's Terrace (Camp Road) Nos. 1 to 4	14.12.60	31	183	5.12.62	C.P.O.	21.5.63	27	
Enfield Road (Roundhay Road) Nos. 1 to 5	19.1.61	171	389	3.10.62 6.3.63	{ C.P.O. (part) C.O. (part)	19.2.63 ..	128 25	
Dunkirk Hill (Canal Road) Nos. 1 and 2	16.2.61	14	32	3.5.61	C.P.O.	..	14	
Hunslet Lane	16.2.61	6	13	3.5.61	C.P.O.	15.11.61	6	
Robinson's Row (Seacroft)	16.3.61	5	10	3.1.62	C.P.O.	1.5.62	5	

C.O.—Clearance Order.

C.P.O.—Compulsory Purchase Order.

SUMMARY OF ACTION UNDER SECTION 42 OF THE HOUSING ACT, 1957—continued

CLEARANCE AREA	Representation		Order Made		Public Local Inquiry Held	Confirmation	
	Date	No. of Houses	Date	Type		Date	No. of Houses
Burmantofts (Shakespeare Street) Nos. 1, 2 and 3	16.3.61	534	31.7.63	C.P.O.	18.2.64	30.6.64	482
Holdforth Street (Wellington Road) Nos. 1 to 7	18.5.61	774	3.10.62	C.P.O.	9.4.63	15.8.63	771
Millshaw (Beeston) Nos. 1 to 5	15.6.61	52	1.5.63	C.P.O.	..	30.9.63	49
Beza Street (Hunslet) ..	15.6.61	92	6.3.63	C.P.O.	3.9.63	30.12.63	85
Goodwin Road (Tong Road) Nos. 1 to 3	20.7.61	79	31.7.63	C.P.O.	7.1.64	12.3.64	47
Albany Terrace (Hunslet) ..	20.7.61	95	3.4.63	C.P.O.	2.9.63	7.11.63	94
West End Terrace (Hyde Park) Nos. 5, 6, 7 and 8	15.9.61	19	..	..	..	..	..
Whingate Nos. 1 and 2	15.9.61	17	1.4.64	C.P.O.	3.11.64	..	..
Amen Corner (Kirkstall) ..	19.9.62	7	5.6.63	C.P.O.	29.10.63	1.1.64	7
Meanwood Road (Buslingthorpe Lane) Somers Street (Westgate) Nos. 1 and 2	19.9.62	2	6.3.63	C.P.O.	3.9.63	6.11.63	2
North Park Road (Roundhay) ..	19.9.62	14	6.3.63	C.P.O.	3.9.63	31.10.63	14
Benson Street (Sheepsbar) Nos. 3 to 6	17.10.62	2	6.2.63	C.O.	..	5.6.63	2
Hunslet (Anchor Street) Nos. 1 to 3	13.12.62	20	3.6.64	C.P.O.	17.11.64	..	..
Hunslet (Anchor Street) Nos. 4 to 12	21.3.63	649	5.2.64	C.P.O.	25.8.64	..	..
Hunslet (Low Road) Nos. 1 to 3	18.4.63	321	5.2.64	C.P.O.	25.8.64	..	..
Woodhouse (Craven Road) ..	16.5.63	170	5.2.64	C.P.O.	25.8.64	..	..
Dewsbury Road (Parkfield Street) ..	20.6.63	197	3.6.64	C.P.O.	17.11.64	..	..
York Road (Temple View Road) Nos. 1 to 3	20.6.63	78	1.4.64	C.P.O.	3.11.64	..	..
York Road (All Saints Street) ..	18.7.63	263	6.5.64	C.P.O.	3.11.64	..	..
Hunslet (Low Road) Nos. 4 and 5	18.7.63	44	6.5.64	C.P.O.	3.11.64	..	..
Stanningley (Town Street) Nos. 1 to 6	12.9.63	134	5.2.64	C.P.O.	25.8.64	..	..
Armley Road (Arkwright Street) ..	12.9.63	25	{ 4.11.64	C.P.O. (part)	..	..	..
Hunslet (Smeaton Street) ..	17.10.63	28	{ 4.11.64	C.O. (part)	..	..	..
			3.6.64	C.P.O.	17.11.64	..	..
			3.6.64	C.P.O.	17.11.64	..	..

C.O.—Clearance Order.

C.P.O.—Compulsory Purchase Order.

SUMMARY OF ACTION UNDER SECTION 42 OF THE HOUSING ACT 1957—continued

CLEARANCE AREAS	Representation		Order Made		Public Local Inquiry Held	Confirmation	
	Date	No. of Houses	Popula- tion	Date		Type	Date	No. of Houses
Upper Accommodation Road (Butterfield Street) Nos. 1 and 2	17.10.63	63	128	1.7.64	G.P.O.	..	..
Newlay (New Leads)	17.10.63	14	41	7.10.64	C.P.O.	..	..
Beeston Hill (Ida Terrace)	21.11.63	30	69	29.7.64	C.P.O.	..	..
Holbeck (Croydon Place) Nos. 1 to 3	21.11.63	89	226	1.7.64	C.P.O.	7.12.64	88
Elland Road (Knowles Street) ..	21.11.63	32	68	4.11.64	C.P.O.	..	..
Armley Hill Top (Tower Lane) Nos. 1 and 2	12.12.63	10	18	..	..	..	..
Kirkgate (Church Row) Nos. 1 and 2 ..	12.12.63	9	13	..	..	..	..
Bramley (Grahamthorpe) Nos. 1 and 2	12.12.63	24	59	7.10.64	C.P.O.	..	..
Hyde Park Road (Woodsley Grove) ..	12.12.63	112	356	29.7.64	C.P.O.	..	..
Armley Road (Pickering Street) Nos. 1 and 2	19.3.64	87	216	4.11.64	C.P.O.	..	..
Armley Road (Abercorn Street) Nos. 1 to 3	19.3.64	76	189	4.11.64	C.P.O.	..	..
Armley Road (Cottingham Place) ..	19.3.64	136	340	4.11.64	C.P.O.	..	..
Burmantofts (New Church Place) Nos. 1 and 2	16.4.64	11	30	..	..	..	..
Bramley (New Scarbro') Nos. 1 to 3 ..	16.4.64	76	151	..	..	..	..
Kirkstall Road (St. Andrews Place) ..	16.4.64	14	36	2.12.64	C.P.O.	..	..
Hunslet Road (Main Place)	16.4.64	6	10	2.12.64	C.P.O.	..	..
Westfield (Belle Vue Road) Nos. 1 and 2	18.6.64	5	6	2.12.64	C.P.O.	..	..
Hunslet Hall Road North Nos. 1 to 7 ..	18.6.64	872	2,079	..	..	..	..
Beeston Hill (Algeria Street) Nos. 1 to 4	16.7.64	310	778	..	..	..	..
Hunslet Hall Road South Nos. 1 to 3 ..	10.9.64	617	1,489	..	..	..	..
Mabgate (Skinner Lane) Nos. 1 and 2	23.10.64	6	19	..	..	..	..
Oldfield Lane (Oldfield Street) ..	19.11.64	142	373	..	..	..	..
Carlton Hill (Carlton Street) Nos. 1 to 3	19.11.64	191	704	..	..	..	..
Seacroft (The Green) Nos. 1 to 15 ..	10.12.64	96	208	..	..	..	..

C.O.—Clearance Order.

C.P.O.—Compulsory Purchase Order.

FOOD INSPECTION

J. GOODFELLOW F.R.S.H., M.A.P.H.I.,

Chief Public Health Inspector

During 1964, 3,647 visits were paid by public health inspectors to premises in which foodstuffs intended for human consumption were prepared, stored or sold. 498 of these were to premises registered with the Local Authority under the provisions of Section 16 of the Food and Drugs Act, 1955, i.e. to premises used for the sale or manufacture or storage of sausages or potted, pressed, pickled or preserved food intended for sale.

3,149 other visits were to places not registered under the Food and Drugs Act, 1955, i.e. places such as bakehouses, restaurants, cafes, canteens, butcher's shops, provision merchants, etc.

A considerable amount of work was done under the Food Hygiene (General) Regulations, 1960, in respect of food premises. 107 warning letters were issued pointing out contraventions of the Regulations or to require alterations to premises to bring them into line with modern standards. These letters and other action taken by public health inspectors have resulted in a large number of improvements to food premises of all types. Details of this work are contained in the table of work done by public health inspectors printed on page 203.

Restaurants and Cafes.—1,303 visits were paid to cafes and restaurants. The general standard of hygiene was found to be reasonably satisfactory. Offences not thought to warrant the institution of legal proceedings were dealt with by immediate contact with the proprietors of the premises concerned.

The public health inspectors who visit factories, and workplaces inspect also, as a matter of routine, the canteens and mess-rooms provided for these places.

An analysis of the work done under the provisions of the Food Hygiene (General) Regulations, 1960, is given below:—

Walls, ceilings, floors, etc., improved	..	..	5
Walls, ceilings, floors, etc., cleansed	..	..	10
Ventilation provided or improved	..	..	4
Articles, apparatus, clothing cleansed	..	..	8
Personal washing facilities provided	..	..	1
Hot water supply provided	..	..	2
Accommodation for clothing provided	..	..	1
First aid equipment provided	..	..	2
Food storage accommodation, provided or improved			3
Sanitary accommodation provided or maintained	..		5
Refuse accommodation provided	..	..	3
Other improvements	..	..	12

Ice Cream Premises.—212 visits were made to premises used for the manufacture or sale of ice cream.

Fish-Frying Premises.—The number of visits paid to registered fish-frying premises was 171. One application for registration was approved.

Other Registered Food Preparing Premises.—115 visits were made to other registered food-preparing premises, such as those used for the manufacture of sausages or preparation of pork products, meat pies, jams, pickles and sauces.

9 applications for registration of premises used for one or other of such purposes were granted, subject in 3 cases to the carrying out of works of alteration to the premises.

REGISTRATION

Number of premises registered for the manufacture of ice-cream during 1964 .. .. .	..
Number of premises registered for storage of ice-cream during 1964 .. .. .	..
Number of premises registered for the sale of ice-cream during 1964	15
Number of premises registered for the preparation or manufacture of sausages or potted, pressed, pickled or preserved food intended for sale (1 fried fish shop, 9 manufacturers of sausages, potted meat, meat pies, etc.)	10
Number of notifications of change of occupier received:—	
ice-cream premises	25
food-preparing premises	10
Number of premises removed from register:—	
Ice-cream premises (manufacture) .. .. .	..
Ice-cream premises (storage) .. .. .	..
Ice-cream premises (sale)	10
Food preparing premises	5
Number of premises on the register 31st December, 1964:—	
(a) used for manufacture of ice-cream	28
(b) used for the sale of ice-cream	1,841
(c) used for the storage of ice-cream intended for sale..	10
(d) used for the manufacture of sausages, or preparation of preserved food	775

Legal Proceedings—Food Hygiene (General) Regulations, 1960.—

(a) The proprietor of a food shop was prosecuted in respect of the dirty condition of the premises and equipment—a fine of £55 was imposed.

(b) A cafe proprietor was prosecuted in respect of the dirty condition of the kitchen—a fine of £15 was imposed.

(c) The owners and manager of a grocers shop were prosecuted in respect of dirty conditions in the store room, contamination of food by mice and dirt, and a severe infestation of mice. The owners were fined a total of £15 and the manager was fined £15 for aiding and abetting.

(d) The proprietor of a restaurant was prosecuted in respect of the dirty condition of the kitchen. Fines totalling £175 were imposed. An employee was prosecuted for wearing a dirty overall whilst handling food and was fined £2.

(e) The proprietor of a coffee bar was prosecuted in respect of the dirty condition of the kitchen. Fines totalling £35 were imposed.

(f) Contraventions of the Food and Drugs Act, 1955, Food Hygiene (General) Regulations, 1960 and the Milk and Dairies (General) Regulations, 1959 resulted in the proprietor of a bakehouse and shop being prosecuted in respect of dirty premises, failure to protect food from risk of contamination, unregistered premises being used for the storage of ice-cream and food, and trading as a milk distributor without licence or registration certificate. Fines totalling £69 were imposed.

Food Hygiene.—During the year a Working Party Committee was set up to consider the hygiene in the catering side of hospital administration, and a comprehensive review of all hospital kitchens was carried out. The inspections showed that the management of the catering side of hospital administration was good. The same could not always be said of the premises, but, in an area such as this where modernisation of hospital premises is urgent, it is not surprising that structural defects should occur when compared with modern standards. It cannot be over-emphasised that the Catering Officer at each of the hospitals visited not only maintains high standards but has gone to great lengths to ensure that the hygiene at his establishment is beyond criticism.

A review of the methods of dispensing beer on licensed premises has been made. This is a field of hygiene which still requires a good deal of attention. The objectionable method of dispensing beer in glasses which allows an overflow of the liquid over the hands of the server is to be deplored. The practice in some premises of re-serving spilt beer can be a source of real danger to the consumer. It is a reflection on the customer that he is still prepared to purchase a food which he can see to be unhygienically served. Undoubtedly a greater awareness of this problem is being shown by the brewery companies. On modern premises, the over-sized glass which allows for filling to a level below the rim is becoming common practice. This, with the mechanical beer pump designed to give the guaranteed measured quantity, completely prevents spillage of beer over the hands of the server, and it is possible to dispense beer hygienically, without slop and without wastage. The washing of used glasses, particularly at busy periods, is not satisfactory; more use should be made of the automatic washer and stricter hygiene discipline needs to be imposed.

Food Sampling.—The number of food and drug samples taken during the year totalled 797. Of this number, 89 were reported upon as being unsatisfactory. A proportion of these related to non-compliance with the Labelling of Food Order and in a few instances to a mis-description of the article. In only four cases was it found necessary to institute legal proceedings, two relating to deficiencies of meat content in sausages, one for the addition of water to bitter beer and one because of added water to gin. In every other instance the matter was dealt with by administrative action.

Of the total number of samples of sausages examined, 7 were reported against as containing a meat standard below that which is normally expected and a further 8 contained preservatives when no declaration to that effect had been made. A sample of pork sausage was found to contain a total of 65·5 per cent. meat of which 39·5 per cent. was fat and only 26 per cent. lean meat. It is considered that at least one half of the meat content should consist of lean meat and on this basis there is a 20 per cent. deficiency of lean meat. In an attempt to increase the protein content of sausages, one manufacturer is adding blood plasma.

Informal and formal samples of black pudding taken by the sampling officer showed 22 per cent. and 16 per cent. respectively of chopped pig rind. English recipes for the making of black pudding do not include chopped pig rind. It is true, however, that some recipes (chiefly of German origin) include chopped pork rind. Enquiries were made of several groups of housewives and they were almost unanimous in objecting to its inclusion. Whilst this practice is difficult to condemn since such material does possess a limited food value, there is little doubt that many people object to its presence in black puddings, sausages and pies. Perhaps this is a matter which should be considered by the Food Standards Committee.

A sample of bitter beer purchased from a public house contained at least 6.2 per cent. added water. Following upon enquiries made at the brewery company regarding the specific gravity of this particular brew it was decided to institute legal proceedings. The defendant was found guilty and fined £15.

A sample of gin contained 18 per cent. of added water. Legal proceedings were instituted and at the Magistrates' Court the case was dismissed on a legal interpretation. An appeal to the High Court has been lodged. In a second case the sampling officer visited a large hotel and ordered three double gins. Each glass, in addition to the gin, contained a slice of lemon and several pieces of ice. Whilst it was immediately realised that it would be impossible to determine the strength of the gin, nevertheless the samples were dealt with by dividing into three equal parts. The volume of pure gin—70° proof—found in one part of the sample was equal to exactly one single gin. It was obvious that although three double gins had been paid for only three single gins had been supplied. The facts were reported to the Town Clerk but it was decided not to take legal action. The management were interviewed and warned.

A large number of samples have been submitted to the Public Analyst under the Colouring Matter in Food Regulations, 1957, and five were found to contain non-permitted colours. One contained brilliant blue FCF and four, which consisted of cachous used for decorating cakes, were coated with a non-permitted violet coal-tar

dye. Investigations revealed that one sample was imported from the U.S.A., where the particular colour is permitted and the remaining four samples had been supplied by an English firm. Further enquiries showed that the cachous had been made a number of years ago. The non-permitted colour has been discarded.

In view of the widespread publicity into alleged dangers from pesticide residues in foods, sampling has continued throughout the year. Since the introduction of this system of examination, 257 samples have been examined. A variety of samples have been submitted for examination and in only two samples of lettuce (imported) and one sample of South African plums were pesticides found. In each case the amount present was well below the accepted safe limit.

Of the drugs samples, one, vegetable concentrate tablets, bore a very heavy mould growth. This was due to the presence of moisture in the bottle in which they had been packed and the matter was taken up with manufacturing chemists concerned. Twelve samples of drugs bearing the description "Slimming Tablets" were examined and in four cases they were reported against on the grounds that they were, in fact, laxative tablets. When this matter was raised with the manufacturers it was found that several food and drugs authorities had taken the same objection to the description and an amended label was printed setting out a more accurate description of the product.

Ice-Cream.—78 samples of ice-cream were examined by the Methylene Blue Test. 34 were classified as Grade I, 16 as Grade II, 21 as Grade III and 7 as Grade IV. From a total of 38 samples of ice-cream and 7 samples of ingredients, examined for the presence of coliform organisms, 26 showed a positive result. 22 of the 26 samples had passed the Methylene Blue Test. This illustrates the limitations of the test as the sole indication of bacteriological quality. The majority of the unsatisfactory samples emanated from one particular manufacturer and consideration was given to withdrawing the registration certificate from these premises. However, following upon a severe warning and by repeated and frequent visiting by the inspectors a very marked improvement was obtained. The standard of cleanliness of premises and employees was improved beyond recognition.

Details of the bacteriological results on samples of ice-cream submitted to the Methylene Blue Test are shown in table form below:—

METHYLENE BLUE TEST

Grade	No. of Samples	Percentage	Remarks
1	34	43·6	Good
2	16	20·5	Satisfactory
3	21	26·9	Unsatisfactory
4	7	9·0	Very unsatisfactory

Bacteriological Examination of Food.—Routine bacteriological examination of food has been carried out on a variety of commodities. 94 samples were submitted to the Public Health Laboratory Service for this purpose.

In addition to the above 91 samples of meat taken from pet shops were submitted to the Public Health Laboratory Service.

Liquid Egg (Pasteurisation) Regulations, 1963.—These Regulations came into operation on 1st January, 1964, and require the pasteurisation of liquid egg to be used in food intended for sale for human consumption. There are no egg pasteurisation plants in the city but four samples of liquid egg were taken from bakeries; all were satisfactory.

Extraneous Matter in Food.—A wide variety of complaints concerning foreign matter in food was submitted to the Department during the year in accordance with the following table:

- Piece of wood in bon bons.
- Insect in cheese and tomato sandwich.
- Nail in cheese.
- 2 in. bolt in fish and chips.
- Cigarette end in teacake.
- Piece of wire in sweets.
- Glass in cheese biscuits.

continued

Stone in currant teacake.
 String in fruit cake.
 Part of knife in sandwich.
 Caterpillar in tin of peas.
 Glass in mincemeat.
 Beetle in can of blackberries.
 Beetle in plum tart.
 Worm in salad and prawn sandwich.
 Plastic cap in sliced brown loaf.
 Piece of wire in sweets.
 Insect in jam.
 Fly in piece of cheese.
 Insect in tin of pineapple pieces.
 Wasp in apricot jam.
 Dead fly in bread roll.
 Insect in bitter beer.
 Tin tack in teacake.
 Wasp in tin of plums.
 Piece of string in loaf of bread.
 Wasp in can of fruit salad.
 Dirt in bottle of milk.
 Nail in cream sponge.
 Maggot in bread loaf.
 Beetle in tin of corned beef.
 Nail in bread loaf.
 Piece of cardboard in bread loaf.
 Maggot in bread loaf.
 Cloth fibres in bread loaf.
 Fish bone in bread loaf.
 Paper inside flour bag.
 Pin in bread loaf.
 Piece of wood in cake.
 Earth worm in tin of peas.
 Spider in bottle of orange drink.
 Piece of metal in marzipan cake.
 Live grubs in biscuits.
 Live grubs in chocolate biscuit.
 Black grit in slice loaf.
 Insect head in bread loaf.

continued

- Fly in bun.
 Piece of tin in corned beef.
 Piece of rubber in half-a-pound of butter.
 Pebble in slab cake.
 Piece of coal in cake.
 Piece of fur in bread loaf.
 Money spider in meat.
 Tooth in steak and kidney pie.
 Safety pin in bottle of orange squash.
 Carpet tack in packet of corn flakes.
 Blow fly larvae in bacon.
 Larvae of *Rahgium Mordox de Geer* inside stick of
 liquorice root.
 Piece of coke and two flower buds in tin of peas.
 Metal turnings in bread loaf.
 Fly in cheese.
 Earwig in bread cake.
 Bluebottle in bread loaf.
 Hair in currant teacake.
 Crustacean (*Ligia Oceanica*) in can of pilchards.
 Beetle in bread loaf.
 Caterpillar in tin of tomatoes.
 Piece of plastic in margarine.
 Staple in curd tart.
 Mouse droppings in fish batter.
 Fruit flies in grapefruit.
 Rusty screw in bread loaf.
 Nail in butter.

Appropriate action was taken in respect of each of the above complaints.

Legal Proceedings.—The following table sets out details of prosecutions taken during the year in connection with samples of food found to be unsatisfactory for purposes of the Food and Drugs Act, 1955.

Article	Adulteration or Deficiency	Result of Hearing
Milk	Contained 13·3%, 13·2% 13·6% and 5·2% added water	Fined £20 with £9 3s. costs.
Bitter Beer ..	Contained 6·2% extraneous water	Fined £15 with £3 5s. costs.
Egg and Bacon sandwich ..	Contained part of knife handle	Fined £5 with £3 15s. 6d. costs.
Danish Pastry ..	Contained mould ..	Fined £5.
Milk	Contained 4·7% added water	Fined £3 with £2 2s. costs.
Soup Mixture ..	Contained rodent droppings	Absolute Discharge with £4 18s. costs.
Granary Loaf ..	Contained part body of mouse	Fined £20

Rag Flock and Other Filling Materials Act, 1951.—The licences of three premises used for the manufacture of rag flock and one for the storage of rag flock were renewed. 15 premises were removed from the register as being no longer in use and 16 were added.

The number of registered premises in the city now stands at 56.

Pharmacy and Poisons Act, 1933 (Part II).—The number of entries on the statutory List of Sellers of Part II Poisons on 30th April, 1965, the last day in the administrative year for purposes of the Act, was 276 as compared with 333 on 30th April, 1964. Routine visits were paid to the premises of authorised sellers from time-to-time but no contraventions of the relevant provisions came to the notice of the Department,

Pharmacy and Medicines Act, 1941.—No contraventions of this Act were encountered.

Fertiliser and Feeding Stuff Act, 1926.—During the year 2 formal and 15 informal samples of fertilisers were taken under the Fertilisers and Feeding Stuff Act, 16 of these samples being classified as satisfactory and 1 unsatisfactory. The unsatisfactory sample was as follows:—

Designation of Article	Nature of Irregularity	Action taken
Jepson's Special Grass Fertiliser No. 1	Soluble P_2O_5 is 1·3% deficient (max. limit 0·5%) Insoluble P_2O_5 is 2·6% in excess (max. limit 0·75%)	Letter from Chief Public Health Inspector to Manufacturer.

SAMPLING OF MILK

J. GOODFELLOW, F.R.S.H., M.A.P.H.I.

Chief Public Health Inspector.

AND

H. LONG

Supervisory Public Health Inspector,

Food and Dairies Division

The number of samples of milk submitted for chemical analysis decreased markedly during the year, due to shortage of staff and to the greater control which is now exercised by the Milk Marketing Board scheme of "payment by results". Records kept at the dairies reveal that the standards have been improving since the introduction of the scheme of monthly testing of all producers and, in almost every case, the fat content of milk has shown improvement.

During the year 914 samples of milk, made up of 854 ordinary milks and 60 Channel Island milks, were submitted for chemical analysis. The compositional average of the ordinary milks gives a total solids content of 12.44 per cent., solids not-fat 8.68 per cent. and a fat content of 3.76 per cent. The average composition of the Channel Island milk was extremely good giving figures of 14.26 per cent. total solids, 9.22 per cent. not-fatty solids and 5.04 per cent. fat. Of the total samples examined, 65 were reported as unsatisfactory; 49 of them contained added water, 9 contained penicillin, 2 contained other anti-biotics and the remaining 5 were due to unclean milk bottles. 20 of the samples containing added water were taken from one farmer. Legal proceedings were instituted in two cases and the offenders fined £20 and £3 respectively.

700 samples of milk were submitted for bacteriological examination and 14 of these were reported unsatisfactory. 7 of the 14 failed to satisfy the methylene blue test but in each case the test was void due to the temperature exceeding 70° F. All the remaining unsatisfactory samples failed to satisfy the methylene blue test and, with the exception of two cases, they related to farm bottled milks. In addition, 14 samples were reported as containing anti-biotics.

25 of the unsatisfactory reports related to the presence of anti-biotics in milk. The procedure in dealing with this problem has been to send a letter to the farmer concerned, drawing his attention to the unsatisfactory nature of the milk and advising him of the necessity of withholding the milk of any animal treated with anti-biotics from the bulk supply for a period of 72 hours. In the event of a second report being received in relation to the same farmer, a second letter is sent to him informing him that the continuation of unsatisfactory results of milk samples might result in the institution of legal proceedings. The second letter has produced the desired results and it has not been necessary to take any legal act against any farmer.

At the beginning of the year a new problem arose in regard to the milk supplies delivered by a large dairy firm. Complaints were received of unpleasant smell associated with the milk and the customers were complaining of sour milk being delivered to them. Investigation showed that whilst there was justification for the complaint, it was not due to souring but to the presence of lipose in the milk. There are several distinct fat-splitting enzymes in milk and these are detectable under certain conditions. The presence of lipose is more prominent in winter than in summer milk and this was borne out by the fact that the complaints ceased at the time milking beasts were put out to feed in the fields and started again in the last two months of the year. The presence of lipolysis in the bulk supply has caused grave concern to the Milk Marketing Board, the Ministry of Agriculture, Fisheries and Food, the dairy company and this Department. Intensive investigations have not yet ascertained the cause.

Evidence of Brucella infection has again been found in many untreated milks sold in the city and in the areas of neighbouring authorities. Of 153 samples submitted to the Public Health Laboratory Service, 37 proved positive for *Brucella abortus*.

Heat treated milks cannot transmit this infection and the amount of untreated milk sold in the city is very small. Nevertheless, human cases of this unpleasant disease occur in Leeds and may be commoner than we think.

The present legal remedies are inadequate. They call for cumbersome sampling of milk from groups of cattle and individual cows. When infection of the herd has been demonstrated, the Local Authority may require heat treatment of the milk before sale and this we do. There is no power to require slaughter of the infected animals and the owner may legally sell the infected animals without disclosing that they are infected, so introducing infection to other herds. Eradication of Brucellosis from our dairy herds is practicable and, although it would be expensive, it should be done.

Previous reports have called attention to the hygienic advantages of using cartons instead of bottles for milk distribution. It is good to record that the large dairies in the city are going over to cartons for all supplies of milk in half-pint measures.

Dairy Inspection and Milk Sampling.—The following visits were paid by the Food and Drugs Inspectors:—

Wholesale dairies	199
Milk distributors (other than processors)	27
Visits for sampling:	
To wholesale dairymen	162
To retail distributors	70
To dairy farmers	99

700 samples of milk were submitted to the City Analyst for bacteriological examination. The samples were taken from dairies and, in a few cases, from retailers in the street. Samples taken consisted of the following designated milks:—

“Pasteurised”	86
“Tuberculin Tested” (Pasteurised)	232
“Sterilised”	94
“Tuberculin Tested” Farm Bottled and “Untreated”	288

Bacteriological Examination of Milk.—7 of the 700 samples submitted to the City Analyst for bacteriological examination failed to pass the prescribed test.

METHYLENE BLUE (REDUCTION) TEST

Designation	Total Samples Taken	Result of Test			
		Satisfactory		Unsatisfactory	
		No.	Percentage	No.	Percentage
Pasteurised: Dairies ..	86	86	100·0	..	..
Tuberculin Tested (Pasteurised) Dairies ..	232	231	99·57	1	0·43
Tuberculin Tested (Farm Bottled) and "Untreated" Dairies ..	288	282	97·91	6	2·09

PHOSPHATASE TEST

Designation	Total Samples Taken	Result of Test			
		Satisfactory		Unsatisfactory	
		No.	Percentage	No.	Percentage
Pasteurised: Dairies ..	86	86	100·0	..	..
Tuberculin Tested (Pasteurised) Dairies ..	232	232	100·0	..	..

TURBIDITY TEST

Designation	Total Samples Taken	Result of Test			
		Satisfactory		Unsatisfactory	
		No.	Percentage	No.	Percentage
Sterilised	94	94	100·0	..	..

The Milk and Dairies (General) Regulations, 1959.—*Regulation 20.*—Notice under Regulation 20 was served on two producers in connection with milk samples showing a positive result for *Brucella Abortus*.

Dairies and Milk Sellers.—The following tables show the number of registered dairies and milk sellers in the city:—

DISTRIBUTORS OF MILK AND DAIRY PREMISES.

	Dairies	Distributors of milk
No. on the register on 31st December, 1963	19	23
No. added to the register during the year .. ..	...	..
No. removed from the register during the year .. ..	..	..
No. on the register on 31st December, 1964	19	23

DISTRIBUTORS OF BOTTLED MILK ONLY

No. of distributors of milk on the register on 31st December, 1963	940
No. added to the register during the year	90
No. removed from the register during the year	15
No. of distributors of milk on the register on 31st December, 1964	1,015
No. of shops, etc., from which bottled milk only is sold, on 31st December, 1964	1,307

LICENCES ISSUED UNDER THE MILK (SPECIAL DESIGNATION) REGULATIONS, 1960

Description	Number in force on 31st December		
	1962	1963	1964
To use the designation "Tuberculin Tested" ("Untreated" with effect from 1/10/64)			
1. To sell by retail	154	230	281
To use the designation "Pasteurised"—			
1. Pasteurisers' Licences	2	2	2
2. To sell by retail	168	255	311
To use the designation "Sterilised"—			
1. Sterilisers' Licences	2	2	2
2. To sell by retail	1,094	1,157	1,235

MEAT INSPECTION

J. GOODFELLOW, F.R.S.H., M.A.P.H.I.

Chief Public Health Inspector

AND

J. S. SEWELL

*Supervisory Public Health Inspector
for Meat and Other Foods*

Animals Slaughtered.—During the year 312,213 animals were slaughtered for human consumption at the Public Abattoir and the private slaughterhouses in the city, an increase of 23,775 on the figure for 1963. The following table gives an analysis of the animals slaughtered for human consumption at the Public Abattoir and the private slaughterhouses:—

ANIMALS SLAUGHTERED AT THE PUBLIC ABATTOIR AND PRIVATE SLAUGHTERHOUSES

Slaughterhouse	Year	Cattle ex.Cows	Cows	Calves	Sheep	Pigs	Total
Public Abattoir ..	{ 1963	27,799	10,835	12,342	151,213	26,150	228,339
	{ 1964	27,711	8,702	7,902	173,606	30,376	248,297
L.I.C.S.	{ 1963	3,115	..	..	9,784	7,742	20,641
	{ 1964	2,743	17	15	10,715	6,903	20,393
Gelderd Road ..	{ 1963	1,159	483	454	9,809	20,642	32,547
	{ 1964	839	848	472	14,529	21,914	38,602
Marshall Street, Cross Gates ..	{ 1963	316	..	2	1,192	1,548	3,058
	{ 1964	330	..	..	1,309	1,631	3,270
Cross Lane, Wortley	{ 1963	383	10	..	852	..	1,245
	{ 1964	531	9	2	1,109	..	1,651
Harrison's Yard, Bramley	{ 1963	..	..	..	..	2,608	2,608
	{ 1964 Dec'd	..	..	..	..	..	..

Private Slaughterhouses.—The licences of four private slaughterhouses were renewed during the year, namely, those belonging to the Leeds Industrial Co-operative Society Limited, Danube Road, Leeds; Messrs. T. Adamson & Sons, 16 Gelderd Road, Leeds; Mrs. S. U. Wilson and H. Lunn (trading as Wilson's), Marshall Street, Crossgates, Leeds; and Messrs. C. H. & J. W. Ellison, Cross Lane, Wortley, Leeds.

Licensing of Premises for the Confinement of Animals awaiting Slaughter.—In accordance with the provisions of Section 63(2) of the Food and Drugs Act, 1955, an application was received for the renewal of the licences of premises used for the confinement of animals awaiting slaughter at a slaughterhouse, namely, Leeds Industrial Co-operative Society Ltd. (Lairages in Gelderd Road). The fields in York Road, formerly used as lairages in connection with Wilson's slaughterhouse, Crossgates, are no longer used for that purpose and the licence was accordingly withdrawn.

Knacker's Yard.—There is only one Knacker's Yard in the city. This is in the occupation of Mr. J. R. C. Wilkinson, the situation being 133, Carr Moor Side, Hunslet. The premises have been well maintained and conducted satisfactorily during the year. Accordingly, upon application from the occupier, the licence permitting the use of these premises for the slaughter of animals not intended for human consumption was renewed. The return required to be rendered under the Slaughter of Animals (Prevention of Cruelty) Regulations, 1958, showed the number of horses dealt with to be as follows:—

	1963	1964
Horses slaughtered at the knacker's yard .. .. .	..	..
Horses slaughtered at collieries	35	16
Horses slaughtered at farms and customers' own premises	3	2
Horses carcasses received	45	33
	—	—
Total	83	51
	==	==

Slaughter of Animals Act, 1958.—During the year nine new licences to slaughter or stun animals were granted by the City Council and 131 were renewed.

Whole and Part Carcasses Condemned.—The following table shows the different species of animal and the number of whole carcasses or parts condemned for tuberculosis, cysticercosis and other diseases.

CARCASSES INSPECTED AND CONDEMNED

	Cattle (exclud- ing cows)	Cows	Calves	Sheep and Lambs	Pigs
NUMBER KILLED	32,154	9,576	8,391	201,268	60,824
NUMBER INSPECTED	32,154	9,576	8,391	201,268	60,824
ALL DISEASES EXCEPT TUBERCULOSIS AND CYSTICERCOSIS					
Whole carcasses condemned ..	18	57	271	579	45
Carcasses of which some part or organ was condemned ..	2,583	894	9	12,988	4,374
Percentage of numbers inspected affected with diseases other than Tuberculosis and Cysticercosis	8.08%	9.93%	3.33%	6.74%	7.26%
TUBERCULOSIS ONLY					
Whole carcasses condemned ..	..	..	..	..	..
Carcasses of which some part or organ was condemned ..	..	..	..	..	76
Percentage of numbers inspected affected with tuberculosis ..	..	..	..	..	0.125%
CYSTICERCOSIS					
Carcasses of which some part or organ was condemned ..	58	3	..	..	..
Carcasses submitted to treatment by refrigeration	3	..	..	..	..
Generalised and totally condemned	2	..	..	..	..

Tuberculosis.—The number of cases of bovine tuberculosis encountered at the City Slaughterhouse continues to decline.

Cysticercus Bovis and Ovis.—Inspection continued during the year in the prescribed manner for the detection of these conditions. The cases found were degenerate and refrigeration was not considered necessary.

Disposal of Condemned Food.—Condemned carcase meat is disposed of by the wholesale butchers, this material being consigned to firms in Bradford and Rochdale. Condemned offal was consigned to a Pontefract firm. Such material is stained with vegetable dye before its removal from the slaughterhouse premises, being subsequently used for conversion into meat meal and agricultural fertiliser.

Other condemned food is disposed of by incineration at the Corporation Destructors.

Meat and Other Foods Condemned as Unsound.—The total weight of food destroyed by consent during the year was 281,607 lbs. as compared with 282,556 lbs. in the previous year. Details of food destroyed are given in the following table:—

MEAT AND OTHER FOOD DESTROYED BY CONSENT

	1964	1963	1962	1961
Beef	35,761 lbs.	35,624 lbs.	30,563 lbs.	40,788 lbs.
Veal	8,633 ..	5,989 ..	7,616 ..	9,514 ..
Mutton	24,441 ..	23,242 ..	15,896 ..	18,073 ..
Pork	11,759 ..	14,538 ..	16,017 ..	14,911 ..
Offals.. .. .	68,290 ..	72,602 ..	89,249 ..	78,028 ..
Bacon and Ham	8,465 ..	628 ..	391 ..	907 ..
Rabbits	1,090 ..	498 ..	1,073 ..	699 ..
Poultry	1,048 ..	199 ..	510 ..	782 ..
Game.. .. .	..	..	4 ..	151 ..
Fish	4,207 lbs.	3,620 ..	5,405 ..	9,049 ..
Shellfish	100 ..	142 ..	1,524 ..	2,050 ..
Vegetables	22,517 ..	33,230 ..	50,079 ..	57,609 ..
Fruit	16,060 ..	20,591 ..	5,737 ..	11,774 ..
Tinned goods	68,579 ..	66,918 ..	46,105 ..	45,769 ..
Cheese	604 ..	1,105 ..	481 ..	292 ..
Edible fungi	56 ..	84 ..	33 ..	116 ..
Flour .. .. .	..	28 ..	..	..
Confectionery .. .. .	..	174 ..	151 lbs.	..
Sundries	9,997 lbs.	3,344 ..	1,565 ..	3,751 ..
Totals	281,607 lbs.	282,556 lbs.	272,399 lbs.	294,263 lbs.

Shellfish.—Nine samples of mussels were taken during the year for the purpose of bacteriological examination. Four of these samples originated from layings in Wales and five from Denmark. All these samples were found to be satisfactory, being classified Grade 1.

Salmon and Freshwater Fisheries Act, 1923.—No infringements were noted during the year.

Fruit and Vegetables.—The improved packaging and presentation of fruit and vegetables was maintained.

Rabbits.—The bulk of the supplies were Polish tame rabbits and Chinese rabbits and only 5 per cent. were from England and Scotland.

Fish.—There was still a lack of variety and nearly all the fish arrived filleted. The sale of prepacked frozen fish has grown and is being used in greater quantity by the catering trades. Most fish boxes are non-returnable, only some halibut and salmon boxes being returnable.

Salmonella Research Samples.—Dr. Ludlam of the Public Health Laboratory Service has carried out his own investigation from pigs in the lairages. Many types of salmonella organisms have been isolated.

DISEASES OF ANIMALS

J. GOODFELLOW, F.R.S.H., M.A.P.H.[†].

Chief Public Health Inspector

Tuberculosis Order, 1938.—No cases of bovine tuberculosis were reported but a number of tubercular reactors were received at the Public Abattoir, having been moved from the premises of origin under licence.

Swine Fever Order, 1963.—During the year three cases of suspected swine fever occurred at piggeries in Leeds.

Regulation of Movement of Swine Order, 1959.—When there is no special prevalence of swine fever, the movement of pigs is controlled by the Regulation of Movement of Swine Order; and this was the position between June and December. It is necessary to control the movement of pigs by licence after they have been exposed for sale at a market, and this was done at Whitkirk Auction Mart between June and September by the issue of licences which permitted the movement of animals within or out of the Leeds City area.

Swine Fever (Infected Areas Restrictions) Order, 1956-58.—The city was included in a Swine Fever Infected Area between January and the end of May. Control of the sale and movement of pigs was maintained by the issue of licences under the Order. Animals sold at Whitkirk Auction Mart during this period were removed for immediate slaughter within the Infected Area under licences.

Auction Mart, Whitkirk.—In September, the only auction mart in the city closed owing to lack of support from farmers in the area. The number of animals brought for sale has steadily declined, particularly in the last few months of the mart's existence.

Fowl Pest Order of 1936.—Two suspected cases of fowl pest were reported at farms or other premises in the city. Both cases were confirmed.

The Poultry Pens, Fittings and Receptacles (Disinfection) Order, 1952—The Poultry Premises and Vehicles (Disinfection) Order, 1956.—67 inspectional visits were paid under these Orders for the purpose of inspecting premises, vehicles and equipment. No contraventions warranting legal action were observed.

The Warble Fly (Dressing of Cattle) Order, 1948.—69 visits were paid to farms in connection with the above Order and 1,079 non-infested cattle were treated voluntarily by farmers in the city. There was a decrease of 69 in the number of infested cattle.

The following table shows the work for the last three years:—

	1962	1963	1964
Visits paid to farms	70	79	69
Cattle inspected on farms	1,103	1,293	1,397
Leaflets and post-cards distributed ..	45	60	51
Cattle infested	62	112	43
Infested cattle treated	62	112	43
Non-infested cattle treated voluntarily..	968	911	1,079

Animals (Landing from the Channel Islands, Isle of Man, Northern Ireland and the Republic of Ireland) Order, 1955.—946 Irish sheep were received under licence for immediate slaughter at the Public Abattoir and the L.I.C.S. Slaughterhouse, Gelderd Road, Leeds. This is an increase of 680 on the previous year's total.

Diseases of Animals Act, 1950 (Second Schedule).—There was a decrease in the number of cattle imported from Ireland, 3,457 bovine animals being imported under licence for immediate slaughter, a decrease of 601 on the previous year. 497 Irish store cattle were consigned from the ports of landing to farms in the city, a decrease of 127.

Diseases of Animals (Waste Foods) Order, 1957.—Five further applications were received from boiling plant operators under this Order, the plant and equipment being subject to inspection by Departmental officers. 69 visits were paid in connection with the Order; the number of licensed operators now stands at 113.

Legal Proceedings.—No legal proceedings were found to be necessary under the Diseases of Animals Act during 1964.

INSPECTION OF FACTORIES

J. GOODFELLOW, F.R.S.H., M.A.P.H.I.

Chief Public Health Inspector

AND

J. NORTON, M.A.P.H.I.

*Supervisory Public Health Inspector,
Factories, Offices and Shops Division*

The Factories Act, 1961, requires the Medical Officer of Health to report annually upon the administration of Part I (Health—General Provisions) and Part VIII (Outwork) of the Act.

Up to August the Factories Division dealt with the inspection of factories and offices and with the administration of much of the Clean Air Act, 1956, including the making of Smoke Control Orders. In August the Division was split into two and there is now a Smoke Control Division which deals with Smoke Control Areas and certain other provisions of the Clean Air Act, and Factories Division which deals with factories, with the provisions of the Offices, Shops and Railway Premises Act, 1963, and with drainage work in certain premises. The Factories Division still deals with smoke nuisances from factory chimneys and other premises under the Clean Air Act, 1956. Work in connection with the making of Smoke Control Orders is dealt with elsewhere in this report.

Factories.—The work done by inspectors of the Factories Division under the Factories Act, 1961, is shown in the four tables on pages 171 to 173. The tables which deal with outwork are compiled from inspections made by district public health inspectors.

The register of factories contains the addresses of 59 non-mechanical and 2,664 mechanical factories. Both figures are lower than those on the register last year. During the year the Local Authority's copy of the factories register was compared with that maintained by H.M. Factories Inspectorate, and a few minor errors corrected. In particular many factories registered as non-mechanical are now using power and were transferred to the register of mechanical factories. Inspections under the Offices, Shops and Railway Premises Act, 1963, have revealed many factories of a minor nature and H.M. Factories Inspectorate were notified in all cases,

Four notifications were received of premises to which Section 127 of the Factories Act, 1961, applies. This deals with the provision and maintenance of sanitary accommodation under Section 7 of the Act, at sites where works of building and engineering construction are in progress and inspectors paid 10 visits to such sites. Many of these works were in progress during the previous year and remained uncompleted at the end of the year. A number of verbal requests were made for satisfactory sanitary accommodation to be provided and in two cases written notices were sent. In addition, in one instance, a re-siting of existing sanitary accommodation was necessary to ensure satisfactory screening of the conveniences. In every case the notices and requests were complied with. It is usual on the larger sites, where work is spread over a long period, for sanitary accommodation (including urinal accommodation) to be connected to a water carriage system of drainage. On smaller sites, where this cannot be done, chemical closets in temporary structures, properly screened, are quite satisfactory. Arrangements are made with the Cleansing Department for the disposal of the contents of these conveniences.

During the year 1,358 inspections of factories were carried out in mechanical and non-mechanical factories, 288 contraventions of the Act and other defects were found and at the end of the year 144 had been remedied. The majority of defects were remedied immediately following verbal notice. 107 letters were sent notifying owners or occupiers of contraventions. In no case was it necessary to institute legal proceedings.

The table on page 172 lists contraventions of the Factories Act and includes 53 reports received from H.M. Factories Inspector. 5 of these reports referred to lack of cleanliness in workrooms in non-power factories, 4 to insufficient sanitary conveniences, 38 to unsuitable or defective sanitary conveniences and 6 to sanitary accommodation not kept separate for the sexes. These contraventions were either remedied during the year or enforcement action will be taken where necessary. 21 factories where no Abstract of the Act was displayed were referred to H.M. Factories Inspectors for their attention.

The table headed "Other Matters" lists 127 bakehouses using mechanical power. This number does not include several small family bakehouses which H.M. Inspectors do not regard as registrable under the Factories Act. There are no basement bakehouses in the city certified as unsuitable under the Factories Act.

General.—Many visits are paid by inspectors to factories to deal with matters outside the scope of the Factories Act. Nuisances in factories are dealt with under the Public Health Acts. Smoke observations and the inspection of industrial plant are carried out under the Clean Air Act; factories in which food is prepared or handled for sale are regularly inspected to ensure compliance with the provisions of the Food and Drugs Act, 1955, and the Food Hygiene (General) Regulations, 1960. Details are set out in the table printed on page 202. 16 contraventions of the Food Hygiene (General) Regulations, 1960, were discovered in factory food premises.

Under the Factories Act, 1961, the District Council must approve any water supply used for drinking purposes by factory employees which is not derived from a public water mains supply. One firm in the city sank a new borehole at the end of the year; tests were carried out to ensure a satisfactory supply for this purpose.

Under the Public Health Act, 1936, investigations are made into complaints which effect either the factory premises themselves or domestic properties near the factory. One example was the flooding of a factory used for the storage of electrical goods, by a defective sewer serving railway property. Another complaint concerned dust nuisance to nearby factory premises from the construction of the new Inner Ring Road in the Woodhouse Lane area. This nuisance was overcome by the use of water sprays on the site during the dry period in July. Yet another complaint referred to power station fly ash being blown from the surface of a tip. This was resolved by covering the tip surface with a layer of soil as the work progressed. Other complaints referred to the burning of trade waste at factory premises and in most cases this nuisance was overcome by the installation of proper plant for the smokeless

combustion of such material. More usually the complaints related to nuisances from factory premises affecting houses, including nuisances from the emission of fumes, dust or effluvia from either the plant or the processes involved. These complaints often require long investigation and may be difficult to resolve. Defects in the structure of factory buildings may affect the health and comfort of workpeople and must be investigated. These defects include leaking roofs, dampness to buildings due to defective and leaking rainwater spouts, eaves-spouts and other drainage works. Due to the size of some factory premises, investigations in connection with drainage work are often extensive and difficult.

Many complaints received concerned factories registered under the Alkali, etc., Works Regulation Act, 1906. After an initial investigation, such complaints are reported to H.M. District Inspector of Alkali Works with whom a close liaison exists.

The arrangement between the City Engineer's Department and the Health Department by which plans of new factories, workshops, shops and offices submitted for planning and byelaw approval are referred to this Department for comment upon any matters that may affect the health, safety and welfare of persons employed in the building continues to operate satisfactorily. The plans are also examined to ensure that premises used for the storage or preparation for sale of food, and canteen facilities and kitchens, comply with the Food Hygiene (General) Regulations, 1960.

Outworkers.—The number of outworkers on the August list was 720. 646 of these were concerned with the making of wearing apparel, 2 with the making or repair of umbrellas and 72 with textile weaving. 87 addresses of outworkers were received from other authorities and 119 sent from Leeds to other authorities.

Workplaces.—150 visits were paid to workplaces, including offices, during the year and in no case was it necessary to serve notices requiring defects to be remedied under the Public Health Act, 1936. From 1st August office premises came under the provisions of the Offices, Shops and Railway Premises Act, 1963; this has reduced the number of premises classed as workplaces.

Noise.—24 complaints of nuisance from noise and vibration were received as compared with 27 in the previous year. Of the 24, six were not justified in the opinion of the inspector. All but four cases concerned factory premises. These four cases involved nuisance from compressors and pneumatic drills used in road breaking. A letter was sent to all firms known to be using compressors and drills asking them to employ silencers and to take all possible steps to prevent nuisance. One case of noise nuisance from vehicles waiting in the street to enter a car wash was referred to the Police. In the main, the complaints referred to the use of industrial plant and ranged from the hammering of sheet metal, noise from fans or pumps to noise from shuttles on looms in a mill. Noise complaints are often very difficult to deal with, and many cases require a number of visits during the day and at times at night to judge whether nuisance exists. In one case it was necessary to make a number of visits in connection with the barking of a guard dog. This was overcome by having the guard dog patrol from inside the building instead of outside in the yard. The abatement of nuisances from mechanical plant at factories often involves the construction of screen walls and the re-siting of plant. In several cases abatement has been secured by instructing the operator as to the quietest method of carrying out his work. This may involve closing doors or rearranging work so that noisier processes are carried out at more reasonable times. It is sometimes necessary to write to firms requiring the abatement of noise nuisances but in no case was it necessary to institute legal proceedings. Inspectors are becoming adept at securing improvements by negotiation with managements.

INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH
(INCLUDING INSPECTIONS MADE BY PUBLIC HEALTH INSPECTORS)

Premises	Number on Register	Number of		
		Inspections	Written Notices	Occupiers Prosecuted
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	59	31	5	..
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	2,664	1,327	100	..
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)	40	10	2	..
Total	2,763	1,368	107	..

CASES IN WHICH DEFECTS WERE FOUND

Particulars	No. of Cases in which defects were found				No. of cases in which prosecutions were instituted
	Found	Remedied	Referred		
			To H.M. Inspector	By H.M. Inspector	
Want of cleanliness (S. 1) ..	6	4	..	5	..
Overcrowding (S. 2) ..	..	..	..	..	..
Unreasonable Temperature (S. 3)	..	..	..	..	..
Inadequate Ventilation (S. 4) ..	..	..	..	..	..
Ineffective drainage of floors (S. 6) ..	..	..	..	..	..
Sanitary Conveniences (S. 7)—					
(a) Insufficient ..	15	4	..	4	..
(b) Unsuitable or defective ..	241	133	..	38	..
(c) Not separate for sexes ..	5	3	..	6	..
Other offences against the Act (not including offences relating to Outwork) ..	21	..	21	..	..
Total ..	288	144	21	53	..

OUTWORK

Sections 133 and 134

Nature of Work	SECTION 133			SECTION 134		
	No. of out-workers in August list required by Sect. 133(1)(c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Wearing apparel:—						
Making, etc., Cleaning and Washing ..	646	..	..	..	..	..
Umbrellas ..	2	..	..	..	..	..
The making of boxes or other receptacles or parts thereof made wholly or partially of paper ..	..	..	..	..	..	..
Textile weaving ..	72	..	..	..	..	..
Total ..	720	..	..	..	..	..

OTHER MATTERS

	February	August
LISTS OF OUTWORKERS RECEIVED FROM OCCUPIERS OF PREMISES IN THE CITY	183	121
(a) (i) Number of 'Contractors' in the City included in the above lists	293	259
(ii) Number of 'Contractors' outside the City included in the above lists	34	39
(b) (i) Number of 'Outworkers' in the City included in the above lists	518	461
(ii) Number of 'Outworkers' outside the City included in the above lists	80	80
Details of (a) (ii) and (b) (ii) subsequently forwarded to other local authorities		
LISTS OF OUTWORKERS RECEIVED FROM OTHER AUTHORITIES	10	15
(c) (i) Number of 'Contractors' in the City included in the above lists	54	67
(ii) Number of 'Outworkers' in the City included in the above lists	14	20
	Yearly Total	
Reminders to occupiers as to returns of Outworkers	364	
Visits of Inspectors to Homeworke's premises ..	4	
HOMEWORKE IN UNWHOLESOME PREMISES:		
Instances .. .. .	..	..
Notices (S. 134) .. .. .	..	..
Prosecutions .. .. .	..	..
Matters notified to H.M. Inspectors of Factories:—		
Failure to affix Abstract of the Factories Act, 1937, (S. 128).. .. .	15	
Action taken in matters referred by H.M. Inspectors:		
Notified by H.M. Inspectors	53	
Reports (of action taken) sent to H.M. Inspectors ..	53	
Total number of factories on Register	2,723	
The above includes 127 bakehouses		

INSPECTION OF OFFICES, SHOPS AND RAILWAY PREMISES

J. GOODFELLOW, F.R.S.H., M.A.P.H.I.

Chief Public Health Inspector

AND

J. NORTON, M.A.P.H.I.

Supervisory Public Health Inspector,

Factories, Offices and Shops Divisions

The Offices, Shops and Railway Premises Act was passed by Parliament on 31st July, 1963, with different sections to come into operation at varying dates to be decided by the Minister of Labour by Order. The Act requires the provision of certain health, safety and welfare requirements for employees in offices, shops and railway premises. It repeals and replaces those sections of the Shops Act, 1950, which dealt with arrangements for the health and comfort of shop workers and extends both the scope of requirements and the range of employees affected. Provisions are made somewhat similar to the requirements of the Factories Act for factory workers. It covers persons employed on simple clerical work and also for those employed in offices and shops whose work, in many cases, is becoming extremely mechanised. The Act applies to all office premises, shop premises and railway premises in which any person or persons are employed except those where only self employed people work; or where the total number of man-hours worked does not exceed 21 hours a week or where the only persons employed are husband, wife, parent, grandparent, son, daughter, brother, sister or grandchild of the employer.

With certain exceptions, the Local Authority is responsible for enforcing the general provisions of the Act (other than the fire provisions which fall to the Fire Authority, H.M. Factory Inspectorate and H.M. Inspectors of Mines) in offices and shops and certain railway premises. Outside of London, the principal exception is that H.M. Factory Inspectorate enforces the Act in Local Authority premises including schools, Crown premises, premises in factories and Courts of Justice.

The health, safety and welfare provisions of the Act in connection with the vast majority of offices and shops in the city are administered through the Chief Public Health Inspector's Section. There is close liaison between the Public Health Inspectors and H.M. Factory Inspectorate. Where demarcation problems require resolving, and where it is in the interests of efficient administration, joint agreement is reached concerning duties, in certain cases after joint visits to the premises concerned to decide responsibility. There is also liaison with the officers of the Fire Prevention Department of the Fire Brigade.

The Offices, Shops and Railway Premises Act, 1963, (Commencement No. 1) Order, 1964, brought certain administrative provisions into effect from 1st May, 1964. These include Section 49 of the Act which requires notification by employers of the employment of persons in offices, shops and railway premises (generally referred to as the registration of premises). Notification is given on Form O.S.R.I. in duplicate to the appropriate authority and any person in default is liable to a fine of £20. The duplicate is forwarded by the appropriate authority to the Fire Authority for their records and use in connection with their duties under the Act. Whilst the main provisions of the Act do not apply, as yet, to covered markets, registration of these premises is required. The Order also brought most of the main provisions of the Act into operation on 1st August, 1964, the interval from May to August being for the recruitment of staff to deal with the administration of the Act, to build up a register and to assess the size of the task before beginning enforcement.

The Government is concerned that this Act is fully and uniformly implemented and this is indicated in a number of ways. First, there is the explicit detail of the statutory text and regulation. Second, the Central Government Inspectorate advises the Minister as to whether local authorities are properly discharging their duties, and third, annual reports to the Ministry of Labour are required from local authorities and fire authorities as to their proceedings under the Act; these reports are available for public inspection and sale.

Publicity in connection with the initial registration of premises was given by the Minister of Labour through the national press, through television "filler" films and by posters displayed in Post Offices and Employment Exchanges. Similar posters were sent to local authorities and the local press provided additional publicity. Inspectors of the Health Department have addressed meetings about the Act. A general guide to the Act and a supplement have been published by H.M. Stationery Office.

During the year 5,124 notifications of the employment of persons in offices and shops have been received and the total number of registered premises at the end of the year was 5,100. This falls far short of the estimated 15,000 offices and shops in the city (excluding shops and offices under the jurisdiction of H.M. Factory Inspectorate). Public Health Inspectors have begun the major task of inspecting premises, commencing in the city centre, and have found many un-notified offices and shops. We forwarded to H.M. Factory Inspectors a number of notifications which related to premises under their jurisdiction and similarly a number was sent by H.M. Inspectorate to the Health Department. In some cases the question as to who should deal with a particular premise required joint agreement.

Details of the classes of premises registered are set out in Table A. This Table also indicates that 395 general inspections were carried out by Inspectors between 1st August, 1964, and the end of the year. Table B shows that a total of 795 visits to registered premises were made by Inspectors in this period.

Table C analyses the numbers of persons employed in registered premises by workplace at the end of the year. The total number of employees in premises registered is 54,443, there being slightly more females than males.

8 Inspectors were appointed under Section 52 of the Act (including the Chief and Deputy Chief Public Health Inspectors); 4 clerical staff were employed for most of their time in connection with the Act. The inspection of shops and offices was assigned to the Factories Division. District Public Health Inspectors continue to deal with food hygiene matters in food shops.

By the end of the year a number of statutory instruments had been issued by the Ministry of Labour. Some of these came into operation on various dates during the year, whilst others have different operative dates for different parts of the Orders. The deferred operative dates give owners or occupiers of premises and employers of persons time to meet the requirements of the Act, particularly where structural alterations are necessary. Those Orders which concern the Health Department are discussed in the following part of the narrative and the dates of operation are set out.

The lists of premises covered by the Act are very wide in their scope, but even so as inspections progress it was noted that the definition of "shop premises" failed to include a warehouse occupied by a retailer where the warehouse is situated away from and does not form part of nor is adjacent to the retail shop premises. There are many such warehouses used in connection with the larger retail shops in the city where appreciable numbers of persons are employed and where the safety, health and welfare of such employees can be dealt with only under the limited definition of workplace in the Public Health Acts. This anomaly not only tends to give an incomplete statistical picture of the figures of employment of persons, but also means that any accidents to these employees are not subject to notification and investigation.

Though not required by law, it was felt that it would be helpful if employers, owners and occupiers of premises were informed by letter of contraventions. This has been found to be most effective in obtaining goodwill and has resulted, in practically every case, in the necessary works being carried out very quickly. With regard to those matters which have a deferred implementation, the date by which any deficiencies should be remedied is indicated in the second schedule to the letter, works which required immediate attention being shown in the first schedule. In addition to advice given in writing, Public Health Inspectors frequently met owners and occupiers or their representatives to discuss relevant matters and in every case advice offered was readily accepted. Details of contraventions found to the end of the year are set out in Appendix II.

A resumé of the main provisions of the Act, and contraventions found in connection therewith, follows.

Cleanliness.—The Act requires cleanliness in all premises including furniture, furnishings, etc. Floors and steps must be cleaned not less than once a week by washing or, if effective, by sweeping or other method, and in this connection regard must be paid to the type of business carried on. The Minister has power to make Regulations imposing more detailed requirements about cleanliness but has not done so. Dirty conditions were found in 30 instances, including common parts of buildings for which the owner of the premises is responsible.

Overcrowding.—Overcrowding must be prevented. From 1st August, 1964, no room must be so overcrowded while work is going on so as to cause risk of injury to the health of persons working in it. Space occupied by furniture, furnishings, fittings, machinery, plant, equipment, etc., must be taken into account as well as the number of persons expected to be employed at any one time. A minimum standard is that every employed person must have at least 40 square feet floor space or 400 cubic feet of air space whichever is the greater but this does not apply until 1st August, 1967, in rooms forming part of premises which were in use on 31st July, 1963. It does apply, however, from 1st August, 1964, to premises (or extensions to premises) brought into use after 31st July, 1963.

There are certain exemptions to the overcrowding provisions in

- (a) shop rooms to which the public are admitted,
- (b) offices intended for public use and containing a counter where business is conducted,
- (c) kiosks inside or outside premises,
- (d) theatre and cinema box offices, and
- (e) other ticket or booking offices such as in a bus station.

17 rooms were found which were below standard for the persons employed, or which would be overcrowded if conditions remained unchanged on 1st August, 1967.

Temperature.—A reasonable temperature must be maintained in every room in which persons are employed to work otherwise than for short periods, but any heating method likely to cause injurious or offensive fumes to be discharged into the room is prohibited. Where a substantial proportion of the work does not involve severe physical effort a temperature of less than 16°C. (60·8°F.) is not deemed, after the first hour, to be a reasonable temperature while work is going on. A thermometer must be kept available for use in a conspicuous position on each floor. Inspection of premises revealed an absence of thermometers in 220 cases. Two complaints of insufficient temperature were received during the year; one was found to be justified and the necessary action was taken to provide adequate heating. The other complaint concerned shop premises undergoing alterations and the firm arranged for heat to be available in other rooms for the time being. No Regulations have yet been made under this Section.

Flueless heaters were in use in a number of shop premises in the city centre. This type of appliance could cause injurious or offensive fumes to enter the workroom and methods of heating by other means are therefore much to be preferred. If, however, this type of heating is installed it should preferably be used for background of supplementary heating. In no circumstances should such a heater be fitted in a room without permanent ventilation and the continuous heat input of a flueless space heating appliance should not exceed 500 B.T.U./hr. per 100 cubic feet of room space.

Minimum sizes of ventilators in rooms without flues are set out in Table 5 of British Standard Code of Practice CP 332.301 : 1961 "Domestic Space Heating by means of Independent Gas Appliances".

A firm of multiple tailors with a large number of retail men's shops made strong representations for the retention of existing appliances of this kind in their shops, even after receiving written notice of a contravention of Section 6 in one of their shops. They were referred to the above Code of Practice and particularly to the provisions regarding permanent ventilation.

Ventilation.—The occupier of premises is required to provide effective and suitable means of ventilation in every room in which persons are employed. Absence of proper ventilation was found in 121 cases. A number of these involved internal offices or basement rooms where the only satisfactory method of providing ventilation was by mechanical means.

Lighting.—The Act requires that sufficient and suitable lighting, either natural or artificial, must be provided in every part of premises where persons are working or passing. Standards of lighting may be prescribed by Regulations but none have as yet been issued. Five instances were found where artificial lighting was not sufficient and suitable or not properly maintained to enable employees to do their work without strain or discomfort.

Sanitary Conveniences.—From 1st August, 1964, sufficient and suitable sanitary conveniences must be provided which are conveniently accessible to employees. They must be kept clean, properly maintained, lighted and ventilated. The Sanitary Conveniences Regulations, 1964, set standards for numbers of conveniences related to the number of persons employed. These Regulations come into operation on 1st January, 1966. Details of contraventions are set out in Appendix II.

Washing Facilities.—The Act requires that from 1st August, 1964, suitable and sufficient washing facilities must be provided, including a supply of clean running hot and cold water, or clean running warm water, and soap and clean towels or other suitable means of drying. The Washing Facilities Regulations, 1964, come into operation on 1st January, 1966. Standards for numbers of washing facilities relating to the numbers of persons employed are given. Details of contraventions are set out in Appendix II.

Where buildings are in multiple occupation the owner, instead of the occupier, is responsible for the provision of sufficient and suitable sanitary conveniences and washing facilities including

repair, maintenance and cleanliness of these facilities. Where parts of premises are separately let and the facilities are for the sole use of the occupier, responsibility for cleanliness of the facilities remains with the occupier.

Drinking Water.—An adequate supply of wholesome drinking water is required to be conveniently accessible to all employees. Eight cases of unsatisfactory drinking facilities were noted.

Storage of Clothing.—Suitable and sufficient accommodation for clothing is required. This relates to clothing not worn during working hours and also to working clothes kept on the premises. In one case a damp cellar-head was used for accommodating clothing and upon receipt of complaint the occupier made alternative suitable arrangements. Such arrangements as are reasonably practicable must be made for drying clothing. Regulations may be made under this Section, but none have yet been made.

Seating.—Where employees have opportunities for sitting without detriment to their work, suitable and sufficient facilities must be provided. In shop premises to which the public are invited, seats must be provided on a ratio of not less than one seat to three employees. During the year three cases were found, two of which involved large numbers of employees where insufficient seats were provided. The Act also requires that where work is of such a kind that it (or a substantial part of it) can, or must, be done sitting, each person so employed must be provided with "a seat of a design, construction and dimensions suitable for him and it", together with a foot rest. No cases were found requiring the attention of the employer.

Meals Facilities.—Where persons who are employed in shop premises eat meals on the premises, suitable and sufficient facilities must be provided. Three cases were found where this requirement was not complied with.

Dangerous Premises, Machinery and Practices.—All floors, stairs, steps, passages and gangways are required to be soundly constructed, properly maintained and, so far as reasonably practicable, kept free from obstruction and slippery substances. 25 contraventions of these matters were found during the year. Substantial handrails are required to staircases and 24 contraventions of this provision were found. Advice has been given to a number of occupiers where the stacking of goods, particularly in the gangways of "supermarkets", was likely to cause obstruction and present a risk of accidents to employees or to members of the public.

All dangerous parts of machinery must be fenced by a fixed guard or some automatic safety device. 51 cases were found where machines were insufficiently guarded. These concerned, in the main, meat slicing machinery in food premises or lift motor mechanisms and counter-balance weights. Two cases were found which involved defective or insecure guarding of machinery. Discussions with lift engineers and insurance company agents have taken place on the standard and extent of guarding necessary.

The Act requires that a person under 18 years of age must not clean any machinery which exposes him to risk of injury from a moving part. No cases concerning this were investigated during the year. No person may work at a prescribed dangerous machine unless he has been fully instructed and sufficiently trained or under adequate supervision from a person who has a thorough knowledge and experience of the machine. The Prescribed Dangerous Machines Order, 1964, came into operation on 1st August, 1964. Part 1 of the schedule to the Order prescribes 16 types of machines which, in the opinion of the Minister, are dangerous when worked with the aid of mechanical power. Part 2 prescribes 4 machines which are considered by the Minister to be dangerous whether worked with mechanical power or not. These provisions are of particular importance when investigating accidents. The Act provides for the making of special Regulations for securing the health and safety of employees and for controlling noise and vibration which might affect employees. No such regulations have been made but research is in hand concerning

the problems of noise and vibration. The Act also gives power to a Magistrates' Court to put down dangerous practice and conditions if satisfied of the need on a complaint by the local authority or enforcing inspector. No cases were dealt with during the year.

No person may be required to lift, carry or move a load so heavy as to be likely to cause an injury. The Minister can make Regulations which prescribe the maximum weight employees may lift.

Notification of Accidents.—If any accident causes the death of an employed person or prevents him from doing his normal work, then notification must be sent on Form O.S.R.2 to the enforcing authority by the occupier of the premises. If the injured person dies after the original notification has been sent, a further notification must be sent. The purpose of the notifications is to help enforcing authorities to detect breaches of the Act and to enable them to advise occupiers on measures to prevent the recurrence of accidents. Notification also enables statistical information to be forwarded to the Ministry of Labour for a study of different types of accidents in order to assess the need for preventive measures; accidents are codified in a return forwarded to the Ministry of Labour every three months. A summary of accidents up to the end of the year is given in Appendix I. No fatal accidents were reported during the year.

Nine accidents were investigated but most proved not to be of a type that in future would need full investigation. In three cases, informal advice was given; in three cases, formal warnings were given about the state of the premises or the proper instruction of staff in carrying out their work, and, in the remaining three cases, no action was required. Where necessary, copies of reports were forwarded to the Ministry of Labour. Close liaison exists between H.M. Factories Inspectorate and inspectors in the Health Department. Four accident reports were forwarded by H.M. Factories Inspectorate to this Department during the year.

Certain notifications of accidents which are not notifiable under the Act were received. Three concerned accidents which occurred prior to the coming into operation of the Act and six have been dealt with under other enactments or referred to accidents occurring on the public highway or where the injured person was not disabled for more than three days from doing his normal work. One case concerned a child who was badly injured by being trapped in folding doors accessible from the public highway. This accident was forwarded to the Department by H.M. Factories Inspectorate and was investigated on the grounds of the seriousness of the case.

First Aid.—The Offices, Shops and Railway Premises First Aid Order, 1964, No. 970, was made on 25th June, 1964. This Order and the provisions of the Act dealing with first aid are to be brought into operation (except in relation to premises in covered markets) on separate dates.

On 1st December, 1964, all the requirements concerning First Aid boxes became applicable. Occupiers of premises must provide a first aid box or cupboard containing first aid requisites or appliances prescribed in the Order (and no article other than those prescribed). Premises covered by the Food Hygiene Regulations must comply with the requirements of those Regulations as well as with this Order, the difference in contents between the two boxes being the provision in food premises of waterproof dressings and antiseptics. The boxes must at all times be kept fully stocked and may contain scissors and extra bandages. Each box must be in charge of a responsible person.

On 1st September, 1965, the requirement that a person trained in first aid to a certain standard must be available in premises where the number of employees exceeds the "relevant number" will become operative. "Relevant number" is defined as 150 persons or less as may be prescribed by Regulation. The name of the person in charge of the box must be displayed by notice and no person may be in charge of two boxes. On fuel storage premises which are wholly in the open a notice must be given to each employee.

Details of contraventions found are shown in Appendix II.

Where a First Aid Room is maintained at or in conjunction with premises and arrangements exist for securing the immediate treatment in that room of persons who, while in the premises, suffer bodily injury or become ill, the enforcing authority may "by instrument in writing" served on the occupier, exempt the premises from the requirements about first aid boxes, the provision of a trained first-aider and the notice concerning him. The standards required are as follows:—

The room must be easily accessible to employees and be in charge of either a medical practitioner, a qualified nurse or a "first-aider" trained to the standard required, and that person or some other so qualified must be readily available at the room during working hours. There must be a sink or wash-hand basin with hot and cold water, a table with a smooth impervious top, a supply of first aid requisites of no less standard than the largest box, a couch, a stretcher and screens to secure privacy.

Three certificates of exemption were granted.

Exemptions.—If the enforcing authority are satisfied that compliance is not readily practicable they may exempt individual premises from any of the following requirements:—

- (a) room space for employees,
- (b) temperature,
- (c) sanitary conveniences, and
- (d) the requirement to supply running water.

The criteria for exemptions are strict and the owner or occupier is expected to use his limited period of exemption to bring the premises up to standard. There is a special form of application for exemption (O.S.R.5) and the procedure is prescribed. This includes the posting of a notice (for 14 days) stating the intention to apply for exemption which must be displayed in a prominent place in the premises so that employees can be aware of it. Applications could be made from 1st May, 1964, and could be granted in advance of the date when each of the requirements are operative. Exemptions in respect of the first three items may be granted for a period not exceeding two years, that concerning running water for a specific

period or without time limit. In this connection exemptions can only be granted from the requirements that the water provided for washing must be running. There can be no exemptions from the obligation to provide washing facilities. An exemption regarding running water is very unlikely to be asked for in the city as, in almost every case, towns mains water supply is installed. A firm of solicitors did make application for exemption from all the four requirements mentioned above but when advised that their premises already complied with the Act the application was withdrawn.

No exemptions were granted.

General.—The provisions of the new Act are being effectively enforced and where contraventions are found advice is given to the owner or occupier. In no instance has it been necessary to institute proceedings.

The main task is the initial inspection of premises in the city which will be completed as soon as practicable but may take a number of years. Certain re-visits are made at the request of the owners or occupiers to discuss contraventions or to see that works have been carried out satisfactorily. Details of contraventions are given in Appendix II.

Public Health Inspectors engaged on this work also deal with contraventions of the Public Health Act and Food Hygiene Regulations which are noted during their visits and details of the work done in this connection are included in the table on page 202.

OFFICES, SHOPS AND RAILWAY PREMISES ACT, 1963

TABLE A—REGISTRATIONS AND GENERAL INSPECTIONS : I.8.64—31.12.64

Class of premises	Number of premises registered during the year	Total number of registered premises at end of year	Number of registered premises receiving a general inspection during the year
Offices	1,862	1,845	95
Retail shops	2,509	2,505	268
Wholesale shops, warehouses	379	377	6
Catering establishments open to the public, canteens	369	368	26
Fuel Storage depots	5	5	..
Totals	5,124	5,100	395

TABLE B—NUMBER OF VISITS OF ALL KINDS BY INSPECTORS TO REGISTERED PREMISES—795

TABLE C—ANALYSIS OF PERSONS EMPLOYED IN REGISTERED PREMISES BY WORKPLACE

Class of workplace	Number of persons employed
Offices	27,386
Retail shops	16,136
Wholesale departments, warehouses	5,334
Catering establishments open to the public	5,104
Canteens	455
Fuel storage depots	28
Total	54,443

Males 25,720
Females 28,723

APPENDIX I

ACCIDENT RETURN—YEAR ENDED 31.12.64

<i>Persons Injured</i>	<i>Total</i>	<i>Workplace where Accident Occurred</i>	<i>Total</i>
Men	13	1 (Office)	6
Women	22	2 (Retail Shop)	21
Boys	2	3 (Wholesale Shop/Ware- house)	6
Girls	1	4 (Catering Establishment)	3
		5 (Canteen)	2
		6 (Fuel Storage Depot) ..	—
	38		38

CAUSE OF INJURY

<i>Code</i>		
14.	Machinery—Power and Non-Power Driven. (Fall on escalator)	1
41.	Fire and Explosion	1
45.	Hand Tools	2
51.	Falls of Persons—on or from fixed stairs	10
52.	Falls of Persons—on or from ladders or step ladders	1
53.	Falls of Persons—other falls from one level to another	2
54.	Falls of Persons—falls on the same level	4
61.	Stepping on or striking against object or person	4
62.	Handling goods	10
63.	Struck by falling object	2
64.	Not otherwise specified (trapped thumb in safe door)	1
		38

NATURE OF INJURY

<i>Code</i>		
10.	Fractures and dislocations	6
11.	Sprains and strains	10
14.	Open wounds and surface injury	4
15.	Bruising, crushing and concussion	16
16.	Foreign body in orifice—includes eye	1
17.	Burns	1
		38

APPENDIX II

OFFICES, SHOPS AND RAILWAY PREMISES ACT, 1963

SUMMARY OF CONTRAVENTIONS FOUND

(Number of General Inspections—395)

CONTRAVENTION	No.	Operative Date if other than 1.8.64
<i>Cleanliness</i>		
Fittings not kept in a clean state	1	
Walls not kept in a clean state	9	
Ceilings not kept in a clean state	9	
Floors not kept in a clean state	8	
Steps not kept in a clean state	1	
Accumulation of dirt/refuse	2	
<i>Overcrowding</i>		
Rooms unsuitable for use as workrooms due to lack of space	7	1.8.67
Rooms overcrowded	10	1.8.67
<i>Temperature</i>		
Reasonable temperature not maintained	1	
Absence of convenient means to enable persons to warm themselves	1	
Absence of accessible means to enable persons to warm themselves	1	
Absence of thermometer	220	
<i>Ventilation</i>		
Absence of effective and suitable means of ventilation	121	
<i>Lighting</i>		
Means of artificial lighting not sufficient and suitable	2	
Means of artificial lighting not properly maintained	3	
<i>Sanitary Accommodation</i>		
Absence of intervening space with means of permanent ventilation to the external air to the sanitary conveniences	24	1.1.66
The intervening space in connection with the sanitary conveniences unprovided with permanent means of ventilation to the external air	33	1.1.66
Absence of suitable doors to the sanitary conveniences	2	
Absence of door fastenings to the sanitary conveniences	11	
Absence of marking to show sex of user to the sanitary conveniences	34	1.1.66
Absence of suitable and effective means for the disposal of sanitary dressings	12	1.1.66
Sanitary conveniences not kept clean	20	

CONTRAVENTION	No.	Operative Date if other than 1.8.64
<i>Sanitary Accommodation (Contd.)</i>		
Means of artificial lighting not properly maintained in the sanitary conveniences	9	
Sanitary conveniences not maintained in a proper condition	24	
Sanitary conveniences unprovided with means of permanent ventilation to the external air	38	
Insufficient sanitary conveniences	13	1.1.66
Absence of conveniently accessible sanitary conveniences	2	
Absence of separate sanitary conveniences for use of male and female employees	9	1.1.66
Sanitary conveniences not provided with effective means of lighting	17	
Absence of door to intervening space of sanitary convenience	1	1.1.66
Existing sanitary conveniences not kept separate for use of sexes employed	1	1.1.66
Absence of mechanical extract ventilation to the sanitary conveniences	1	
<i>Washing Facilities</i>		
Absence of clean running hot and cold water or warm water to the washing facilities	2	
Absence of clean running hot water or warm water to the washing facilities	94	
Absence of soap to the washing facilities	13	
Absence of clean towels or other suitable means of drying to the washing facilities	17	
Means of artificial lighting not properly maintained in the washing accommodation	3	
Washing accommodation not kept clean and in an orderly condition	11	
Washing facilities not kept clean	5	
Washing facilities not properly maintained	1	
Washing accommodation unprovided with means of ventilation to the external air	16	1.1.66
Absence of marking to show sex of user to the washing accommodation	51	1.1.66
Insufficient washing facilities	16	1.1.66
Absence of conveniently accessible washing facilities	9	1.1.66
Absence of separate washing facilities for use of male and female employees	22	1.1.66
Existing washing facilities not kept separate for the use of sexes employed	7	1.1.66
Washing facilities unprovided with effective means of lighting	2	
<i>Supply of Drinking Water</i>		
Absence of adequate supply of drinking water	1	
Absence of suitable drinking vessels	4	
Insufficient number of drinking vessels for the use of persons employed	3	

CONTRAVENTION	No.	Operative Date if other than 1.8.64
<i>Clothing Accommodation</i>		
Absence of suitable and sufficient clothing accommodation	1	
<i>Sitting Facilities (Shops only)</i>		
Absence of sufficient, suitable, convenient and accessible facilities for sitting for the use of shop employees	3	
<i>Eating Facilities (Shops only)</i>		
Absence of suitable and sufficient facilities for eating meals	3	
<i>Floors, Passages and Stairs</i>		
Not properly maintained	17	
Not kept free from obstruction	8	
Staircase unprovided with substantial handrail ..	15	
Open side of staircase insufficiently guarded ..	9	
<i>Dangerous Machines</i>		
Absence of suitable guard	51	
Insecure guarding	1	
Defective guarding	1	
<i>First Aid</i>		
Absence of first aid box or cupboard to the prescribed standard	140	1.12.64
First aid box not to prescribed standard for number of persons employed	71	1.12.64
First aid cupboard not to prescribed standard for number of persons employed	2	1.12.64
Absence of suitable notice stating the name of person in charge of the first aid box.	1	1.9.65
Absence of suitable notice stating the name of person in charge of the first aid cupboard ..	1	1.9.65
Person trained in first aid not always available during working hours	1	1.9.65

SANITATION

J. GOODFELLOW, F.R.S.H., M.A.P.H.I.

Chief Public Health Inspector

Water.—During the year 390 samples of drinking water were taken by the Department for bacteriological examination. Of these, 353 were taken from the Corporation's mains supply, 21 from springs, 15 from bore holes and one from a well. 6 samples of town's water were unsatisfactory but subsequent samples taken from the same domestic taps proved satisfactory. 13 samples taken from springs and 10 samples taken from wells and bore holes were unsatisfactory.

Sewage Disposal.—(Report of Mr. C. G. Thirlwall, City Engineer).—During 1964, 8 per cent. of the bacteria beds were out of action while repairs were in progress. The corresponding figure for 1963 was 8 per cent. The average analyses of final effluent at Knostrop Sewage Works from January 1st to December 31st, 1964, were:—

Oxygen absorbed in 4 hours	..	2.52 parts per 100,000
Suspended solids	.. .. .	5.8 parts per 100,000

Regarding the question of sewage purification, the experimental work has now been completed. The proposals for the modernisation of the plant necessary to achieve the requisite purification standard have been submitted to the Ministry for approval and it is anticipated that construction of the first section of the scheme will commence in the very near future.

Public Cleansing.—(Report of Mr. G. F. Mellor, Director of Public Cleansing).—Particulars of refuse collection and disposal during 1964 are as follows:—

	<i>Tons</i>
Household refuse and nightsoil collected	.. 170,553
(a) dealt with at destructors	.. .. 69,217
(b) disposed of at tips and for agricultural purposes	.. .. . 86,318
(c) Number of tons of cesspool contents discharged into Corporation sewers	.. 15,018

The quantity of screened refuse dust sold as manure to farmers was 650 tons.

The number of dustbins provided and delivered to dwelling-houses was 8,441. The total number provided since the inception of the scheme in December, 1946, is 201,374.

Water Supply.—(Report of Mr. J. R. Roberts, General Manager and Engineer of the Waterworks Department.)—The water supply of the area has been satisfactory both in quality and quantity during 1964.

Bacteriological examinations of raw water arriving at Headingley Filtration Works were made during the year and the water going into supply after filtration and chlorination was also classified. The following table shows the results of these examinations:—

SUMMARY OF BACTERIOLOGICAL EXAMINATIONS

Raw Water Arriving at Headingley Filtration Works		No. of samples	Average Count
Probable No. of Coliform bacilli in 100 ml. water ..		310	149
Probable No. of B.Coli Type 1 in 100 ml. water ..		310	92
Anaerobes in 40 ml. water (Wilson and Blair's Test) ..		52	4
Agar Plate Count, 48 hours at 37°C. Colonies per ml. ..		51	39

WATER GOING INTO SUPPLY AFTER FILTRATION AND CHLORINATION				
(a) Water entering the Distribution System				
No. of samples Examined	Ministry of Health Classification (1956)			
	Class 1	Class 2	Class 3	Class 4
1,011	99.5%	0.3%	0.1%	0.1%

(b) Samples taken from Service Reservoirs and Consumers' Premises (excluding samples taken by Public Health Dept.)			
No. of Samples	Satisfactory	Suspicious	Unsatisfactory
731	99.1%	0.4%	0.5%

SUMMARY OF CHEMICAL ANALYSES OF THE PUBLIC WATER SUPPLY
FOR THE YEAR ENDED 31ST DECEMBER, 1964

(Based upon 139 samples)

	Parts per million except where otherwise stated		
	Average	Maximum	Minimum
*Turbidity (Silica scale)	Less than 2	4	Less than 2
*Colour (Hazen Units)	12	30	5
*pH	7.25	8.7	6.8
Free Carbon Dioxide	1.9	2.8	Nil
Alkalinity (Carbonate hardness) (in terms of CaCO ₃)	22.5	32	16
Total Hardness (in terms of CaCO ₃)	54.5	66	46
Non-Carbonate (Permanent) Hardness (in terms of CaCO ₃)	32.0	41	24
Oxygen absorbed from Permanganate in 4 hours at 27°C.	1.49	2.8	0.4
Ammoniacal Nitrogen (in terms of N)	0.006	0.044	Nil
Albuminoid Nitrogen („ „ „ „)	0.054	0.160	0.013
Nitrite Nitrogen („ „ „ „)	Nil	Nil	Nil
Nitrate Nitrogen („ „ „ „)	0.59	0.85	0.30
Chlorine present as Chloride (in terms of Cl)	19	22	16
Silica (in terms of SiO ₂)	7	8	5
Iron compounds (in terms of Fe)	Faint trace	0.35	Nil
Lead „ („ „ „ Pb)	0.03	0.2	Nil
Total solids dried at 180°C.	114	133	98
*Electrical Conductivity— at 20°C. Micromhos/CM ³	155	185	118
Residual Chlorine (on reaching consumer)	Nil/trace	—	—
Fluoride (in terms of F)	0.1 p.p.m.	m. (Average of 8 samples)	

* Summary based on daily determinations on samples taken from Distribution Mains supplying all parts of the City and weekly determinations on samples from Service Reservoirs.

Plumbo-Solvency.—Water leaving the storage reservoir at Eccup is treated with lime at the rate of approximately 5 p.p.m. with the object of producing a water which, after filtration and chlorination, is not plumbo-solvent.

Regular determination of pH and alkalinity are made on samples of water taken from various points in the distribution system and the determination of lead is included in the chemical analysis of samples which have been drawn through lead pipes. The maximum amount of lead found during 1964 was 0.2 p.p.m.

Action in respect of any form of contamination.—There were no instances of contamination requiring special action during 1964.

Particulars of dwelling-houses and population supplied from the public water mains as at 31st March, 1964.—(a) Number of dwelling-houses within the City of Leeds boundary—178,200 (estimated); (b) Population supplied from the public water mains: (i) direct to houses within the City of Leeds boundary—508,790, (ii) by means of stand-pipes—none.

Keeping of Animals.—The number of pig-keepers in the city decreased to 118 and the number of pigs kept was of the order of 3,500.

Closet Accommodation.—132 statutory notices were served under the provisions of Section 45, Public Health Act, 1936, in connection with closet accommodation. In the owners' default, 21 water-closets were repaired at a cost of £94 16s. 6d.

Offensive Trades.—The number of premises in the city where offensive trades are carried on is 104. 42 visits of inspection were made.

Common Lodging Houses.—68 visits of inspection were made to the six common lodging houses.

Mention was made, last year, of the decline in the number of common lodging houses over the years. There is now one modern municipal hostel with over 500 beds for men and women. There are three hostels well run on the basis of "social work" by religious organisations, each catering for men only and having an aggregate capacity of 300 beds. In all of these, facilities and maintenance are of good, or very good, standard. Good meals are provided at modest cost. Works, such as re-equipment of kitchens, re-decoration of rooms, tiling of walls in washrooms, etc., are regularly effected to maintain or improve standards.

In addition, there remain now only two privately run common lodging houses of the older type, catering for men only with an

aggregate capacity of 150 beds. Catering is not undertaken by the proprietors; the lodgers prepare their own food on a large cooking oven. Both lodging houses have been conducted on reasonably satisfactory lines. Closure of one of these is imminent because of redevelopment of the area in which it stands and, in anticipation of that, the numbers of men catered for there have been progressively declining.

Houses-Let-in-Lodgings.—The number of visits paid to houses of this type was 168.

Unauthorised Camping by Vagrants.—Complaints continued to be received of caravans parking on unauthorised sites. The problem of itinerant caravan dwellers still causes the Department concern and repeated visits have been made to known sites but it is almost impossible to prevent these people moving from one site only to appear quickly on another.

During the year a petition was received from tenants on a Corporation Estate complaining of gypsies camping on an adjacent privately-owned field. Thirteen caravans, seven lorries and three cars were found on the land. After repeated visits by public health inspectors and with the co-operation of the Town Clerk's Department and the owners of the property, all the gypsies left of their own volition. When the land was cleared of caravans, the owners fenced it off and no further trespassing by gypsies has occurred.

Canal Boats.—The registration of two canal boats no longer based on Leeds were cancelled. 119 canal boats were on the register at the end of the year, one new canal boat having been registered. Periodical visits of inspection were made to wharves and locks and the number of boats inspected was 8.

In essence Public Health legislation concerning canal boats dates from the late 19th century and was related to the very different hygienic and social conditions then existing. The changing pattern calls for comment.

In earlier days whole families including man, wife and young children often lived on the boats. Journeys were slow, sometimes horse-drawn and even helped by human effort, and individual trips could take several days. The essential needs were, therefore, to control the use of canal boats as "living accommodation", to minimise overcrowding, to secure cleanliness and ventilation of quarters and particularly to control the spread of infectious disease, remembering that until the turn of the century smallpox was a constant menace and that itinerant folk living in poor hygienic conditions were especially liable to spread disease.

The smaller boats have been replaced by fewer boats of larger type. Mechanical propulsion, mainly diesel, has completely replaced towing. This has made for simpler operation and speeded up movement so that boats are fewer and make swifter trips. Families are nowadays hardly ever reared in the living accommodation on canal boats which now serve casually, say, a couple of men during trips involving perhaps a single night's "tie-up" on a two-day journey (comparable to long distance lorry driving) and allowing reasonable home life. Very occasionally a member of the family may live aboard for a trip.

The British Waterways undertaking owns a substantial proportion of the vessels frequenting Leeds waters, but a somewhat larger number are operated by private undertakings which provide waterborne goods transport.

The justly famous 'Leeds and Liverpool' Canal completed in the year 1777, which goes westward from the city over the Pennines and through Lancashire to Liverpool, has had diminishing traffic for many years and is now scarcely used by Leeds commercial traffic. No such decay, however, affects traffic to the ports of the Humber and the river is still a valuable artery of trade to and from the city.

Public Sewers.—1,213 public sewers affecting 3,913 houses or other premises were cleansed. Works of repair or maintenance were carried out to 127 defective public sewers, and the cost of this work was recovered from the owners of the premises served by the sewers.

Drains.—It was necessary to carry out 2,395 drain tests, 77 being in respect of new drains relaid in place of those found defective. A large number of informal notices was served on owners of property for drainage repairs and in 135 cases it was necessary to serve statutory notices under Section 39 of the Public Health Act, 1936. The drains of 13 houses were repaired or renewed by the Department in default as a matter of urgency and the cost recovered from the owners of the premises.

184 statutory notices were served under Section 17, Public Health Act, 1961, requiring the removal of stoppages from drains within 48 hours. 71 such drains were cleansed by the Department in default and the cost recovered from the owners. The drains of 2,063 houses or other premises belonging to Corporation Departments were cleansed, repaired or renewed and the cost recovered from the Departments concerned.

The cleansing and repair of drains serving 654 houses was undertaken by the Department under Section 22, Public Health Act, 1961, at the owners' request and the cost charged to the owners.

Removal of Persons in need of Care and Attention (Section 47, National Assistance Act, 1948).—4 certificates were issued by the Medical Officer of Health under this provision. The persons concerned, who were living in insanitary surroundings and unable to devote to themselves proper care and attention, were admitted to hospital.

Examination of Plans.—The arrangement whereby certain plans of new work submitted to the Building Surveyor's Office are forwarded to this Department for comment continued during the year. 2,328 such plans were examined and comments made regarding necessary amendments.

District Inspection and Investigation of Complaints.—The number of houses surveyed and examined was 12,847. The number of complaints investigated was 11,732 and 4,005 nuisance and housing defects were remedied. The tables on pages 202 to 204 give details of the work done by public health inspectors.

Notices.—The number of informal notices served in relation to Public Health Act matters was 1,187 and statutory notices served in this connection numbered 831.

Hairdressers and Barbers.—Under Section 244 of the Leeds Corporation Act, 1956, 14 persons carrying on the trade of hairdresser or barber and their premises in the city were registered. The number on the register on 31st December, 1964, was 493.

Sampling of Swimming Bath Waters.—20 samples of public or school swimming bath water were submitted to the Public Health Laboratory Service for bacteriological examination. In addition 5 samples were submitted to the City Analyst for chemical analysis. Copies of reports on the samples were forwarded to the Director of Baths and Wash-houses or the Director of Education for information and action.

Pet Animals Act, 1951.—Under Section 1 of the Pet Animals Act, 1951, one licence was granted to persons keeping pet shops and 27 licences were renewed. Visits of inspection were made to all licensed pet shops to ensure that the conditions of the licence were complied with.

Animals Boarding Establishments Act, 1963.—Under Section 1 of this Act, 12 licences were granted to persons keeping a boarding establishment for animals. The premises were in each case inspected and found satisfactory.

Legal Proceedings.—*Public Health Act, 1936.*—The occupier of a dwelling-house was prosecuted for failing to comply with a notice served in respect of the filthy and unwholesome condition of the premises. A fine of £1 was imposed.

Rodent Control.—(*Report of Mr. W. Pickles, Public Health Inspector in charge of Rodent Control*)—4,006 complaints were received by the Rodent Control Section. Of these, 2,117 referred to rats, 1,768 to mice, 63 to pigeons and 58 miscellaneous which included moles, squirrels, rabbits, cats, starlings, sparrows, magpies and crows.

The following table shows the numbers of complaints of rats and mice analysed according to months and types of premises affected.

1964	Rats					Mice				
	B	PD	LA	A	Total	B	PD	LA	A	Total
January	37	106	3	..	146	51	89	11	..	151
February	34	86	5	..	125	58	64	11	..	133
March	29	104	4	..	137	34	75	10	..	119
April ..	36	142	5	..	183	29	70	7	..	106
May ..	34	143	4	2	183	27	83	13	1	124
June ..	40	151	5	..	196	40	77	19	..	136
July ..	19	136	5	..	160	29	61	7	..	97
August	27	136	7	1	171	29	86	3	..	118
Sept. ..	44	177	4	..	225	54	115	19	..	188
October	48	171	11	1	231	48	144	17	..	209
Nov. ..	55	155	6	..	216	52	172	15	..	239
Dec. ..	32	105	7	..	144	27	114	7	..	148
Total	435	1,612	66	4	2,117	478	1,150	139	1	1,768

B—Business Premises

LA—Local Authority's premises

PD—Private Dwellings

A—Agricultural or Horticultural Premises

The totals for business premises and dwellings include the following in Corporation ownership:—complaints of rats—20 business premises and 308 houses; complaints of mice—31 business premises and 322 houses.

Inspections.—17,394 inspections and visits were made in connection with complaints and for the servicing of infested premises.

Sewer Baiting.—Owing to pressure of surface complaints, sewer treatment was suspended, but with reorganisation and the engagement of additional staff and vehicles, a systematic baiting of all sewer manholes in the city should be in operation in the late Spring of 1965.

Treatments.—During the year 3,028 premises were serviced for rat or mouse infestation (831 business premises, 2,054 private dwellings, 134 Corporation premises and 9 agricultural premises). 2,332 new infestations were recorded, 1,301 were mouse infestations and 1,031 rat infestations. Of the new infestations 2,315 were treated by the Rodent Control Section. Advice was given at a number of

premises where slight mouse infestation occurred and occupiers carried out their own treatment. At a number of business and Local Authority premises, principally in order to prevent re-infestation, baits laid at strategic points are inspected monthly.

Prevention of Damage by Pests Act, 1949.—26 informal notices were served for treatments and structural proofing and 53 premises were proofed against rodents. The co-operation of other Corporation Departments and their help in carrying out certain works in order to reduce the population of rodents is much appreciated.

Warfarin.—Resistance or immunity to anti-coagulants, especially in mice, is still on the increase and this is now extending to rats and increased quantities of Warfarin are being consumed before death occurs. It is understood that this resistance is still the subject of research but no satisfactory solution has yet been reached. Other methods of poisoning and trapping call for more man-hours and visits. No estimated kill by poison has been made but 4,232 dead rodents (including 24 rabbits) were counted.

Pigeons.—63 complaints were received from occupiers of dwellings and business premises of nuisance from pigeons.

727 inspections and visits were made and 948 birds were destroyed by shooting and trapping.

General.—Building in agricultural land on the outskirts of the city is increasing the pressure on Rodent Control Section; as building proceeds, rats disturbed from their natural habitat find new quarters leading to complaints from occupiers. This is especially so where the developed site borders on streams, hedgerows and ditches. Contractors' cabins and canteens are favourable resorts but most contractors co-operate in notification and necessary works.

Complaints are still on the increase and whether this is due to weather conditions over the past twelve months, a "rodent cycle", increased resistance to coagulant poisons or the public becoming more rodent conscious, it is difficult to say. Particularly in canteens, cafes and restaurants, bins for waste material must be kept in good condition with tight-fitting lids; places where rats and mice nest must be eliminated and food kept in rat-proof containers, always remembering the old adage that "prevention is better than cure",

WORK DONE BY PUBLIC HEALTH INSPECTORS, 1964.

ANALYSIS OF INSPECTIONS	North Div.	East Div.	West Div.	South Div.	Housing Div.	Factories Div.	Smoke Control	Rodent	Total
DWELLINGS.									
1. Houses unfit and capable of repair .. .. .	..	..	..	..	..	..	..	..	..
2. Houses unfit and incapable of repair .. .. .	..	..	..	..	..	..	..	..	..
3. Houses inspected for Demolition Orders .. .. .	..	..	..	..	13	..	..	..	13
4. Houses inspected for Closing Orders .. .. .	..	..	..	..	116	..	..	..	116
5. Houses inspected in Clearance Areas .. .. .	..	..	..	..	2,605	..	..	..	2,605
6. Houses-let-in-lodgings	124	1	42	1	..	..	..	..	168
7. Separate dwellings within houses-let-in-lodgings	596	1	81	12	..	..	..	..	690
8. Houses surveyed for C.P.O.	23	..	..	1	..	..	..	..	24
9. Houses for overcrowding	13	3	..	8	..	..	..	..	24
10. Houses for preferential rehousing	58	29	29	18	29	..	..	..	163
11. Houses for Certificates of Disrepair	2	7	2	9	..	..	..	..	20
12. Houses for complaints and defects	1,945	685	1,148	1,086	..	..	..	..	4,864
13. Houses for drainage	3,244	2,293	2,015	2,296	138	39	..	..	10,025
14. Houses for ashes accommodation	110	74	206	35	..	..	..	..	425
15. Houses for closet accommodation	271	228	75	278	..	..	..	..	852
16. Houses for infectious diseases .. .. .	..	..	..	2	..	..	..	..	2
17. Houses for filthy/verminous conditions	39	17	24	38	..	..	..	..	118
18. Housing re-inspections	2,684	757	1,784	2,005	7,170	..	..	..	14,400
19. Common lodging houses .. .. .	..	6	..	..	62	..	..	..	68
20. Canal boats .. .. .	..	..	..	..	8	..	..	..	8
21. Caravan sites	18	60	..	10	3	..	..	..	91
22. Tents, vans or sheds	10	313	..	28	..	..	..	..	351
23. Other visits not included above	480	128	80	230	3,242	..	..	..	4,160
DISCRETIONARY/STANDARD GRANTS.									
24. Visits to determine " life " .. .. .	..	..	..	..	1,724	..	..	..	1,724
25. Initial survey for Discretionary Grant	320	308	439	505	..	..	..	..	1,572
26. Initial survey for Standard Grant	19	40	58	68	..	..	..	..	185
27. Inspection of work in progress	1,223	1,140	2,290	1,955	..	..	..	..	6,608
28. Visits for enquiry	870	834	537	910	..	..	..	..	3,151
FOOD AND DRUGS PREMISES.									
29. Ice-cream	27	75	75	35	..	..	..	..	212
30. Fried Fish	34	44	63	30	..	..	..	..	171
31. Pickles and sauces .. .. .	..	3	..	..	..	..	..	..	3
32. Sausages and meat products	5	66	23	5	..	..	..	..	99
33. Other registered premises	1	9	3	..	..	..	..	..	13
34. Bakehouses	39	35	60	13	..	2	..	..	149
35. Butchers	74	274	191	14	..	..	..	..	553
36. Provision merchants	112	296	121	11	..	..	..	..	540
37. Restaurants, cafes, canteens, kitchens	49	963	183	14	..	94	..	..	1,303
38. Other food premises	123	292	134	30	..	8	..	..	587
39. Visits for enquiry	624	467	3	15	..	4	..	..	1,113
TRADES AND BUSINESSES.									
40. Factories with mechanical power .. .. .	..	..	..	..	..	1,327	..	..	1,327
41. Factories without mechanical power .. .. .	..	..	..	..	..	31	..	..	31
42. Other premises, constructional works, etc. .. .. .	..	..	..	..	..	10	..	..	10
43. Offices	1	4	..	..	..	8	..	..	13
44. Workplaces	3	7	..	..	..	140	..	..	150
45. Hairdressers	5	8	22	6	..	..	..	..	41
46. Shops .. .. .	..	63	5	9	..	12	..	..	89
47. Outworkers .. .. .	..	..	..	..	..	4	..	..	4
48. Offensive trades	13	3	19	7	..	..	..	..	42
49. Pet Shops	4	19	12	6	..	..	..	..	41
50. Visits for enquiry	3	38	2	3	..	240	..	..	286
SMOKE CONTROL—GENERAL.									
51. Smoke observations	14	5	12	..	..	79	19	..	129
52. Visits for grit emissions .. .. .	..	..	..	..	..	6	5	..	11
53. Inspection of boiler plant	2	14	..	..	..	5	73	..	94
54. Visits for prior approval of furnaces .. .. .	..	..	..	..	..	..	7	..	7
55. Visits for height of chimneys .. .. .	..	..	..	..	..	5	64	..	69
56. Atmospheric pollution records .. .. .	..	..	..	..	..	..	1,837	..	1,837
57. Visits for enquiry	1	33	3	..	..	1	174	..	212
SMOKE CONTROL AREAS									
58. Preliminary enquiries .. .. .	..	..	..	..	..	..	3,208	..	3,208
59. Inspection of approved appliances installed .. .. .	..	..	..	..	..	..	2,970	..	2,970
60. Smoke observations	116	..	3	20	..	..	185	..	324
61. Visits for enquiry	4	11	..	..	..	..	1,291	..	1,306

WORK DONE BY PUBLIC HEALTH INSPECTORS, 1964.—contd.

ANALYSIS OF INSPECTIONS		North Div.	East Div.	West Div.	South Div.	Housing Div.	Factories Div.	Smoke Control	Rodent	Total
OFFICES, SHOPS AND RAILWAY PREMISES ACT, 1963.										
62.	General Inspections .. .. .	..	..	..	..	..	395	..	..	395
63.	Other visits .. .. .	..	..	..	..	..	400	..	..	400
GENERAL.										
64.	Rodent infestations .. .. .	..	..	..	..	..	..	..	17,394	17,394
65.	Visits <i>re</i> Pigeons .. .. .	..	1	1	1	..	..	..	727	730
66.	Farms and agricultural units .. .. .	..	..	..	4	..	..	..	..	4
67.	Stables	7	..	..	..	..	..	..	..	7
68.	Pig-styes	9	127	6	6	..	..	..	..	148
69.	Poultry and other animals	1	5	12	3	..	..	..	..	21
70.	Water supply	118	89	92	120	..	1	8	..	428
71.	Infirm and sick persons	3	..	..	..	..	..	..	..	3
72.	Watercourses and ditches	4	18	..	..	..	1	..	..	23
73.	Culverts .. .. .	..	2	..	..	..	4	..	..	6
74.	Noise nuisances	5	9	7	1	..	106	..	..	128
75.	Other nuisances	12	18	1	9	..	120	..	..	160
76.	Public conveniences	60	24	130	15	..	7	..	..	236
77.	Visits for enquiry	197	416	507	260	193	43	90	..	1,706
78.	No access visits	743	516	705	670	363	89	5,706	..	8,792
79.	Other visits (not included in above)	72	163	5	11	2	1	566	..	820
REPAIRS AND IMPROVEMENTS.										
80.	Roofs, valley gutters, flashings, etc.	74	24	96	98	..	..	..	..	292
81.	Chimney stacks, flues, pots, etc.	9	10	17	22	..	..	..	..	58
82.	Eaves spouts	25	15	63	54	..	..	..	..	157
83.	Fallpipes	31	11	41	31	..	..	..	..	114
84.	Walls, brickwork, pointing	22	13	37	28	..	..	..	..	100
85.	Damp-proof courses provided .. .. .	..	1	1	2	..	..	..	..	4
86.	Dampness otherwise remedied	6	3	12	20	..	..	..	..	41
87.	Wallplaster	18	8	13	26	..	..	..	..	65
88.	Ceilings	5	6	9	10	..	..	..	..	30
89.	Floors	7	3	6	8	..	..	..	..	24
90.	Windows, frames, cords, etc.	18	8	20	14	..	..	..	..	60
91.	Doors, door-frames	4	1	5	9	..	..	..	..	19
92.	Ovens, fire-ranges, grates, etc.	2	3	8	10	..	..	..	..	23
93.	Washing boilers, setpots, etc. .. .. .	..	1	..	..	..	..	..	..	1
94.	Sinks, lavatory basins, etc.	6	2	6	6	..	..	..	..	20
95.	Waste pipes	15	12	15	20	..	..	..	..	62
96.	Water supply	21	5	6	2	..	..	..	..	34
97.	Food stores	3	..	..	..	..	..	..	..	3
98.	Pavings, yards and passages	1	3	20	9	..	..	..	..	33
99.	Repairs to water closets	74	42	69	136	..	..	..	..	321
100.	New water closets provided	3	1	8	1	..	..	..	..	13
101.	New pail closets provided .. .. .	..	1	..	..	..	..	..	..	1
102.	Trough closets abolished .. .. .	..	..	..	..	..	..	..	..	..
103.	Privy closets abolished .. .. .	..	..	..	..	..	..	..	..	..
104.	Pail closets abolished .. .. .	..	..	..	..	..	..	..	..	..
105.	Dustbins provided	8	2	..	..	..	..	..	..	10
106.	Ashpits repaired .. .. .	..	..	..	..	..	..	..	..	..
107.	Sunken ashpits abolished .. .. .	..	..	..	..	..	..	..	..	..
108.	Other ashpits abolished .. .. .	..	..	..	..	..	..	..	..	..
109.	Other repairs to premises	2	4	7	13	..	..	..	..	26
110.	Verminous premises disinfested .. .. .	..	..	..	..	..	..	..	..	..
111.	Dirty premises cleansed	11	5	..	3	..	..	..	..	19
112.	Closets cleansed	11	6	1	..	..	..	..	..	18
113.	Underground dwellings made fit or closed .. .. .	..	..	..	..	..	..	..	..	..
114.	Improvements to common lodging-houses .. .. .	..	..	..	..	..	..	..	..	..
115.	Improvements to houses let in lodgings	2	..	..	..	..	..	..	..	2
116.	Improvements to canal boats .. .. .	..	..	..	..	..	..	..	..	..
117.	Improvements to caravan sites .. .. .	..	..	..	..	..	..	..	..	..
FOOD PREMISES.										
118.	Walls, ceilings, floors, etc., improved	32	5	9	1	..	3	..	..	50
119.	Walls, ceilings, floors, etc., cleansed	33	11	73	1	..	7	..	..	125
120.	Ventilation provided or improved	5	5	2	2	..	..	..	..	14
121.	Articles, apparatus, clothing cleansed .. .. .	..	8	73	..	..	3	..	..	84
122.	Personal washing facilities provided	9	1	10	3	..	..	..	..	23
123.	Other washing facilities provided	7	..	2	1	..	..	..	..	10
124.	Hot water supply provided	11	..	6	2	..	2	..	..	21
125.	Accommodation for clothing provided .. .. .	..	..	2	..	..	3	..	..	5
126.	First-Aid equipment provided	7	..	10	1	..	3	..	..	21
127.	Other improvements	24	15	23	1	..	5	..	..	68

WORK DONE BY PUBLIC HEALTH INSPECTORS, 1964.—contd.

Analysis of Work Done	Inspections	Visits for samples	Samples taken		
			Chemical	Bacteriological	Biological
Milk					
Wholesale dairies	199	162	} 914	700	153
Retail distributors	27	70			
Dairy farmers .. ..	..	99			
Food					
Retailers .. ..	..	367	} 762	94	..
Manufacturers .. ..	..	4			
Cafes and Canteens .. ..	..	..	
Pet shops .. ..	..	25			
Drugs					
Retailers .. ..	..	14	33	..	..
Ice-Cream					
Manufacturers .. ..	..	37	} 2	78	..
Retailers .. ..	..	37			
Rag Flock and Other Filling Materials					
Registered premises ..	77	19	} ..	..	..
Licensed manufacturers ..	..	8			
Licensed stores .. ..	..	1			
Fertilisers and Feeding Stuffs					
Manufacturers and Wholesalers	3	5	} 17	..	..
Retailers .. ..	..	6			
Pharmacy and Poisons					
New applicants for listing ..	1	..	..	..	..
Applicants for retention on list	6	..	..	..	..
Unlisted premises .. ..	..	..	..	..	..
Routine inspection of listed premises	67	..	..	..	..
Shellfish					
Fishmongers.. ..	..	4	..	9	..

WORK DONE BY PUBLIC HEALTH INSPECTORS, 1964.—contd.

	Visits
Complaints and Unsatisfactory Samples	
Farms	13
Manufacturers and wholesalers	52
Retailers	60
Milk distributors	4
Complaints and witnesses	222
Attendance at Court	14
Food Poisoning Investigation and Surveys	
Canteens	1
Cafes and restaurants	5
Hospitals	23
Other premises	75
Animal Boarding Establishments	
Visits regarding licensing	27
Routine inspection	19
Diseases of Animals	
Warble Fly dressings	70
Enforcement of movement licence conditions (cattle)	3
Markets and Shows (poultry)	3
Poultry dealers and slaughterers	65
Poultry-keepers	2
Enforcement of movement licence conditions (swine)	128
Boiling plant operators	69
Service of swine fever notices	1
Markets and sales of swine	42
Carcases removed for incineration (miscellaneous)	4
Other visits	40
Vehicles inspected .. .. .	..
Meat and Other Foods	
Manufacturers	8
Canteens, etc.	8
Wholesalers	152
Retailers	103
Private slaughterhouses	524

PREVENTION OF ATMOSPHERIC POLLUTION

J. H. WYATT, M.A.P.H.I.

Deputy Chief Public Health Inspector

Nine smoke filter and sulphur dioxide volumetric measuring instruments and eight standard deposit gauges are used to monitor the degree of pollution of the atmosphere of the city. A further deposit gauge is used to determine emissions from particular local sources. All this equipment is operated by the Health Department. The monthly examinations of the deposits collected in the gauges and the tests of the smoke filter and sulphur dioxide volumetric apparatus are carried out by the City Analyst and we again record our appreciation of the help he gives us in the operation of these instruments. Maintenance of the equipment is carried out by public health inspectors in the Smoke Control Division of the Department.

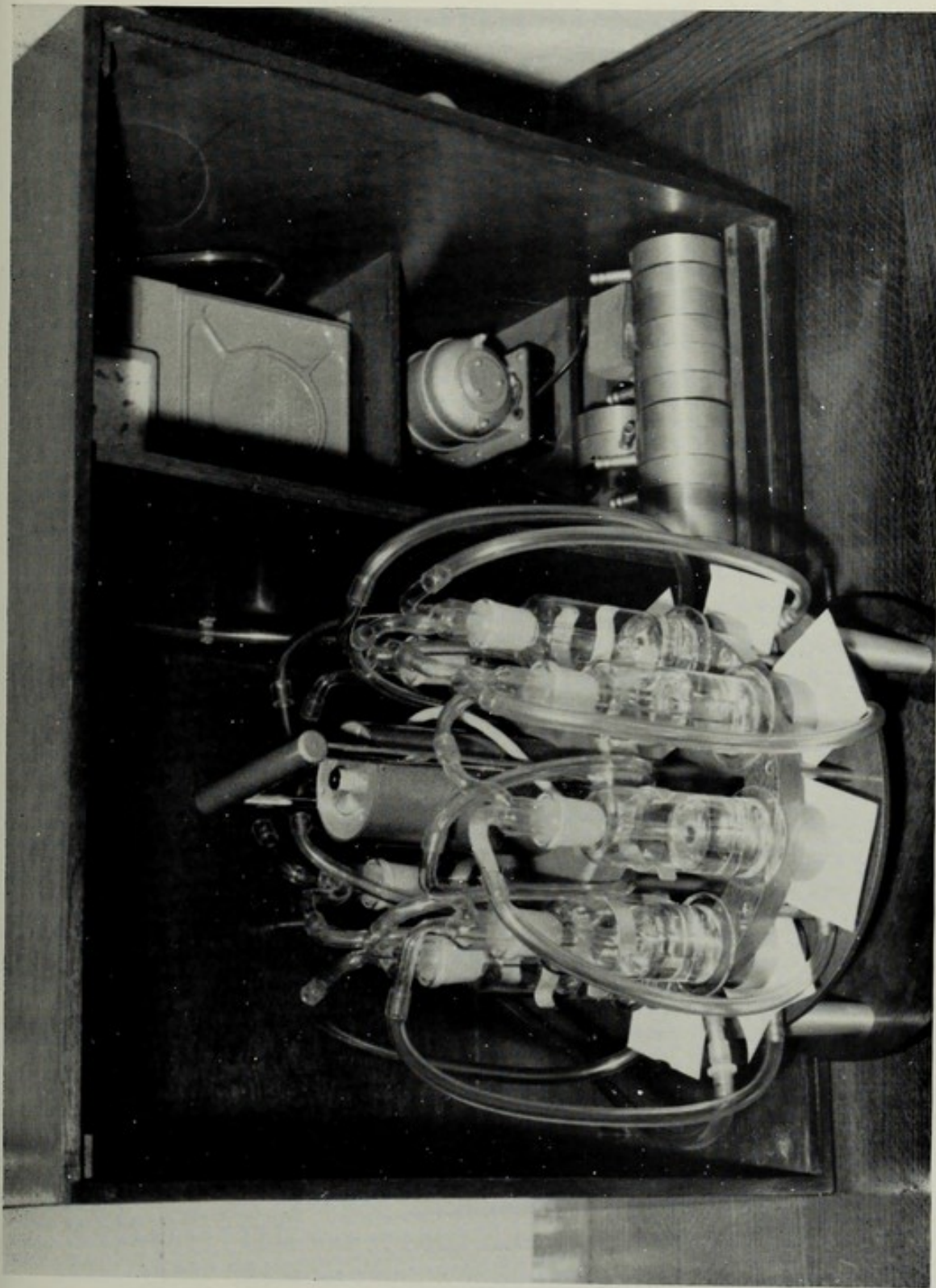
The Central Electricity Generating Board also have deposit gauges sited to monitor emissions from Skelton Grange "A" and "B" Power Stations, but only two of these are situated inside the Leeds boundary. The results are available for use in the Department if necessary. The Generating Board also use several lead oxide instruments to measure the level of sulphur dioxide in the vicinity of the Skelton Grange Station. This method of assessing sulphur dioxide levels has been criticised by the Department of Scientific and Industrial Research but the Board continues to operate these instruments, presumably because of their convenience and ease of operation. Whether the results have any validity is now in doubt.

Estimation of Smoke and Sulphur Dioxide by the Smoke Filter and Volumetric Method.—The nine instruments are sited at (i) Public Health Department Annexe, 12, Market Buildings, Leeds, 1, (ii) Department of Preventive Medicine and Public Health, 32, Hyde Terrace, Leeds, 2, (iii) Day Nursery, Blackman Lane, Leeds, 2, (iv) Y.W.C.A. Hostel, Lovell Street, Leeds, 7, (v) Immunisation Section, 8, Park Square East, Leeds, 1, (vi) Meanwood Housing

Estate Manager's Office, 207, Potternewton Lane, Leeds, 7, (vii) Disinfestation Centre, Stanley Road, Leeds, 9, (viii) Clock Tower in the outbuildings at Temple Newsam Mansion, Leeds, 15, and (ix) Highways Department Offices, 155, Kirkstall Road, Leeds, 4. The equipment in Market Buildings has operated continuously since 1950. Nos. (ii) to (v) were installed in August, 1957, and Nos. (vi) to (ix) on 1st January, 1962. The last four were provided at the request of the Department of Industrial and Scientific Research in connection with the National Survey of Air Pollution instituted by the Ministry of Housing and Local Government and were sited with the approval of the Department of Scientific and Industrial Research to monitor areas having different characteristics.

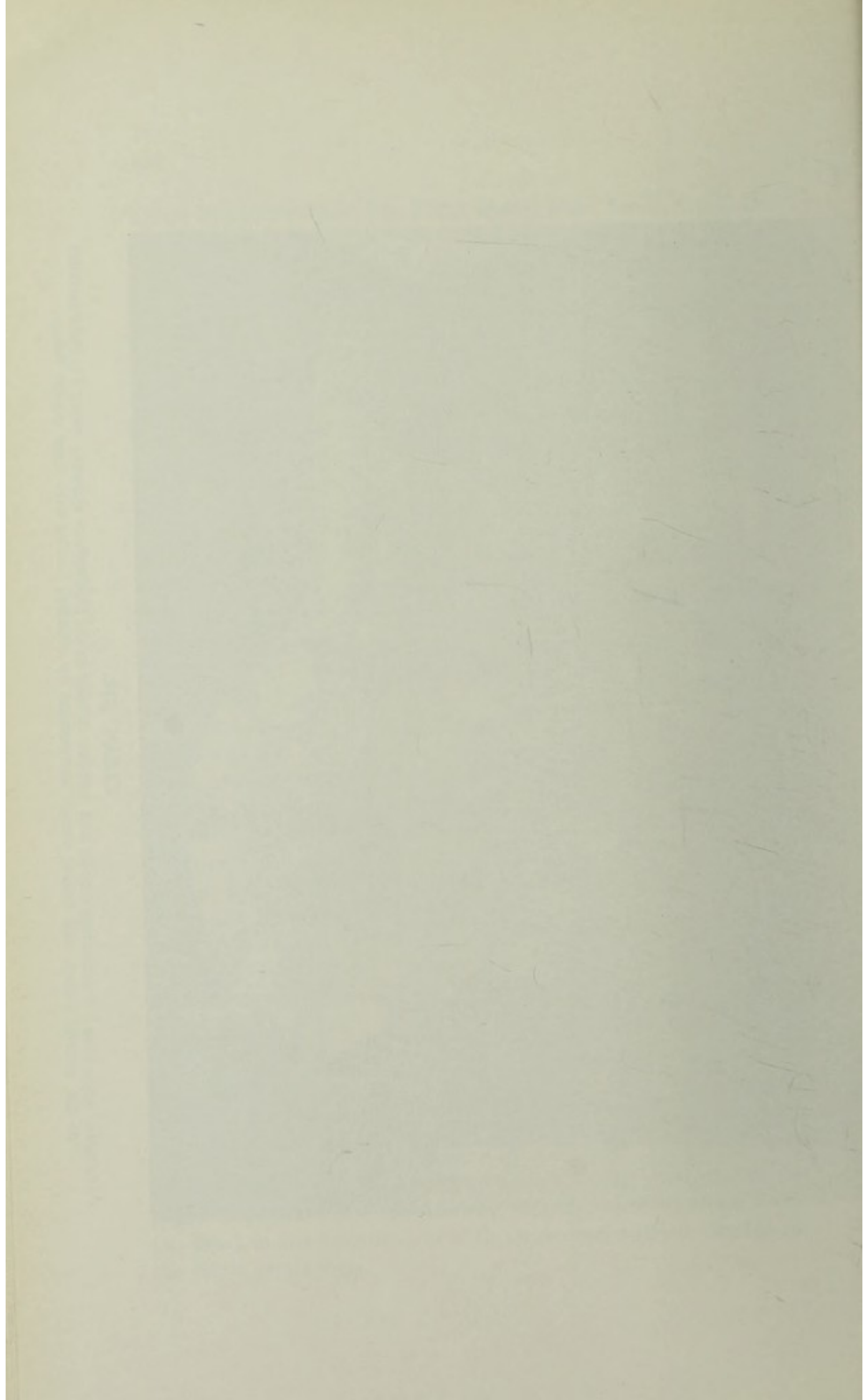
The instruments were, prior to January, 1964, of a type which required daily attention, i.e. it was necessary for a public health inspector or a pupil public health inspector to tour the city in order to recharge the dreschel bottles with hydrogen peroxide and to renew the filter papers. At stations (ii) to (ix) this work has now been obviated by the provision of automatic units designed under the auspices of the Department of Scientific and Industrial Research. Sufficient filter papers and dreschel bottles are provided to cover a period of eight days and, by means of timing switches, a new filter paper and bottle is put into service for each successive period of 24 hours, the change being completely automatic and controlled by micro-switches inside the equipment. The gauges are normally attended to each Monday. The equipment has not been without its "teething" troubles, notably difficulties in the operation of the micro-switches which tend to be affected by fine dust but, on the whole, the equipment has worked extremely satisfactorily.

The automatic equipment is illustrated in the photograph opposite. One instrument in the Department's Annexe at 12, Market Buildings, Leeds, 1, remains as a daily instrument to provide a check on the results of the automatic equipment. The records produced by these instruments are set out in the tables on pages 219 and 220. The records indicate some decrease over the years in the quantities of both smoke and sulphur dioxide in the city's atmosphere.



CLEAN AIR.

Automatic apparatus for measuring smoke and sulphur dioxide in the atmosphere showing meter for measurement of air, electric pump, and timing switch surrounded by dreschel bottles with filter papers below.



Standard Deposit Gauges.—The eight standard deposit gauges previously mentioned are sited at Hunslet, Headingley, Temple Newsam, Market Buildings, Armley Park, St. James's Hospital, Burley Park and Roundhay Hall. The table on page 217 sets out the monthly deposits obtained from these gauges in English tons per square mile for 1963 and 1964. Examination of the material collected is now limited to calculation of total solids deposited as dissolved and undissolved material. The highest monthly average this year was again recorded at Market Buildings as 27.79 tons per square mile and the lowest by the Headingley gauge with a figure of 13.72 tons per square mile. The table on page 218 sets out the deposits recorded at each of the standard deposit gauges in the city for the period 1932 to 1964.

The experimental gauge previously mentioned has remained on the roof of a large foundry and continues to record very high deposits despite strenuous efforts by the management to reduce emissions from both the cupolas and the moulding shops generally. The average for the year from this source was 174.61 tons per square mile as compared with 153.35 tons per square mile in 1963. This increase probably reflects the increasing output of this busy works.

Clean Air Act, 1956.—*Dark Smoke Emissions from Chimneys.*—129 smoke observations were taken by inspectors and 38 notices served for contraventions of the Dark Smoke (Permitted Periods) Regulations, 1958. 94 special visits were made to give advice and instruction on methods to be used by furnace operators to enable them to comply with the Regulations. Many of these visits were to hand-fired boiler plant, of which several examples still remain in the city. These boilers have considerable difficulty in conforming to the fairly high standards set up by the Dark Smoke (Permitted Periods) Regulations.

One prosecution was instituted for a contravention of the Regulations. This was strongly defended on the grounds that a defect in the firebar mechanism of the mechanical stoking plant had resulted in a build-up of fuel inside the furnace, producing smoke emissions before the fireman could rectify the matter. The Magistrate

found the case not proved, but expressed the view that the firm should have informed the Local Authority about the mechanical failure as soon as they had become aware of it.

In several other instances, warnings were issued.

The Installation of New Furnaces and Prior Approval of Furnaces.—139 notifications were received about installation of new furnaces and 4 applications for prior approval of industrial plant were made. All were approved, in some instances subject to conditions.

Control of Grit and Dust from Furnaces.—Section 6 of the Clean Air Act, 1956, provides that industrial plant designed to burn either pulverised fuel or solid fuel or solid waste at the rate of one ton per hour or more must be fitted with proper apparatus to prevent emissions of grit and dust. This apparatus must be approved by the Local Authority in accordance with the plans and specifications submitted. One such application was received during the year. This concerned the grit arrestors which were to be fitted to two new and very large cold blast cupolas to be installed in a foundry and included wet washers with pH control of the wash water and a chimney 150 ft. in height. The application was approved.

Several complaints were received about grit emissions from industrial plant. All except one referred to grit emitted by cupolas and pressure was brought to bear upon the owner to install proper wet washing equipment where this was not provided. The other complaint referred to grit and dust emitted from an asphalt plant. This is proving extremely difficult to remedy.

Height of Chimneys.—All plans of new buildings submitted for approval to the Town Planning and Improvements Committee are examined in the Health Department and are rejected if the heights shown thereon are not satisfactory. The standards used are those set out in the Memorandum on Chimney Heights issued in 1963 by the Ministry of Housing and Local Government. Determination of chimney heights has, for many years, caused difficulties but the new Memorandum is proving useful in fixing heights which are generally acceptable to architects and builders.

74 building plans were examined and the chimney heights shown therein approved by the Department before the plans were accepted by the City Engineer.

One of the difficulties of the legislation on chimney heights is that it does not deal with existing chimneys into which new plant might be connected. It is possible for plant to be considerably increased in size and still discharge into an existing chimney which is already too low and there appears to be little which can be done by the Local Authority to prevent this.

Smoke Control Areas.—Section 11 of the Clean Air Act gives local authorities the power to establish smoke control areas and details of the 50 Orders made up to the end of 1964 are given in the table on page 221.

Seven new Areas have been confirmed by the Minister of Housing and Local Government, six of which become operative on 1st July, 1965. Because of two objections, which were subsequently resolved by inspectors of the Department, the confirmation of the seventh area was delayed and this becomes operative on 1st August, 1965. One more area was surveyed during the year and the necessary Order was made by the Health Committee in November. This is the No. 49 Allerton (Gledhow) Area. It is interesting to record that although several objections to smoke control areas have been lodged, these have all been withdrawn without the need for public local inquiry. This has been affected by personal approaches to objectors by public health inspectors who have been able to supply satisfactory answers to the objections.

Report (Cmnd 2231) and Circular No. 69/63 issued jointly by the Ministers of Power and Housing and Local Government which referred to changes in the availability of smokeless fuels and revised the grant arrangements, have increased the costs of adaptations of fireplaces. On the other hand, the new arrangements encourage the use of more economical types of fireplace and so should lead to savings in fuel which will more than compensate for the initial higher costs.

Solid Smokeless Fuel.—Circular No. 64/63 of the Ministry of Housing and Local Government gives householders in smoke control areas complete freedom in the choice of new appliances which will use either gas, electricity, oil or solid smokeless fuels. Many owners have opted to continue to use solid fuel either because of their liking for the traditional open fire or to retain the heating of water from a fireback boiler. However, difficulties and disappointment very often arise with regard to the ignition and burning of coke, particularly hard coke. Public health inspectors engaged in smoke control work frequently have to stress that the efficient burning of coke is an entirely different operation from that of burning coal and one of the main factors is the need to keep a good body of fire. This point is difficult to get over, particularly to elderly people. Having done this, there is still need to experiment with the draught control in order to obtain best results. Nevertheless, there is no need for householders living in new smoke control areas to complain of lack of success in burning coke. Assistance can always be obtained from the Coal Utilisation Council or the North Eastern Gas Board or the Department's inspectors.

Housing Act, 1964, and Circular No. 46/64.—The Housing Act, 1964, came into operation on 16th August, 1964. Circular 46/64 explained changes regarding smoke control areas caused by the new Act. These are:—

(1) Houses are now eligible for grant for the necessary alteration of fireplaces if erected or produced by conversion prior to 16th August, 1964.

(2) Local Authorities are empowered to withhold grant for the installation of appliances using a scarce type of fuel. If a local authority, when making a Smoke Control Order, considers that the installation of any particular type of appliance is likely to throw undue strain on the supplies of fuel needed for such an appliance, they may pass a resolution designating that appliance as unsuitable for installation in the area. If this is done they can refuse to pay grant towards the cost of installing such an appliance. This action is principally taken in connection with the inset open fire where supplies of gas coke cannot be guaranteed.

(3) Power is given to a Local Authority to pay grant towards the cost of work which has been carried out without their approval after the making of a Smoke Control Order but before its confirmation by the Minister. Such grants are entirely at the discretion of the local authority and should be made only where a genuine misunderstanding has occurred. Local Authorities are instructed to warn owners that in order to qualify for grant it is still necessary for the work to be approved in advance and it is still necessary to await confirmation of the Smoke Control Order by the Minister of Housing and Local Government.

(4) Where a Local Authority has decided to pay the whole of the cost of the work required to comply with an Order, it may now obtain an increase in the amount of the Exchequer contribution.

Circular No. 60/64 and Circular No. 69/63 of the Ministry of Housing and Local Government contained an instruction that householders in smoke control areas should be actively discouraged from installing, with the aid of Clean Air grant, all forms of electric space heaters other than thermal storage heaters. The new Circular No. 60/64 withdrew the right of the local authority to pay grant on the installation of direct acting electric space heaters, and grants are now available in smoke control areas for the installation of thermal storage heaters only.

Smoke Nuisances.—A particular complaint received in 1964 concerned the emission of smuts from the chimney serving an oil-fired plant. This chimney is a steel stack which discharges at a fairly low level very near to houses. Many complaints have been received about serious emissions of smuts from this chimney. This problem has not yet been resolved, but various schemes are being considered, including the insulation of the stack, the construction of a new brick stack and the installation of new gas fired boiler plant.

Other nuisances dealt with during the year concerned the burning of car bodies on open land for the purpose of recovering scrap metal. This is becoming a problem with the increasing number of cars scrapped every year. Many of these vehicles are dealt with by persons who are ill-equipped to break up vehicles and who resort to burning in an attempt to speed up the process,

Alkali, etc. Works.—At the beginning of the year there were 23 works in the city which were controlled by H.M. Inspector of Alkali, etc. Works. These inspectors are responsible for the control of emissions from chimneys used in connection with processes registrable under the Alkali, etc. Works Regulation Act, 1906. Two complaints about emission from such works were forwarded to H.M. Inspector for attention after investigation to ensure that the complaints did, in fact, refer to registered processes.

The Local Authority made an application to the Minister of Housing and Local Government under Section 17 of the Clean Air Act, 1956, for transfer to the Authority of the control of smoke emissions from certain works at that time controlled by Government Inspectors under the Alkali, etc. Works Regulation Act, 1906, and Orders made thereunder. On 21st September, 1964, the Minister confirmed an Order entitled "The City of Leeds (Alkali Works) Order, 1964", which transferred to the control of the Local Authority five plants previously the responsibility of the Alkali Inspectorate. The premises concerned are set out in the Schedule to the Order and a copy of this is reproduced.

SCHEDULE

<i>Premises</i>	<i>Extent of application of provisions of Section 17(2)</i>
Kirkstall Power Station, Kirkstall Road, Leeds, 4	Those parts of the premises in which solid or liquid fuel is burned to raise steam for the generation of electricity.
Whitehall Road Power Station, Whitehall Road, Leeds, 1	Those parts of the premises in which solid or liquid fuel is burned to raise steam for the generation of electricity.
Premises of the Leeds Fireclay Company Ltd., Farnley, Leeds, 12	Those parts of the premises in which heavy clay or refractory goods are fired by coal or oil in intermittent kilns in which a reducing atmosphere is not essential.
Premises of Messrs. George Bray and Co. Ltd., Leicester Place, Blackman Lane, Leeds, 2	Those parts of the premises in which heavy clay or refractory goods are fired by coal or oil in intermittent kilns in which a reducing atmosphere is not essential.
Premises of Messrs. B. Whitaker & Sons Ltd., Elland Road, Leeds, 11	Those parts of the premises in which heavy clay or refractory goods are fired by coal or oil in grate-fired continuous kilns in which a reducing atmosphere is not essential,

It is interesting to note that about this time confirmation of the City of Leeds No. 46 Armley (Armley Grange) Smoke Control Order, 1964, was delayed because of objections to smoke and grit emissions from the Kirkstall Power Station. After the City of Leeds (Alkali Works) Order came into operation, the opportunity was taken of informing the Central Electricity Generating Board of the complaints of grit emissions which had been received from residents in the area, and also of the objections which had been made to the Minister against the Armley Grange Smoke Control Order. The Generating Board replied, detailing improvements already carried out at the Power Station and indicating that it was intended to convert this station, at present fired by pulverised coal, to oil burning, in order to prevent complaints of grit emission and also as part of the Board's programme of modernisation and making more economic the production of power by this station. This information was communicated to the objectors to the Smoke Control Order and the objections were subsequently withdrawn.

Complaints of grit emission from the Gas Works were also received. These works are under the control of the Alkali Inspectors. Because of alterations and innovations in the methods of gas manufacture, many old benches of retorts are going out of service and nuisances are correspondingly reduced.

Colliery Spoilbanks.—No complaints were received about nuisance from the several spoilbanks which exist in the city.

Control of Smoke from Railway Engines.—No complaints were received about smoke emissions from railway engines, most probably because of the change to diesel engines.

Control of Smoke from Vessels.—No complaints were received about smoke emissions from vessels on the river or canals.

Exemption for the purpose of Investigation and Research.—The exemption given to the Leeds University to enable them to conduct experiments into problems of combustion was renewed for another year, subject to the same conditions.

General.—The work of public health inspectors in 1964 in the field of smoke abatement is summarised as follows:—

General:

Smoke observations	129
Visits for grit emissions	11
Inspection of boiler plant	94
Visits for prior approval of furnaces ..	7
Visits for height of chimneys	69
Atmospheric pollution records	1,837
Visits for enquiry	212

Smoke Control Areas:

Preliminary enquiries	3,208
Inspection of approved appliances installed	2,970
Smoke observations	324
Visits for enquiry	1,306

STANDARD DEPOSIT GAUGES
MONTHLY DEPOSITS IN ENGLISH TONS PER SQUARE MILE
YEARS 1963 AND 1964

Period	STATIONS															
	Headingley		Market Buildings		Hunslet		Temple Newsam		Armley Park		St. James's Hospital		Burley Park		Roundhay	
	1963	1964	1963	1964	1963	1964	1963	1964	1963	1964	1963	1964	1963	1964	1963	1964
January ..	13.70	12.04	22.57	32.43	26.66	21.23	10.03	13.31	22.35	25.55	28.06	12.76	18.97	27.78	5.04	30.23
February ..	9.05	17.88	18.25	26.32	13.14	19.17	9.04	11.43	19.23	23.99	12.52	26.10	18.28	58.34	6.69	20.71
March ..	39.28	26.04	45.52	43.70	35.44	37.46	19.43	12.78	42.74	37.99	30.83	45.12	46.49	44.48	17.60	16.89
April ..	20.30	15.75	27.04	24.34	26.30	20.90	16.38	22.20	25.23	16.45	26.86	30.83	31.55	20.15	12.44	11.56
May ..	14.71	11.29	24.93	33.51	16.43	28.14	11.90	16.49	15.17	14.32	21.72	16.45	21.50	19.83	10.24	†
June ..	20.16	11.86	21.27	20.41	20.33	20.66	17.34	15.05	20.09	15.24	25.76	20.19	25.85	18.84	15.27	9.47
July ..	14.14	10.83	31.40	21.13	23.61	11.56	16.93	15.16	20.84	14.12	24.90	14.85	16.26	18.75	10.71	8.31
August ..	11.90	9.81	25.07	21.63	13.78	15.70	8.66	13.10	11.05	16.43	16.43	16.48	12.24	16.49	11.52	9.67
September ..	12.91	9.13	41.46	20.15	16.66	12.55	†	7.36	20.17	13.11	25.28	15.46	32.68	16.97	14.59	8.07
October ..	10.14	†	37.62	28.73	14.07	18.36	18.47	20.49	16.69	19.52	24.02	18.68	15.52	30.49	22.65	13.38
November ..	31.99	13.64	43.10	31.18	24.41	13.91	†	13.17	34.60	20.20	39.74	25.07	102.12	28.10	28.49	12.16
December ..	12.01	12.62	46.37	29.92	23.45	19.27	12.25	23.91	27.80	21.66	32.67	19.64	24.63	31.41	10.00	12.75
Total Deposit for Year ..	210.29	150.89	384.60	333.45	254.28	238.91	140.43	184.45	275.96	238.58	308.79	261.63	366.09	331.63	165.24	153.20
Monthly average ..	17.52	13.72	32.05	27.79	21.19	19.91	14.04	15.37	22.99	19.88	25.73	21.80	30.51	27.63	13.77	13.93

† Gauge tampered with.
* 11 months.

DEPOSIT GAUGES RECORDS, 1932-1964.
ENGLISH TONS PER SQUARE MILE PER ANNUM.

Year	STATIONS								
	Headingley	City Centre	York Road	Hunslet	Temple- newsam	Armley Park	St. James's Hospital	Burley Park	Roundhay
1932..	105.8	320.7	264.7	255.6	87.5	..	..	..	..
1933..	107.86	305.0	277.83	*276.32	*81.59	..	..	..	..
1934..	124.28	341.7	284.74	294.49	86.24	..	..	..	..
1935..	*131.92	358.88	321.25	*317.55	†108.67	..	..	..	..
1936..	136.95	381.40	301.89	290.13	*118.20	..	..	..	..
1937..	135.93	*331.53	325.35	301.71	*123.39	..	..	..	..
1938..	*119.80	359.51	289.56	*231.39	133.37	..	..	..	..
1939..	155.32	314.96	255.15	*234.74	122.67	..	..	..	..
1940..	†180.30	†413.29	..	†279.58	†243.33	..	..	..	..
1941..	†188.31	†285.51	¶1247.36	*301.31	164.21	..	..	..	..
1942..	†138.21	*371.14	..	*235.37	*159.03	..	..	..	..
1943..	186.93	389.03	..	271.82	171.43	..	..	..	..
1944..	175.37	374.50	..	277.14	†114.80	..	..	..	..
1945..	*151.29	*288.44	..	*262.11	*139.27	..	..	..	..
1946..	*146.50	326.26	..	*267.10	*166.64	..	..	..	..
1947..	||121.94	288.76	..	*209.66	149.12	..	..	..	..
1948..	162.78	338.02	..	213.49	*134.68	..	..	..	..
1949..	181.24	411.91	..	225.68	164.28	..	..	..	..
1950..	195.36	378.57	..	206.31	147.62	..	..	..	..
1951..	*228.04	403.97	..	229.99	162.32	..	..	..	..
1952..	*135.00	356.58	..	199.43	126.34	..	..	..	..
1953..	159.28	348.84	..	183.17	117.59	..	..	..	..
1954..	184.21	354.14	..	||245.99	†109.14	..	..	..	..
1955..	*115.74	288.50	..	†316.83	*120.47	..	..	..	..
1956..	*129.81	287.22	..	†359.44	†100.97	..	..	..	..
1957..	125.46	264.27	..	385.63	*140.30	..	..	..	..
1958..	*115.75	265.82	..	*440.80	†98.64	..	..	..	..
1959..	134.67	243.59	..	¶254.57	*131.86	..	..	..	..
1960..	149.89	258.78	..	*260.89	145.18	..	..	..	..
1961..	148.08	303.75	..	*226.22	192.16	..	..	..	..
1962..	†189.94	289.20	..	*246.52	*168.77	..	..	..	..
1963..	210.29	384.60	..	254.28	†140.43	..	..	..	..
1964..	*150.89	333.45	..	238.91	184.45	..	..	..	..

|| 9 months
¶ 8 months

* 11 months
† 7 months

† 10 months
§ 5 months

SULPHUR DIOXIDE VOLUMETRIC APPARATUS

Sulphur Dioxide in Microgrammes per Cubic Metre of Air

1964	AVERAGE DAILY CONCENTRATION										HIGHEST DAILY CONCENTRATION									
	SITE NUMBER										SITE NUMBER									
	3	4	18	19	(20) 27	21	24	25	26	26	3	4	18	19	(20) 27	21	24	25	26	
January	292	624	511	519	411	782	545	306	388	957	1,676	1,423	1,700	1,052	2,057	1,325	868	1,371		
February	164	426	435	391	370	599	437	226	370	390	739	820	711	774	1,137	819	661	774		
March	*	300	*	*	258	*	*	*	*	183	541	593	476	601	758	639	327	544		
April	187	312	270	270	289	300	284	216	224	348	491	547	446	558	510	487	662	384		
May	141	176	142	148	166	158	152	124	143	388	301	284	275	289	299	331	293	342		
June	108	185	144	154	141	162	170	117	158	299	617	256	259	195	289	356	239	270		
July	91	143	100	129	104	120	148	72	97	369	261	185	199	201	223	255	114	163		
August	*	183	174	228	147	153	129	125	136	140	346	541	1,525	239	331	307	285	207		
September	132	218	174	271	207	196	210	128	176	312	438	372	1,540	375	362	404	241	271		
October	142	423	308	309	335	369	224	256	189	364	784	881	781	814	755	556	605	452		
November	203	479	393	387	437	278	296	252	301	762	1,306	967	1,178	1,218	532	927	481	743		
December	236	492	301	434	361	424	338	323	231	615	1,556	782	1,582	950	1,280	1,252	1,420	405		
Site Number	3 = Templenewsam	3 = Templenewsam	18 = Blenheim	19 = Hyde Terrace	20 = Market Buildings	21 = Y.W.C.A.	24 = Kirkstall Road	25 = Park Square	26 = Y.W.C.A.	27 = Y.W.C.A.	28 = Y.W.C.A.	29 = Y.W.C.A.	30 = Y.W.C.A.	31 = Y.W.C.A.	32 = Y.W.C.A.	33 = Y.W.C.A.	34 = Y.W.C.A.	35 = Y.W.C.A.	36 = Y.W.C.A.	

* Insufficient number of results.

SMOKE FILTER APPARATUS

Smoke in Microgrammes per Cubic Metre

1964	AVERAGE DAILY CONCENTRATION										HIGHEST DAILY CONCENTRATION									
	SITE NUMBER										SITE NUMBER									
	3	4	18	19	(20) 27	21	24	25	26	3	4	18	19	(20) 27	21	24	25	26		
January	277	389	482	332	322	507	417	394	541	1,059	1,199	1,441	1,181	1,014	1,625	1,200	1,009	1,614		
February	171	283	376	259	261	384	311	273	418	552	735	807	641	667	1,064	701	819	976		
March	*	170	*	*	123	*	*	*	*	215	416	551	345	328	617	468	461	464		
April	69	139	164	110	105	106	136	141	172	149	308	301	208	229	208	230	242	382		
May	37	89	79	60	69	64	74	72	80	75	179	181	119	122	109	149	138	170		
June	43	89	102	65	70	73	95	89	123	102	190	218	137	147	162	181	182	240		
July	26	69	57	44	46	49	78	59	62	65	136	97	87	86	86	121	81	101		
August	*	89	80	59	64	66	68	74	81	113	163	153	120	164	140	179	156	214		
September	56	128	107	94	96	101	110	107	119	127	268	248	207	253	241	288	196	242		
October	151	330	303	291	222	321	268	295	368	549	972	919	821	723	849	762	1,063	980		
November	146	271	266	221	201	218	214	229	333	677	841	743	849	686	825	597	543	1,167		
December	200	276	345	286	237	285	212	323	385	700	884	800	972	720	828	624	900	972		

Site Number 3 = Templenewsam Site Number 19 = Hyde Terrace Site Number 24 = Kirkstall Road
 " 4 = Market Buildings " 27(20) = Park Square " 25 = Potternewton Lane
 " 18 = Blenheim " 21 = Y.W.C.A. " 26 = Stanley Road

* Insufficient number of results.

CITY OF LEEDS—SMOKE CONTROL AREAS

SMOKE CONTROL ORDERS	CLASSES OF BUILDINGS				Acreage of Area	Date Order Made	Date Order Confirmed	Date Order in Operation
	Domestic	Commercial	Industrial	Other					TOTAL
No. 1 (Roman Avenue)—1958 (Amendment Smoke Control Order, 1962)	162	..	..	..	20	16.5.58	31.3.59	1.10.59
No. 2 (Central Area)—1959 (Amendment Smoke Control Order, 1962)	6,418	3,771	795	1,197	1,168	20.3.59	29.7.60	1.7.62
No. 3 (Alwoodley)—1959 (Amendment Smoke Control Order, 1962)	144	..	..	..	33	19.6.59	11.11.59	1.6.60
No. 4 (Cow Close)—1960 (Amendment Smoke Control Order, 1962)	598	5	1	3	68.37	15.7.60	23.12.60	1.6.61
No. 5 (Armley Heights)—1960 (Amendment Smoke Control Order, 1962)	640	8	1	2	63.21	15.7.60	23.12.60	1.6.61
No. 6 (Tong Road)—1961	256	4	1	..	22	9.6.61	30.10.61	1.7.62
No. 7 (Stonebridge Lane)—1961	110	..	1	..	111	9.6.61	30.10.61	1.7.62
No. 8 (Gamble Hill)—1961	246	..	..	2	38.6	9.6.61	30.10.61	1.7.62
No. 9 (Meynell Street)—1961	180	..	..	..	3.53	9.6.61	30.10.61	1.7.62
No. 10 (Silver Royd "A")—1961	24	..	..	..	1.5	9.6.61	30.10.61	1.7.62
No. 11 (Silver Royd "B")—1961	46	..	..	..	2.89	9.6.61	30.10.61	1.7.62
No. 12 (Sutton)—1961	220	1	1	2	19.88	9.6.61	30.10.61	1.7.62
No. 13 (Brackenwood)—1961	871	7	..	..	77.5	9.6.61	30.10.61	1.7.62
No. 14 (Armley Ridge Road)—1961	62	1	..	1	21	9.6.61	30.10.61	1.7.62
No. 15 (Poplar)—1961	154	..	..	..	23	9.6.61	30.10.61	1.7.62
No. 16 (Greenside)—1961	247	..	..	..	7.4	9.6.61	30.10.61	1.7.62
No. 17 (Moor Grange)—1961	834	5	1	1	54	9.6.61	30.10.61	1.7.62
No. 18 (Kepstorn)—1961	50	..	..	6	4.5	9.6.61	30.10.61	1.7.62
No. 19 (Raynville Road)—1961	670	..	..	..	71	9.6.61	30.10.61	1.7.62
No. 20 (Moseley Wood)—1962	481	5	..	..	67.3	13.4.62	16.8.62	1.7.63
No. 21 (Grove Farm)—1962	209	..	..	3	120	11.5.62	7.9.62	1.7.63
No. 22 (Kirkwood)—1962	500	4	..	1	56	11.5.62	7.9.62	1.7.63

CITY OF LEEDS—SMOKE CONTROL AREAS.—contd.

SMOKE CONTROL ORDERS	CLASSES OF BUILDINGS				Acreege of Area	Date Order Made	Date Order Confirmed	Date Order in Operation
	Domestic	Commercial	Industrial	Other					TOTAL
No. 23 (Cookridge)—1962	461	..	..	1	462	8.6.62	5.11.62	1.7.63
No. 24 (Mavis Lane)—1963	153	2	..	2	157	8.3.63	28.6.63	1.7.64
No. 25 (Spenn Hill)—1963	491	8	..	1	500	10.5.63	23.8.63	1.6.64
No. 26 (King Alfred)—1963	272	..	1	1	274	10.5.63	23.8.63	1.6.64
No. 27 (Becketts Park)—1963	733	7	..	3	743	10.5.63	23.8.63	1.6.64
No. 28 (Ireland Wood)—1963	1,174	10	..	13	1,197	10.5.63	23.8.63	1.6.64
No. 29 (Silk Mill Drive)—1963	780	6	..	1	787	10.5.63	23.8.63	1.6.64
No. 30 (Tinshill Lane)—1963	246	..	..	..	246	10.5.63	23.8.63	1.6.64
No. 31 (Moorfield)—1963	87	..	..	2	89	10.5.63	23.8.63	1.6.64
No. 32 (The Mount)—1963	133	..	..	2	135	10.5.63	23.8.63	1.6.64
No. 33 (Hollin Lane)—1963	68	..	..	..	68	10.5.63	23.8.63	1.6.64
No. 34 (Church Avenue)—1963	22	..	..	..	22	10.5.63	23.8.63	1.6.64
No. 35 (Moorside)—1963	635	5	..	5	645	10.5.63	23.8.63	1.6.64
No. 36 (Deanswood)—1963	1,257	13	..	7	1,277	10.5.63	23.8.63	1.6.64
No. 37 (Lingfield)—1963	776	7	..	10	793	10.5.63	23.8.63	1.6.64
No. 38 (Wood Hill)—1963	509	13	1	1	524	12.7.63	29.11.63	1.6.64
No. 39 (Hillcrest)—1963	289	3	..	6	298	12.7.63	29.11.63	1.6.64
No. 40 (Alwoodley Park)—1963	1,667	18	..	11	1,696	13.9.63	..	..
No. 41 (Bentcliffe)—1963	674	6	..	13	693	13.9.63	..	..
No. 42 (Kirkstall (Burley Hill)—1964	1,787	57	4	14	1,862	6.5.64	15.10.64	1.7.65
No. 43 (Far Headingley (Wynford)—1964	548	9	..	3	560	6.5.64	15.10.64	1.7.65
No. 44 (Far Headingley (West Park)—1964	619	26	..	3	653	6.5.64	15.10.64	1.7.65
No. 45 (Far Headingley (St. Chads)—1964	1,666	70	..	3	1,742	6.5.64	15.10.64	1.7.65
No. 46 (Armley (Grange)—1964	650	12	..	8	670	6.5.64	26.1.65	1.8.65
No. 47 (Far Headingley (Clayton Wood)—1964	12	5	7	2	26	6.5.64	15.10.64	1.7.65
No. 48 (Moortown (Quenshill)—1964	590	12	1	5	608	6.5.64	15.10.64	1.7.65
No. 49 (Allerton (Gledhow)—1964	1,172	27	3	13	1,188	2.12.64	31.5.65	1.12.65

PUBLIC HEALTH INSPECTORIAL STAFF

The establishment of public health inspectors was increased by six during the year to a total number of 67. These new appointments included a Supervisory Inspector, an Assistant Supervisory Inspector and four Inspectors to carry out duties under the Offices, Shops and Railway Premises Act, 1963, which came into force during the year.

At the beginning of the year there were 11 vacancies and during the year 3 public health inspectors resigned to take up appointments with other authorities.

Six pupil public health inspectors qualified during the year and were appointed public health inspectors to fill existing vacancies.

Fourteen pupil public health inspectors continued to attend the full-time training course at the Leeds College of Technology with the addition of a student transferred from another authority and five commenced as first-year students.

A public health inspector obtained the Diploma for Inspection of Meat and Other Foods; three obtained Smoke Inspectors Certificates.

Mr. J. Goodfellow, F.R.S.H., M.A.P.H.I., was elected Chairman of the National Society for Clean Air.

PUBLIC HEALTH INSPECTORIAL SYSTEM

The establishment of public health inspectors was...
The first step was to create a central office...
The inspectors were to be responsible for...
The system was to be organized on a...
The inspectors were to be appointed by...
The system was to be organized on a...

The inspectors were to be organized on a...
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The following is a summary of the work done during the year:

CITY ANALYST'S LABORATORY REPORTS

Food and Drug	1,247
Milk for Bacteriological	1,000
Milk for Chemical	1,000
Liquid for Bacteriological	1,000
Samples for Bacteriological	1,000
Fertilizers	1,000

ANALYTICAL METHODS

The total number of samples analyzed during the year was 1,247. The total number of samples analyzed during the year was 1,247.

A report was prepared during the year on the progress of the work done during the year.

Report of the City Analyst

REPORT OF THE

CITY ANALYST

The report of the City Analyst for the year 1917 is now ready for publication. It contains a full and complete report of the work done during the year. The report is divided into two parts, the first part containing a general report on the work done during the year, and the second part containing a detailed report on the work done during the year.

The report is a pleasure to prepare to the City Analyst, Mr. J. A. [Name], and all members of the staff, my appreciation of their past support throughout the year. I also welcome the opportunity of extending the necessary cooperation to the City Analyst, Mr. J. A. [Name], and his assistants for their continued ready cooperation.

CITY ANALYST'S LABORATORY

R. A. DALLEY, F.R.I.C.,

City Analyst

The total number of samples received for analysis was 9,289 compared with 10,027 in 1963.

A notable development during the year was the strengthening of the laboratory facilities by the acquisition of gas chromatography equipment. This method of analysis has been extensively developed in recent years and for certain problems is almost essential (e.g. the determination of very small quantities of pesticide residues). It was for the last named purpose that the equipment was primarily obtained, but it will undoubtedly prove invaluable for many other purposes.

As usual, lectures on the work of the Laboratory were given to many organisations, and there were more requests than could be granted for parties to visit the Laboratory. These two factors are no doubt partly responsible for the steady increase in the number of samples submitted directly by members of the public, who appear to be coming increasingly aware of the existence and duties of the Public Analyst and of their own rights under the Food & Drugs Act.

Once again it is a pleasure to express to my Deputy, Mr. L. A. Perkin, and all members of the staff, my appreciation of their loyal support throughout the year. I also welcome the opportunity of thanking the Supervisory Sampling Officer, Mr. H. Long, and his assistants for their continued ready co-operation.

The following is a summary of the analyses made during 1964:—

Samples submitted by the Public Health Department

Food and Drug samples	..	..	..	1,741
Milks for Bacteriological examination	..			720
Ice-cream for Bacteriological examination	..			89
Liquid Egg for pasteurisation test	..	..		5
Samples for determination of radioactivity	..			90
Fertilisers	..	..	..	17

ATMOSPHERIC POLLUTION

Deposit Gauges	..	..	..	106
Daily Smoke and Sulphur Dioxide determinations	..	..	..	5,721
				<hr/> 5,827
Miscellaneous samples	..	..		103
				<hr/> 8,592

Samples submitted by Other Departments

Central Purchasing Department	..	..		2
City Coroner	..	..	..	170
Education Department	..	..	..	9
City Engineer's Department	..	..	..	1
Housing Department	..	..	..	3
Waterworks Department	..	..	..	12
				<hr/> 197

Samples submitted from Other Sources

Private Samples	..	..	..	253
Craven District Coroner	..	..	..	20
Leeds Group 'A' Hospital Management Committee	..	..	..	9
Leeds Group 'B' Hospital Management Committee	..	..	..	1
Rothwell Urban District Council	..	..		1
Wakefield Corporation	..	..	..	212
York City Coroner	..	..	..	4
				<hr/> 500
				<hr/> 9,289
				<hr/> <hr/>

FOOD AND DRUGS

The table on pages 247 to 251 summarises the samples submitted under the Food and Drugs Act, 1955.

The percentage of samples found to be adulterated or otherwise unsatisfactory was 9.9 per cent. compared with 4.2 per cent. in 1963 and 2.4 per cent. in 1962.

The table on page 153 lists the result of Summonses issued in respect of those adulterated samples concerning which legal proceedings were instituted.

MILK

The average composition of the 916 samples submitted is shown in the following table, the corresponding figures for the last 2 years being given for comparison:—

AVERAGE COMPOSITION OF MILK

	1964	1963	1962	Minimum legal requirement
Number of samples ..	916	1,621	2,475	
Solids-not-fat	8.71%	8.69%	8.76%	8.50%
Fat	3.85%	3.86%	3.77%	3.00%
Total solids ..	12.56%	12.55%	12.53%	11.50%

It will be seen that the total number of milk samples has fallen strikingly since 1962. Milk is almost certainly the most important single article of food, particularly for children, and it is questionable whether an average of less than 20 samples a week is adequate for a city of more than half a million people.

The adulteration rate was 7.8 per cent. compared with 1.2 per cent. in 1963 and 0.36 per cent. in 1962.

Of the 71 unsatisfactory samples 40 contained added water (highest amount 16.7 per cent); 9 contained added water and were also deficient in fat (highest fat deficiency 19.3 per cent); 3 contained extraneous material; 3 samples were contained in dirty bottles; 14 samples contained penicillin residues in excess of 0.05 I.U./ml., and 2 contained antibiotics other than penicillin.

In a further 125 samples the milk-solids-not-fat (which are equally if not more valuable nutritionally than the fat) fell below 8.5 per cent., thereby raising a presumption that added water was present, but in each of these cases the freezing point of the milk proved the deficiency to be due to natural causes (that is cows giving poor quality milk) and not to adulteration. The proportion of such sub-standard milk (13.6 per cent. of the samples) whilst still unsatisfactory was an improvement compared with the previous year (18.5 per cent.).

FOODS OTHER THAN MILK

Of the 790 samples submitted 97 (12.3 per cent.) were unsatisfactory compared with 10.2 per cent in 1963.

Details of the more interesting cases of adulteration together with comments upon some of the genuine samples will be found in the following paragraphs.

Sausage.—Of the 52 samples analysed during the year 15 were reported against. 4 samples of beef sausage contained less than the 50 per cent. meat content expected for this article. Legal proceedings were successfully instituted in respect of two of these samples in which the meat deficiency was substantial.

A sample of pork sausage contained a total meat content of 65 per cent. comprising 39 per cent. fat and only 26 per cent. lean meat. 65 per cent. is the accepted minimum meat content for pork sausage, but it is considered that at least half of this should be lean and the sample was accordingly reported as 20 per cent. deficient in lean meat content.

10 samples contravened the Preservative Regulations: 7 contained sulphur dioxide preservative without its presence being declared. One contained 700 parts per million sulphur dioxide whereas the maximum permitted quantity is 450 parts per million, and two declared the presence of sulphur dioxide but none could be detected.

The average meat content for the year was 53.5 per cent. for beef sausage (24 samples) and 69 per cent. for pork (26 samples).

Black Pudding.—An informal sample contained 22 per cent. of chopped pig rind, and a subsequent formal sample 16 per cent. The samples were reported as “not of the quality demanded by the purchaser”, since in my experience rind had never previously been a constituent of black pudding, and enquiries from several groups of housewives showed them to be almost unanimous in objecting to its inclusion. When the saying “every part of a pig can be used except the squeak”, was first made the skin used to be converted into leather. The statement is still true, but much of the skin now appears to find its way into meat products, particularly sausages and pies. It is difficult to condemn this practice on purely scientific grounds since such material does possess a limited food value, but there is no doubt that many people object to it on aesthetic grounds, and some degree of control would seem to be in the public interest.

Meat and Potato Pie.—This contained only 4 per cent. of meat, compared with the recommended minimum of $12\frac{1}{2}$ per cent. A repeat sample just complied with the latter figure.

Potted Meat is in most parts of the country expected to contain not less than 95 per cent. of meat. In this area a lower meat content is usual, but the amount should certainly not fall below 70 per cent. Two samples, containing respectively 65 and 66 per cent. meat were reported against. The former sample also contained cereal filler, and its composition was therefore more akin to that of a meat paste than to potted meat.

Chitterlings.—Of 5 samples submitted two contained numerous fragments of vegetable debris and were considered to have been insufficiently cleansed.

Curry Powder contained 46 parts per million of lead compared with the legal limit of 20 parts per million.

Bitter Beer contained, on the most favourable interpretation, at least 6.2 per cent. of added water. The sample possessed an Original Gravity of 1034.7 whereas the Original Gravity of bitter beer of the particular brewery concerned normally falls within the range 1037-1038. A prosecution was successfully instituted.

Gin.—Two samples proved unsatisfactory. The first was an apparently straightforward instance of gin containing 18 per cent. of added water. A prosecution against the Licensee concerned was dismissed, but this decision was reversed on appeal to the High Court. In the second case, a Sampling Officer, accompanied by two colleagues, ordered three double gins at an Hotel in the city. On serving, each glass was seen to contain, in addition to gin, a slice of lemon and several pieces of ice. The sampling officer immediately realised that this would make it impossible to determine the strength of the gin dispensed from the bottle, (the main object of the exercise), but nevertheless notified the waiter that the sample had been purchased for analysis, and, as soon as the ice had melted, the contents of the three glasses were bulked and divided into three equal parts in the manner required by the Food and Drugs Act. On delivering the sample to this laboratory, the sampling officer commented that the glasses had appeared to contain "more ice than gin". It was decided, therefore, to determine the total volume of pure gin (70° proof) in the sample; this proved to be equal to exactly one *single* gin. It was clear, therefore, that although three double gins had been ordered and paid for, three single gins had been provided.

Liqueur Chocolates.—A box of 'Full Strength Liqueur Chocolates' contained 10 foil wrapped chocolates each bearing the name of a different liqueur. The liqueur strengths were listed on the inside of the box lid (e.g. Kummel 68° Proof, Cointreau 70° Proof, Peach Brandy 61° Proof etc.). The actual strength of the liquid filling contained in the chocolates was only 13·8 per cent. proof Spirit. This was not only far below the implied strength, but is also less than the average for liqueur chocolates. The description "Full Strength" was, therefore, reported as misleading and hence a contravention of the Food and Drugs Act.

A similar criticism was levelled at "Fine Scotch Whisky" chocolate liqueurs, likewise described as "Full Strength," but containing a filling of only 13·5 per cent. proof compared with the 70 per cent. present in Scotch Whisky. The manufacturers of both the above products agreed to omit the claim "Full Strength".

Rum and Butter Chunks contained no rum and should have been described as rum flavoured.

Slimming Chocolates differed from ordinary chocolates in that they contained a small quantity of cellulose material, which might have a very slight effect in reducing the appetite. They, nevertheless, possessed a calorific value of 99 calories per ounce and the slimming claims made on the packet were considered to be grossly exaggerated.

Sugar Compound consisted of a mixture of 99 per cent. sugar and one per cent. saccharin. Presumably in the hope of convincing purchasers that it contained some new scientific discovery the latter was declared on the label not as saccharin but as "soluble gluside". The Labelling of Food Order requires ingredients to be stated by a name or description "which shall indicate to a prospective purchaser the true nature of the ingredient".

Sweetening Tablets claimed to be "Four times sweeter by weight than ordinary saccharin". They contained precisely the same amount of active material as any other saccharin tablets (there is in fact a legal standard for this article), but because they contained less excipient their weight was one quarter that of standard tablets. The claim to be four times sweeter *by weight* was therefore factually correct, but was considered to be misleading since in use no lesser *number* of tablets would be required. The price was 2/9d. for 200 tablets, compared with 9d. for 200 standard saccharin tablets.

Cream Cakes.—Four samples sold under this description proved to have been filled with cream substitute containing no milk fats.

Buttered Tea Cake had been spread with margarine containing 10 per cent butter.

Chocolate Rolls.—The first Code of Practice to be agreed between the Local Authorities Joint Advisory Committee on Food Standards and the appropriate Trade Representatives deals with the use of the word "chocolate" in flour confectionery. The Code stipulates that where the description "chocolate" is used (as in 'chocolate cake', 'chocolate roll', etc.) the product shall contain not less than 3 per cent, of dry fat-free cocoa in the moist crumb,

A sample of 'Chocolate Roll' contained only half the required cocoa content; several other samples examined during the year were satisfactory.

Peanut Spread.—contained 48 per cent. less Vitamin A than was declared on the label. Another sample taken a few weeks later was 39 per cent. deficient in vitamin content.

Corn Oil proved on analysis to be not corn oil but the cheaper ground nut oil.

Canned Rice Pudding had been manufactured from fat deficient milk; a further sample taken several weeks later proved satisfactory.

Canned Bitter Lemon Drink contained 0.28 parts per million of lead, the legal maximum being 0.20 p.p.m.

Orange Juice.—This formal sample was purchased as a result of a notice in a shop-window advertising "Orange Juice in Cartons". The cartons themselves were labelled "Orange Drink" and analysis showed them to contain not orange juice but a mixture of $2\frac{1}{2}$ per cent. comminuted whole orange (i.e. juice, pith and peel), 9 per cent of sugar, water, permitted coal-tar colours and preservative. The notice clearly contravened that Section of the Food & Drugs Act which prohibits false or misleading advertisements.

It is understood that some mothers buy these drinks for their children in the belief that they are a source of Vitamin C. This is a complete misapprehension since the drinks are devoid of Vitamin C.

Sweets.—6 samples contained the non-permitted dyes, Brilliant Blue F.C.F. (2), and Methyl Violet (4).

Of complaint samples submitted by members of the public the majority were in respect of the presence of foreign bodies (21) or mould growth (5).

For several months following the Aberdeen Typhoid outbreak housewives were extremely suspicious of the contents of cans of corned beef; in general their suspicions proved groundless, but two samples were classified as unsatisfactory, because of excessive (but harmless) sulphide staining.

Several complaints of inferior quality were confirmed: three samples of **Condensed Milk** had undergone discolouration, and "gelling"—defects indicative of overlong storage; **Canned Rhubarb** was of such poor quality as to fully justify the purchaser's complaint—the rhubarb had largely broken down to give a soupy liquid which also contained two pieces of leaf and a quantity of grit. A complaint by the purchaser that **Instant Mashed Potato** possessed a pronounced off-flavour was confirmed and a further sample of the same brand obtained by a Sampling Officer was of equally poor quality. Analysis indicated that the deterioration was due to overlong storage, and this theory was confirmed by the manufacturers who admitted that production had ceased more than two years previously.

It is of interest that all five foodstuffs detailed above were purchased in super-markets.

Pesticide Residues.—47 samples of fresh fruit and vegetables were examined for the presence of pesticide residues. The samples comprised the following varieties:—apples, apricots, bananas, blackberries, cherries, gooseberries, grapes, lemons, oranges, peaches, pears, plums, pomegranates, rhubarb, strawberries; beans, cabbage, carrots, cauliflower, cucumber, lettuce, mushrooms, potatoes, sprouts, tomatoes.

The rapid screening test using the Fruit Fly (*Drosophila Melanogaster*) was continued as in previous years, but it was possible to extend the investigations considerably by using the gas-liquid chromatography equipment referred to in the introduction. As many samples as possible were examined by this technique including a proportion in which the screening test had indicated the absence of any significant quantity of pesticide. In only four samples did gas chromatography prove the presence of pesticide residues. It says much for the sensitivity of the screening test that in all four cases an indication of the presence of pesticides had already been given by the high mortality of the flies. Unfortunately, the flies have no means of telling the analyst the nature of the pesticide whereas gas chromatography provides this information. The details of the four samples concerned are shown in the Table below; the column headed 'Limit' refers to the official United States tolerance since no limits are laid down in this country.

Sample	Pesticide	Amount present p.p.m.	Limit p.p.m.
Carrots	Aldrin	0·18	0·25
Lettuce	Aldrin	0·2	0·25
Lettuce	Lindane	0·8	10·0
Plums (imported) ..	D.D.T.	2·0	7·0

DRUGS

5 of the 35 samples submitted were unsatisfactory.

The surface of **Vegetable Concentrate Tablets** bore a very heavy mould growth. 4 so-called **Slimming Tablets** were reported against on the grounds that they were in fact Laxative Tablets and should have been described as such. It may be recalled that last year, in the first prosecution of its kind, a Leeds Court ruled that the sale of laxatives as slimming preparations constituted a false description under the Food & Drugs Act.

BACTERIOLOGICAL SAMPLES

Milk.—720 samples of milk were submitted to the statutory tests, the results being shown in the Table below. The Methylene Blue Test measures the keeping quality of the milk, and the Phosphatase Test the efficiency of pasteurisation. The Turbidity Test,

which is only carried out on Sterilised Milk, shows whether or not such milk has been sufficiently heated. On October 1st the Milk (Special Designation) Regulations, 1963 came into effect with the result that raw milk which has hitherto been designated "Tuberculin Tested" must now be described as "Untreated".

MILK

Designation	Number examined	Methylene Blue test	Phosphatase test	Turbidity test	Percentage unsatisfactory
Pasteurised ..	322	3	..	..	0.9
Sterilised ..	96	..	..	..	..
Untreated .. (formerly T.T., Raw)	302	5	..	..	1.7
Total	720	8	..	..	1.1

As a matter of routine all samples of farm-bottled milks are examined for the presence of antibiotics. 13 of the 302 such samples (4.3 per cent.) contained more than 0.05 I.U. per ml. of Penicillin. The worst of these (3.85 I.U. per ml.) was equivalent to over 2,000 I.U. per pint, this being the highest penicillin residue yet found in this laboratory. Legal proceedings cannot be taken on bacteriological samples since these have not and cannot be divided into 3 parts.

Ice-Cream.—78 samples were examined by the Methylene Blue Test with the results shown in the following Table:—

ICE-CREAM

Grade	Time taken to reduce Methylene Blue at 37°C	Number	Percentage	Quality
1.	4½ hours or more ..	34	43.6	Good
2.	3½ to 4 hours	16	20.5	Satisfactory
3.	½ to 2 hours	21	26.9	Unsatisfactory
4.	Nil	7	9.0	Very unsatisfactory
Total		78	100.0	

The proportion of unsatisfactory samples as indicated by the Methylene Blue Test was 36.0 per cent. compared with 17.5 per cent. in 1963 and 20.2 per cent. in 1962. It should be emphasised that this

high figure is due entirely to the taking of a large number of samples from manufacturers whom past experience had shown to be unsatisfactory.

About half the samples were examined for the presence of coliform organisms, these being found to be present in 26. 22 of these were samples which had passed the Methylene Blue Test, thus showing the limitations of this test as the sole indication of the bacteriological quality of ice-cream. Once again it has to be recorded that all the unsatisfactory ice-creams were from three local manufacturers, and that all samples of nationally distributed brands were satisfactory.

Liquid Egg.—The Liquid Egg (Pasteurisation) Regulations came into operation on the 1st January 1964. They require that liquid egg used in the preparation of food shall be pasteurised for at least $2\frac{1}{2}$ minutes at a temperature of not less than 148°F . An exception is made for egg removed from the shell on the premises where the food is prepared. The Regulations prescribe a test (The Alpha-Amylase Test) which determines whether or not heat treatment has been correctly carried out. 5 samples of liquid egg were submitted during the year, all of them passing the prescribed test.

RADIOACTIVITY

The routine monitoring of samples of air, rainwater, tap water and milk was continued throughout the year. No large scale atmospheric tests of nuclear weapons have been carried out since 1962, and levels of radioactivity fell accordingly. It was therefore decided to reduce the frequency of sampling and only 90 samples were examined during the year compared with 186 in 1963.

The general decrease in activity suffered a temporary reversal as a result of the first Chinese nuclear test carried out in mid-October. A sharp increase in the radioactive content of the air was observed on the first of November, and a slight but distinct rise occurred in the level of radioactivity in rainwater for the months of October and November. Like the isotopes generated by the test explosion the effect was short lived, and by the end of the year the general fall had been resumed.

Air.—The total beta activity of the smoke deposit obtained in the routine daily measurement of atmospheric pollution was determined each week-end throughout the year. The Table below shows the average monthly figures, together with the corresponding levels for 1963:—

Month	Total Beta Activity picocuries/metre ³	
	1963	1964
January	4.0	2.1
February	3.7	1.2
March	4.6	0.9
April	4.3	1.0
May	4.6	1.6
June	4.6	1.3
July	2.6	1.1
August	1.6	0.9
September	2.6	1.1
October	1.8	0.6
November	1.3	0.8
December	1.7	0.7
Yearly average ..	3.1	1.1

By the end of the year the level of radiation was only one tenth that of the peak reached in December 1962 following several months of nuclear testing.

Rainwater.—Measurements of radioactivity were continued using the special collecting gauge set up on the roof of Market Buildings, the results being shown in the following Table:—

Month	Volume (Litres)	Activity (pc/litre)	Activity per metre ² per day pc
January ..	2.43	306	315
February ..	1.66	288	215
March	6.80	221	635
April	2.50	274	300
May	3.40	252	360
June	3.70	322	520
July	4.27	128	230
August	2.56	100	110
September ..	1.10	50	25
October	2.10	70	60
November ..	1.88	95	80
December ..	4.31	42	75

Over the whole year the average beta activity falling per square metre per day was 244 picocuries—a marked reduction compared with the average of 934 picocuries in 1963, and 1,038 picocuries in 1962.

Tapwater.—As will be seen from the Table with the exception of the Spring months the average level of radioactivity in the city water fell throughout the year. The Spring rise was expected, being caused by the downward movement of air from the upper atmosphere which occurs during that season. The average level of activity over the whole year was 10.2 picocuries per litre compared with 19.1 picocuries per litre in 1963. By the end of the year the level of activity was lower than at any time since the Autumn of 1961.

Month	Total Artificial Beta Activity picocuries/litre	
	1963	1964
January	18.2	11.5
February	15.4	12.3
March	16.5	9.4
April	22.3	11.1
May	26.3	12.9
June	22.8	13.5
July	21.8	9.6
August	18.0	8.5
September	16.3	7.7
October	17.2	8.8
November	18.4	9.5
December	15.7	7.4
Yearly Average ..	19.1	10.2

Measurements of the level of fall-out activity in the city water have now been made for more than five years and the attached graph shows the variations which have occurred during that period.

When measurements commenced early in 1959 activity resulting from the 1958 tests was at its peak. Thereafter the level of radioactivity fell steadily until a further series of nuclear tests in the

Autumn of 1961. The effect of these was still apparent when testing was again resumed in the Autumn of 1962. It will be seen from the graph that an interval of several months elapses before the effect of test explosions makes its full impact on the city water.

No significant atmospheric nuclear testing has been carried out since 1962 and so long as this persists levels of radioactivity will continue to fall.

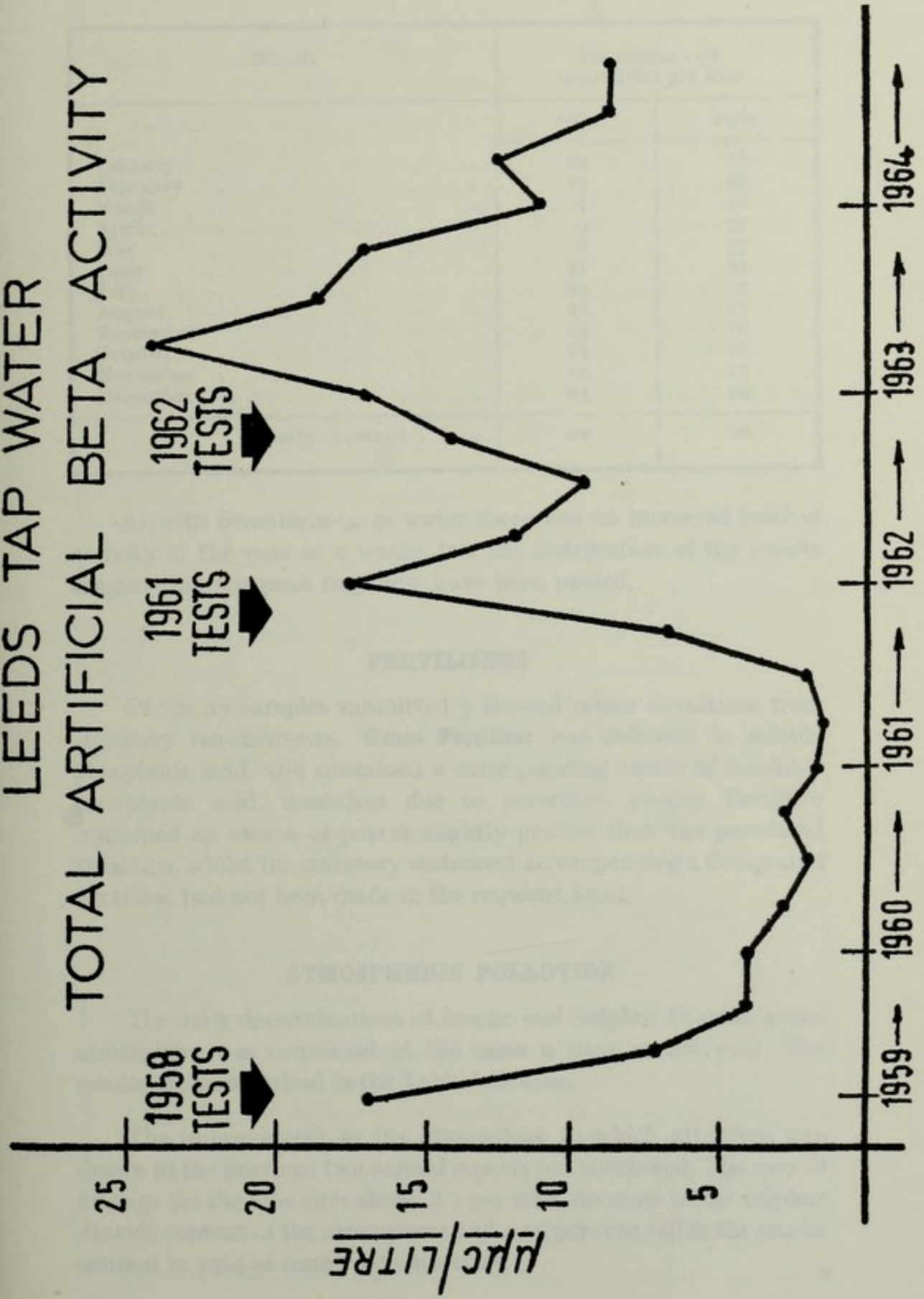
Determinations of the specific isotope Strontium-90 (which require a lengthy radio-chemical analysis) were again made quarterly, and the Table below compares the figures for 1964 with those of the previous year:—

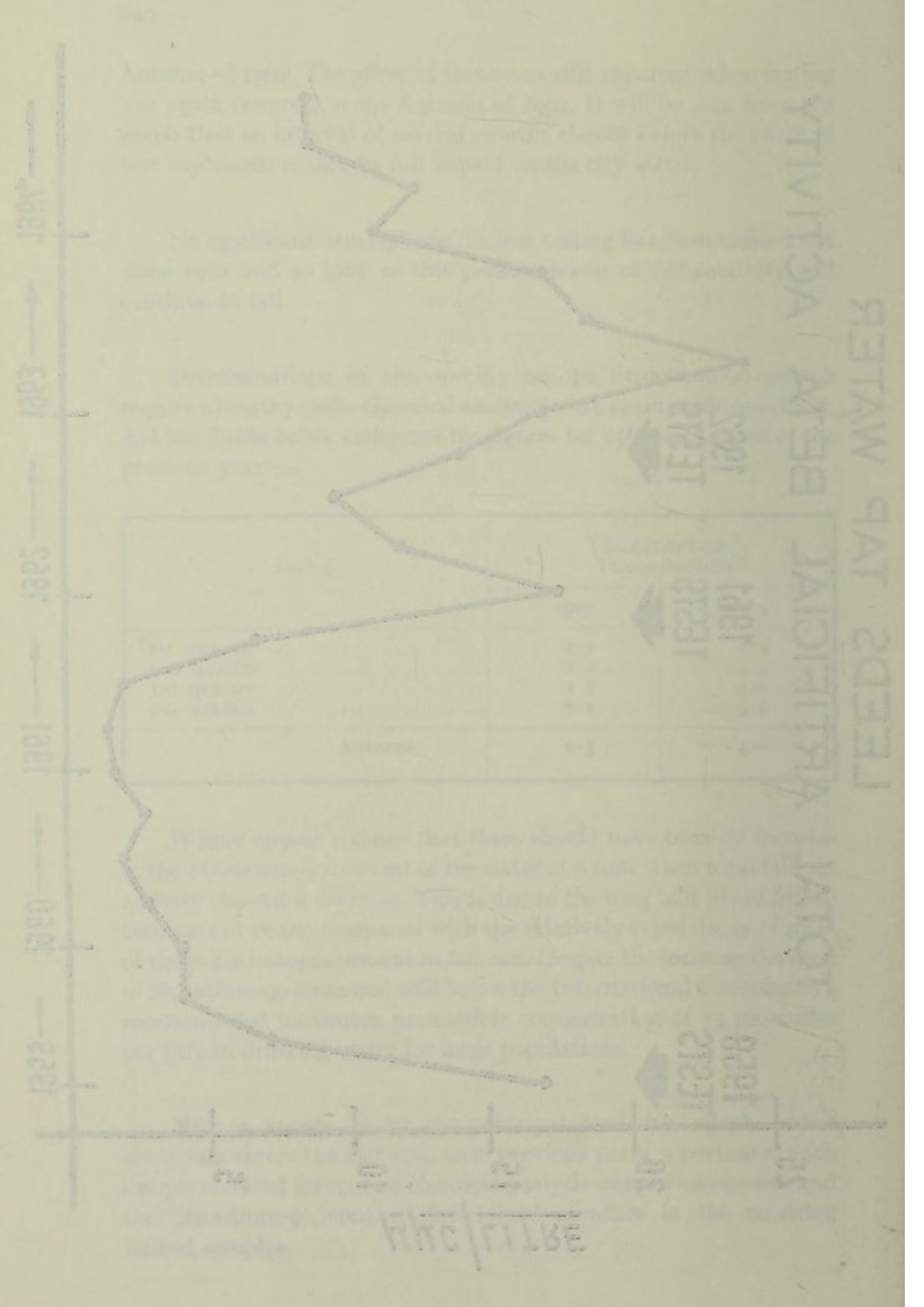
Period	Strontium-90 Picocuries/litre	
	1963	1964
1st quarter	2.1	3.4
2nd quarter	2.0	4.4
3rd quarter	2.7	4.1
4th quarter	3.1	3.9
Average ..	2.5	4.0

It may appear strange that there should have been an increase in the Strontium-90 content of the water at a time when total fall-out activity showed a decrease. This is due to the long half-life of Strontium-90 (28 years) compared with the relatively rapid decay of most of the other isotopes present in fall-out. Despite the increase the level of Strontium-90 remained well below the International Commission's recommended maximum permissible concentration of 33 picocuries per litre in drinking water for large populations.

Milk is known to be the principal food by which radio-strontium enters the diet and, as in previous years, a portion of each sample received for routine chemical analysis was put on one side and the Strontium-90 content determined monthly in the resulting bulked samples.

LEEDS TAP WATER TOTAL ARTIFICIAL BETA ACTIVITY





Analysis of year... The effect of... will...
 was... in the... of... It will be...
 that an... of...
 but... will... on the city water.

No significant... taking...
 due to... and...
 cause to fall.

Degradation...
 require a...
 and the... below...

If you...
 The... of the water...
 is... with the...
 in... will...
 by high populations.

1928 21.21

Month	Strontium - 90 picocuries per litre	
	1963	1964
January	12	28
February	13	28
March	9	28
April	9	37
May	8	35
June	31	39
July	34	29
August	25	17
September	23	19
October	25	18
November	25	17
December	25	19
Yearly Average.. ..	20	26

As with Strontium-90 in water there was an increased level of activity in the year as a whole, but the distribution of the results suggest that the peak may now have been passed.

FERTILISERS

Of the 17 samples submitted 3 showed minor deviations from statutory requirements. **Grass Fertiliser** was deficient in soluble phosphoric acid, and contained a corresponding excess of insoluble phosphoric acid, doubtless due to reversion. 10-day Fertiliser contained an excess of potash slightly greater than the permitted variation, whilst the statutory statement accompanying a Compound Fertiliser had not been made in the required form.

ATMOSPHERIC POLLUTION

The daily determinations of Smoke and Sulphur Dioxide in the atmosphere was continued at the same 9 sites as last year. The results are summarised in the Table following.

The improvement in the atmosphere to which attention was drawn in the previous two annual reports has continued. The overall average for the nine sites shows a 7 per cent. decrease in the sulphur dioxide content of the atmosphere and a 15 per cent fall in the smoke content in 1964 as compared with 1963.

STATION	SMOKE		SULPHUR DIOXIDE	
	Microgrammes per cubic metre		Microgrammes per cubic metre	
	Daily Average		Daily Average	
	1964	1963	1964	1963
Blenheim	215	260	268	276
Hyde Terrace	166	199	300	310
Market Buildings ..	193	211	330	334
Park Square	151	191	269	320
Y.W.C.A.	198	224	322	336
Kirkstall Road	180	238	267	310
Potternewton Lane ..	187	210	195	192
Stanley Road	244	271	211	255
Temple Newsam	118	131	170	173

The measurement of pollution using standard deposit gauges was continued at the same eight sites as in previous years. The temporary gauge at Sayner Lane (a site where there have been complaints of particularly bad pollution) was also continued.

The results are shown in the Table below:—

STATION	DEPOSIT GAUGES	
	Average monthly deposits in tons per sq. mile	
	1964	1963
Armley Park	19·8	23·0
Burley Park	27·6	24·0
Headingley	13·7	17·9
Hunslet	19·9	20·9
Market Buildings ..	27·8	32·5
Roundhay	14·0	13·7
St. James's Hospital ..	21·9	25·7
Temple Newsam	15·4	14·0
Sayner Lane (Temporary) ..	179·0	153·4
Average of all permanent sites	20·0	21·5

MISCELLANEOUS SAMPLES SUBMITTED BY THE PUBLIC HEALTH DEPARTMENT

18 samples of drinking water were analysed. Excessive levels of iron were present in 4 and of lead in 2. The amounts of lead present (1.0 and 1.05 p.p.m. respectively) were greatly in excess of the internationally recommended limit of 0.05 p.p.m.

12 samples of water taken from flooded basements were analysed in order to assist in discovering the source of the flood water.

Of 9 swimming bath waters analysed 4 showed deviations from the recommended standards for pH and free chlorine content.

9 samples of milk were examined for penicillin in a test carried out with the co-operation of a local farmer in order to determine whether or not when one quarter of a cow's udder is injected with penicillin, milk from the other three quarters becomes contaminated. The results showed that no migration of penicillin occurred from the treated quarter.

A powder sold for treating meat (in order to improve its colour) was shown to consist of dextrose (96 per cent.) and ascorbic acid (4 per cent.). Under the Meat (Treatment) Regulations which were made during the first month of the year it is an offence to add this powder to raw and unprocessed meat.

A sample of colouring matter taken at a local food factory proved to be the non-permitted dye Ponceau 6R.

28 coloured plastic toys manufactured in Hong Kong were analysed following reports of high lead contents in some toys from this source. 11 samples contained lead in excess of 250 parts per million (the figure regarded by the Home Office as the desirable limit). The highest lead content was 3,000 p.p.m. in a red plastic screw-driver. The lead was not extractable by dilute acid and it is doubtful if even prolonged chewing of the toy could give rise to a health hazard. Nevertheless, the use of lead compounds for colouring toys is unnecessary and best avoided.

The remaining samples under this heading comprised:—chewing gum, dried milk (3), coffee extract, jelly crystals, shepherds pie, extraneous matter from a loaf of bread (identified as a plastic bristle), 2 condensates, 3 effluents, 11 samples of air for carbon monoxide content (none present), and a rodenticide (for identification).

SAMPLES SUBMITTED BY OTHER CORPORATION DEPARTMENTS

Central Purchasing Department.—A sample of Pork Sausage taken from a delivery contained only 59 per cent. of meat instead of the minimum of 65 per cent. required by the contract specification. A liquid detergent was analysed, but its purchase was not recommended.

City Coroner.—170 samples were analysed in connection with 50 deaths. In 18 cases fatal overdoses of drugs were found, the drugs concerned being Amytal (4 cases), Aspirin (2), Nembutal, Phenobarbitone, Seconal (3), Soneryl, and Tuinal (6). Four deaths were due to carbon monoxide poisoning and one each to methylated spirits and potassium cyanide. In the latter case the deceased (a doctor) injected himself in the thigh with Morphine Sulphate before swallowing the cyanide, presumably to deaden the pain. Several milligrammes of morphine were recovered from the tissue beneath the injection mark.

In 3 cases medicinal doses only, and in 4 cases no drugs at all were detected.

17 cases involved determinations of blood alcohol and estimation of the quantity of intoxicating liquor consumed by persons killed in road accidents.

An unusual investigation was carried out in order to assist in determining the age of the mummified remains of 2 babies found beneath the floorboards of a house which was being demolished. The complete absence of any Strontium-90 in the bones proved that the

babies must have been born before 1955, thus exonerating the more recent occupants of the house from responsibility for the occurrence. The bones of a recently born 7 month foetus, analysed as a control, contained 1.8 picocuries of Strontium-90 per gramme of Calcium.

Education Department.—9 samples of sausage taken from deliveries made to the School Meals Service were analysed. One beef sausage contained 46 per cent. meat instead of the 50 per cent. required and a pork sausage 59 per cent. as against the contract specification of 65 per cent; the other 7 samples were satisfactory.

City Engineer.—A sample of filling material from a building site was analysed.

Housing Department.—3 samples of water were analysed following complaints by a tenant that it caused skin irritation. No abnormality could be detected.

Waterworks Department.—The customary independent analysis of the City Water was carried out each month. All samples were satisfactory.

SAMPLES RECEIVED FROM OTHER SOURCES

Private Samples (253).—Where it appears to be in the public interest samples are analysed for firms and private individuals, normally on payment of an appropriate fee.

The majority of samples (191) consisted of foodstuffs, and comprised milk, sausages, ice-cream, liquid egg, orange drink, gin, soda-water, lager, canned tomatoes, fish cake, tea, sauce and stuffing mixtures.

Non-food samples included drinking water (11), river water for determination of Biological Oxygen Demand (24), effluents, drugs, insecticide, petroleum products, brine powder, cooking utensils, plastic toys, a glass duck, liquid for determination of flash-point, eiderdown filling, and a variety of samples for identification.

Craven District Coroner.—20 specimens were submitted relating to 6 deaths. Overdoses of drugs were present in three cases, the drugs concerned being aspirin, amytal and tuinal. The other 3 cases involved the determination of alcohol levels following fatal accidents.

Leeds Group "A" Hospital Management Committee.—8 fly sprays were evaluated in order to assist in the placing of a contract for this commodity. The deposit from a therapeutic bath was identified.

Leeds Group "B" Hospital Management Committee.—A specimen of vomit was analysed.

Rothwell Urban District Council.—One drinking water was analysed.

Wakefield City Council.—167 food and drug samples, 9 fertilisers, 18 waters, 17 plastic toys, and a drain powder were analysed.

York City Coroner.—4 specimens were analysed for alcohol content following fatal accidents.

FOOD AND DRUGS ACT, 1955

SAMPLES SUBMITTED TO THE PUBLIC ANALYST DURING 1964

Article	Number examined	Number unsatisfactory
FOODS (1,706)		
Almonds, ground.. .. .	2	..
Baby food	10	..
Baking powder	4	..
Barley, pearl	2	..
Beer	25	2
Beverage powder.. .. .	3	..
Bicarbonate of Soda	1	..
Biscuits	8	..
Black beer & old rum	1	..
Black pudding	4	2
Bread	12	9
Breakfast cereal	1	..
Buttered teacake.. .. .	6	1
Butter	2	1
Cakes	21	8
Cake decoration	26	4
Cake, pudding & bun mixtures.. .. .	6	..
Cheese & cheese preparations	8	2
Cherries, glace	2	..
Chitterlings	5	2
Chocolate	18	..
Chocolate liqueurs	9	2
Coconut	4	..
Coffee	5	..
Cooking fat	1	..
Cornflour, custard & blancmange powder	8	..
Corn oil	1	1
Cream (Canned)	3	..
Cream of Tartar	1	..
Crispbread	1	..
Carried forward	200	34

FOOD AND DRUGS ACT, 1955

SAMPLES SUBMITTED TO THE PUBLIC ANALYST DURING 1964—*cont.*

Article	Number examined	Number unsatisfactory
Brought forward	200	34
Curry Mixture (Canned)	2	..
Dates, chocolate coated	1	..
Dehydrated food	11	2
Diabetic chocolate	1	..
Eggs	1	..
Egg, dried	1	..
Egg noodles	1	..
Egg & bacon pie	1	..
Fish and Fish products	19	3
Fish cake	3	..
Fish paste	5	..
Flavouring	7	..
Flour	6	1
Food colour	7	..
Frozen food—cod fillet	1	1
Fruit (Canned)	26	1
Fruit, dried	6	..
Fruit, fresh	21	..
Fruit juice	8	1
Fruit pies	4	..
Fruit malt loaf	1	..
Gelatine	1	..
Gravy browning	1	..
Hamburgers	1	..
Herbs	2	..
Honey	3	..
Hops	1	..
Ice-cream	2	..
Carried forward	344	43

FOOD AND DRUGS ACT, 1955

SAMPLES SUBMITTED TO THE PUBLIC ANALYST DURING 1964—*cont.*

Article	Number examined	Number unsatisfactory
Brought forward	344	43
Ice-cream mix	3	..
Ice-pops	1	..
Jelly, table	6	..
Junket tablets	1	..
Lentils and Barley	1	1
Margarine	3	..
Marzipan	2	..
Mayonnaise & Salad Cream	3	..
Meat paste	3	..
Meat pies	14	1
Meat, potted	4	2
Meat, raw	12	1
MEAT PRODUCTS (CANNED)		
Beef, corned	4	2
Chicken in jelly, etc.	6	1
Chicken & mushrooms in white sauce	1	..
Chicken, curried	1	..
Chunky chicken	1	..
Pork luncheon meat	1	1
Meat tenderiser	1	..
Meringues	1	..
Milk crystals (Canned)	4	1
Milk puddings (Canned)	8	1
Milk, evaporated & condensed (Canned)	4	3
Milk tops (Canned)	1	..
Milk	856	66
Milk, Channel Islands	60	5
Mushroom Relish	1	..
Carried forward	1,351	128

FOOD AND DRUGS ACT, 1955

SAMPLES SUBMITTED TO THE PUBLIC ANALYST DURING 1964—*cont.*

Article	Number examined	Number unsatisfactory
Brought forward	1,351	128
Nut Mix	1	..
Peas, dried	1	..
Peanut spread	3	2
Pie jelly powder	2	1
Pickles & Sauces	9	1
Preserves	10	..
Puddings, ready made	2	..
Rice	2	..
Sandwiches	2	1
Sausage	52	15
Saveloy	1	..
Savoury duck	2	..
Seasoning	1	..
Slimming bread and biscuits	5	..
Slimming chocolates	1	1
Soft drinks and soft drink powders	19	5
Soup and soup powder	15	..
Spices	13	1
Spirits	23	2
Suet, shredded beef	4	..
Sugar, icing	1	..
Sugar, slimmers	2	1
Sweetener, artificial	2	1
Sweets	120	6
Tea	5	1
Tomatoes (Canned)	2	1
Vegetables, fresh	26	..
Vegetables (Canned)	1	..
Carried forward	1,678	167

FOOD AND DRUGS ACT, 1955

SAMPLES SUBMITTED TO THE PUBLIC ANALYST DURING 1964—*cont.*

Article	Number examined	Number unsatisfactory
Brought forward	1,678	167
Vinegar	6	1
Welsh rarebit	1	..
Wine	25	..
DRUGS (35)		
Arrowroot.. .. .	1	..
Caffeine tablets	1	..
Cough mixtures, lozenges and pastilles	16	..
Indigestion powder	1	..
Pennyroyal tablets	1	..
Quinine Sulphate tablets	1	..
Sleep tablets	1	..
Slimming tablets	4	4
Tonic preparations	3	..
Vegetable concentrate tablets	1	1
Vitamin and mineral tablets	4	..
Yeast tablets	1	..
TOTAL FOOD AND DRUGS ..	1,741	173

INDEX

Page

Ambulance Service	89
Analgesia (Gas/Air and Trilene)	73
Animal Boarding Establishments	199
Ante-Natal Clinics	59
Area of City	2
Armley Grange Hostel	117
Armley Grange Senior Training Centre	121
Atmospheric Pollution	207, 241
B.C.G. Vaccination	34
Birth-rate—adjusted	3
crude	3
Births—notified	69
—registered	3
Blindness, Incidence of	26
Bovine Tuberculosis	165
Bronchitis	25
Brucella abortus	156, 158
Cafes, Canteens, etc.—Inspection of	143
Camping, unauthorised	196
Canal Boats, Inspection of	196
Cancer (Malignant Neoplasms)	25
Care and After-Care—Health Visiting	76
Care of Mothers and Young Children	56
Certificates of Disrepair	137
Chest Clinic, Report on the Work of	32
Children Neglected or Ill-treated in their Homes	66
Child Health Centres	61
Chiropody	105
City Analyst's Report	226
Civil Defence Training (Ambulance Service)	92
Clean Air Act, 1956	209
Clearance Areas	134, 140
Closet Accommodation	195
Closing Orders	134, 137
Common Lodging Houses	195
Complaints, Investigation of	198
Consultative Infant Clinics	62
Convalescent Treatment	103
Conveniences, Public	50
Conversion Areas	139
Cremations	6
Cysticercus Bovis	162
Cysticercus Ovis	162

	<i>Page</i>
Dairies—inspection	157
—registration	159
Day Nurseries	65
Death-rate—adjusted	5
—crude	4
Deaths	4
Deaths—in age-groups	6, 10, 11
—principal causes	5, 9
Demolition Orders	133, 137
Dental Care of Mothers and Young Children	65
Deposit Gauges (Atmospheric Pollution)	209, 242
Deposited Solids (Atmospheric Pollution)	217, 218, 242
Diarrhœa and Enteritis (under 2 years)	24
Diphtheria	20
Diphtheria Immunisation	85
Diseases of Animals	165
Disinfection	48
Disinfestation—general	47
—personal	46
Disrepair, Certificates of	137
Domiciliary Midwifery	70
Drains	52, 198
Dustbins	193
Dwelling-houses, Number of	2
Dysentery	22
East Leeds Hostel for Women	114
East Leeds Junior Training Centre	118
Encephalitis, Acute	22
Erysipelas	21
Extraneous Matter in Food	150
Factories—defects found	168
—mechanical	168
—non-mechanical	168
—registered premises, inspection of	167
Fertilisers and Feeding Stuffs	154
Fish, Transport of	164
Flushing, public sewers	51
Food and Drugs Act, 1955	143
Food condemned as unsound	163
—extraneous matter in	150
—inspection	143
—preparing premises	144
—sampling	147

	<i>Page</i>
Food poisoning	22
Fowl Pest	165
Hairdressers and Barbers	199
Health Education and Publicity	95
Health Education by Health Visitors	76
Health Visiting	75
Health Visitors, Training of	78
Home Help Service	108
Home Nursing Service	79
Houses inspected	133, 135
Houses—number of	2, 132
—unfit	133
Houses-let-in-Lodgings	196
Housing Acts, 1936-1961	132
Housing (Financial Provisions) Act, 1958	137
Housing Repairs and Rents Act, 1954	133
Ice-Cream—bacteriological examination	150, 236
—premises	144, 145
—sampling	149
Illegitimate Births	4
Immunisation—Diphtheria	85
—Whooping Cough	87
Importation of Cattle, Sheep and Pigs	166
Improvement by Area Procedure	139
Improvement Grants	138
Incontinence Pads	80
Incontinent Laundry Service	50
Industries, Principal	2
Infant Mortality	6
Infant Mortality—Causes of Death	7, 12, 13
—Deaths in Age-groups	7, 13, 14
—Illegitimate	7
Influenza	24
Knacker's Yard	161
Legal Proceedings under:—	
Clean Air Act, 1956	209
Food and Drugs Act, 1955	153
Food Hygiene (General) Regulations, 1960	145
Public Health Act, 1936	199
Liquid Egg (Pasteurisation)	150, 237

	<i>Page</i>
Malaria	22
Malignant and Lymphatic Neoplasms	25
Mass Miniature Radiography	37
Maternal Mortality	8
Maternity and Child Welfare Centres	56
Measles	21
Meat—condemned as unsound	162
—inspection	160
Medical Requisites Loan Scheme	81
Medical-Social Work	100
Meningococcal Infection	22
Mental Health Services	111
Mental Illness	113
Mental Subnormality	116
Meteorology	2
Midwifery	68
Midwifery—medical assistance	73
—Training, Part II	73
Midwives—notification of intention to practise	69
—supervision of	71
Milk—adulterated	155, 228
—bacteriological examination	157
—biological examination	156
—distribution	159
—radioactivity in	240
—registered premises	159
—registered sellers	159
—sampling	155
—special designations	159
Mortuary, Public	6
National Assistance Act, 1948—Section 47	198
Natural Increase of Population	3
Neglect of Children in their Homes	66
Neo-Natal Mortality	7
Noise, Complaints of	171
North Leeds Senior Training Centre	119
Notification of Infectious Diseases	16, 17, 18
Nowell House Short-Stay Home	117
Nurseries and Child Minders Regulation Act, 1948	65
Nursing Agencies Act, 1957	67
Nursing Homes, Registration of	67

	<i>Page</i>
Offensive Trades	195
Offices, Shops and Railway Premises—inspection of	174
Ophthalmia Neonatorum	21
Outworkers	170
Overcrowding	132
Paratyphoid Fever	20
Peri-Natal Mortality	8
Pharmacy and Poisons	153
Pig-keepers	195
Plans, Examination of	198
Pneumonia	24
Poliomyelitis: Polioencephalitis	22
Poliomyelitis—vaccination against	83
Population of the City	2
Post-Natal Clinics	59
Poultry Premises, Disinfection	166
Premature Infants, Care of	64
Prematurity, Deaths from	7
Problem Families	66
Public Cleansing	192
Public Conveniences	50
Public Health Inspectors—Training of	223
—Work done by	202
Public Sewers	51, 197
Puerperal Pyrexia	21
Radioactivity, measurement of	237
Rag Flock and Other Filling Materials	153
Rainfall	3
Rat Proofing	201
Rateable Value	2
Refuse Collection and Disposal	192
Rodent Control	199
Rutland Lodge Hostel	116
Salmonella Infections	23
Scarlet Fever	20
Sewage, Disposal of	192
Sewers—baiting	200
—flushing	51
—public	51, 197
—maintenance and repair of	197

	<i>Page</i>
Shellfish, Sampling of	163
Sheltered Workshop	119
Shops, Inspection of	174
Slaughter of Animals	160
Slaughterhouses	161
Smallpox	20
Smoke Control Areas	211, 221
Smoke Observations	216
Social Care of the Unmarried Mother	101
Social Work, Tuberculosis	40
Stanningley Junior Training Centre	118
Stillbirths	4
Sulphur Dioxide Tests (Atmospheric Pollution)	207, 242
Sunshine	2
Swimming Baths	199
Swine Fever	165
Temperature	3
Training Centres (Mental Health Services)	129
Tuberculin Surveys	34
Tuberculosis—Case Finding Methods	34
—Deaths	29, 32
—Epidemiology	32
—Notifications	28, 32
—Report of the Chest Physician	32
—Social Work	40
Tuberculosis Order, 1938 (Bovine Tuberculosis)	165
Typhoid Fever	20
Unfit Houses	133
Unmarried Mothers, Care of	60
Unsound Food	163
Vaccination—B.C.G.	34
—Poliomyelitis	83
—Smallpox	84
Venereal Diseases—Incidence of	96
—Mortality	24
—Treatment of	96
Vital Statistics—Summary of	xiv
—1920-64 (table) .. .. .	.. opp. page 18

	<i>Page</i>
Warble Fly	166
Waste Food Boiling Plant	166
Water, Sampling of.. .. .	192
Water Supply	193
Welfare Foods	63
"Well-Maintained" Payments	136
Whooping Cough	21
Whooping Cough Immunisation	87
Workplaces, Inspection of.. .. .	170