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CITY OF



MANCHESTER



# REPORT

of the

**Health** of the

**City of Manchester**

**1972**





**CITY OF MANCHESTER**

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**REPORT**

on the

**HEALTH**

of the

**CITY**

of

**MANCHESTER**


for 1972

by the

**MEDICAL OFFICER OF HEALTH**

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Health Department,  
Town Hall,  
Manchester, M60 2JS.  
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Health Department,  
Town Hall,  
Manchester,  
M60 2JS.

June 1973

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

I have pleasure in presenting my report on the health of the City for 1972.

Improvement in the state of community health which has been so noticeable in recent years continues: this year the infant mortality rate, the still-birth rate and the perinatal mortality rate were the lowest ever recorded, and for the second year in succession there were no maternal deaths; the number of cases of whooping cough was the lowest ever, and cases of dysentery were the lowest since 1949; it is 26 years since last there was a case of smallpox in the City and 10 years since there was a case of poliomyelitis.

It would appear, therefore, as though the point of perfection was being approached, and although the ultimate has not yet been reached, there is no doubt that it is now attainable. Results such as these reflect great credit on all branches of the health service, but especially on the Local Authority.

One of the major responsibilities of the Health Department has been the survey of property in the City thought to be unfit and the representation to the City Council of such property. On 5th October 1951 the first representation of the post-war scheme was signed in respect of the Ridgway Street (Ancoats) Clearance Area—comprising 257 dwelling houses. The task then begun has now been finished—with the signing on 11th December 1972 of the last representation by the Medical Officer of Health. In the intervening years 115,000 visits of inspection have been made and 82,750 houses have been represented—a formidable undertaking.

Manchester thus becomes the first major city in the country to have completed its post-war programme of slum clearance representation, and although as time passes some houses will gradually fall into disrepair and become unfit, the number of such properties should be small.

This does not mean that the future can be viewed with complacency: Manchester has still a proportion of housing which although not unfit cannot be regarded as suitable by modern standards. A fresh approach to this problem must be found, and the Health Department has therefore initiated a survey of all the houses in the City in order to ascertain their condition and state of repair.

Reference was made in the Annual Report for 1971 to the opening of the caravan site for gypsies. Subsequently an application was made to the Minister of State for a Designation Order under the Caravan Act of 1968. Some difficulty was encountered in obtaining this, but towards the end of the year the Minister made an Order which makes it a criminal offence to camp illegally within the City. Time will show how effective this is, but early indications are that there has been an improvement in the situation.

Beswick Health Centre and the Public Analyst's Laboratory were opened in 1972. The City now has two purpose-built health centres in operation—with

11 more in various stages of planning. The Public Analyst's Laboratory provides a modern building with the latest equipment and ideal surroundings for this most important service to the City.

Public opinion was concerned during 1972 about the dangerous effect of poisonous waste being dumped indiscriminately into the environment. As a result, the Deposit of Poisonous Waste Act 1972 came into force, and its provisions were referred to the Health Committee. This Act makes it an offence to deposit or cause or permit to be dumped on land poisons or poisonous waste. Under this Act measures have been taken to control the tipping of such waste in Manchester.

Medical and dental opinion largely supports the addition of small amounts of fluoride to water supplies in order to prevent or retard dental decay in children: compared with other types of prevention, it is by far the cheapest and most efficient method. In April 1972 the City Council decided to accept in principle the fluoridation of the water supply, and implementation of this decision is now being considered.

The Chiropody Service has been having difficulty in dealing adequately with the large volume of work placed upon it, and it was therefore expanded in 1972. This has enabled the Service to keep pace with the increased demands which have arisen principally as a result of new social welfare provisions.

The Health Visitor Training Council has for some time been of the opinion that health visitor training schools should be attached to colleges of further education rather than to health departments. Manchester's Health Visitor Training School was one of the few remaining centres in the country still so attached, and it was decided to rectify this situation. In September, therefore, the formal transfer of the Training School to Manchester Polytechnic was carried out—thus ending a long association with the Health Committee.

The Health Department operates a limited type of occupational health service for Corporation employees: it provides selective pre-employment examinations, selective examination of certain employees and special examination of employees after sickness; first-aid and minor treatment facilities are available, and immunisation of certain groups of employees is provided.

The service was expanded in 1972 to provide routine medical examination of senior Corporation staff, and to cater for the specialised needs of certain Corporation departments.

It is clear that a comprehensive occupational health service is desirable and would indeed be beneficial to the Corporation, and consideration is being given to this complex matter.

Five years ago the Health Department consisted of four separate and autonomous divisions—each with its own staff and interests. In addition, the School Health Service was administered by the Education Committee. Clearly, this organisation, which had been in operation for many years and had served the City well, was not adequate to deal with modern requirements and the onset of National Health Service reorganisation.

It was decided, therefore, to re-cast the administrative structure and to develop, so far as was possible, a balanced, unified department. The action taken fell into three parts :

1. The School Health Service was transferred from the Education Committee to the Health Committee.
2. The administrative structure of the Health Department was completely modernised.
3. The nursing services were amalgamated and a Director of Nursing Services appointed.

As a result, the Health Department now has a management structure which is rational and effective and which will certainly bear favourable comparison with similar systems operating in the National Health Service. This means that our staff will not be at a disadvantage when they are transferred in 1974.

What now remains to be done is to give members of the staff a thorough knowledge of administrative techniques and experience in hospital management. This is being arranged by secondment to hospital management committees and the Manchester Regional Hospital Board, together with short courses in general management run by the Health Department in conjunction with the Manchester Polytechnic.

Most of the senior staff have been engaged in the preparatory work which is necessary prior to the reorganisation of the health service. Joint liaison committees have been formed at area and regional levels, and they have in turn set up numerous sub-committees to deal with the detailed work of reorganisation. The City Council, through the Medical Officer of Health is represented on all these committees and sub-committees.

It is pleasing to be able to report that the M.B.E. was awarded to Mrs. Dickinson, a senior nursing officer in the department, and that this is a fitting reward for her valued services to the Corporation. Mr. Green of the Environmental Health Services section was also awarded the M.B.E.

As always, the members of the Health Committee have given support and encouragement to their officers throughout the year, and this is greatly appreciated.

KENNEDY CAMPBELL,  
Medical Officer of Health

## Statistical Summary

### Population

The Registrar General estimates the civilian population for mid-1972 at 531,270, a decrease of 11,160 on 1971. This compares with the census figure of 543,650 taken in April, 1971.

### Births

Registered live births numbered 7,728 (4,003 males, 3,725 females), giving a rate of 14.55 per 1,000 population compared with 16.46 in 1971. The rate for England and Wales was 14.8, a decrease of 1.2.

Of the 7,728 births, 6,178 (3,219 males, 2,959 females) were legitimate and 1,550 (784 males, 766 females) were illegitimate. The percentage of illegitimate births continued to rise, being 20.06 against 19.06 in 1971, an increase of 1.00.

There were 105 stillbirths (56 males, 49 females), a decrease of 33 on the previous year's figures, giving a rate of 13.40 per 1,000 total births. This was 1.82 lower than that for 1971 and 1.97 lower than 1970. The rate for England and Wales was 12.0, the same as the previous year.

The percentage of total registered births taking place in institutions was 93.28.

### Deaths

The number of deaths registered during the year was 7,207 (3,626 males, 3,581 females), giving a death rate of 13.57 per 1,000 of the population, as compared with 13.15 for 1971 and an average of 12.73 for the previous five years. The rate for England and Wales for 1972 was 12.1, an increase of 0.5.

Deaths from all forms of tuberculosis numbered 31, 4 less than in 1971. Respiratory tuberculosis accounted for 28 deaths compared with 31 in 1971. The death rate from respiratory tuberculosis was 0.05 per 1,000 population compared with 0.02 for England and Wales. Other forms of tuberculosis were responsible for 3 deaths compared with 4 in 1971.

Deaths from all forms of cancer were 1,520 compared with 1,540 in the previous year. Deaths from cancer of the lung and bronchus decreased by 4 to 502 (405 males, 97 females) against 506 (421 males, 85 females) in 1971. The death rate from all forms of cancer was 2.86 per 1,000 population (2.84 in 1971) and that from cancer of the lung and bronchus 0.94 (0.93 in 1971) compared with 2.43 and 0.65 respectively for the whole of the country.

Deaths from bronchitis fell to 421 a rate of 0.79 per 1,000 population compared with 426 deaths (0.79 per 1,000 population) in 1971 and 484 deaths (0.82 per 1,000 population) in 1970.

### Infant mortality

Deaths of infants under one year of age registered during the year numbered 172, 38 less than 1971, giving an infant mortality rate of 22.26 per 1,000 live births, the lowest ever recorded, a decrease of 1.26 compared with 1971. The rate for England and Wales for 1972 was 17.2.

The number of neonatal deaths was 118 giving a rate of 15.27 per 1,000 live births. The figures for 1971 in Manchester were 134 and 15.01 compared with 157 and 16.67 in 1970. The rate for England and Wales for 1972 was 11.5, a decrease of 0.1 on 1971. Early neonatal deaths decreased to 107 from 124 for the previous year and 140 in 1970 a rate of 13.85 per 1,000 live births, compared with 13.89 in 1971 and 14.86 in 1970.

Post-neonatal deaths decreased to 54 compared with 76 in 1971 and 63 in 1970, the rates per 1,000 live births being 6.99, 8.51 and 6.69 respectively.

Perinatal deaths numbered 212 giving a rate of 27.06 per 1,000 total births (live and still) compared with 262 and 28.89 in 1971.

### Maternal mortality

There were no maternal deaths for the second year running. The rate for England and Wales for 1972 was 0.15.

# HEALTH COMMITTEE

Members of the City Council who served on the Health Committee in 1972.

## The Lord Mayor

### Chairman

Alderman J. Taylor, J.P., M.B., Ch.B.

### Deputy Chairman

Councillor T. O. Hamnett

### Aldermen

J. G. Birtles

K. Collis

Miss L. Thomas, J.P.

Sir Robert Thomas, D.L., J.P.

### Councillors

F. R. Butler (from 17th May, 1972)

G. Conquest

J. Dean

Mrs. M. Delayen  
(from 17th May, 1972)

E. Donoghue

M. Flynn

J. Gilmore

Mrs. J. D. W. Hill

L. J. Lamb (until 8th May, 1972)

J. V. Marshall

G. M. Morton

C. B. Muir

Miss M. Pierce

P. A. Sless

Mrs. J. Taylor, J.P.

Miss M. A. Vince  
(until 17th May, 1972)

## **Sub-Committees**

The Health Committee appointed the following Sub-Committees to carry out certain of the duties referred to the Committee:—

### **Legal Proceedings**

The issue of certificates of disrepair and qualification certificates; the institution of legal proceedings and other action in connection with alleged infringements of the Clean Air Acts, the Food and Drugs Acts, the Offices, Shops and Railway Premises Act, the Factories Acts, and the Public Health Acts, and subordinate legislation; where necessary for the purpose of legal proceedings—the approval or notification of the service of statutory notices and other action taken or proposed to be taken by Chief Officers under delegated powers; the authorisation of officers to enter premises or exercise specific statutory powers; the institution of legal proceedings or other action in connection with alleged infringements of the Pharmacy and Poisons Act, 1933; the institution of legal proceedings or other action in connection with the Slaughterhouse Act, 1958.

### **Estimates**

To consider the draft estimates of the Health Committee including all items of special works and to submit recommendations thereon to the Committee before the estimates are submitted to the Finance Committee.

### **Residential Homes**

To deal with all matters relating to the control and management of the Dr. Garrett Memorial Home, Ashton House and Walton House with the exception of questions relating to the appointment of staff, salaries, wages and conditions of service and the purchase of bulk supplies.



## STAFF

Kennedy Campbell, M.A., M.D., LL.B., D.P.H., L.M.	Medical Officer of Health and Principal School Medical Officer
Anna Elizabeth Jones, M.B., B.Ch., M.F.C.M., B.A.O., D.G.O., D.P.H., L.M.	Deputy Medical Officer of Health and Deputy Principal School Medical Officer

### Management Group

N. J. Moulton, M.C.I.T.    ..    ..    ..	Principal Administrative Officer
D. Gregory, B.A.(Admin), A.C.I.S.    ..	Chief Assistant (Finance & General)
W. V. Nelson, D.M.A.    ..    ..    ..	Chief Assistant (Personnel & Training)

### Environmental and Protective Health Services

A. Butterworth, M.B., B.S., M.F.C.M., D.P.H., D.I.H.	Principal Medical Officer
John Francis Cawley, L.R.C.P.I., L.R.C.S.I., M.F.C.M., L.M., D.P.H.    ..	Deputy Principal Medical Officer
W. Robinson, M.C., M.D., M.R.C.P.    ..	Consultant Chest Physician
E. W. Foskett, B.Sc.(Econ.), D.P.A., M.A.P.H.I., M.R.S.H.	Chief Public Health Inspector
J. B. Aldred, M.A., M.Chem.A., F.R.I.C.    ..	Public Analyst
F. P. Lawton, M.R.C.V.S., D.V.S.M., F.R.S.H. . .	Chief Veterinary Officer
W. E. Green, M.B.E.    ..    ..    ..	} Senior Administrative Assistants
R. W. Peel    ..    ..    ..	

### Dr. Garrett Memorial Home

Mrs. J. Knowles, S.R.N., Q.D.N.    ..	Matron
---------------------------------------	--------

### Ashton House (Women's Hostel)

Mrs. E. Woodhouse    ..    ..    ..	Manageress
-------------------------------------	------------

### Walton House (Men's Hostel)

Mr. H. Taylor    ..    ..    ..    ..	Manager
---------------------------------------	---------

### Personal Health Services

#### Family Health Service

Muriel Leigh Bennett, M.B. Ch.B. M.F.C.M.	Principal Medical Officer
Howard Jonathan Miller, M.B. Ch.B. . . (from 1st February, 1972)	Deputy Principal Medical Officer

Muriel Jane Brayshay, M.B., Ch.B., M.F.C.M.	} Senior Medical Officers
Rosaline Howat, M.B., Ch.B. . . . .	
Margaret Longden Marsland, M.R.C.S., L.R.C.P., M.F.C.M.	
Jean Loveday Broughton, M.R.C.S.(Eng.), L.R.C.P.(Lond.) . . . . . (To 31st August, 1972)	} Departmental Medical Officers
Mairin Buckley, M.B., B.Ch., B.A.O., L.M. . . . .	
Elsie Margaret Dakin, M.B., Ch.B. . . . .	
Elizabeth Frances Evanson, M.B., B.Ch., B.A.O. . . . .	
Mahar Qamrul Hasan, M.B., B.S., D.T.M. & H., M.R.C.O.G. . . . .	
Jennifer Mary Hill, B.Sc.(Hons.), M.B., Ch.B., D.Obst., M.R.C.O.G. . . . .	
Gwen Ellis Owen, M.B., Ch.B. . . . .	
Jill Roland, M.R.C.S., L.R.C.P. . . . .	
Ram Labhaya Tandan, M.B., B.S. . . . .	
Stella Yeomans, M.R.C.S., L.R.C.P. . . . .	
Miss E. France, S.R.N., S.C.M., M.T.Diploma, H.V. Certificate	Director of Nursing Services
Miss M. Thistlethwaite, M.B.E., S.R.N., S.C.M., Q.N., H.V. Certificate	Divisional Nursing Officer (District Nursing)
Mrs. M. C. Maxwell-Bradley, S.R.N., S.C.M., H.V. Certificate	Divisional Nursing Officer (Health Visiting and School Nursing)
Miss M. A. Thwaites, S.R.N. R.S.C.N., S.C.M., H.V. Certificate	Principal Tutor, Health Visitor Training School (Transferred to Man- chester Polytechnic on 1st September, 1972)
Mrs. J. Green, S.R.N., S.C.M., Q.N., H.V. Certificate, Tutor's Certificate (R.C.N.)	District Nurse Tutor
D. J. Tyrell, M.Ch.S., S.R.Ch. . . . .	Chief Chiropodist
R. H. Goodwin, D.M.A., M.I.L.G.A. . . . .	Senior Administrative Assistant
<b>School Health Service</b>	
Margaret T. McCaffrey, M.B., B.Ch. M.F.C.M., B.A.O., D.P.H., D.C.H., L.M.	Principal Medical Officer
Sheilagh M. Davitt, B.A., M.B., B.Ch., B.A.O.	Deputy Principal Medical Officer
Shirley A. Batten, M.B., Ch.B., D.C.H. . . . .	Senior Medical Officer
Raymond H. L. Brown, F.R.C.S. . . . . John D. Evans, F.R.C.S. . . . .	} Consultant Orthopaedic Surgeons
Peter L. Blaxter, F.R.C.S. . . . .	Consultant Ophthalmologist
Maxwell J. Maxwell, F.R.C.S., D.L.O. . . . .	Consultant Oto-Laryngologist

Norman P. Chamarette, B.Sc., M.B., B.S., D.P.M.	}	Psychiatrists
T. E. Grant, B.A.(Econ. and Social Studies), L.R.C.P., L.R.C.S. L.R.F.P.S., D.P.M.		
Elizabeth Stokes, F.R.C.S.I., L.R.C.P.I., L.M.	}	Senior Medical Officers
Pearl P. Mycock, M.B., Ch.B. D.R.C.O.G.		
Joyce Somekh, M.B. Ch.B., L.D.S. ..		
Vincent J. Haslam, L.R.C.P.I., L.R.C.S.I., L.M.		
Fionnuala M. Branscome, M.B., B.Ch., B.A.O., (to 31st July, 1972)	}	Departmental Medical Officers
Nisar A. Tahir, M.B., B.S., D.C.H., D.T.M. & H. (from 20th November, 1972)		
John J. Aitken, M.B., Ch.B. .. ..	}	Departmental Medical Officers (part-time)
Mary J. Delaney, M.B., Ch.B., D.C.H. ..		
Michael C. Davitt, M.B., B.Ch. .. ..		
Rosalind C. Eirew, M.B., Ch.B., M.R.C.P., L.R.C.S., D.C.H.		
Martin K. Fisher, L.R.C.P.S.I., D.O.M.S. ..		
Henry M. Freedman, L.R.C.P.I., L.R.C.S.I., L.M.		
Marjorie M. Grant, M.R.C.S., L.R.C.P. ..		
Margaret E. Happold, B.A., M.R.C.S., L.R.C.P. D.C.H.		
Joan N. Horton, M.R.C.S., L.R.C.P. ..		
Elizabeth A. Hyde, M.B., Ch.B. .. ..		
Ann Jackson, M.B., Ch.B. .. ..		
William C. Kingston, M.B., Ch.B., B.A.O., D.P.H.	}	Departmental Medical Officers (part-time)
Joan MacCarthy, M.B., B.Ch., B.A.O., D.P.H.		
Richard L. Marcus, M.B., Ch.B., D.C.H. ...		
Joan F. Moroney, M.B., B.Ch. .. ..		
Peter J. North, M.R.C.S., L.R.C.P. ..		
Patrick D. O'Brien, L.R.C.P.S.I., D.P.H., D.O.M.S.		
Gunvant R. Patel, M.B., B.S. D.O.M.S. D.O.		
Joan H. Paton, M.B., Ch.B. .. ..		
Abdul S. Shaik, M.B., B.S., M.R.C.P. ..		
Zaib S. Shaikh, M.B.B.S., D.C.H. ..		
William C. Smith, M.B., Ch.B. .. ..		
Rachel Tepper, M.B., Ch.B. .. ..		
Tom A. J. Thorp, M.B., Ch.B., D.P.H., D.O.		
Elizabeth F. Unwin, M.B., B.Ch., B.A.O., D.C.H.		
Gordon L. Lindley, L.D.S. .. ..	Principal School Dental Officer	
Maureen Attrill, L.D.S. .. ..	Deputy Principal School Dental Officer	
Maureen N. Barker, B.D.S. .. ..	}	Senior Dental Officers
Thomas I. Curry, L.D.S. .. ..		
Henry Hodson, L.D.S. .. ..		
Teresa A. Gilbride, L.D.S., R.C.S. ..		
Vincent J. T. May, B.D.S., L.D.S. ..		

J. Spencer Butterworth, B.D.S.	..	..	} Dental Officers
Pamela A. Dixon, B.D.S.	..	..	
Irena I. Filipiec, L.D.S., R.C.S.	..	..	
Norman B. Glickman, L.D.S.	..	..	
James A. Robinson, L.D.S.	..	..	
Deanne Brooks, L.D.S.	..	..	
Tom Dinsdale, M.B., Ch.B., F.F.A., R.C.S.	..	..	} Consultant Anaesthetists
Edward G. Rees-Jones, M.B., Ch.B., D.A.	..	..	
Kenneth Heap, M.B., Ch.B., D.A.	..	..	
Bernard R. Puddy, M.B., Ch.B., D.A.	..	..	
Hans Eirew, B.D.S.	..	..	} Consultant Orthodontists
Alan A. Rhodes, L.D.S., D.D.O.	..	..	
S. Iyer, L.D.S., D.D.O., R.F.P.S., F.D.S., R.C.S.	..	..	
Brenda Kellett, L.C., S.T.	..	..	Senior Speech Therapist
Arthur A. Allen, S.R.P.	..	..	} Superintendent Physiotherapists
(deceased 18th March, 1972)			
Mary Downer, M.C.S.P.	..	..	
Marjorie Hendley, M.C.S.P.	..	..	
Maureen Hutchinson, M.C.S.P.	..	..	
(from 8th May, 1972)			
Peggy S. Foxcroft, B.A.	..	..	Senior Social Worker
Olga M. Ravenscroft	..	..	Senior Administrative Assistant

### Publications by members of the Health Department Staff

Foskett, E.	..	..	..	Article:—"Environmental Health". <i>The Guardian</i> , 18th September, 1972.
(Chief Public Health Inspector)				
Coupe, W. M.	..	..	..	Paper:—"Offices, Shops and Railway Premises Act, 1963. An introduction to hazards of office and catering machinery". Presented at a symposium organised by the Association of Public Health Inspectors at Lancaster University, July, 1972.
(Assistant Principal Public Health Inspector)				

## Number of staff employed in the Health Department in December, 1972

Type of staff	Numbers employed		
	Full-time	Part-time	Total
Administrative medical officers .. .. .	9	—	9
Clinical medical officers .. .. .	17	56	73
Analytical chemists and laboratory assistants .. .. .	11	—	11
Veterinary officers .. .. .	3	—	3
Director of nursing services .. .. .	1	—	1
Nursing :—			
Health visitors, school/clinic nurses .. .. .	157	44	201
Home nursing (incl. 8 students, 6 P.B.N.) .. .. .	115	32	147
Midwifery .. .. .	56	17	73
Residential homes .. .. .	4	—	4
Physiotherapists .. .. .	14	5	19
Chiropodists .. .. .	10	21	31
Speech therapists .. .. .	6	10	16
Social workers .. .. .	6	4	10
Community relations officer .. .. .	1	—	1
Dental officers .. .. .	14	12	26
Dental auxiliaries .. .. .	4	—	4
Dental technicians .. .. .	5	—	5
Dental surgery assistants .. .. .	28	4	32
Orthodontists .. .. .	—	3	3
Anaesthetists .. .. .	—	6	6
Orthoptists .. .. .	—	1	1
Public health inspectors .. .. .	86	—	86
Student public health inspectors .. .. .	18	—	18
Technical assistants (clean air, housing, shops) .. .. .	33	—	33
Trainee technical assistants .. .. .	3	—	3
Authorised meat inspectors .. .. .	13	—	13
Administrative and general .. .. .	208	44	252
Ambulance operational control and supervisors .. .. .	17	—	17
Storekeepers and assistants .. .. .	5	—	5
Supervisors, public conveniences .. .. .	4	—	4
Operational manual workers, etc.			
Ambulance, transport and disinfection .. .. .	180	1	181
Staff in residential homes .. .. .	47	26	73
Staff in municipal hostels .. .. .	34	10	44
Public convenience service .. .. .	71	29	100
Family health centre cleaners .. .. .	24	33	57
Rodent operators .. .. .	11	—	11
Bath attendants .. .. .	22	3	25
Clinic attendants .. .. .	7	7	14
Others .. .. .	10	2	12
<b>Totals .. .. .</b>	<b>1,254</b>	<b>370</b>	<b>1,624</b>

## **Organisation of the department**

The Health Department's main objective might be briefly expressed as the provision of services necessary to safeguard adequately the health of the citizens of Manchester and promote the improvement where possible, of their physical, mental and social well-being. To achieve this objective the services of the Health Department are orientated in three main directions, the protection against existing hazards, prevention of potential hazards and the promotion of health education.

The organisational structure, introduced in 1971 to manage these services, continued to work well and was further developed by a revision of the nursing management on the lines advocated in the Mayston Report. The existing nurse managers were working under full pressure and the management of services, allied to the increasing need for liaison with hospital services, other local authorities' services and general practitioners pointed to the need for increased nurse management in the interests of better patient care.

Pressures in community health generally made it clear that medical participation in nurse management could not be increased and, if anything, should be decreased to enable medical administrators to concentrate their skills on developing and extending the medical aspects of their work.

The Mayston Working Party saw the need for three levels of nursing management above the qualified field workers and, in larger authorities, the need for a supporting top management grade. The Health Committee and the City Council agreed that a Director of Nursing Services should be appointed and given the support at top and middle management levels of two divisional nursing officers and six area nursing officers who would divide responsibilities on a functional basis; they would, in turn, be supported by 30 nursing officers.

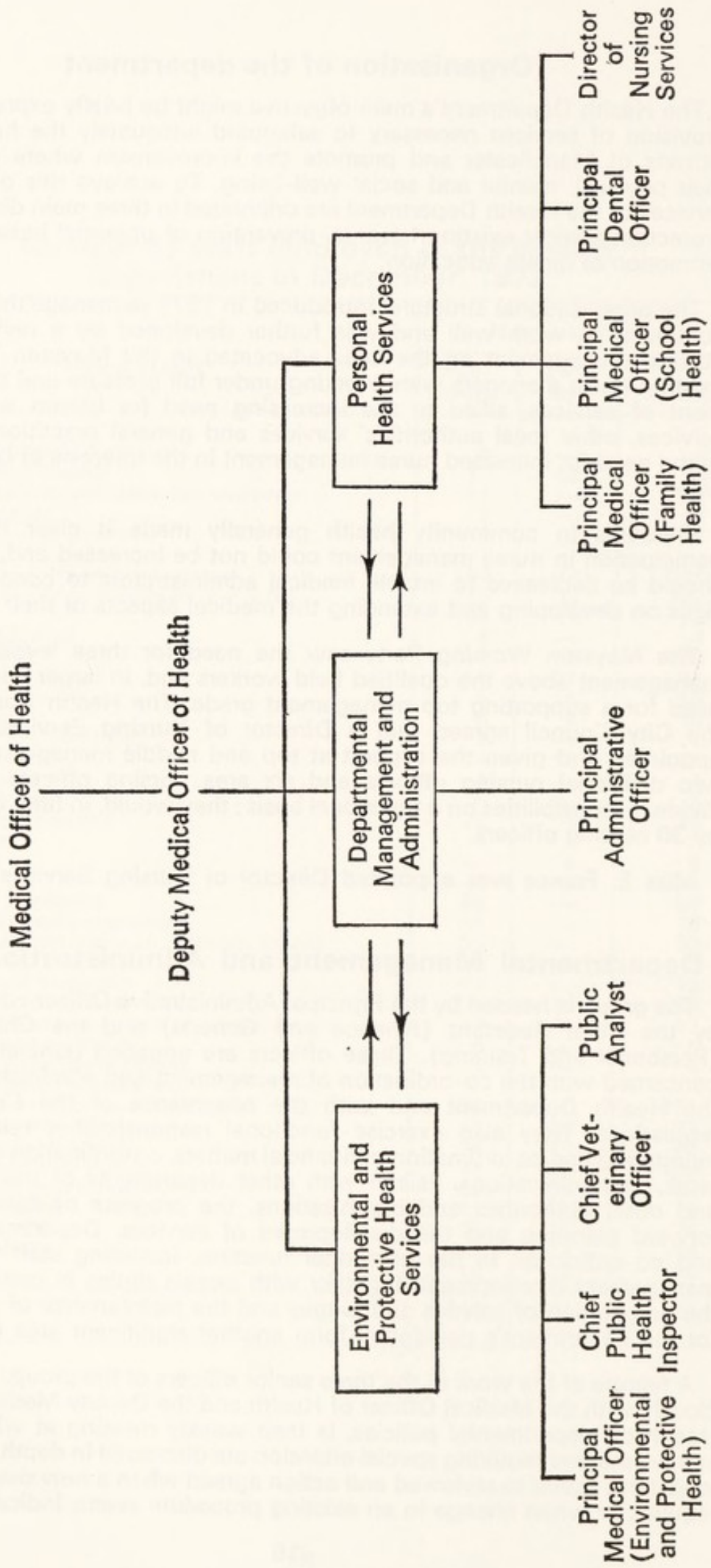
Miss E. France was appointed Director of Nursing Services in October.

### **Departmental Management and Administration Group**

The group is headed by the Principal Administrative Officer who is assisted by the Chief Assistant (Finance and General) and the Chief Assistant (Personnel and Training). These officers are engaged generally on duties concerned with the co-ordination of management and administration within the Health Department and with the observance of the City Council's regulations. They also exercise functional responsibilities relating to the monitoring and co-ordination of financial matters, co-ordination of committee work, communications, liaison with other departments of the Corporation and other authorities and organisations, the progress of capital projects, forward planning and the development of services. Departmental control and co-ordination in the personnel function, including staff training and management development, together with certain duties in connection with the preparation of salaries and wages and the maintenance of staff records for the department's personnel, form another significant area of activity.

A feature of the work of the three senior officers of the group, who consult closely with the Medical Officer of Health and the Deputy Medical Officer of Health on departmental policies, is their weekly meeting at which administrative matters requiring special attention are discussed in depth, progress on long-term activities reviewed and action agreed when a new development so requires or when change in an existing procedure seems indicated.

# Organizational Structure of the Health Department



Preparatory work for reorganisation of the National Health Service made significant demands on the resources of the group, particularly on the time of the senior officers. The work included collection of information for the Regional and Area Joint Liaison Committees, membership of working parties established by the Area Joint Liaison Committee, and the dissemination of appropriate information concerning reorganisation to staff in the department. A staff information centre was set up by the group, where documents referred to in NHS Reorganisation News Sheets issued by the Department of Health and Social Security are available for reference, together with other information concerning both NHS and Local Government reorganisation. The Health Department's own NHS Reorganisation News Bulletins were prepared by officers of the group and copies issued to all members of the department's staff, in addition to copies of DHSS News Sheets and NHS Staff Advisory Committee Information Bulletins. As the pace of the NHS and Local Government Reorganisation accelerates, the involvement of the group increases visibly.

Reciprocal visits to certain hospital groups within the City were arranged towards the end of the year to help the Health Department's senior administrators and the hospitals' administrators to understand each other's methods and appreciate each other's problems.

The electricity power crisis which commenced in February in consequence of the dispute in the coal mining industry brought problems for management and staff. The Health Department's headquarters, in common with other municipal offices in the Town Hall Extension, were without heat during the power emergency. The resultant low temperatures in the building necessitated emergency staffing arrangements, including shorter working hours on a shift basis and the provision for staff of hot drinks and "thawing-out" rooms in the adjoining Town Hall main building which did not rely on electric power for heating purposes. The fortitude of the staff who continued working under highly unpleasant conditions was most commendable.

A scheme of building alterations and improvement to parts of the Health Department's Head Office accommodation was completed in May. The scheme was planned to meet two main objectives, both of which were, in fact, achieved. The first was to provide office accommodation within the Health Department for the School Health central administrative services which had hitherto been housed in the Education Offices at Crown Square. The previous arrangement had serious drawbacks arising from inadequate space and problems, particularly in communication, due to the staff's physical separation from their Health Department colleagues. The second objective was to provide improved office, enquiry and reception facilities, more in keeping with current needs, for the Environmental Health Services.

Linked with these changes, a new departmental internal communication system was introduced. The system comprises a 50 station installation with its own automatic switchboard. One master set is provided for the Medical Officer of Health, which has 20 pre-selected stations with automatic contact. Each of the 50 stations can communicate with any other station on the installation. It replaces an out-worn system which was proving difficult to maintain, linked fewer officers and was less flexible when redeployment of staff made changes necessary.

A problem was presented when alternative accommodation had to be found quickly for the Speech Therapy Clinic at present located in Education Department premises in Hathersage Road which, it was learned, will be



required for redevelopment purposes early in 1973. Permanent accommodation for the clinic has been planned in the new Longsight Health Centre, but it is not expected that this building will be ready until sometime during the 1974/75 financial year. It was, therefore, decided that after minor alterations have been made, the clinic will be temporarily rehoused in premises in Withington recently vacated by district nurses. The necessary work has been put in hand and is expected to be finished before the Hathersage Road premises have to be vacated.

In the sphere of publications, the first edition of Manchester's new civic newspaper "The Mancunian Way" was published in June. There were in total three issues published during the year and they included a number of articles on health subjects prepared within the department. The newspaper is proving to be a useful means of furthering health education within the City. A departmental brochure prepared by the group with the assistance of the principal officers in the operational divisions, and dealing with the organisation and functions of the Health Department, was revised and reprinted in December. This brochure has proved to be of particular value to students and other visitors to the department.

In the financial sphere, an interesting new subject was the proposed Value Added Tax which is planned for introduction next year. Many of the Health Committee's services for which fees or charges are made will be outside the scope of V.A.T., but others will be liable for V.A.T. at the standard rate. The group gave consideration to some implications of applying V.A.T. to these services. For some services, such as the charges for accommodation in the Ashton House and Walton House hostels, the calculation of V.A.T. may be complex and dependent on the length of stay of residents. It is also interesting to reflect on the possible means of recovering 10 per cent V.A.T. on such service charges as those for public convenience washing facilities (other than hand washing); the current charge is 2½p per wash! One thing seems certain—the introduction of V.A.T. will mean more work for finance staffs.

Liaison with other departments of the Corporation and other authorities was an important aspect of the group's activities. For example a Joint Consultative Committee composed of senior officers of the Health and Social Services Departments held meetings, jointly convened by the Principal Administrative Officer and an Assistant Director of Social Services, to discuss liaison procedures between the two departments and to exchange views on mutual problems.

Liaison between the Corporation and the Manchester Executive Council on questions relating to the provision of health centres in the City was effected through a Working Party consisting of representatives of the two bodies and through regular planning meetings, held in the Health Department, attended by the Deputy Medical Officer of Health, the Principal Administrative Officer, officers from the Manchester Executive Council and from the City Planning, City Architect's and City Estates and Valuation Departments of the Corporation. Appropriate general practitioners were consulted about detailed plans for health centres in which they are interested.

The Health Committee has an extensive 4-year capital building programme. Many of the projects involved are due to be transferred to the new health authorities in April, 1974, under the NHS Reorganisation proposals and a detailed list of these projects is set out in the accompanying schedule. They include no fewer than 11 health centres which will provide, *inter alia*,

accommodation and services for general medical practitioners. Together with the Beswick Health Centre which was completed in August, and the Brunswick Health Centre which opened in 1971, the building programme envisages 13 health centres in the City by 1978, in addition to the Varley Street Combined Clinic at present under construction and a number of existing clinics and centres providing accommodation for local health and/or school health services only.

Capital building proposals which will remain a local authority responsibility after 1974 include new public conveniences, improvements to the Walton House Hostel, a hostel for women to replace Ashton House and, subject to approval by the Priorities Sub-Committee, improvements to the Dr. Garrett Memorial Home.

### **Personnel work**

Investigations in the chiropody service to determine the extent of expansion needed were completed and approval was given for an increase in the authorised staff assigned. At the same time, complete co-ordination of chiropody work in the department was ensured by extending the control of the Chief Chiropodist to the School Health Chiropody Service, which was previously operated independently.

Further staffing investigations were completed and proposals agreed for revised staff assignments where necessary, including an increase in the assignment of medical officers and clerical assistants in the family health group; transfer of health visiting tutorial staff to the Education Department; administrative and clerical staffing for a new health centre and the creation of new posts for audiologists and an apprentice technician for the dental laboratory.

Implementation of the Industrial Relations Act involved the examination of disciplinary and grievance procedures. Some modifications were introduced, both to ensure effective compliance with the Act and uniform policies throughout the department. Certain officers involved attended seminars arranged by the Town Clerk to explain the attitudes and motivations behind the Act and its related code of practice.

### **Training**

Development of training activities continued. Additional commitments were undertaken, not only in the provision of training for the department's own staff, but also in providing facilities for students and others to spend some planned programme time in the department, with tutorials from senior officers. Arrangements were also made for the department to participate in a series of one-week integration training courses organised by the Manchester Polytechnic, by sending staff on the courses and providing senior officers as lecturers.

An important landmark was the acceptance by senior staff of the need for a planned in-service training programme, to develop staff in all disciplines who have managerial and supervisory responsibilities and to prepare them for the management of the changes consequent upon the proposed integration of the National Health Service. Briefly, the training has been designed to provide a continuous programme to develop individual potential within the organisational group. A start was made in the latter part of the year with a lecture series and case study-work for two groups of first-line managers and one group of middle managers; acknowledgment is gratefully made here of the valuable contribution by the Manchester Polytechnic Department of Management in providing these lectures within the Health Department.

City of Manchester—Health Department

Capital Building Programme—Services due to be Transferred to new Health Authorities under NHS Re-organisation Proposals

Description		Proposed Year for Commencement of Building	Estimated Cost (Excluding Site Costs)	Remarks
Title	Function			
<b>A. Development in Hand</b>				
Varley Street Combined Clinic	Local Health Services School Medical and Dental Services	Under construction	£000's 128	Completion expected during 1973
<b>B. Projects Approved in Principle by the Health Committee</b>				
Belle Vue Street Ambulance H.Q., (improvement of existing premises)	Ambulance Service H.Q. and Depot	1973	21	
Ancoats Maternal and Child Health Sub-Centre, (Adaptations)	Local Health Services School Medical Services	1973/74	3 (Adaptations)	Adapted housing accommodation; work may be deferred to 1974/75
Longsight Health Centre	General Medical Practitioner Service Local Health Services School Medical and Dental Services	1973/74	258	
Moss Side Health Centre (extension of existing premises)	General Medical Practitioner Service School Dental Service Local Health Services	1973/74	82	Extension of existing maternal and child health centre to form health centre
Woodhouse Park Combined Clinic (extension of existing premises)	Local Health Services School Medical and Dental Services	1973/74	6	Extension of dental suite
Total		1974/75	400	

Clayton Health Centre		General Medical Practitioner Service Local Health Services School Medical Services	1974/75	194	
Harpurhey Health Centre		General Medical Practitioner Service Local Health Services School Medical and Dental Services	1974/75	194	
Levenshulme Health Centre		General Medical Practitioner Service Local Health Services School Medical and Dental Services	1974/75	194	
Newton Heath Health Centre		General Practitioner Services Local Health Service School Medical and Dental Services	1974/75	194	
Ambulance Service, City Centre Depot	(a)	Ambulance Service Sub-depot	1974/75	60 (erection only)	To replace existing depot
Ambulance Service, Withington Depot	(a)	Ambulance Service Sub-depot	1974/75	60 (erection only)	To replace existing depot
Blackley Maternal and Child Health Sub-Centre (adaptations)	(a)	Local Health Services School Medical Services	1975/76	3 (adaptations)	Adapted housing accommodation
Ladybarn Health Centre		General Medical Practitioner Service Local Health Services	1975/76	194	
Rusholme Health Centre	(a)	General Medical Practitioner Service Local Health Services	1975/76	194	Will include teaching facilities for University of Manchester Department of General Practice
Northenden Health Centre	(a)	General Medical Practitioner Service Local Health Services School Medical Services	1976/77	194	

(a) Subject to approval by Priorities Sub-Committee

Training methods require constant evaluation and review in the light of changing needs and attitudes and consideration is now being given to the next phase of this in-service training programme. Subject to any constraints imposed by preparation for integration, it is hoped that management training will be developed along experiential learning lines, possibly using a team or group approach to enable real problems in the work situation to become vehicles for the learning process.

A start was made towards implementing the recommendations of the Local Government Training Board in planned systematic clerical and administrative training of new entrants. Selected first-line managers who will carry training responsibilities in the functional groups attended a training course on instructional skills arranged by the Corporation's training officer.

The Management Development Programme was continued. Senior officers in the Department attended residential courses arranged by the Town Clerk in order to develop their skills in inter-personal and inter-group relations and to study new management techniques particularly the application of management by objectives.

The officers concerned included the Principal Medical Officer in the Family Health Service; the newly appointed Director of Nursing Services; the Public Analyst; the Chief Chiropodist; the Deputy Chief Public Health Inspector; and the two Chief Assistants in the Management Group.

Details of these and other training courses are given in the following table:—

#### Training courses

Type of course	No. of staff who attended	
Higher management .. .. .	} External courses organised by the Town Clerk's Department	5
Senior/middle management .. .. .		7
Introduction to management .. .. .		5
Short seminars on management topics .. .. .		24
Induction and orientation .. .. .		25
Instructional skills and trainee development	11	
Senior/middle management .. .. .	} Internal courses organised by Health Department	22
First line/middle management .. .. .		38
Induction for new entrants .. .. .		19
Court procedure .. .. .	} External courses organised by professional bodies	2
Summer school on N.H.S. .. .. .		3
Reorganisation .. .. .		
Post-entry day release courses leading to a qualification	} External courses arranged by further education units.	21

#### Students and others on observation visits

Type of visitor/student	No. of groups	No. attending
Medical students .. .. .	5	20
Hospital administrators .. .. .	3	18
Medical secretaries .. .. .	5	13

# PROTECTIVE HEALTH SERVICES

## Commentary

The section was involved in the following applied research projects in collaboration with national agencies:—

The Medical Research Council's National Tuberculin Survey.

The retrospective review of the effect of viral infections in pregnancy and infancy, conducted by the Office of Population Censuses and Surveys.

The provision of information for the Nutritional Surveillance and the Whooping Cough Projects of the Department of Health and Social Security.

The computer analysis of infant mortality in collaboration with Professor Richards of the University of Manchester Institute of Science and Technology.

Each year the department is involved in the investigation of a number of incidents that subsequently turn out to be "false alarms".

In June, a diphtheria-type organism was isolated from a throat swab of a three-month-old child. Although six days later the organism was reported to be non-virulent, in the intervening period nursing staff were involved in the surveillance and swabbing of close contacts.

Between June and September, five immigrants from smallpox infected areas abroad, who had recently passed through Manchester Airport, were eventually admitted to a smallpox hospital. They all had developed a pox-type skin eruption. Subsequent microbiological investigation, however, rejected smallpox as a diagnosis, but in the intervening periods, staff had been actively involved in contact tracing and vaccination.

On 22nd December, a Manchester resident died while being transferred to hospital. He had recently returned from a Mediterranean cruise and was reported to have visited a cholera infected area. His family doctor was concerned in case the acute gastro-intestinal illness was cholera. An immediate post-mortem was arranged and this eliminated cholera as a cause of death.

## General Statistics

### Population:—

Registrar General's estimated population mid-year, 1972

	Males	257,951					
	Females	273,319	..	..			531,270
Census population, 1971	Males	263,625					
	Females	280,025	..	..			543,650

### Deaths:—

Number of deaths	..	..	Males	3,626			
			Females	3,581	..	..	7,207
Death rate per 1,000 of population			Males	14.06			
			Females	13.10	..	..	13.57
Comparability factor	..	..	..	..	..	..	1.05
Death rate as adjusted by factor	..	..	..	..	..	..	14.25
Percentage of mortality occurring in institutions	..	..	..	..	..	..	58.22

### Births:—

		Males	Females	Total			
Live births	Legitimate	3,219	2,959	6,178			
	Illegitimate	784	766	1,550	..	..	7,728
Live birth rate per 1,000 of population					..	..	14.55
Comparability factor	..	..	..	..	..	..	1.04
Birth rate as adjusted by factor					..	..	15.13
Illegitimate live births per cent of total live births					..	..	20.06
		Males	Females	Total			
Stillbirths	Legitimate	40	39	79			
	Illegitimate	16	10	26	..	..	105
Total live and stillbirths..					..	..	7,833
Stillbirth rate per 1,000 total births (live and still)					..	..	13.40

### Infant mortality:—

Deaths of all infants under one year	..	..	..	..	..	..	172
Rate per 1,000 total live births	..	..	..	..	..	..	22.26
Deaths of legitimate infants under one year					..	..	133
Rate per 1,000 legitimate live births					..	..	21.53
Deaths of illegitimate infants under one year					..	..	39
Rate per 1,000 illegitimate live births					..	..	25.16

**Neonatal mortality:—**

Deaths of infants under four weeks .. .. .	118
Rate per 1,000 total live births .. .. .	15.27

**Early neonatal mortality:—**

Deaths of infants under one week .. .. .	107
Rate per 1,000 total live births .. .. .	13.85

**Post-neonatal mortality:—**

Deaths of infant over four weeks and under one year .. .. .	54
Rate per 1,000 total live births .. .. .	6.99

**Perinatal mortality:—**

Stillbirths and deaths of infants under one week .. .. .	212
Rate per 1,000 total births (live and still) .. .. .	27.06

**Maternal mortality:—**

	Deaths	Rate per 1,000 of total births
Abortion .. .. .	Nil	—
Other maternal causes .. .. .	Nil	—

<b>Excess of births over deaths</b> .. .. .	521
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**General**

Area of the City in Acres .. .. .	27,255
Number of persons per acre .. .. .	19.49
Number of occupied structurally separate dwellings (Census 1971)	182,715
Persons per occupied structurally separate dwelling (Census 1971)	2.98
Number of houses according to Rate Book (1st April, 1972) ..	173,584
Persons per house .. .. .	3.06
Rateable value (1st April, 1972) .. .. .	£29,515,850
Sum represented by a penny rate (estimated) .. .. .	£278,500
<b>Number of new houses erected during 1972:—</b>	
By local authority .. .. .	3,519
By other agencies or persons .. .. .	620
	4,139



## Meteorology

The following summary of the weather in Manchester during the year 1972 has been provided by the meteorological officer in charge of the Manchester Weather Centre:—

	TEMPERATURE						RAINFALL				
	Mean	Diff. from Av. (1931-60)	Warmest Day		Coldest Night		Total	Diff. from Av. (1931-60)	Wettest Day		Wet Days (.04")
			Date	Max.	Date	Min.			Date	Amt.	
°C.	°C.		°C.		°C.	ins.	ins.		ins.		
Jan.	5.1	+1.0	11th	11.6	31st	-5.6	3.11	-0.21	18th	0.61	14
Feb.	5.5	+1.2	27th	10.5	1st	-1.5	1.67	-0.78	3rd	0.52	8
Mar.	7.5	+1.0	17th	18.8	13th	0.7	3.41	+1.51	31st	0.87	11
Apr.	8.9	0.0	21st	15.9	20th	3.0	2.67	+0.72	28th	0.43	11
May	11.3	-0.7	20th	19.1	12th	5.1	3.43	+0.93	26th	0.67	16
June	12.3	-2.7	30th	18.5	4th	6.1	3.61	+1.22	25th	0.67	17
July	16.4	-0.1	20th	29.1	12th	8.7	2.72	-0.43	21st	0.74	9
Aug.	15.7	-0.6	25th	24.2	19th	8.5	1.50	-1.96	16th	0.28	9
Sept.	12.7	-1.4	1st	23.1	10th	6.1	1.28	-1.60	8th	0.71	6
Oct.	11.7	+1.2	4th	19.4	21st	3.0	1.31	-2.13	9th	0.74	7
Nov.	7.7	+0.6	6th	17.6	18th	-1.2	4.87	+1.54	20th	1.07	17
Dec.	6.9	+1.8	14th	13.6	23rd	-0.6	3.22	+0.20	5th	1.02	9
Year	10.1	0.0	20/6	29.1	31/1	-5.6	32.80	-0.99	20/11	1.07	124

	SUNSHINE				EXTREME WINDS						
	Total	Diff. from Av. (1931-60)	Sunniest Day		Highest Hourly Wind				Highest Gust		
			Date	Amt.	Dir.	Speed	Hour ended at		Speed	Day and Time	
							Day	hr.		kts.	Day
hrs.	hrs.		hrs.	degs.	kts.	Day	hr.	kts.	Day	Time	
Jan.	40	+9	14th	6.6	220	24	26th	1700	42	26th	1740
Feb.	39	-10	14th	5.8	060	25	23rd	1200	48	3rd	0550
Mar.	121	+28	24th	10.6	050	29	11th	1400	53	27th	0810
April	117	-11	20th	12.2	250	24	3rd	1300	55	6th	0415
May	122	-52	9th	12.1	230	29	26th	1300	51	26th	1240
June	120	-55	30th	12.5	270	20	22nd	1700	38	22nd	1410
July	171	+18	17th	15.6	210	18	4th	1500	32	4th	1705
Aug.	150	+9	21st	12.3	230	23	8th	1600	39	8th	1555
Sept.	97	-12	1st	9.9	260	17	11th	1100	29	11th	1205
Oct.	92	+12	5th	9.5	170	21	29th	1900	39	29th	1820
Nov.	49	+8	23rd	6.2	200	23	9th	2100	43	10th	1645
Dec.	40	+12	19th	5.6	200	22	1st	1200	39	5th	0900
Year	1158	-44	17/7	15.6	050 230	29 29	11/3 26/6	1400 1300	55	6/4	0415

**Causes of Death by Age  
Registrar General's Return—Manchester**

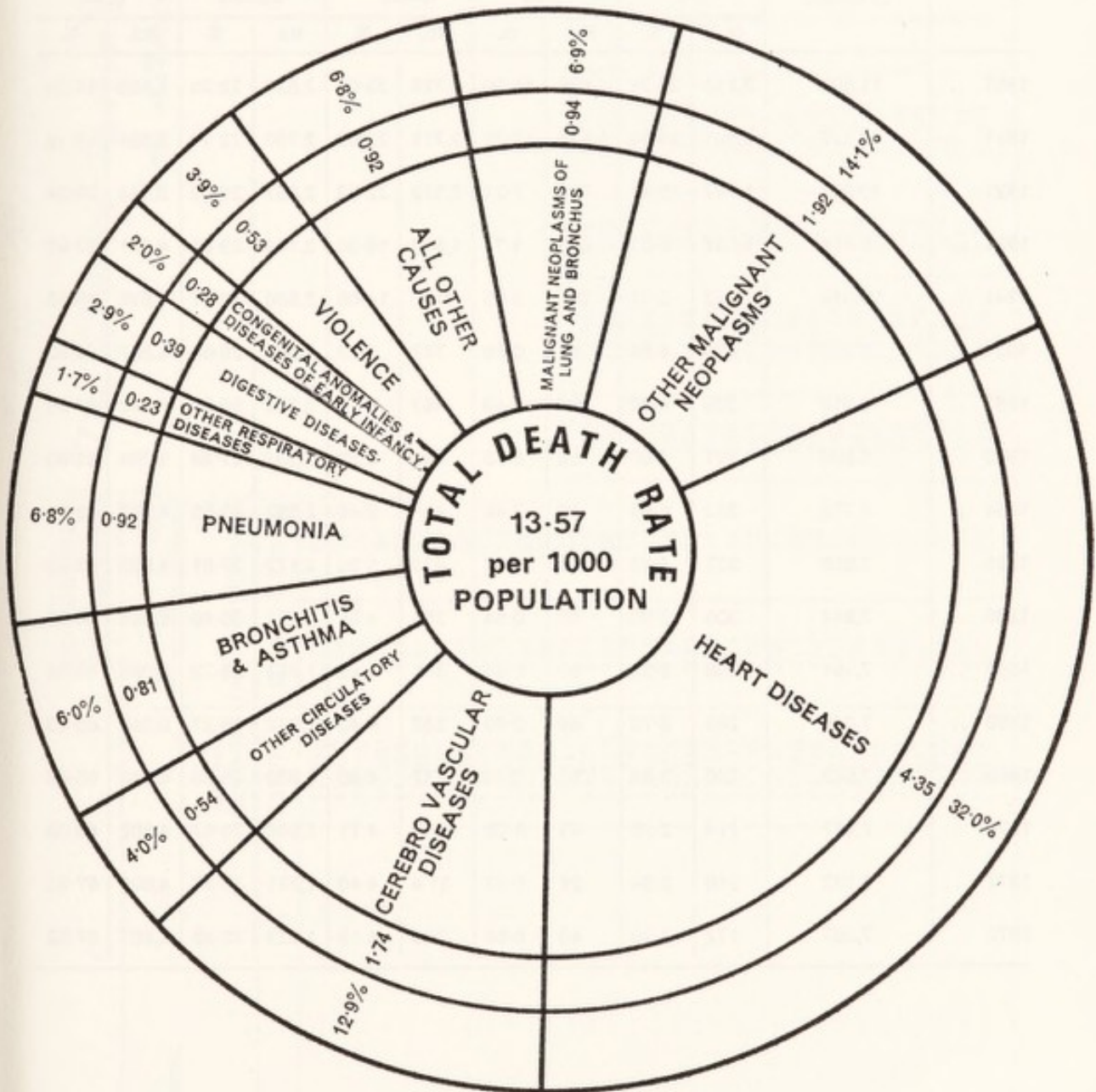
Causes of Death	Sex	All ages	Under four weeks	Four weeks and under 1 year	Age in Years									
					1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 and over	
Bacillary dysentery, amoebiasis ...	M F	1 —	— —	— —	— —	— —	— —	— —	1 —	— —	— —	— —	— —	— —
Enteritis and other diarrhoeal diseases ...	M F	8 2	1 —	3 —	2 1	— —	— —	— —	— —	— —	— —	— —	— —	2 1
Tuberculosis of respiratory system ...	M F	24 1	— —	— —	— —	— —	— —	— —	2 —	1 —	3 —	11 —	7 1	—
Late effects of respiratory T.B. ...	M F	3 —	— —	— —	— —	— —	— —	— —	— —	— —	— —	3 —	— —	—
Other tuberculosis ...	M F	2 1	— —	— —	— —	— —	1 —	— —	— —	1 —	— —	1 —	— —	—
Meningococcal infection ...	M F	— 1	— —	— —	— —	1 —	— —	— —	— —	— —	— —	— —	— —	—
Syphilis and its sequelae ...	M F	4 —	— —	— —	— —	— —	— —	— —	— —	— —	1 —	2 —	1 —	—
Other infective and parasitic diseases ...	M F	6 5	— —	— 1	— —	— —	— —	— 1	— —	— —	1 2	3 —	2 1	—
Malignant neoplasm, buccal cavity etc. ...	M F	13 16	— —	— —	— —	— —	— —	— —	— —	1 1	3 2	6 8	3 5	—
Malignant neoplasm, oesophagus ...	M F	27 13	— —	— —	— —	— —	— —	1 —	4 1	9 1	7 8	6 3	—	—
Malignant neoplasm, stomach ...	M F	81 63	— —	— —	— —	— —	— —	2 3	12 4	17 9	34 19	16 28	—	—
Malignant neoplasm, intestine ...	M F	85 103	— —	— —	— —	1 —	1 2	3 —	6 9	20 18	36 33	18 41	—	—
Malignant neoplasm, larynx ...	M F	18 —	— —	— —	— —	— —	— —	1 —	3 —	4 —	4 —	6 —	—	—
Malignant neoplasm, lung, bronchus ...	M F	405 97	— —	— —	— —	— —	— 1	14 1	45 10	133 30	154 35	59 20	—	—
Malignant neoplasm, breast ...	M F	2 118	— —	— —	— —	— —	2 —	3 —	20 —	30 —	35 —	1 28	—	—
Malignant neoplasm, uterus ...	F	38	—	—	—	—	—	3	8	9	6	12	—	—
Malignant neoplasm, prostate ...	M	29	—	—	—	—	—	—	1	7	7	14	—	—
Leukaemia ...	M F	22 10	— —	— —	2 —	2 —	1 —	1 —	1 —	1 4	5 2	6 2	3 2	—
Other malignant neoplasms ...	M F	185 195	— —	— —	1 2	— 2	1 2	1 2	10 6	33 20	52 44	54 52	33 65	—
Benign and unspecified neoplasms ...	M F	12 3	— —	— —	— —	— —	— —	— —	— —	2 —	2 —	5 —	3 1	—
Diabetes mellitus ...	M F	28 47	— —	— —	— —	— 1	— 1	1 1	— 1	2 2	8 12	10 8	7 21	—
Avitaminoses, etc. ...	M F	1 3	— —	— —	— —	— —	— —	— —	— —	— —	— —	1 —	— 3	—
Other endocrine, etc. diseases ...	M F	7 11	— —	— —	— —	— 2	— —	1 —	— —	— —	2 2	1 —	2 7	—
Anaemias ...	M F	5 24	— —	— —	— —	— —	— —	— —	— —	— 1	— 3	2 7	3 13	—
Other diseases of blood, etc. ...	M F	— 1	— 1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	—
Mental disorders ...	M F	3 6	— —	— —	— —	— —	— —	— —	— —	— —	— —	3 —	— 6	—
Meningitis ...	M F	3 4	— —	1 1	— 1	— —	1 1	— —	— —	— —	— 1	— —	— —	—
Multiple sclerosis ...	M F	1 3	— —	— —	— —	— —	— —	— —	— —	1 3	— —	— —	— —	—
Other diseases of nervous system ...	M F	26 42	— —	— —	1 1	— —	2 —	— 2	2 1	2 3	5 2	9 10	5 23	—
Chronic rheumatic heart disease ...	M F	41 61	— —	— —	— —	— —	— —	— —	4 2	9 7	12 17	11 22	5 13	—

**Causes of Death by Age**  
Registrar General's Return—Manchester—*continued*

Causes of Death	Sex	All ages	Under four weeks	Four weeks and under 1 year	Age in Years								
					1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 and over
Hypertensive disease ... ..	M	46	—	—	—	—	—	1	3	5	8	19	10
	F	50	—	—	—	—	—	1	1	2	8	15	23
Ischaemic heart disease ... ..	M	998	—	—	—	—	2	34	130	269	310	253	
	F	768	—	—	—	—	3	18	130	240	240	412	
Other forms of heart disease ... ..	M	122	—	—	—	1	—	1	—	7	18	32	63
	F	223	—	—	—	—	—	3	3	12	38	167	
Cerebrovascular disease ... ..	M	336	—	—	—	—	3	1	4	14	59	117	138
	F	591	—	1	—	—	1	4	27	56	116	386	
Other diseases of circulatory system ... ..	M	115	—	—	1	—	—	1	7	19	36	51	
	F	172	—	—	—	—	—	2	6	9	40	115	
Influenza ... ..	M	19	—	—	—	—	2	1	—	2	4	2	8
	F	20	—	—	1	—	—	2	1	2	4	10	
Pneumonia ... ..	M	199	3	7	1	1	—	4	6	21	60	96	
	F	288	—	5	2	—	1	1	6	18	56	199	
Bronchitis and emphysema ... ..	M	296	—	—	—	—	2	2	21	69	115	87	
	F	125	—	—	—	—	—	1	5	21	41	57	
Asthma ... ..	M	3	—	—	—	1	—	—	1	—	1	—	
	F	7	—	—	—	—	1	—	1	4	—	1	
Other diseases of respiratory system ... ..	M	53	—	7	2	—	2	—	6	13	16	7	
	F	29	—	4	—	1	—	1	2	3	6	12	
Peptic ulcer ... ..	M	40	—	—	—	—	—	2	4	9	17	8	
	F	33	—	—	—	—	—	—	2	5	11	15	
Appendicitis ... ..	M	2	—	—	—	—	—	—	—	—	2	—	
	F	2	—	—	—	—	—	—	—	—	1	1	
Intestinal obstruction and hernia ... ..	M	6	—	—	—	—	—	—	1	—	3	2	
	F	14	—	—	—	—	—	—	1	—	8	5	
Cirrhosis of liver ... ..	M	14	—	—	—	—	1	—	5	2	6	—	
	F	12	—	—	—	—	—	1	5	1	3	2	
Other diseases of digestive system ... ..	M	30	—	—	—	—	—	1	2	4	11	12	
	F	54	—	—	—	—	2	1	2	6	15	28	
Nephritis and nephrosis ... ..	M	25	—	—	—	1	—	2	3	6	8	5	
	F	19	—	—	—	—	—	1	1	6	7	4	
Hyperplasia of prostate... ..	M	6	—	—	—	—	—	—	—	—	2	4	
Other diseases, genito-urinary system ... ..	M	23	—	—	—	1	—	—	2	8	8	4	
	F	30	—	—	—	—	—	—	—	6	15	9	
Diseases of skin, subcutaneous tissue ... ..	M	1	—	—	—	—	—	1	—	—	—	—	
	F	1	—	—	—	—	—	—	—	—	—	1	
Diseases of musculo-skeletal system ... ..	M	13	—	—	—	—	—	—	3	4	1	5	
	F	24	—	—	—	1	—	—	1	4	5	13	
Congenital anomalies ... ..	M	29	9	7	2	3	3	2	—	1	1	—	
	F	31	14	4	7	1	—	1	—	2	2	—	
Birth injury, difficult labour, etc. ... ..	M	39	39	—	—	—	—	—	—	—	—	—	
	F	19	18	1	—	—	—	—	—	—	—	—	
Other causes of perinatal mortality ... ..	M	16	16	—	—	—	—	—	—	—	—	—	
	F	14	14	—	—	—	—	—	—	—	—	—	
Symptoms and ill defined conditions ... ..	M	17	—	9	—	—	—	1	—	1	—	6	
	F	40	—	2	—	—	—	—	—	—	1	37	
Motor vehicle accidents ... ..	M	39	—	—	1	3	7	5	6	2	4	5	6
	F	29	—	—	—	4	5	1	1	1	4	8	5
All other accidents ... ..	M	64	1	—	7	5	7	2	6	8	10	3	15
	F	77	1	1	4	2	1	2	—	2	5	7	52
Suicide and self-inflicted injuries ... ..	M	25	—	—	—	—	4	6	2	9	1	2	1
	F	27	—	—	—	—	1	5	5	6	3	5	2
All other external causes ... ..	M	8	1	—	1	—	—	1	—	2	1	2	—
	F	14	—	—	—	—	3	1	3	3	2	1	1
Total all causes ... ..	M	3,626	70	34	21	16	35	33	109	366	814	1,151	977
	F	3,581	48	20	19	14	18	24	50	190	459	888	1,851
Grand total ... ..	All	7,207	118	54	40	30	53	57	159	556	1,273	2,039	2,828

# DEATHS FROM PRINCIPAL CAUSES

RATE per 1000 POPULATION  
AND  
PERCENTAGE of TOTAL DEATHS



### Deaths in age groups and percentages of total deaths

Year	Total number of deaths	Age groups and percentages									
		0—		1—4		5—44		45—64		65—	
		No.	%	No.	%	No.	%	No.	%	No.	%
1901 ..	11,801	3,114	26.39	1,676	14.20	2,725	23.09	2,627	22.26	1,659	14.06
1911 ..	12,272	2,901	23.64	1,516	12.35	2,711	22.09	2,790	22.74	2,354	19.18
1921 ..	10,093	1,707	16.91	728	7.21	2,313	22.92	2,687	26.62	2,658	26.34
1931 ..	10,618	1,027	9.67	503	4.74	1,943	18.30	3,144	29.61	4,001	37.68
1941 ..	10,016	832	8.31	265	2.65	1,467	14.65	2,886	28.81	4,566	45.58
1951 ..	9,676	439	4.54	64	0.66	748	7.73	2,568	26.54	5,857	60.53
1961 ..	8,910	388	4.35	36	0.40	457	5.13	2,369	26.59	5,660	63.53
1963 ..	8,504	391	4.60	62	0.73	449	5.28	2,338	27.49	5,264	61.90
1964 ..	7,715	382	4.95	38	0.49	421	5.46	2,082	26.99	4,792	62.11
1965 ..	7,866	337	4.29	43	0.55	421	5.35	2,172	27.61	4,893	62.20
1966 ..	7,844	306	3.90	50	0.64	358	4.56	2,071	26.40	5,059	64.50
1967 ..	7,751	258	3.33	50	0.65	381	4.92	1,994	25.72	5,068	65.38
1968 ..	7,646	283	3.70	46	0.60	337	4.40	1,932	25.27	5,048	66.03
1969 ..	7,543	290	3.84	51	0.68	332	4.40	1,930	25.59	4,940	65.49
1970 ..	7,417	219	2.95	43	0.58	349	4.71	1,904	25.67	4,902	66.09
1971 ..	7,132	210	2.94	26	0.37	314	4.40	1,781	24.97	4,801	67.32
1972 ..	7,207	172	2.39	40	0.56	299	4.15	1,829	25.38	4,867	67.52

**Ward population, births and deaths**  
(*Figures compiled in the department*)

Wards	Estimated population	Live births			Deaths		Deaths under one year of age			Infant mortality per 1,000 live births	
		Legitimate	Illegitimate	Totals	Rate per 1,000 population	Totals	Legitimate	Illegitimate	Totals		
City of Manchester	531,270	6,178	1,550	7,728	14.55	7,207	13.57	149	23	172	22.26
Alexandra	17,695	224	82	306	17.29	168	9.49	7	—	7	22.88
Ardwick	10,690	158	57	215	20.11	212	19.83	5	1	6	27.91
Baguley	18,688	189	46	235	12.57	191	10.22	3	3	6	25.53
Barlow Moor	15,988	119	50	169	10.57	213	13.32	2	—	2	11.83
Beswick	11,929	199	55	254	21.29	201	16.85	3	—	3	11.81
Blackley	15,855	141	23	164	10.34	230	14.51	3	—	3	18.29
Bradford	20,969	259	71	330	15.74	344	16.41	7	1	8	24.24
Brooklands	18,901	143	34	177	9.36	247	13.07	2	—	2	11.30
Burnage	17,376	142	18	160	9.21	239	13.75	3	—	3	18.75
Charlestown	13,268	107	19	126	9.50	163	12.28	3	1	4	31.75
Cheetham	12,154	264	69	333	27.40	182	14.97	8	3	11	33.03
Chorlton	16,565	195	43	238	14.37	191	11.53	4	—	4	16.81
Collegiate Church	6,615	62	12	74	11.19	157	23.73	4	1	5	67.57
Crossacres	19,571	211	45	256	13.08	199	10.17	1	1	2	7.81
Crumpsall	19,223	169	24	193	10.04	283	14.72	7	2	9	46.63
Didisbury	18,739	118	18	136	7.26	244	13.02	1	—	1	7.35
Gorton North	18,141	259	42	301	16.59	260	14.33	8	—	8	26.58
Gorton South	12,673	121	25	146	11.52	192	15.15	3	—	3	20.55
Harpurhey	12,449	222	49	271	21.77	148	11.89	7	—	7	25.83
Hulme	13,125	184	111	295	22.48	244	18.59	10	—	10	33.90
Levenshulme	19,907	253	43	296	14.87	262	13.16	1	1	2	6.76
Lightbowne	17,196	275	32	307	17.85	223	12.97	2	—	2	6.51
Lloyd Street	19,178	256	74	330	17.21	242	12.62	7	1	8	24.24
Longsight	19,098	317	89	406	21.26	255	13.35	7	3	10	24.63
Miles Platting	13,788	164	52	216	15.67	213	15.45	7	—	7	32.41
Moston	14,240	157	23	180	12.64	239	16.78	2	—	2	11.11
Moss Side	14,170	182	120	302	21.31	135	9.53	7	4	11	36.42
Newton Heath	15,695	180	27	207	13.19	271	17.27	3	—	3	14.49
Northenden	17,821	158	27	185	10.38	210	11.78	3	—	3	16.22
Old Moat	15,547	107	18	125	8.04	219	14.09	4	—	4	32.00
Rusholme	20,320	239	56	295	14.52	246	12.11	6	—	6	20.34
Withington	17,425	202	39	241	13.83	211	12.11	5	—	5	20.75
Woodhouse Park	16,271	202	57	259	15.92	173	10.63	4	1	5	19.31

## Infectious Disease and Epidemiology

Incidence of infectious disease (excluding tuberculosis, which is to be found on page 224) in the City, compared with the previous year and the average of the ten years, is shown in the following table:—

Disease	1972	1971	10 year Average 1963-1972
Anthrax .. .. .	—	—	—
Cholera .. .. .	—	—	—
Diphtheria .. .. .	—	8	1
Dysentery .. .. .	184	265	388
Encephalitis (acute) .. .. .	1	3	2
Food poisoning .. .. .	177	144	172
Infective jaundice (notifiable from 1st February, 1966)	247	204	399
Leprosy .. .. .	—	—	—
Leptospirosis (notifiable from 1st October, 1968)	—	—	—
Malaria .. .. .	—	—	—
Measles .. .. .	2,529	1,253	3,393
Meningitis (acute) .. .. .	53	173	36
Ophthalmia neonatorum .. .. .	18	25	27
Paratyphoid .. .. .	—	1	3
Pemphigus neonatorum .. .. .	1	—	—
Plague .. .. .	—	—	—
Poliomyelitis (acute) .. .. .	—	—	—
Relapsing fever .. .. .	—	—	—
Rubella .. .. .	1,206	1,522	1,016
Scarlet fever .. .. .	163	140	216
Smallpox .. .. .	—	—	—
Tetanus (notifiable from 1st October, 1968) ..	—	—	—
Typhoid .. .. .	3	3	4
Typhus .. .. .	—	—	—
Whooping cough .. .. .	30	255	496
Yellow fever (notifiable from 1st October, 1968)	—	—	—

### Anthrax

The last case occurred in Manchester in 1967. However, in December, a patient died in a hospital in a nearby local authority area, from pulmonary anthrax (a very rare disease). She had returned from a holiday in Tunis two weeks previously, arriving at Manchester Airport. Before the diagnosis was

certain, the aircraft involved had made 16 further journeys to the Mediterranean area. It was immediately quarantined and disinfected under the supervision of a senior public health inspector.

Passenger lists were obtained and appropriate Local Authorities informed of the circumstances. All residents of Manchester who were involved were contacted by public health inspectors, to ensure that they had remained well. Arrangements were also made for the disposal of animal skin and leather goods recently brought back from Tunisia, whenever an individual requested this.

### **Diphtheria**

There were no cases.

### **Dysentery**

184 cases, with no deaths.

### **Encephalitis (acute)**

One case with one death. The death was due to the late effects of encephalitis.

### **Food poisoning**

For details see page 83.

### **Infantile gastro-enteritis**

334 cases, with 5 deaths.

The cases of infantile gastro-enteritis were notified voluntarily by local children's hospitals, under the scheme instituted in 1969 and discussed in the annual report for that year. There were five deaths from this disease; the youngest was a child of three weeks and the oldest a child of one year and two months.

The monthly distribution of cases and deaths (in parenthesis) was as follows:—

January	30 (3)	May	18	September	29
February	33	June	24	October	30
March	37	July	23	November	32 (1)
April	21	August	27	December	30 (1)

In 1971, there were 299 cases of infantile gastro-enteritis with four deaths.

The home circumstances of all cases were investigated jointly by a health visitor and public health inspector.



## Infective jaundice

247 cases, with 2 deaths.

The number of cases notified in 1971 was 204. The monthly distribution of cases, (deaths in parenthesis), was as follows:—

January	17	May	32	September	13
February	26	June	19	October	18
March	34	July	13	November	17 (1)
April	19	August	22 (1)	December	17

## Influenza

There were 36 deaths from influenza compared with 12 in the previous year. The majority occurred during the latter months of the year.

Of the 36 deaths, one was under one year of age, 5 were aged between 15 and 45 and the remainder were over 45 years of age.

*The following report has been provided by Dr. J. O'H. Tobin, Director of the Public Health Laboratory at Withington Hospital.*

"The influenza epidemic during the winter of 1971/72 continued until March, with isolations being made from all parts of the conurbation. Initially it started in the south-east and slowly spread throughout the area during the five months in which it lasted. Deaths due to this infection occurred and specimens from over 30 of them were examined by the Public Health Laboratory and shown to be due to the current Hong Kong influenza A virus. No influenza occurred during the summer, but in November and December a variant of the Hong Kong strain—the so-called A/Eng/42/72—appeared and within a few weeks spread throughout the whole conurbation, continuing to be isolated into January 1973. The shift in the antigenic composition of this new virus was such that, although 90 per cent of the population were immune to the Hong Kong virus following the 1971/72 epidemic, serological tests on people in the area showed that 60 per cent were susceptible to the new virus. The incidence of infection was high and the clinical conditions no different from that usually associated with this disease. However, the main epidemic lasted for a shorter time and behaved more similarly to the old Asian strains than to the Hong Kong variant. The antigenic relationships between these strains might explain the epidemiology. The new Hong Kong strains had the same neuraminidase as the old Asian strains but the haemagglutinin had changed to a completely new one. This meant that personal immunity to infection would be lacking in most of the population, but that communicability of the virus might be reduced. This would explain, in part, the reason for two of the Hong Kong epidemics persisting longer than those due to the original Asian strain. The new A/Eng/42/72 variant, although still related to the Hong Kong strain as far as the haemagglutinin and neuraminidase antigens were concerned, could be readily separated by laboratory tests from it, and as immunity to influenza may wane after three years or so, any marked change would make a large proportion of the population susceptible. The change in the neuraminidase would also mean that the disease would be more communicable and spread through the community quickly.

Material from over 100 deaths in the Manchester conurbation due to influenza were received by the laboratory in this new epidemic. Most of these were from people over 50 years of age, but some were in young adults and a few in infants. A few cases including one death due to influenza B occurred in May and June.

Usually respiratory syncytial virus tends to disappear during an influenza epidemic, but this time it persisted throughout the winter (1972/73) and probably caused one of the largest epidemics we have had in some years. The long-term effects of this widespread and serious infection in infancy have not been determined, but follow-up of school children who had the disease 10 years ago would seem a worth while project.

#### Influenza A and respiratory syncytial virus isolations, 1972

Months	Influenza A	Respiratory Syncytial Virus
January–March .. .. .	46 <sup>1</sup>	59
April–June .. .. .	0	13
July–September .. .. .	0	0
October–December .. .. .	82 <sup>2</sup>	49

<sup>1</sup> = Hong Kong strains. <sup>2</sup> = Eng/42/72 strains.

#### Measles

2,529 cases, with no deaths.

The following table shows the number of notifications for the last six years.

Year	1967	1968	1969	1970	1971	1972
No.	3,204	2,777	2,560	2,905	1,253	2,529

The quarterly distribution of these 2,529 notifications was:—

1st quarter .. .. .	716
2nd quarter .. .. .	1,153
3rd quarter .. .. .	489
4th quarter .. .. .	171

The age distribution of notifications was:—

Age groups (years)	Per cent of total notifications
under 1	4.1
1–4	53.6
5–9	38.3
10 and over	4.0

The age/specific morbidity rates were :—

Age (years)	Rate per 1,000 population
under 5	34.5
5-14	11.9

### **Meningitis (acute)**

54 cases with 6 deaths.

Of the 54 notifications of meningitis, 21 were meningococcal, 11 were other bacterial, 20 were viral and two were unspecified.

Of the six deaths, one was due to meningococcal infection, four were due to pneumococcal meningitis and one was due to an unspecified bacterial infection.

On 13th December, 1971, a three-year old child, in a family of two adults and nine children, was admitted to hospital and diagnosed as a case of meningococcal meningitis. On the same day, the entire family had nasopharyngeal swabs taken and prophylactic sulphonamide chemotherapy was started. The swabbing revealed that two siblings were carriers of group C meningococci, the index case having also been notified as a case of group C meningococcal septicaemia.

On 2nd January, 1972, a two-year old sibling was admitted to hospital and subsequently notified as a case of meningococcal meningitis, group C. The entire family were again swabbed and prophylactic chemotherapy instituted. Swabbing revealed that an 11-year old child who had previously been positive was again a carrier. However, in an eight-year old child, who had previously been negative, meningococci were isolated. Both children received further sulphonamide and penicillin chemotherapy after which only the eight-year old remained a carrier of a sulphonamide resistant untypeable organism. The entire family next received a prophylactic course of Rifampicin (rifadin). By 4th March, 1972, repeated swabbing suggested that any carrier state had been eliminated from the family.

Unfortunately, two days later on 7th March, 1972, a six-year old sibling was admitted to hospital as a fulminating case of meningococcal septicaemia, group C. This child had never produced a positive swab. Again the family received a course of Rifampicin (rifadin) and also submitted blood specimens for haemagglutination titre estimations. The results indicated that the level of immunity to meningococcal infection was extremely low in eight of the nine children. The exception was a five-year old boy from whom meningococci were at no time isolated.

Between the 16th March and 4th April, 1972, three series of swabs of the entire family were negative. From mid-December, 1971, to late April, 1972, all the children had remained excluded from school and initially the surveillance of school class contacts was also arranged. A convalescent holiday in North Wales was also arranged for the children at the end of April.

### **Poliomyelitis**

There were no cases.

The last case occurred in Manchester in 1962.

### **Rubella (German measles)**

1,206 cases with no deaths.

There were 1,522 cases in 1971. The average for the past ten years is 1,016.

Of the total number of notifications, 592 were for males and 612 for females; 76 per cent of the total notifications occurred in the period February to July inclusive, with a peak of 183 notifications in May. Of the female notifications, 82 per cent were 10 years of age and under. There were no female notifications over the age of 30.

The age/specific female morbidity rates were:—

Age group (years)	Rate per 1,000 population
0-5	10.50
6-15	6.50
over 15	0.30

### **Scarlet Fever**

163 cases with no deaths.

The number of cases in 1971 was 244. The average for the past 10 years is 216.

### **Smallpox**

There were no cases.

### **Tetanus**

There were no cases.

## **Typhoid**

3 cases and no deaths.

### *Case 1*

Two families, consisting of four adults and six children all under six years of age, returned to Pakistan for a holiday in September, 1971, and re-entered Britain via Heathrow Airport on 14th February, 1972. Two days later, a five year-old female child developed pyrexia and vomiting and was treated symptomatically by the family doctor, without success. She was transferred to Monsall Infectious Diseases Hospital on 17th February, 1972, as a clinically suspicious case of typhoid fever and subsequently notified as such by the hospital physician.

The child was discharged from hospital on 21st March, 1972, after treatment and after eight negative faeces and urine specimens had been obtained. She has remained clinically well since discharge and has submitted 30 negative specimens.

An untypeable *Salmonella typhi* Vi strain was isolated from an early blood culture. The patient had never received T.A.B. immunization.

The family contacts were placed under routine surveillance and remained well.

### *Case 2*

On 26th September, 1972, a six year-old child was admitted to Booth Hall Hospital and following the isolation of a *Salmonella typhi* organism from a blood culture, the child was transferred to Monsall Hospital. On 28th August the child and her family returned to Manchester following a holiday in the Naples area of Italy.

On 20th September the child became ill with headache, stomach pains and vomiting. In spite of treatment by the general practitioner, there was no clinical improvement and admission to Booth Hall Hospital was arranged. Response to treatment in Monsall Hospital was satisfactory and the child was discharged from hospital on 3rd November, following a series of negative faeces and urine specimens.

The organism was phage type B2. The patient had never received T.A.B. immunization. Routine surveillance of all contacts was carried out, including more than 60 children in the primary school that the child had attended before becoming ill.

### *Case 3*

On 10th October, 1972, a 66 year-old woman was admitted to Withington Hospital and two days later a *Salmonella typhi* organism was isolated from a faeces specimen. Subsequently, the woman was transferred to Monsall Hospital.

Following a holiday in Palma, Majorca, the patient returned to Manchester on 16th September and between 20th and 27th September had suffered from

intermittent diarrhoea. Faeces specimens were negative for both salmonella and cholera organisms. After a short period of apparent well-being, in early October she again began to feel unwell, with anorexia. In spite of treatment by her general practitioner, her condition deteriorated and she was admitted to Withington Hospital and barrier nursed from the start.

The patient was discharged from Monsall Hospital on 28th November, 1972, but after submitting eight negative faeces specimens, she again reverted to being positive. Surveillance continued for both the case and family contacts. To the end of the year all specimens were negative.

The organism was a degraded Vi strain.

The patient had never received T.A.B. immunization.

### Paratyphoid

There were no cases.

### Whooping cough

30 cases and no deaths.

This is the lowest number ever recorded in Manchester. The number of cases in 1971, was 255. The average for the past ten years is 496.

### Consultations

Medical Officers of the department were actively engaged in the investigation of many of the cases noted. Requests for consultation were received from hospitals, general practitioners and nurseries. Technical help was readily available from the staff of the Public Health Laboratory, Manchester, and a large amount of work was carried out by this laboratory as part of the investigations into the cases of meningococcal meningitis, typhoid, paratyphoid, dysentery and food poisoning referred to elsewhere in this report.

## Immunization

### Present recommended ages for immunization

Age	Immunization against	
5 months .. ..	Diphtheria, whooping cough, tetanus and poliomyelitis.. .. .	dose 1
6½ months .. ..	Diphtheria, whooping cough, tetanus and poliomyelitis.. .. .	dose 2
12½ months .. ..	Diphtheria, whooping cough, tetanus and poliomyelitis.. .. .	dose 3
1 year 3 months ..	Measles .. .. .	
School entry .. ..	Diphtheria, tetanus and poliomyelitis (for children fully immunized previously) .. ..	booster
11-14 years (girls only)	Rubella .. .. .	
13 years .. .. .	Tuberculosis (with B.C.G.) .. .. .	

Since 1967, the Corporation's computer has been used in the preparation of the immunization programme.

Each child's date of birth and the immunization procedures to which the parents have consented are recorded by the computer; from this information the computer subsequently issues, at the appropriate intervals of time, an appointment card to remind the parents to take the child for immunization to the clinic of their choice.

If the appointment is not kept, the computer prepares another appointment and eventually, if three appointments are not kept, the child's name appears on a list of non-attenders. Arrangements are then made for the health visitor for the district to visit the family to ascertain whether the parents still wish their child to be immunized and if so a further series of appointments are made. In the case of a mother having difficulty in attending the child health centre, the mobile immunization unit is asked to call.

Every immunization procedure a child receives is recorded by the computer, so that a complete record is built up of each child's immunization history.

### Diphtheria, whooping cough, tetanus and poliomyelitis

**Primary immunizations completed by 31st December, 1972,  
of children born in 1967, 1968, 1969 and 1970**

	Year of birth	1967	1968	1969	1970
	Number of live births	11,305	10,736	9,997	9,419
Diphtheria	Number immunized	9,363	8,305	7,724	6,112
	Number immunized as percentage of live births	83	77	77	65
Whooping cough	Number immunized	7,890	7,159	6,958	5,751
	Number immunized as percentage of live births	70	67	70	61
Tetanus	Number immunized	9,368	8,410	7,724	6,110
	Number immunized as percentage of live births	83	78	77	65
Poliomyelitis	Number immunized	8,128	7,377	7,183	6,049
	Number immunized as percentage of live births	72	69	72	64

The above table indicates that, as in previous years, the percentage of children immunized of those born in any one year increases in direct proportion to the number of years that have elapsed since the year of birth. However, during the diphtheria outbreak in 1971, the number of children born in 1969 who were immunized in 1971 was higher than average and this accounts for the apparent anomaly.

The following table gives details of the number of booster doses given to school children for the years 1968, 1969, 1970, 1971 and 1972.

Antigen	1972	1971	1970	1969	1968
Diphtheria/tetanus .. .. .	3,066	60,550	4,464	6,141	6,072
Poliomyelitis .. .. .	2,896	3,387	4,397	4,246	4,999

For the first time, the Corporation's computer was used in the preparation of the schools' immunization programme. A new computer was installed early in the year, but due to difficulties arising from the transfer of work from the existing computer, the immunization programme was not fully operational until September. Between September and the end of the year, 75 schools out of a total of 171 had been visited by the immunization team and this is reflected in the figure for 1972. It is, therefore, anticipated that in a full year's immunization programme in schools, the computer facilities will increase the proportion of children immunized.

The large number of booster diphtheria/tetanus immunizations carried out in 1971 was due to the diphtheria outbreak during the early part of that year.

## Measles

### Immunizations completed by 31st December, 1972 of children born in 1967, 1968, 1969 and 1970

Year of birth	1967	1968	1969	1970
Number of live births	11,305	10,736	9,997	9,419
Number immunized	3,433	3,469	3,635	3,693
Number immunized as percentage of live births	30	32	37	39

## Mobile immunization unit

### Work of the mobile immunization unit in 1971 and 1972

Nature of immunization	Number of persons immunized	
	1971	1972
Diphtheria, whooping cough and tetanus ..	1,207	1,305
Diphtheria and tetanus .. .. .	267	116
Measles .. .. .	840	715
Poliomyelitis .. .. .	1,407	1,438
Totals .. .. .	3,721	3,574



## Rubella

The vaccination programme for the immunization of schoolgirls between the ages of 11 and 14 years was carried out between January and March: the following table compares 1972 with 1971.

Category	1971		1972	
	Number	Percentage acceptance from girls eligible	Number	Percentage acceptance from girls eligible
Schoolgirls eligible ..	6,936	—	6,157	—
Schoolgirls for whom consents were received ..	4,444	64	4,090	66
Schoolgirls immunized ..	4,181	60	3,902	63

## B.C.G.

The arrangements for the immunization of child contacts of tuberculosis, newly arrived immigrant children and school children continued.

### *Child contacts*

Sessions for child contact surveillance were held at the Manchester Chest Clinic and in schools.

The following table gives the relevant details:

Number of persons	Contact scheme		
	Health department	Schools	Totals
Skin tested .. .. .	669	2,735	3,304
Found positive .. .. .	273	464	737
Found negative .. .. .	369	1,999	2,368
Immunized .. .. .	516	—	516

The number of immunizations carried out by the Health Department at the Manchester Chest Clinic is in excess of the number found to be negative on skin testing, because the 516 children immunized includes children who were skin tested elsewhere and also new born babies.

### *Immigrants*

Under the arrangements whereby newly arrived immigrants under 21 years of age are given appointments to attend the chest clinic sessions, a total of 147 attended for Heaf testing. Of these, 64 were negative and given B.C.G. vaccination; 78 persons who showed a positive reaction were referred for X-ray. Some of these were stated to have received B.C.G. before arrival in this country. Five persons failed to return for the result of their Heaf test to be read.

### *School children*

Routine immunization against tuberculosis is offered to all school children when they reach 13 years of age. The annual immunization programme was carried out during the school autumn term.

The following table gives the relevant details compared with 1971 :

Category	1971		1972	
	Number	Percentage acceptance from children eligible	Number	Percentage acceptance from children eligible
School children eligible ..	9,365	—	9,031	—
School children for whom consent was received .. ..	8,680	93	7,719	85
School children skin tested by 31st December .. ..	8,229	88	7,561	84

In collaboration with the Medical Research Council, the Health Department was involved in the National Tuberculin Survey to assess the present levels of tuberculosis in school children in England and Wales. The information obtained was to help in the evaluation of present preventive measures and in the planning of future national policy against tuberculosis.

The screening involved carrying out skin testing in both 13-year-old and 6-year-old children. Three hundred and ninety-nine children at three secondary schools were skin tested and the figures are included in the above table. In addition, 378 children at four infant schools were skin tested.

### **Influenza**

In accordance with the recommendation of previous years from the Department of Health and Social Security, that influenza vaccine should only be offered to priority groups, 191 persons were immunized.

### **Immunization for persons travelling abroad**

The following table shows details of immunizations given in the Health Department clinic in 1971 and 1972 :

Antigen	1971	1972
Yellow fever	2,674	2,651
Cholera	1,306	734
Typhoid	218	140

### **International vaccination certificates**

In addition to the 2,651 yellow fever vaccination certificates and 734 cholera vaccination certificates issued from the Health Department, 10,530 smallpox and cholera vaccination certificates issued by medical practitioners were authenticated in accordance with the International Health Regulations.

Primary immunizations carried out at various clinics

Immunization centre	Numbers of immunizations with each type of antigen										Percentage immunized at each centre
	Diphtheria, whooping cough and tetanus combined	Diphtheria and tetanus combined	Diphtheria	Whooping cough	Tetanus	Poliomyelitis	Rubella	Measles	Totals		
Child health centres ..	4,435	306	4	1	1	4,695	—	3,520	12,962	52.0	
Day nurseries ..	68	8	—	—	—	74	—	49	199	0.9	
Schools and school clinics	69	1,694	2	—	14	643	3,902	59	6,383	26.0	
Mobile immunization unit ..	1,305	116	—	—	—	1,438	—	715	3,574	14.6	
General practitioners ..	481	48	—	—	1	571	2	276	1,379	6.0	
Hospitals ..	14	—	—	—	—	13	—	1	28	0.1	
Outside Manchester ..	35	—	—	—	—	36	—	18	89	0.4	
Totals ..	6,407	2,172	6	1	16	7,470	3,904	4,638	24,614	100.0	

## Venereal Diseases

*I am indebted to Dr. Leslie Watt, consultant venereologist and physician-in-charge St. Luke's Clinic, for the following report:*

The sudden increase in gonorrhoea in Manchester which was reported last year has not continued, mainly because in the latter part of 1972 there was a marked fall in the incidence of the disease. These fluctuations in incidence occur in all infectious diseases, and at least in the case of venereal disease are largely inexplicable.

During the year the small number of cases of early infectious syphilis doubled and although a proportion of these patients were admitted homosexuals considerable doubts were felt about some others who denied such activity. The increased liability of homosexuals to acquire venereal infection is well recognised. The difficulty of establishing stable sexual relationships contributes to this and the stigma which still persists encourages casual anonymous sexual encounters. This perpetuates inability or unwillingness of infected homosexuals to give help in tracing infected contacts.

Unwillingness to assist in tracing sexual partners, who may have venereal disease, is by no means confined to homosexuals. It is the major problem facing those who try to enlist the aid of infected patients in attempting to limit spread of infection. The reasons behind this unwillingness to co-operate, when it is manifestly in the patients' own interests to co-operate, are complex. They represent amongst other things a hotch-potch of ignorance, fear of punitive action, fear of disclosure of identity and unwillingness to co-operate with any authority, whether this be benevolent or not. The code which eschews "kiss and tell" may apply to most aspects of sexual behaviour, but has absolutely no place in the control of venereal disease.

Many deny knowledge of the identity of their sexual partners when it is patently obvious that they are returning to the same source for repeated infections. Many males refuse information regarding their source of infection and insist they will deal with the situation themselves. Such patients, not knowing that the female suffering from venereal disease can be symptom-free, accept possibly sincere but mistaken reassurance from the female that she is uninfected. Events prove her wrong a few days after the next sexual episode when symptoms in the male recur.

Infected patients must realize that it is in their own interest to co-operate in contact tracing and should regard this activity, not as unwarranted interference in their private lives, but as their initial precaution against further infection. Everyone, both male and female, must learn sooner rather than later that infectious venereal disease in the female can exist for many months without any symptoms which attract attention.

### **Venereal disease service**

No major change has taken place in clinic premises during 1972.

A welcome feature during the year has been recruitment of more staff thus making further clinic sessions possible and relieving congestion on others. Recruitment of junior medical staff is still difficult and reflects a nation-wide shortage.

## **Incidence of sexually transmissible disease**

Table A details the number of new registrations and the total attendances at the clinics in Manchester during 1972. The figures refer to infections or other conditions and not to actual numbers of patients. Individuals may have more than one condition simultaneously or may acquire multiple reinfections within the year under review. An accurate estimate of the incidence of infection in the population is impossible and only trends can be indicated.

For comparison the figures for 1971 are included in brackets. Total new registrations for males have increased by 321 (4 per cent) to 7,051 and total new registrations for females increased by 379 (13 per cent) to 3,256. The overall total of 10,307 registrations represents an increase of 700 (7 per cent) over that of 1971.

### **Acquired syphilis**

There was an increase in early infectious syphilis in 1972. Table B details the number of patients treated for early syphilis in the clinics during the past decade. In 1972 a total of 52 patients (42 males and 10 females) was treated, exactly double the number of both males and females treated in 1971 and the highest total during the past ten years. The males comprised 6 foreign seamen infected abroad and 13 admitted homosexuals 4 of whom were infected abroad. The remaining homosexuals except one who refused to divulge information were infected locally. Infection took place locally in all but 4 of the 33 other males with early syphilis. All of the 10 females treated for early syphilis in 1972 were infected locally.

The number of patients treated for late non-infectious syphilis during the year was 55 (36 males and 19 females), again the highest number during the past ten years. In the main this figure represents syphilis which was undiagnosed during the peak incidence of the disease in the war and post war years.

### **Congenital syphilis**

No infants with congenital syphilis were seen during the year.

Late congenital syphilis was diagnosed in 14 patients (3 males and 11 females) all over the age of 15 years.

### **Gonorrhoea**

Table C shows the number of infections with gonorrhoea treated in males in the clinics in Manchester during the year. In 1972 the number of infections in males decreased by 162 (8 per cent) to a total of 1,832. The number of infections in females increased by 55 (6 per cent) to 967. No case of accidental infection in children was seen in the clinics during the year.

The steep increase in gonorrhoeal infection experienced in 1971 has not been maintained. The number of infected females has increased whilst there has been a corresponding decrease in the number of infected males and the male:female ratio is now 1.8:1. This is encouraging since because of the nature of the disease, the reservoir of infection is in the untreated female who is promiscuous. Progress in controlling the disease can only be made at present by decreasing this reservoir through bringing these women to be treated. Each infected female removed from the reservoir limits the spread of disease in both sexes.

## **Venereal disease in young people**

One girl aged 15 years, one girl aged 17 years and one boy aged 18 years were treated for early syphilis in 1972. Their infections were not associated.

Table D shows the number of gonococcal infections occurring in the different age groups during the past five years. The number of young boys under the age of 20 years treated for gonococcal infections during the year was 228 which represented 12 per cent of the total in males. The number of infections treated was exactly similar to that in 1971. This compares with the overall decrease in males of 8 per cent.

The number of infections in females under the age of 20 years was 321, as in males exactly similar to last year. This compares with an increase of 6 per cent in the total number of infections treated in females and an increase of 53 (9 per cent) in the older age groups. Infections in young females below the age of 20 years decreased to 33 per cent of all infections treated in females.

No complacency is allowable when even one young girl of 15 years acquires syphilis (the source, an itinerant fairground worker, was untraced) but in 1972 the relentless increase of venereal infection in young people during the last decade appears at least to have been contained.

## **Other conditions**

Other conditions cover a wide variety of genital infections and other ailments sometimes but by no means always associated with promiscuous sexual behaviour. These maladies may be multiple and may be associated with statutory venereal disease. Since 1971, the statistical information required subdivides them into no less than fifteen headings.

Non-gonococcal urethritis in the male, the commonest of these conditions has possibly got multiple causes. The diagnosis is ill defined and unprecise but it is undoubtedly being made more often in the clinics and the number of patients suffering from this ailment outnumbers that with gonorrhoea. In 1972 this diagnosis was made in 2,025 males compared with 1,847 in 1971 and 1,257 in 1968.

This heading also includes patients who attend for reassurance only and in 1972 of the total new registrations, 1,579 males (22 per cent) and 708 females (21 per cent) showed no physical abnormality. This compares with 1,315 males (19 per cent) and 502 females (19 per cent) in 1971 and 952 males (19 per cent) and 346 females (19 per cent) in 1968 and mirrors the increasing willingness of patients to seek advice in the absence of symptoms.

Including those requiring reassurance only the total of other conditions in males and females in 1972 was 7,387, an increase of 772 (11 per cent) over 1971.

## **Venereal diseases social worker**

One health visitor is seconded full-time by Manchester Corporation for contact tracing. This is a very difficult task demanding great tact and patience. During the year 56 contacts who would not otherwise have attended the clinic were traced. By personal contact 197 patients who had failed to complete treatment and were a potential danger to the community were also persuaded to reattend the clinic. A total of 635 home visits was made.

**TABLE A.**  
**1972. Summary of new registrations and attendances, Manchester clinics**  
**(1971 totals in brackets)**

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Early syphilis .. ..	42 (21)	10 (5)	52 (26)
Late syphilis .. ..	36 (23)	19 (12)	55 (35)
Congenital syphilis .. ..	3 (4)	11 (17)	14 (21)
Gonorrhoea .. ..	1832 (1995)	967 (915)	2799 (2910)
Other conditions .. ..	5138 (4687)	2249 (1928)	7387 (6615)
Total new registrations	7051 (6730)	3256 (2877)	10307 (9607)
Total attendances ..	19523 (16715)	8715 (6908)	28238 (23623)

**TABLE B.**  
**Early acquired syphilis. Manchester clinics**

<i>Year</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
1963 .. ..	23	9	32
1964 .. ..	13	3	16
1965 .. ..	31	16	47
1966 .. ..	9	5	14
1967 .. ..	30	5	35
1968 .. ..	40	9	49
1969 .. ..	31	4	35
1970 .. ..	17	6	23
1971 .. ..	21	5	26
1972 .. ..	42	10	52

**TABLE C.**  
**Gonorrhoea. Manchester Clinics**

<i>Year</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
1963 .. ..	1831	569	2400
1964 .. ..	1899	573	2472
1965 .. ..	1547	464	2011
1966 .. ..	1781	573	2354
1967 .. ..	1830	673	2503
1968 .. ..	1752	706	2458
1969 .. ..	1741	779	2520
1970 .. ..	1754	747	2501
1971 .. ..	1994	912	2906
1972 .. ..	1832	967	2799

**TABLE D.**  
**Age groups of male and female patients treated for gonorrhoea.\***  
**Manchester clinics**

<i>Age (years)</i>	1968		1969		1970		1971		1972	
	M	F	M	F	M	F	M	F	M	F
Under 16	3	6	4	6	2	8	5	16	5	15
16 and 17	31	73	31	73	40	91	66	120	53	123
18 and 19	143	149	146	175	150	150	157	184	170	183
Total under 20	177	228	181	254	192	249	228	320	228	321
per cent										
under 20	10	32	10	32	11	33	11	35	12	33
20 to 24	475	213	506	271	527	262	567	297	581	355
25 plus	1100	265	1054	254	1035	236	1199	295	1023	291
Totals	1752	706	1741	779	1754	747	1994	912	1832	967

\*Accidental gonococcal vulvo-vaginitis in female children and gonococcal ophthalmia neonatorum excluded.

## **Occupational Health**

Since the appointment in June, 1971, of a Deputy Principal Medical Officer to take charge of the occupational health service, a limited expansion of this service to Corporation employees has occurred. However, any further expansion of the service will necessitate both an increase in the present staffing complement and also additional accommodation.

### **Pre-employment medical review**

The SELNEC transport authority provides its own occupational health service and referrals to the Medical Officer of Health are made only for the purposes of retirement on medical grounds. The majority of the personnel of the Manchester and Salford Police Force receive medical surveillance from specially appointed doctors, as do the operational staff of the Fire Brigade.

For selected groups of employees of the Health Department, the Social Services Department and the Education Department, medical examination and/or chest X-ray is required before employment and subsequently chest X-rays are repeated at two yearly intervals.

Selected groups of employees of the Waterworks Department and of the Markets Department have a medical examination and/or bacteriological examination before employment, followed by repeat investigation at yearly or three-yearly intervals.

As a minimum requirement, all prospective non-manual employees must complete a medical questionnaire, but for the majority of prospective manual employees there is no medical surveillance prior to employment in the Corporation service. The screening of these medical questionnaires is carried out by a senior medical officer of the Health Department. In cases where there is no special departmental need for a medical examination or other investigation, further medical investigations are required in only a minor proportion of instances. There were 3,237 questionnaires checked in 1972 and it was necessary for medical examination and/or chest X-rays to be carried out in 1,230 of these cases. Only 18 applicants were considered to be medically unfit for employment.

### **Long term sickness absence**

The Medical Officer of Health, at the request of employing committees and heads of departments and with the permission of the employees concerned, obtained confidential medical reports on employees absent from duty due to sickness for prolonged periods of time, or when their entitlement to sickness benefit was about to expire. Subsequently two employees were referred for medical examination by an independent consultant and 21 were found alternative work.

### **Retirement for medical reasons**

The Medical Officer of Health recommended the retirement, for medical reasons, of 215 employees of the Corporation who were incapable of carrying out their duties and for whom no suitable alternative work was



available. The following table shows the number of employees retired for each main type of incapacity:—

Nature of incapacity	Number of cases
Malignant neoplasms .. .. .	4
Ischaemic heart disease .. .. .	55
Cerebro-vascular disease .. .. .	11
Hypertension .. .. .	6
Other diseases of the circulatory system .. .. .	8
Bronchitis .. .. .	48
Other respiratory disease .. .. .	3
Genito-urinary disease .. .. .	—
Diseases of nervous system .. .. .	20
Arthritis .. .. .	19
Other diseases of bones and joints .. .. .	4
Diabetes .. .. .	—
Diseases of digestive system .. .. .	6
Neurosis and psychosis .. .. .	24
Injuries .. .. .	1
Other causes .. .. .	6
	215

### Town Hall clinic

The staff welfare, first-aid and immunization clinic, situated in the Town Hall extension basement, again operated most satisfactorily and was used regularly for medical consultations. Chiropody sessions were provided for patients who find a centrally located clinic more convenient. Details of the routine work carried out in this clinic include:—

Reason for attendance		Number
Treatment of injury and illness	first attendances .. .. .	2,240
	total attendances .. .. .	2,718
Home visits to Corporation employees on sick leave .. .. .		34
Medical examinations .. .. .		1,820
Immunizations	Yellow fever .. .. .	2,651
	Cholera, and Typhoid .. .. .	874
	Smallpox .. .. .	169
	Tetanus .. .. .	94
Chiropody .. .. .		484
Cytodiagnosis .. .. .		298

One of the Manchester Regional Hospital Board Mass Radiography Units continued to be located in the clinic one day per week, with the sessions extended into the early evening to give general practitioners' patients more opportunity to attend.

In addition, the clinic staff took 38 blood samples for Widal tests at various reservoirs on behalf of the Waterworks Department.

## Analysis of medical reviews

The following table relates to the number and type of medical reviews conducted for pre-employment and general purposes and the number of retirements due to medical incapacity:—

Department	Pre-employment medical questionnaires examined	Pre-employment medical examinations and/or X-rays	Retirements due to incapacity	Miscellaneous medical reviews	Bacteriological investigations
Airport .. .. .	104	84	4	34	—
Art Galleries .. .. .	9	3	1	1	—
Baths and Laundries ..	—	—	1	2	—
City Architect's .. .. .	56	8	—	3	—
City Engineer and Surveyor's .. .. .	328	111	10	41	—
City Estates and Valuation .. .. .	37	9	—	—	—
City Planning .. .. .	24	—	—	3	—
City Treasurer's .. .. .	90	6	1	3	—
Cleansing .. .. .	5	—	4	75	—
Direct Works .. .. .	97	26	19	51	—
Education .. .. .	—	—	28	35	—
Fire Brigade .. .. .	7	2	1	5	—
Health .. .. .	281	172	7	26	22
Housing .. .. .	71	19	3	6	—
Libraries .. .. .	110	19	1	4	—
Lord Mayor's .. .. .	—	—	—	—	—
Magistrates .. .. .	32	3	—	—	—
Markets .. .. .	3	—	—	10	22
Parks .. .. .	29	6	7	19	—
Police .. .. .	120	28	3	13	—
Probation .. .. .	17	1	—	2	—
Rivers .. .. .	108	21	1	14	—
Social Services .. .. .	1,544	681	14	49	—
Stationery .. .. .	2	1	—	1	—
Town Clerk's .. .. .	113	17	1	2	—
Town Hall Superintendent's .. .. .	2	1	—	—	—
Transport .. .. .	—	—	101	101	—
Waterworks .. .. .	47	12	8	35	304
Weights and Measures	1	—	—	—	—
<b>Totals .. .. .</b>	<b>3,237</b>	<b>1,230</b>	<b>215</b>	<b>535</b>	<b>348</b>
For other local authorities ..	—	61	—	—	—
<b>Grand totals .. .. .</b>	<b>3,237</b>	<b>1,291</b>	<b>215</b>	<b>535</b>	<b>348</b>

## Other Medical Reviews

### Medical review of hackney carriage drivers

It is necessary for applicants to the Licensing and Fire Brigade Committee for hackney carriage licences to submit medical reports completed by their family doctors. In these reports, special attention is directed to the presence of eye and ear defects, heart disease and diseases of the nervous system. New applicants numbered 589 whilst 154 renewal applications were submitted. In one case it was necessary to recommend the rejection of the application.

## **Exemption from parking meter charges for disabled persons**

Disabled persons using invalid carriages or motor vehicles and who need to park such vehicles in the City centre, can be provided with badges exempting them from parking meter charges. The Medical Officer of Health considers applications for such exemption and 207 new applications were approved.

## **Epilepsy and driving**

The Motor Vehicles (Driving Licences) Regulations, 1970, enables persons suffering from epilepsy, who could satisfy certain specified medical requirements, to be granted a driving licence.

Forty-one new applicants and 30 renewal applications were submitted. In six cases it was found necessary to reject the application.

## **Examination of Waterworks Department staff**

In accordance with the Ministry of Housing and Local Government's recommendations contained in their circular entitled "Safeguards to be adopted in the Operation and Management of Waterworks", which suggests three yearly bacteriological screenings of waterworks personnel, 30 new and existing Waterworks Department staff who had not been previously bacteriologically screened were given a Widal test and samples of their faeces and urine were examined at the Public Health Laboratory. Subsequently, seven employees were found to have raised blood titres which necessitated further bacteriological tests in order to eliminate the possibility of a carrier state. By the end of the year, five of these employees had satisfactorily completed these further tests, leaving two employees whose tests were continuing. In no instances were salmonella or dysentery organisms isolated.

In addition to the 30 new waterworks personnel who were tested, 274 employees who had previously been bacteriologically tested underwent their three-yearly screening. Of these 274 employees, 52 were found to have raised blood titres which required further bacteriological tests in order to eliminate the possibility of a carrier state. By the end of the year 30 of these employees had satisfactorily completed these further tests, two had left the service of the Corporation, leaving 20 employees whose tests were continuing.

There were two employees from whom salmonella organisms were isolated from faeces samples they had submitted. They were immediately excluded from work and further bacteriological tests were still being carried out on them at the end of the year.

## **Examination of staff employed by other Water Authorities**

A request was received from a private firm based in Manchester for the Health Department to carry out bacteriological screening of eight members of their staff who were employed by various other Water Authorities throughout England and Wales. Widal tests were carried out on these employees, four of whom required further bacteriological investigation in order to eliminate the possibility of a carrier state. Before these further tests were completed, the firm concerned withdrew their request and instead employed a private medical practitioner to do so. The laboratory reports were then passed to the Medical Officer of Health for his approval before the employees were assigned to work on projects involving water-mains, pipe-lines and reservoirs.

## **Examination of abattoir staff**

Under the legislation requiring the compulsory medical screening of abattoir staff engaged in the handling of meat for export to the European Economic Community, selected Health and Markets Department staff, together with the appropriate staff of the Meat and Livestock Commission, and staff of three firms of market traders were examined medically and bacteriologically.

There were 155 examinations performed and, in association with these, 450 faeces samples were submitted for laboratory examination to the Public Health Laboratory. Subsequently, 89 employees were issued with freedom from infection certificates. The remaining 66 had certificates withheld pending the outcome of further bacteriological examination.

Included in the 89 employees who had been issued with freedom from infection certificates were two men who required a chest X-ray. In both cases, no abnormality of the chest was discovered and consequently they were issued with freedom from infection certificates.

## **Cremation certificates**

The Medical Officer of Health is medical referee to the Blackley Crematorium, and Doctors A. E. Jones, A. Butterworth and J. F. Cawley are appointed deputy medical referees. There were 1,297 Certificates examined and, although in some instances further information had to be obtained, on no occasion was it necessary for the medical referee to withhold signature.

## **Health Control at Manchester Airport**

The Medical Officer of Health is responsible for health control at the airport and also for medical inspection of aliens and Commonwealth immigrants arriving at the airport.

Health control includes clearance of aircraft and passengers arriving from infected areas. As far as the United Kingdom is concerned, all passengers arriving from smallpox infected areas should have a valid smallpox vaccination certificate and all passengers arriving from cholera infected areas are now given a cholera warning leaflet in line with a recommendation from the Department of Health and Social Security. In the absence of a valid smallpox certificate, passengers are offered vaccination at the airport. Arrangements are made to ensure medical surveillance of these vaccinated passengers and also passengers who refuse vaccination or who are excused vaccination on account of medical contra-indications.

Medical clearance of passengers on scheduled flights from smallpox and cholera infected areas, or from areas where certain other diseases have been notified, causes little difficulty, as customs officials at the airport always give the Health Department adequate advance notice. Difficulties arise when unscheduled aircraft are diverted to Manchester from other airports on account of fog or other adverse local conditions. Notice of arrival in such circumstances is often not more than 10 to 15 minutes.

Health control duties are carried out by local health authority medical and lay administrative staff, in addition to their other duties.

The number of aircraft cleared during 1972 was 146, compared with 170 in 1971.

In September 1972, Tunisia was declared a cholera infected area and between 22nd September and 31st December, 1972, 100 aircraft arriving from both Tunis and Monastir airports, received health clearance. Health warning notices were given to all passengers.

On two occasions during the year, child passengers with atypical skin rashes arrived at the airport. In the first incident, a West Indian father and his two small daughters were returning to this country from a holiday in the West Indies. On arrival at Manchester Airport, the father requested a medical appointment for his two children. In the second incident, the child was part of a Pakistani family arriving in the U.K., who were referred for routine medical examination by the immigration officer.

The children and the accompanying family contacts, were detained until seen by a consultant who is also a regional smallpox consultant. On both occasions the affected children and their family contacts were admitted to Ainsworth Smallpox Hospital for observation and further investigations.

Although the children and their family contacts were admitted to hospital for observation, both incidents were treated as smallpox cases from a health control point of view, i.e.: the smallpox ambulance was summoned to transport the patients to hospital, action was taken to disinfect the aircraft involved, and follow-up and surveillance of contacts were arranged. In both incidents further investigation in hospital proved negative for smallpox.

There were, 1,683 Commonwealth immigrants (This includes 141 from Uganda who were expelled during 1972) and 12 aliens medically examined under the Commonwealth Immigration Acts, 1962 and 1968, and the Aliens Order, 1953, compared with 1,037 Commonwealth immigrants and 24 aliens in 1971.

#### Immigrants and Aliens referred for Medical Examination

Year	West Indian	Pakistani	Other	Total
1970 .. .. .	508	28	102	638
1971 .. .. .	327	589	145	1,061
1972 .. .. .	247	1,175	273	1,695

No Commonwealth immigrant was refused admission for medical reasons, but three aliens were refused admission on medical grounds by the immigration officer. Thirteen Commonwealth immigrants were admitted conditionally.

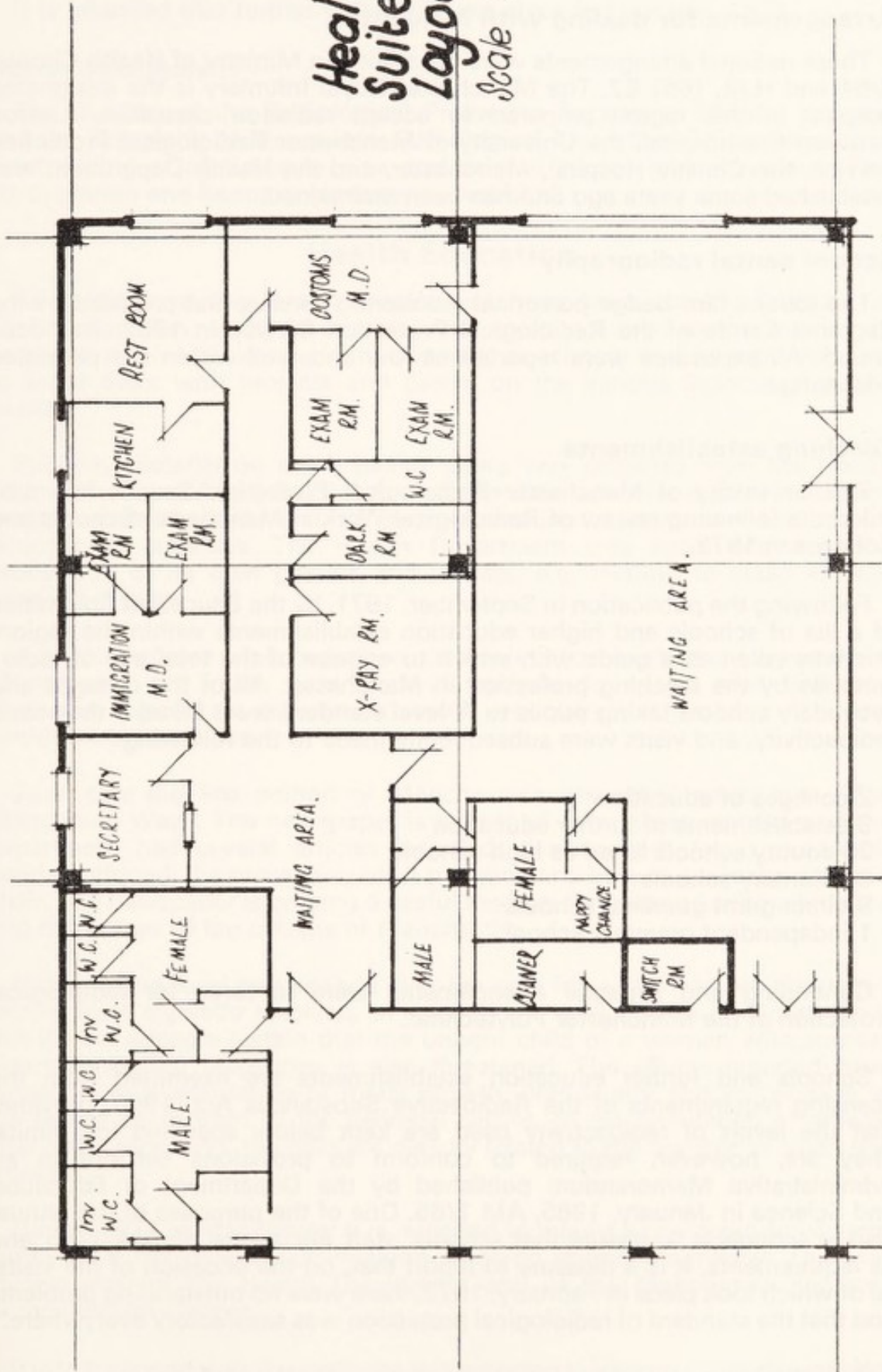
## Radioactivity

### Radioactive Substances Act, 1960

By the end of 1972, 41 certificates of registration under section 1, and 10 certificates of registration under section 3, together with 8 certificates of authorisation under section 6, and 3 under section 7, had been issued to firms and establishments in the City by the Department of the Environment. Section 1 registration refers to the keeping and use of radioactive material, section 3 registration refers to the keeping and use of equipment such as industrial radiography machines. Section 6 authorisation refers to the disposal of radioactive waste and section 7 to the accumulation of such waste.

# Health Suite Layout.

Scale 1:200



## **Nuclear Installations Act, 1965**

There are no nuclear site licences applicable in respect of industrial sites within the City.

## **Arrangements for dealing with incidents**

These national arrangements were scheduled in Ministry of Health Circular 3/64 and H.M. (65) 82. The Manchester Royal Infirmary is the designated hospital in this region prepared to accept radiation casualties. Liaison between this hospital, the University of Manchester Radiological Protection Service, the Christie Hospital, Manchester, and the Health Department was established some years ago and has been maintained.

## **School dental radiography**

The routine film-badge personnel monitoring service, first provided by the Regional Centre of the Radiological Protection Service in 1967, was continued. All exposures were reported as low and well within the permitted dose range.

## **Teaching establishments**

The University of Manchester Radiological Protection Service has provided the following review of Radiological Work at Manchester Schools and Colleges in 1972.

Following the publication in September, 1971, by the Education Committee of a list of schools and higher education establishments within the region, this was taken as a guide with which to enquire of the total use of radioisotopes by the teaching profession in Manchester. All of the colleges and secondary schools taking pupils to A-level standard were asked if they used radioactivity, and visits were subsequently made to the following.

- 2 colleges of education
- 3 establishments of further education
- 25 county schools listed as high schools
- 6 voluntary schools
- 9 direct grant grammar schools
- 1 independent grammar school

Continuing and separate arrangements were in force for radiological protection at the Manchester Polytechnic.

Schools and further education establishments are exempted from the licensing requirements of the Radioactive Substances Act, 1960, provided that the levels of radioactivity used are kept below specified low limits. They are, however, required to conform to provisions set out in an Administrative Memorandum published by the Department of Education and Science in January, 1965, AM 1/65. One of the purposes of the annual visit to schools is to ensure that schools' staff are aware of AM 1/65 and its requirements. It is a pleasure to report that, on the occasion of the visits, all of which took place in February, 1972, there were no outstanding problems and that the standard of radiological protection was satisfactory everywhere.

A further purpose in making these visits is to establish communications with the scientific staff who may, at some time, need assistance in the event

of an emergency, such as contamination of a pupil or the loss of a radioactive source, and it has been found that help has often been required with the maintenance of electronic counting equipment. This has been given.

It is intended that further visits will take place in February, 1973.

### **Acknowledgement**

The Director of the Radiological Protection Section at Christie Hospital and the University of Manchester Radiological Protection Officer have been most willing at all times to give professional advice and assistance. This co-operation and liaison is sincerely appreciated.

### **Health Education**

All sections of the Health Department have been actively involved in health education work. An increase has again occurred in the number of enquiries received from students and staff at schools and colleges for data to assist them with projects and theses on the various aspects of public health.

Publicity material on many health topics was obtained from the Health Education Council and R.o.S.P.A. and was distributed for display in departmental establishments and to anyone seeking posters and leaflets for educational purposes. The Health Department was again active in the production of its own posters and leaflets, e.g. relating to clean air and venereal disease.

A further course was organised, in conjunction with the University of Manchester, for fourth year medical students to spend nine half-days reviewing some of the department's work, especially that involving clinic and health centre activities.

June saw the first edition of Manchester's new civic newspaper "The Mancunian Way". The newspaper is published every three months and the department had several articles included, dealing with family guidance, holidays abroad, the prevention of air pollution and how to avoid the dentist's chair. The newspaper is proving a useful medium for getting health education into the homes of the citizens of Manchester.

National and local propaganda over the past few years has not dissuaded people from cigarette smoking, in spite of the well known attendant risks. But it now appears certain that the unborn child of a woman who smokes cigarettes during pregnancy is also threatened. The effects reported have ranged from a retardation of foetal growth, prematurity and an increase in the risk of death from all the perinatal causes, to the retardation of growth after birth. Moreover, the risks are directly related to the number of cigarettes smoked.

During 1973 in Manchester it is intended to mount a campaign to educate mothers on the dangers of cigarette smoking during pregnancy. This will involve staff of the Health Department and of the Manchester Regional Committee on Cancer.

It is to be hoped that, if people, are not prepared to give up cigarette smoking in their own interest, then at least during pregnancy women will be prepared to safeguard the wellbeing of their unborn children.



The growth in the number of cases of venereal disease and drug offences, especially amongst the young, was a cause of great concern and much was done to publicise the danger inherent in these abuses. A constant effort was made to educate the public concerning the dangers of cigarette smoking. In her day-to-day work the health visitor was directly in touch with the mother and her young baby. Many aspects of health education arose in this situation, one of the most outstanding being that of nutrition. Particularly important was the education of mothers in the danger of overfeeding their babies, stress being given to the link between this and overweight in later years. Unfortunately too few mothers breast-fed their babies.

Frequently, the basic principles of hygiene had to be repeatedly explained in order to prevent food poisoning.

It was surprising how often mothers failed to recognise that opportunities for play helped in the rapid development of children. The health visitor found it necessary to underline to mothers the important role of play to the growing child.

A great deal of propaganda was concerned with the importance of immunisation in childhood and repeated home visits had to be made to parents whose children failed to complete courses of injections. This was frustrating, time-consuming, but essential work.

The programme of health education in primary and secondary schools continued as in previous years. Head teachers throughout the City became more aware of the helpful nature of these talks given by health visitors.

Every endeavour was made to run these courses within the academic programme of the schools and this was appreciated by the teaching staff. The interest of the children who attended, was borne out by the questions asked.

In addition to the basic programme on mothercraft, general and personal hygiene, talks were given on the dangers of drugs, smoking and venereal disease.

*The Manchester Regional Committee on Cancer continued to be very active in the field of health education and the Executive Officer of the Educational Project of this Committee has supplied the following report:—*

“Potentially one of the most significant steps forward for many years in the control of cancer was taken, when in 1972 the Department of Health announced its plans to set up, initially, four trial “Oncological Centres” in England. These will have an interest in every aspect of dealing with cancer, and in time should be able to coordinate and concentrate effort on a scale hitherto unknown in Britain. The north-west can justly be proud of being one of the regions selected for the first of the oncological centres. Moreover, it is not extravagant to claim that the official inclusion of public and professional education among the main interests of these centres owes more than a little to the demonstration by the Manchester Regional Committee on Cancer that a programme of cancer education, that is executed tactfully and avoids strident publicity techniques, can help the public, the family doctor and the cancer specialist and, above all, the cancer patient. This demonstration was possible only because of the consistent support by local health authorities of the committee’s work for many years.

The committee has always followed a policy of research and evaluation, the results of which have been fed into its own educational programme as well as being of use to other schemes elsewhere. During the year under review we gained important pointers from a study of the smoking behaviour of adolescents, which may well modify anti-smoking education in the future. From this study it seemed that, even among young people well on in their teens, the attitude of parents towards their children smoking was more important than the example the parents set. If this proves correct, the implication is obvious that parents—even of young adults—should be a target for health education in this matter, and should be made aware of the profound influence they may have on the smoking behaviour of their children. The results of two other pieces of research, into the usefulness of poster advertising and with what people really want to know about the disease, should be published in 1973.

As in previous years the committee directly approached a large number of groups and societies in the Corporation to arrange talks and discussions on cancer. The response of just over eighty groups in Manchester was a little lower than the average in recent years but we hope this may be adjusted in the ensuing twelve months. In these discussions the importance of women using facilities for cytological screening was always stressed, and where appropriate the health risks of cigarette smoking were also discussed.

Once again, Radio Manchester assisted by arranging three broadcasts by the Executive Officer, and the *Manchester Evening News*, which is widely read throughout the region, published a splendid series of articles on cancer in consultation with the committee. In collaboration with the committee, Granada Television produced another programme on cancer which will be broadcast to schools in the Spring of 1973. The committee offers films and other visual aids to schools free of charge, as well as its leaflets and posters on the cervical smear test free to the Health Department. During the year the Local Coordinating Committee for Cervical Cytology, of whose Newsletter the author is Editor, helped promote this service throughout the region.

Through its sub-committee on professional education, the committee has been able to influence undergraduate medical teaching as well as the content of post-graduate medical courses. Through this work, and through the lectures it arranges for student nurses and for nurses in the public health service, the committee hopes to ensure that every doctor and nurse fully supports the educational work that is vital if more people are to be cured of cancer".

### **Ambulance and Transport Service**

There was again an overall increase in the number of patients carried, 20,040 more patients being conveyed by the ambulance service than in the previous year, although the number of patients conveyed by the hospital car service was 1,625 less.

Fifty-four two-stretcher ambulances and twenty-two one-stretcher dual-purpose vehicles were in service at the end of the year.

## Operational record

### Ambulance service

	1972		1971	
	<i>Stretcher cases</i>	<i>Sitting cases</i>	<i>Stretcher cases</i>	<i>Sitting cases</i>
Patients carried—				
accidents .. .. .	26,929	—	24,908	—
general .. .. .	17,273	287,889	15,143	271,810
others .. .. .	1,203	244	963	674
	<hr/>	<hr/>	<hr/>	<hr/>
	45,405	288,133	41,014	272,484
		333,538		313,498
Total mileage—				
two-stretcher ambulances	821,481		810,177	
dual-purpose vehicles ..	353,792		350,268	
pool cars .. .. .	346		2,533	
	<hr/>		<hr/>	
	1,175,619		1,162,978	
	<hr/>		<hr/>	

### Hospital car service

Patients carried .. .. .	8,598	10,223
Mileage .. .. .	89,773	76,809

### Train journeys

In appropriate cases the transport of patients by rail continued to be arranged, with 834 cases carried, a decrease of sixty-two on the previous year.

### Flying squad

The provision of ambulance transport for the emergency maternity flying squad and its equipment provided by St. Mary's Hospital continued. The flying squad was conveyed by ambulance on 21 occasions and in 12 cases the patient subsequently was transferred to hospital in the same vehicle.

### Staff

As mentioned in the 1971 report, a productivity scheme for the ambulance staff was introduced towards the end of 1971 but as the reorganisation of the control arrangements was not effective by the end of 1972, the final conclusion as to the effectiveness of the scheme have still to be reached.

The approved revised establishment of operational staff at the end of the year was 152 and included 129 ambulancemen who have qualified for the Proficiency Certificate issued by the Ambulance Service Advisory Committee.

In-service training for new recruits continued and some members of the staff were seconded to the six-week qualifying courses held at the Lancashire Ambulance Service Training School.

A team was entered in the National Ambulance Competition organised by the National Association of Ambulance Officers, and, in the Regional competition attained second place in both the team test and the driving test.

All drivers employed in the Health Department on 1st January of each year are entered for the National Safe-Driving award organised by the Royal Society for the Prevention of Accidents. One hundred and twenty-two qualified for awards for 1971, including 117 ambulance drivers, and the presentation of the awards was made by the Lord Mayor—Alderman E. Grant—at a function held in the Town Hall.

### **Hospital car service**

Hospital car service volunteers recruited by the Women's Royal Voluntary Services continued to augment the ambulance service, particularly in the transport of walking cases to and from out-patient clinics and convalescent homes.

### **Municipal car pool**

One limousine car and seven saloon cars were operated as a municipal car pool, being used by various committee members and officials and also to convey mental and other patients to hospital; these latter journeys are included in the ambulance service statistics. The operating mileage of 112,106 miles was 19,850 miles more than in 1971.

### **Commercial vehicles**

Four vans operating full-time for the Health Department travelled 34,204 miles, of which 11,517 miles were incurred on disinfection service duties.

### **Disinfection and disinfestation service**

A disinfection and disinfestation station is an integral part of the Monsall sub-depot, two steam disinfectors being available for clothing and bedding. In addition, a formalin chamber is used for articles which cannot be subjected to steam pressure. One of the commercial vehicles serves as a bedding van for the collection of infected bedding and clothing, and is designed to facilitate rapid disinfection of its interior.

### **Immunization unit**

The mobile immunization unit continued to be used for children whose parents were unable to use the service provided at child health centres. The operating mileage was 9,048 miles, compared with 7,744 miles in 1971.

### **Operating mileage**

The total mileage operated by all sections of the ambulance and transport service in 1972 was 1,330,631.

## Nursing Homes and Agencies

The nursing homes in the City which have been exempt from registration under section 192 of the Public Health Act, 1936, have, since 15th May, 1964, been required to be registered with the appropriate local authority in accordance with The Conduct of Nursing Homes Regulations, 1963. During 1972 one registered nursing home for the aged was discontinued. Details of the six nursing homes registered are as follows :

<i>Names, addresses and principal officers</i>	<i>Purpose of registration</i>
Manchester and Salford Methodist Mission, Lorna Lodge Maternity Home, 133 Barlow Moor Road, West Didsbury, Manchester, 20. (061-445 5219) (Matron—Miss C. Gott, S.R.N., S.C.M.)	5 maternity patients
The Manchester and District School for Jewish Handicapped Children, Laski House, Smedley Lane, Cheetham, Manchester 8. (061-205 1920) (Matron—Mrs. M. Rennie, R.M.N.)	15 mentally handicapped children
St. Joseph's Hospital, Carlton Road, Whalley Range, Manchester 16. (061-226 2231) (Sister-in-Charge—Sister Gonzaga, S.R.N.)	140 medical and surgical patients
Stonecroft Recovery Home, Parkfield Road, Didsbury, Manchester 20. (061-445 2972) (Matron—Mrs. A. G. Kirk, S.R.N.)	12 convalescent patients
Philip Godlee Lodge, 842 Wilmslow Road, Didsbury, Manchester 20. (061-445 3183) (Matron—Mrs. A. H. Kerney, S.R.N.)	46 elderly and infirm convalescent patients.
The Alexian Brothers' Nursing Home, 171 St. Mary's Road, Moston, Manchester 10. (061-681 1929) (Brother Superior Anthony, S.R.N.)	84 medical patients.

Inspections of the homes by a senior medical officer and a public health inspector have been carried out and advice has been available whenever required.

Four applications for the renewal of licences, as required by section 2 of the Nursing Agencies Act, 1957, were approved.

Medical and General Nursing Services, 1B Cooper Street, Manchester 2.  
Reed Nurse, Nursing Agency, 4 Market Street, Manchester 1.  
Nurses Night and Day Limited, The Nursing Centre, 14 Piccadilly, Manchester, M1 3AW.  
and  
British Nursing Association, 255 Royal Exchange, Manchester, M2 7BT.

## Residential Homes

### Dr. Garrett Memorial Home

The Dr. Garrett Memorial Home, Conway, is situated overlooking the sea and the estuary of the River Conway and is an ideal setting for a children's convalescent home.

The accommodation for 101 children consists of three large detached houses and a number of prefabricated buildings in the grounds. The outdoor play facilities include an adventure play ground, which is very popular with children of all age groups.

An outbreak of chicken-pox during June made it necessary to restrict admissions for a period of two weeks to children who had already had the complaint, in an effort to control the infection. This had the desired effect and no further case developed.

Admissions during the year averaged 23 children weekly. Children were referred for convalescence by the School Health Service, Maternity and Child Health Services and general practitioners.

An increasing interest has been taken in the Home this year by voluntary organizations. In June, a mini-bus was presented to the Home, by the Manchester Branch of the Variety Club of Great Britain. This has proved a great asset in affording the children opportunities to see far more of the North Wales coast line, mountains and places of historical interest. Passes to all the castles and ancient monuments in the area have been obtained from the Department of the Environment.

A "Friends of Dr. Garrett's Association" was formed in September by local residents and they have organised outings for the children and are responsible for the running of a tuck shop within the Home.

A fireworks display and Christmas party were organised by the Ladies' Circle and the Round Table of Conway.

Many gifts of toys and sweets for Christmas were donated by local churches, organisations and the Manchester Branch of the Variety Club of Great Britain.

Throughout the year picnics, visits to Chester Zoo, and the swimming baths at Bangor have been among the activities arranged for the children. Extra opportunities for the older children to partake in football and netball and gymnastics have been made available by the headmaster of Aberconway Comprehensive School, which is adjacent to the Home.

The programme of In-service training commenced in 1970 continued. In 1972, two senior attendants obtained the Certificate of Attendance for the course in child care, organized at the College of Further Education, Bangor, and a further five attendants have been released to take the 1972-73 course.

While in residence, the health of the children is supervised by Dr. Tudor Owen, the visiting medical practitioner who pays regular visits and is always on hand for emergencies if requested by the Matron or her three nursing staff, at least one of whom is always on duty.

The Lord Mayor and Lady Mayoress of Manchester and the Mayor and Mayoress of Conway, visited the Home on 7th September.

Mrs. Wynne Roberts, wife of the M.P. for Conway, visited the Home on the 19th December and the Mayor and Mayoress of Conway made their annual visit on the 23rd December.

Routine visits were made every three months by the Residential Homes Sub-Committee and monthly by the Health Department medical and administrative staff.

#### Nursing care required

Illness	Cases	
	1972	1971
Chicken-pox .. .. .	27	—
Scarlatina .. .. .	13	—
Mumps .. .. .	12	—
Measles .. .. .	6	—
Rubella .. .. .	2	—
Coryza .. .. .	10	16
Croup .. .. .	1	—
Ulcerated mouth.. .. .	2	—
Tonsillitis .. .. .	18	11
Athletes foot .. .. .	1	—
Injury to face .. .. .	1	—
Influenza .. .. .	14	—
Diarrhoea .. .. .	7	—
Infected spots .. .. .	1	—
Urinary infection.. .. .	1	1
Abdominal pain .. .. .	1	2
Colitis .. .. .	1	—
Upper respiratory tract infection .. .. .	20	—
Otitis media .. .. .	1	1
Acute phimosi s .. .. .	1	—
Enlarged glands .. .. .	1	—
Bronchitis .. .. .	1	—
Pyrexia—unknown origin .. .. .	1	1
Observation appendicitis .. .. .	1	—
All types .. .. .	144	32

One seven year old girl with haemoptysis was admitted to St. David's Hospital, Bangor, then transferred to the Royal Manchester Children's Hospital, Pendlebury.

Resulting from throat swabbing on arrival for their period of convalescence, 26 children were found to be symptomless carriers of Group 'A' Haemolytic Streptococci and were isolated during their period of treatment.

Statistics of admissions and discharges and of nursing care required, are given in the following tables:—

#### Admissions

Type of cases	1972 Number of cases	1971 Number of cases
Admissions .. .. .	1,155	977
Re-admitted from hospital .. .. .	1	2
Totals .. .. .	1,156	979



Mr. K. Wride, Chairman of the Manchester Committee of the Variety Club of Great Britain hands over the keys of a Sunshine Coach to Councillor G. Conquest, Chairman of the Residential Homes Sub-Committee, watched by staff and children at the Dr. Garrett Memorial Home.





## Discharges

Type of cases	1972 Number of cases	1971 Number of cases
"fit" .. .. .	1,073	926
"improved" .. .. .	72	59
"to hospital" .. .. .	2	2
Totals .. .. .	1,147	987

Four children were taken to the Casualty Department, Llandudno Hospital :—

Greenstick fracture .. .. .	1
Fractured clavicle .. .. .	1
Injury to leg .. .. .	1
Sprained thumb .. .. .	1

One eight year old boy was admitted overnight to Llandudno Hospital :—  
Fractured radius and ulna.

### Municipal Hostels

Women: Ashton House, Corporation Street, Ancoats,  
Manchester, M4 4DG.

Men: Walton House, Harrison Street, Ancoats, Man-  
chester, M4 7PF.

The municipal hostels were established over 70 years ago to provide accommodation for working men and women at reasonable cost. Residents must be able and willing to cater for themselves. The facilities include the use of day rooms, a residents' kitchen for the preparation of food, a dining room with individual food lockers, a laundry, toilet facilities and night accommodation in small individual cubicles. In both hostels there is a shop where residents may buy a variety of food, groceries and other goods. Most of the commodities for sale can be bought in small quantities just sufficient for one meal. A cooked mid-day meal may be bought at Ashton House at low cost and at both hostels residents may purchase hot and cold snacks.

The inclusive charge is 35p per night (£2.20) per week at Ashton House, or 40p per night (£2.40) per week at Walton House. Residents are encouraged to book weekly, weekly bookings being accepted on any day of the week. The average number of beds occupied nightly was 103 at Ashton House and 336 at Walton House.

Over the years there was an increasing tendency to accept residents who were not gainfully employed, including elderly persons. The result was that the accommodation had become less attractive for the group of persons it was intended to serve. Accordingly the number of working men and women in residence declined.

During 1972 the future role of the hostels was considered by the Health Committee, in view of the estimated expenditure required to bring the accommodation up to modern standards. It was resolved that the hostels were needed in the City, with the emphasis on providing short term accommodation for working men and women, especially young people, until they

were able to obtain suitable permanent accommodation. New hostel residents proposing to remain in the City are invited to apply to the Housing Department for accommodation, in which case they are given the same consideration as any other Manchester resident. During the year 14 residents from Ashton House and a few from Walton House are known to have been offered and have accepted a municipal flat.

It is the responsibility of the respective managers and assistant managers to screen new residents to assess suitability for short term residence. It is very important to encourage residents to obtain their own permanent accommodation, otherwise there is a tendency for residents becoming institutionalised, and the hostels turned into vast old people's homes, which lack the appropriate facilities and staffing.

As a result of more effective screening of new residents during the year, an average of 60 per cent of women at Ashton House and 33 per cent of men in Walton House were gainfully employed.

In both hostels, however, there is still a hard core of elderly, chronic sick and unemployed persons who have been in residence for up to 30 years but who are unable or unwilling to obtain residential accommodation where they would receive care and attention. Hostel accommodation can not be booked more than one week in advance, but the Health Department is loathe to evict these long term residents.

It is essential to ensure in future that the hostels are strictly for short term stay as the Health Committee have resolved to replace Ashton House with a new purpose-built 125 bed hostel and to carry out extensive modernization of Walton House, including a reduction of the sleeping cubicles from 450 to 300, the installation of modern sanitary arrangements and a renewal of the heating system.

# ENVIRONMENTAL HEALTH SERVICES

## Introduction

Chief Public Health Inspector,

E. W. Foskett, B.Sc., (Econ), D.P.A., M.A.P.H.I., M.R.S.H.

## Pollution Control

Public concern with regard to environmental pollution has continued during the year although attempts to stimulate interest are not always completely objective and some have been based on desires to sensationalise a particular situation.

Pollution is basically associated with industrial development and expansion and the creation of an urban society. It is easy to create pollution by ignorance, lack of thought, or sheer avarice. Frequently all three factors are found as causes of a single source of pollution. It is less easy to reduce pollution and it is often difficult to institute the adequate observation and measurement which must precede attempts to control pollution.

The department is active in attempting to deal with existing sources of pollution, endeavours to ensure that new developments will not cause offence and is constantly vigilant with regard to future sources of pollution.

The fight against atmospheric pollution continues at the accelerated pace with a reduced target date for the completion of smoke control areas. Encouragement in this field comes from reduced bronchitis deaths, increased hours of sunshine and better visibility in the City. There is now a willingness to wash from buildings grime of former, more polluted years. In this last respect the cleaning of many prominent buildings in the City has demonstrated them in much of their original condition. Perhaps, however, the University which houses the Manchester Museum, might have preserved a panel of smoke stained masonry as a reminder of the pollution created by the neighbouring industrial and residential areas.

When afforded the opportunity the department welcomes the chance to advise or comment in the case of new developments so as to minimise risks of pollution and in some instances opinion has been sought in respect of developments in areas beyond the City boundary.

In the future, major sources of pollution will include noise and vehicle exhaust fumes and a probable rise in SO<sub>2</sub> level in the City Centre. These trends are being studied and it is hoped that the department will be prepared for future activity as the anticipation of dust and noise nuisance led to the new measures in the 1971 Manchester Corporation (General Powers) Act, which have proved of use and worthy of imitation by other authorities.

More sophisticated noise recording and analytical equipment is being acquired as the scope and number of investigations into noise increase. The Deposit of Poisonous Wastes Act, 1972, has brought about changes in our anti-pollution work and this latest power will prove to be a useful additional tool, though doubtless it will need to be amended.

## **Information**

One of the problems encountered by all organisations is that of ensuring that its members are kept up to date as far as new developments are concerned and that the information they acquire as part of their daily work is channelled back for the guidance of others. In an attempt to deal with this problem the Environmental Health Services Group B is experimenting with working parties whose work is to review current problems in a distinct field and to collect, collate and disseminate information about these problems. The organisation is informal and groups now existing are looking at food hygiene, houses in multiple occupation and improvement grants, but other topics are likely to be subjects for other groups. Each group contains inspectors of all ranks.

## **Housing**

Activity in the field of housing was again at a very high level. Ninety-five clearance areas were dealt with during the year. The outstanding achievement was the completion of all the inspections necessary to deal with all the unfit houses remaining in the current clearance programme and on December 15th the Health Committee visited the last clearance area represented by the Medical Officer of Health under this programme.

When the programme was completed about 92,250 houses had been inspected and 70,077 of them had been included in areas represented by the Medical Officer of Health. Many houses inspected but not represented were, of course, also included in compulsory purchase orders in accordance with the Council's need to secure areas which had a shape capable of redevelopment. Houses so included, although not unfit, were usually bordering on that state.

The inspection of unfit houses is followed in due course by public inquiry and the department has had to deal with a public inquiry programme even more accelerated than the clearance programme. Again, the number of public inquiries was a record, being 34 against 33 in the previous year. These inquiries covered clearance areas containing 7,215 houses. Objections were raised by owners of over 2,000 dwellings and in each case a full re-inspection was carried out.

The department is conscious that the problem of dealing with unfit houses is changing. In the past, reliance has been laid on clearance action under Part III of the Housing Act, 1957, but in future greater use may have to be made of Part II of the Housing Act to deal with individual unfit houses. Understandably, as areas have been dealt with in the outer districts and in less environmentally deprived parts of the City there has been more resistance to clearance, and in this context the higher rate of improvement grant has been an influence in some thinking that "improvement" is a substitute for clearance. This is not so. Unfit houses are usually so classified because they have deficiencies in structure, space, amenity and arrangement which preclude satisfactory improvement.

The completion of this programme does not, of course, mean that no more unfit houses will have to be dealt with and a continuing programme of clearance will be necessary, although clearly this activity will be on a reduced scale.

The department has always been concerned with the improvement of housing standards and the clearance programme has to be viewed in this

context. Nevertheless, attention has always been directed to the improvement of dwellings. Some houses included in the clearance programme were found on survey to be capable of improvement provided prompt action is taken and, accordingly, they were excluded from clearance proposals. By contrast, some houses which it had been hoped could be saved were found to have deteriorated so much that they had to be included in the Halliwell Lane, Cheetham, Clearance Areas, which perhaps comprise the last really large clearance area in the City for the time being.

In the spring the Government made the City of Manchester an "intermediate" area and thus raised the grant limit for improvements from 50 per cent to 75 per cent. This resulted in a marked increase in the inflow of grant applications and by the end of the year no fewer than 1,840 had been received, an increase of 74 per cent. This inflow coincided with the culmination of the clearance programme and the department's resources were taxed to the limit, but despite every effort there was a large carry over into 1973. Standard grants now account for only a small proportion of the applications. The proportion of refusals has risen because the increase in grant has resulted in numerous applications which investigation proved to be outside the ambit of the scheme.

The need to concentrate on the completion of the representation programme resulted in a back-log of grant applications, which presents a great challenge for 1973.

As soon as the work position permitted, towards the end of the year more resources were diverted to dealing with the general improvement areas.

Progress in these two pilot improvement areas was disappointing, though the rate of applications in them was greater than in the City as a whole despite the impetus given by the temporary increases in the grant.

Qualification certificate procedures declined in importance during the year although many applications remained pending, while the owners decided whether or not to carry out the repairs requested to bring the dwelling up to standard.

The house condition survey foreshadowed in last years report was carried out in the early months of the year and is the subject of a later, more detailed, comment.

This survey represented phase 2 of the department's programme to review the condition of the housing stock in the City. Phase 1 was a review of existing information accompanied by a block by block field survey. In 1972 phase 3 was also started. This will form the major part of the review and will be a continual reassessment. Houses in the City will be assessed and their condition and probable life colour coded on to 1 :500 scale maps. These maps will indicate future housing action areas.

## **Food**

Food inspection and food safety are two areas of work which continue to occupy much of the time of the inspectorate. The quantity of food, other than meat, arriving in the City in containers from overseas continues to increase and a wider variety of commodities is encountered. The first application to the Courts for the closure of an insanitary food premise under section 34 of the 1971 Corporation Act took place in the latter part of the year and is the subject of a more detailed account elsewhere in this report. It was not anticipated that it would often be necessary to use the power, but its deterrent effect is now noticeable.

## Staffing

For the first time for many years the department managed to recruit almost a full establishment of public health inspectors, but several vacancies for technical assistants remained unfilled because suitable applicants were not available.

The number of students qualifying in the year was six and they were all appointed to the staff. This included two lady graduates and at the year's end four lady inspectors were engaged on the staff. The department recruited five inspectors from other authorities, but 11 left to join other Corporations or to go into private business. Three clerical officers retired from the departments service after long periods of valued service

One member of the clerical staff gained the O.N.C. in public administration, while 4 inspectors were successful in passing the Diploma in Atmospheric Pollution Control.

## Inspections and visits

### Water

To obtain samples of water for chemical and bacteriological examination .. .. .	88
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### Food supply

Restaurants and snack bars .. .. .	1,183
Factory canteens .. .. .	125
Bakehouses .. .. .	173
Food preparation premises .. .. .	374
Markets—sale of food .. .. .	214
Shops—sale of food .. .. .	1,931
Hawkers of food and storage premises .. .. .	178
Dairies, milk shops and delivery vehicles for milk samples ..	619
Premises and vehicles used for the sale of ice cream ..	49
Shops, markets, etc.—sampling .. .. .	1,063
Dairies and milk distribution premises .. .. .	121
Premises used for the manufacture of ice cream .. .. .	31
Food delivery vans .. .. .	275
Poultry slaughter and dressing premises .. .. .	59
Fish friers .. .. .	821

### Clean air

Works, etc. .. .. .	3,916
Premises—survey for smoke control areas .. .. .	24,848

### Housing conditions

Primary inspections of dwelling-houses (Public Health Act, 1936, Housing Act, 1957, etc.) .. .. .	18,589
Subsequent inspections of dwelling-houses .. .. .	12,573
Rehousing—medical cases .. .. .	1,351
Applications for improvement grants, qualification certificates	4,081
Caravan dwelling .. .. .	193
Canal boats .. .. .	34
Supervision of work in default .. .. .	2,888
Houses in multiple occupation .. .. .	9,276

## Occupational conditions

Factories .. .. .	582
Shops—Shops Acts, 1950 to 1965 .. .. .	3,595
Other business premises .. .. .	313
Offices, Shops and Railway Premises Act, 1963 .. .. .	6,241
Outworkers .. .. .	424

## Infectious diseases

Primary visits after notification .. .. .	816
Subsequent visits including contacts .. .. .	3,110
Food poisoning .. .. .	681

## General environmental conditions

Hotels, beerhouses and licensed clubs .. .. .	1,184
Burial grounds, exhumations, etc. .. .. .	11
Cesspools, pailclosets, etc. .. .. .	190
Effluvium nuisances .. .. .	379
Establishments for massage or special treatment .. .. .	48
Hairdressers' and barbers' shops (Manchester Corporation Act, 1950) .. .. .	58
Hospitals, nursing homes, agencies, nurseries and play groups .. .. .	264
Land, refuse deposits, refuse tips .. .. .	1,525
Noise .. .. .	495
Offensive trades .. .. .	41
Premises for the purpose of examination of drains .. .. .	297
Piggeries .. .. .	18
Rodent infestations—primary visits .. .. .	7,666
Sanitary accommodation, etc., at schools, churches .. .. .	354
Securing of unoccupied buildings .. .. .	341
Streets, passages, roadways and footpaths .. .. .	1,555
Swimming baths .. .. .	79
Verminous premises .. .. .	86
Watercourses .. .. .	134
Miscellaneous .. .. .	10,342

## Departmental referrals

In 2,283 instances, matters outside the scope of action by this department were, after investigation, referred to the appropriate Corporation department.

## Water Supply

The City's principal sources of water supply are Windermere, Ullswater and the impounding reservoirs of Thirlmere and Haweswater in the Lake District and, to a lesser extent, the Longdendale Valley on the Cheshire-Derbyshire border. Distribution is by trunk mains, service reservoirs and mains, relying for the most part on gravity to the limits of the distribution areas, but with booster stations maintaining the pressure in higher level districts. Waters from the Lake District now pass through the new Watchgate Treatment Works, where they are subjected to simple rapid gravity filtration followed by super-chlorination and contact, with pH correction and chlorine residual control of the finished water.

Extensive routine sampling and examination of the water supplies were undertaken by the Waterworks Department's laboratory. In addition, public



health inspectors obtained 28 samples for chemical analysis and 32 for bacteriological examination from dwelling-houses, canteens, hospitals and day nurseries.

Thirty-two complaints of the quality of the supplies at different premises were received and investigated. Eighteen were concerned with discolouration and one was in connection with illness which, however, investigations and examinations did not support. Five complaints referred to a peculiar taste and/or smell in the water, and eight were concerned with animalcules. When necessary, further samples were taken and found to be satisfactory.

The Engineer and Manager of the Manchester Corporation Waterworks Department was informed of all complaints received and of the results of all chemical and bacteriological examinations of samples taken by the inspectors.

The Public Analyst declared all water samples to be chemically satisfactory, subject to satisfactory bacteriological reports from the Public Health Laboratory. These are summarised in the following statement:—

District	No. of sample	Samples free from coliform bacteria	Faecal coli found		Non-faecal coli found		Service reservoir	Source
			No. of samples	No. per 100 mls.	No. of samples	No. per 100 mls.		
Benchill ..	1	1	—	—	—	—	Woodgate Hill	Haweswater
Bradford ..	1	1	—	—	—	—	Godley	Longdendale
Burnage ..	1	1	—	—	—	—	Denton	Haweswater
Cheetham ..	4	4	—	—	—	—	Heaton Park	Haweswater/ Thirlmere
City .. ..	2	1	—	—	1	1	Heaton Park	Haweswater/ Thirlmere
Clayton ..	2	2	—	—	—	—	Godley	Longdendale
Crumpsall ..	2	2	—	—	—	—	Heaton Park	Thirlmere/ Haweswater
Didsbury ..	1	1	—	—	—	—	Denton	Haweswater/ Longdendale
Gorton .. ..	3	3	—	—	—	—	Denton	Haweswater/ Longdendale
Harpurhey ..	3	3	—	—	—	—	Woodgate Hill	Haweswater
Levenshulme ..	1	1	—	—	—	—	Denton	Haweswater/ Longdendale
Longsight ..	1	1	—	—	—	—	Denton	Haweswater
Miles Platting	1	1	—	—	—	—	Godley	Longdendale
Moss Side ..	3	3	—	—	—	—	Denton	Haweswater/ Longdendale
Moston .. ..	2	2	—	—	—	—	Woodgate Hill	Haweswater
Newall Green	1	1	—	—	—	—	Woodgate Hill	Haweswater
Northenden ..	1	1	—	—	—	—	Woodgate Hill	Haweswater
Northern Moor	1	1	—	—	—	—	Woodgate Hill	Haweswater
Openshaw ..	1	1	—	—	—	—	Denton	Haweswater/ Longdendale
West Didsbury	1	1	—	—	—	—	Denton	Haweswater/ Longdendale
Withington ..	2	2	—	—	—	—	Denton	Haweswater/ Longdendale
Woodhouse Park	4	4	—	—	—	—	Woodgate Hill	Haweswater

In all instances the water was chlorinated.

The Engineer and Manager of the Manchester Corporation Waterworks Department supplied the following information concerning Manchester's water supply:—

1. The water has been of a satisfactory quality throughout the year.  
In quantity, the supply has been adequate.

## 2. Summary of laboratory results

### Chemical

#### Thirlmere and Haweswater

At present only slight variations occur in the chemical analyses throughout the year and the results below may be regarded as typical:—

	Thirlmere	Haweswater
pH .. .. .	7.6	6.5
Colour .. .. .	10	12
Turbidity as ppm. silica scale .. .. .	0.4	0.5
	(parts per million)	
Free acidity as CO <sub>2</sub> .. .. .	2	2
Total alkalinity as CaCO <sub>3</sub> .. .. .	4	18
Total hardness as CaCO <sub>3</sub> .. .. .	11	18
Chlorides as Cl .. .. .	7	8
Nitrates as N .. .. .	0.04	0.01
Nitrites as N .. .. .	nil	nil
Total ammonia as N .. .. .	0.02	0.07
Oxygen absorbed from KMnO <sub>4</sub> , 4 hours at 27°C	0.8	1.2
Silica as SiO <sub>2</sub> .. .. .	3	2
Iron as Fe .. .. .	0.05	0.10
Manganese as Mn .. .. .	nil	0.10
Fluorides as F .. .. .	<0.10	<0.10

The water leaving Thirlmere is treated with lime for pH control and is chlorinated at the straining well. Re-chlorination is carried out after the Middlebrook Strainers prior to distribution.

The Haweswater water is strained and chlorinated at Garnett Bridge and it is re-chlorinated and limed at Woodgate Hill before distribution.

Both waters are non-plumbosolvent after treatment.

#### Thirlmere and Haweswater distributed supplies

Frequent samples are taken throughout the distribution system and an analysis of the mixed Thirlmere/Haweswater supply taken from a consumers' tap was as follows:—

pH .. .. .	8.1
Colour as ppm. platinum .. .. .	9
Turbidity as ppm. silica scale .. .. .	0.9
	(parts per million)
Free acidity as CO <sub>2</sub> .. .. .	nil
Total alkalinity as CaCO <sub>3</sub> .. .. .	17
Total hardness as CaCO <sub>3</sub> .. .. .	23
Chlorides as Cl .. .. .	9
Nitrates as N .. .. .	nil
Nitrites as N .. .. .	nil
Total ammonia as N .. .. .	0.02
Oxygen absorbed from KMnO <sub>4</sub> , 4 hours at 27°C	0.7
Silica as SiO <sub>2</sub> .. .. .	2
Iron as Fe .. .. .	0.04
Manganese as Mn .. .. .	0.01
Fluorides as F .. .. .	—

## Longdendale Water—raw water inlet to Arnfield treatment plant

As with Lake District waters, this water is subject to only very slight seasonal variations. And the results which follow are typical of the water arriving at the treatment plant:—

pH .. .. .	5.2
Colour as ppm. platinum .. .. .	29
Turbidity as ppm. silica scale .. .. .	8.1
	(parts per million)
Free acidity as CO <sub>2</sub> .. .. .	4
Total alkalinity as CaCO <sub>3</sub> .. .. .	7
Total hardness as CaCO <sub>3</sub> .. .. .	28
Chlorides as Cl .. .. .	12
Nitrates as N .. .. .	nil
Nitrites as N .. .. .	nil
Total ammonia as N .. .. .	0.06
Oxygen absorbed from KMnO <sub>4</sub> , 4 hours at 27°C .. .. .	1.5
Iron as Fe .. .. .	0.35
Manganese as Mn .. .. .	0.06
Fluorides as F .. .. .	nil

This manganese-bearing water also has a high colour and full chemical treatment, involving chemical coagulation, sedimentation, filtration, pH correction and disinfection, is necessary. The results below were obtained from a house tap sample on this supply.

pH .. .. .	8.5
Colour as ppm. platinum .. .. .	5
Turbidity as ppm. silica scale .. .. .	less than 1
	(Parts per million)
Free acidity as CO <sub>2</sub> .. .. .	not detectable
Total alkalinity as CaCO <sub>3</sub> .. .. .	10
Total hardness as CaCO <sub>3</sub> .. .. .	47
Chlorides as Cl .. .. .	18
Nitrates as N .. .. .	0.5
Nitrites as N .. .. .	0.002
Oxygen absorbed from KMnO <sub>4</sub> , 4 hours at 27°C .. .. .	1.5
Silica as SiO <sub>2</sub> .. .. .	4
Iron as Fe .. .. .	0.1
Manganese as Mn .. .. .	0.02
Fluorides as F .. .. .	less than 1

## Bacteriological summary

The two group headings are (i) Raw waters, which includes partially treated waters, and (ii) distributed chlorinated supplies. The final group includes water leaving the treatment plants and consumers' premises.

Source	Total number of samples	Samples free from coliform	Faecal coli present		Non-Faecal coli present	
			No. of samples	Counts per 100 mls	No. of samples	Count per 100 mls
Raw waters .. .. .	104	—	in most cases, presumptive tests only were made.			
Distributed waters .. .. .	4294	3971	37	1-3+	293	1-18+

All waters have been continuously chlorinated throughout the year. Aftergrowths of coliform bacteria have occurred on mains deposits and some samples of water, taken after mains disturbances, have given small coliform counts.

## Plumbosolvency

All waters are dosed with lime for pH correction to reduce the possibility of lead uptake in the supply. Most of the results obtained during the last year have shown lead values well below the WHO standards.

## Radioactivity

Rainfall samples are collected over a period of 14–15 days, the containers being changed on the 1st and 15th of each month. Weekly samples are also taken of Longdendale and Haweswater waters.

The results present the gross beta activity expressed as "pico curies per litre of Strontium 90/Yttrium 90".

Source	Period	Radioactivity as pCi/l Range	Weighted mean
Rainfall	1st Quarter	13.2 to 226.1	90.65
	2nd Quarter	24.3 to 256.4	70.15
	3rd Quarter	7.4 to 79.3	24.13
	4th Quarter	4.3 to 27.4	8.90
Longdendale raw water	1st Quarter	2.6 to 5.6	4.8
	2nd Quarter	2.1 to 6.1	4.8
	3rd Quarter	3.4 to 6.0	4.6
	4th Quarter	1.0 to 8.2	4.3
Longdendale final water	1st Quarter	1.0 to 4.0	2.4
	2nd Quarter	2.3 to 4.2	3.1
	3rd Quarter	1.0 to 4.0	3.0
	4th Quarter	1.0 to 6.5	3.3
Haweswater	1st Quarter	1.0 to 6.70	3.9
	2nd Quarter	1.8 to 5.7	4.1
	3rd Quarter	3.5 to 6.4	4.8
	4th Quarter	2.9 to 15.4	5.6

Rainfall for the above quarters at Denton measured 122, 94, 140 and 144 mm. respectively.

## Action taken in respect of any form of contamination

Should contamination occur in the distribution system, flushing, swabbing and, if necessary, re-sterilisation of the main are carried out. Bacteriological samples are taken and the main is not put back into service until satisfactory results have been obtained.

The number of dwelling houses supplied direct is 178,014, no houses being supplied by standpipe, and the estimated population receiving this service is 590,000.

## Food Supply

New statutory instruments enacted during the year, dealing with the composition and labelling of food and drugs, include the following:—

The Food (Control of Irradiation) (Amendment) Regulations, 1972, which were made on 16th February, 1972, and came into operation on 1st April, 1972, revoke the Amendment Regulations of 1969 and amend the principal Regulations of 1967 by increasing the low level of irradiation permitted under the regulations from 10 rad to 50 rad.

The Medicines Act, 1968, (Commencement No. 1) Order, 1972, was made on 22nd May, 1972, and appointed 1st June, 1972, for the coming into operation of section 65, Medicines Act, 1968, which deals with drug standards.

The Medicines Act, 1968, (Commencement No. 2) Order, 1972, was made on 8th August, 1972, and appointed 1st September, 1972, for the coming into operation of the following provisions of the Medicines Act 1968; sections 85 (5), 86 (3), 93 and 97, all of which deal with labelling, leaflets and advertising of drugs.

The Milk (Special Designation) (Amendment) Regulations, 1972, which were made on 25th July, 1972, and came into operation on 1st October, 1972, prescribe additional conditions subject to which licences are granted to use the special designation "Ultra Heat Treated" in relation to milk which has been treated by the direct application of steam.

The Bread and Flour (Amendment) Regulations, 1972, which were made on 13th September, 1972, and came into operation on 1st November, 1972, amend the principal Regulations of 1963 by extending the list of bleaching and improving agents which may be present in flour and amend the specified forms in which chalk, iron, vitamin B1 and nicotinic acid are required to be added to flour.

The Labelling of Food (Amendment) Regulations, 1972, were made on 10th October, 1972, and came into operation on 8th November, 1972, except for regulation (4), which deals with soft drinks from vending machines, and does not become operative until January, 1976. These regulations amend the principal regulations of 1970 and deal mainly with labelling descriptions and claims.

The Lead in Food (Amendment) Regulations, 1972, which were made on 30th November, 1972, and came into operation on 1st January, 1973, amend the principal regulations of 1961 by reducing the amount of lead permitted in baby foods to 0.5 part per million.

## Hygiene

The Food Hygiene (General) Regulations, 1970, and the Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations, 1966, are the principle instruments for enforcing good food hygiene practice.

There is no mandatory requirement whereby all food premises must be registered with the local authority, but the following estimate, based on a mid-year survey, indicates the number of premises under surveillance by the department.

Food retailers .. .. .	3,525
Catering establishments and licensed premises .. .. .	3,000
Food factories and warehouses .. .. .	160
	<hr/>
	6,685
	<hr/>

Arising from health inspectors visits to these premises, 534 irregularities were found, compared with 1,467 in 1971. This significant reduction is welcomed and may, in part, be attributed to section 34 of the Manchester Corporation (General) Powers Act, 1971, which gives powers to close insanitary food premises.

Minor irregularities were dealt with informally and generally were promptly remedied, but in connection with 471 infringements of the regulations it was necessary to send cautionary letters. Local proceedings were instituted in respect of 78 offences. Fines and costs totalling £918 were imposed.

In promoting the Manchester Corporation (General Powers) Act, 1971, the City Council sought powers to close insanitary food premises of all kinds and not only insanitary catering premises. The Department of the Environment supported this objective as a precursor to general public legislation.

The powers specified, which were complex to operate, were more onerous on the Corporation than was to be desired. Where a food premises is found to contravene the Food Hygiene (General) Regulations to the extent that there is a danger to health, the Medical Officer of Health or the Chief Public Health Inspector may make a complaint to a Magistrates' Court, asking for an order to close the premises. Twenty-four hours notice of the hearing must be given to the owner and occupier, and if the court, which can be a single magistrate, is satisfied that a *prima facie* case exists, it can make an interim order. This has the effect of closing the premises until a hearing can be held to determine whether a substantive order should be made.

When an order, whether interim or not, is made, a copy has to be posted conspicuously on the premises. At any time after an interim or final order has been made, the occupier or owner may apply to the Medical Officer of Health or Chief Public Health Inspector for a certificate that the premises have been brought up to a satisfactory standard. Such a certificate has to be sent to the court.

The section provides for compensation to be paid in the event of wrongful closure. Although the procedures of this section are complex they are an experimental move in the right direction. If experience shows that their amendment is desirable, doubtless this will be sought when a future private bill is promoted.

In the period these powers have been available they appear to have had a powerful deterrent effect and have been invoked in nine instances involving the following type of premises.

1 Tripe boiler	2 Restaurants
1 Grocer	2 Snack bars
1 Hotel	2 Butchers shops

The powers to secure the closure of premises have been used once. In these proceedings a restaurant was involved. A history of pressure by the department, because of poor food hygiene, resulted in several changes of occupier of the rented premises. This resulted in the failure to achieve a satisfactory standard. A complaint was laid before the Stipendiary Magistrate, who not only gave an interim order, but fixed a hearing seven days later for the application of a closing order.

The premises closed forthwith when the interim order was made. The contraventions were rectified within seven days and a certificate to that effect was granted when the occupier applied. The Stipendiary Magistrate was, thus, not called upon to decide whether or not to make a closing order.

In the other cases the contraventions were remedied forthwith when the probability of closure was made clear.

### *Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations, 1966*

The inspection of mobile shops, canteens, food delivery vehicles, hawkers barrows and premises continued. In 156 instances unsatisfactory conditions were found and dealt with. Prosecutions were instituted in four cases, involving 15 offences and fines and costs amounting to £112 were imposed.

#### *Slaughter and dressing of poultry*

The department licensed 23 premises for the slaughtering and dressing of poultry, in accordance with the requirements of section 61 of the Manchester Corporation Act, 1954. These premises were generally found to be satisfactory on inspection.

#### *Collection of food waste*

##### *Manchester Corporation Act, 1971, section 33*

There are 13 known firms collecting waste food from restaurants, canteens and other food businesses in the City. Because of the concentration of restaurant and cafes in the central area and the parking restrictions, the powers were sought to control nuisances arising from the carriage of open containers of waste food manually between premises and vehicles and through the streets on open lorries.

Although no complaints were received from the public during the year, 10 instances of nuisance arising were observed by inspectors and cautionary letters pointing out the Corporation's powers were sent to the offending contractors. In three instances verbal or written acknowledgements of letters were received, but in three cases second offences were observed and further cautionary letters were sent. Two contractors sought advice as to the methods recommended to ensure compliance.

Collection involves collecting waste food, usually in bins, replacing full containers with clean empty ones and transporting the full loads to pig farms or processing plants, mainly outside Manchester.

The most satisfactory method employed is for the lorries to carry empty containers at the rear, whilst full containers are loaded at the front of the platform under a rolled sheet which is unrolled as collection proceeds. Loose covers are carried on the vehicle and used to cover full containers manually transported from premises to vehicles.

At the end of the year observations indicated that most collectors were complying with the department's requirements.

#### **Night cafes**

Part V of the Manchester Corporation (General Powers) Act, 1971, came into force on the 1st April, 1972, and made it compulsory for cafes to be registered if they opened between 11.00 p.m. and 5.00 a.m. Penalties were prescribed if such premises were conducted without being registered.

The Corporation may refuse to register or renew the registration of any premises for use as a night cafe, if the premises are structurally unsuitable, not provided with satisfactory means of lighting, sanitation and ventilation, have unsafe heating, insufficient fire precautions, unsatisfactory means of escape in case of fire or fire fighting appliances, are likely to cause a nuisance to the occupiers of neighbouring premises, or are under the management of such persons that young persons resorting to the premises are likely to be deprived or corrupted.

Premises with a Justice's on-licence and premises subject to other forms of registration or licensing are excluded.

In considering applications for registration the Health Department consulted the Chief Constable, Chief Fire Officer, City Architect and Planning Officer.

Seventy-three applications were received of which 27 were approved as late night cafes and 16 were refused. A further 27 withdrew their applications and sought licenses to operate as refreshment houses with hours of opening limited to 11 p.m. Three applications pending at the end of the year were awaiting the completion of structural alterations to the premises.

### Licensed premises

The arrangement, for a public health inspector to accompany the Licensing Justices in their visits to premises applying for licences for the sale of intoxicating liquor, continued to facilitate the observance of the department's requirements in connection with the environmental condition of the premises and food preparation and the serving of food at the 199 establishments visited.

### Food poisoning

Seventy-six outbreaks of food poisoning, notified and/or ascertained during the year, involved 117 persons. In addition, 36 symptomless excreters were discovered, of which 20 were associated with cases, 16 were revealed as the result of routine tests prior to admission to institutions and by the periodic examination of food handlers. The following table illustrates the causative organisms which were identified in 158 cases, and, where ascertainable, the food implicated:—

Number of cases	Organism	Foods implicated
76	<i>Clostridium welchii</i>	50—School meal, probably fish cake 21—School meal, probably bacon.
18	<i>Not identified</i>	5—Chicken and stuffing.
14	<i>Salmonella typhimurium</i>	3—Foods eaten on foreign holiday.
14	<i>Salmonella agona</i>	3—Foods eaten on foreign holiday. 5—Chicken. 2—Hospital infections.
7	<i>Salmonella panama</i>	1—Foods eaten on foreign holiday.
7	<i>Salmonella virchow</i>	6—Chicken.
5	<i>Salmonella indiana</i>	—
5	<i>Salmonella st. paul</i>	1—Foods eaten on foreign holiday.
4	<i>Salmonella enteritidis</i>	3—Foods eaten on foreign holiday.
4	<i>Salmonella stanley</i>	—
3	<i>Salmonella heidelberg</i>	—
2	<i>Salmonella amsterdam</i>	2—Foods eaten on foreign holiday.
2	<i>Salmonella bredeney</i>	1—Foods eaten on foreign holiday.
2	<i>Salmonella java</i>	—
2	<i>Salmonella kiambu</i>	—
2	<i>Salmonella takoradi</i>	—
1	<i>Salmonella adjane</i>	—
1	<i>Salmonella anatum</i>	—
1	<i>Salmonella branderup</i>	1—Foods eaten on foreign holiday.
1	<i>Salmonella derby</i>	1—Foods eaten on foreign holiday.
1	<i>Salmonella infantis</i>	—
1	<i>Salmonella newport</i>	—
1	<i>Salmonella oranienberg</i>	—
1	<i>Salmonella reading</i>	—
1	<i>Salmonella thompson</i>	—
1	<i>Staphylococcus aureus</i>	1—Vanilla cake.



It is significant to note that, if the three *Clostridium welchii* outbreaks, involving 76 cases, are ignored, 16 of the remaining 101 persons were infected whilst holidaying abroad. No cases were traced to foods eaten on holidays taken in the British Isles.

Of the 76 incidents, there were two general outbreaks involving 71 persons, 18 family outbreaks involving 50 individuals and 56 sporadic cases.

The two general outbreaks both involved *Clostridium welchii* organisms, and school meals were implicated.

In the first incident, it was alleged that 50 of 700 people at risk had suffered from abdominal pains and vomiting some hours after eating a meal of fish cakes, potatoes and sliced beans, followed by coconut sponge and custard. Unfortunately, due to lack of co-operation, information and faeces specimens were obtained from only ten affected persons, of whom two were reported to be excreting *Clostridium welchii* organisms. Sixteen kitchen staff, none of whom were affected, submitted faeces specimens and five were found to be excreting *Clostridium welchii* organisms. None of the meal was available for examination, but fish cakes and coconut from the same batches were examined and reported to be negative. Viral examination of faeces was also negative.

The second outbreak involved 134 people at risk, of whom 21 suffered from abdominal pains and/or vomiting of a very mild character a few hours after eating a meal of bacon, chipped potatoes, carrots and turnips, followed by sultana sponge and custard. Bacteriological and viral examination of faeces from 19 affected persons revealed that three were excreting *Clostridium welchii* organisms. None of the seven kitchen staff was found to be excreting the organism. None of the meal was available for examination.

Three family outbreaks and four sporadic cases of *Salmonella virchow* infection, involving 20 persons, were reported by the Public Health Laboratory as having occurred in the Manchester conurbation within a period of ten days, during which time all the families had eaten chicken. One family and three sporadic outbreaks occurred within the Manchester boundaries, and efforts were made to find a common source. To this end, shops from which chickens had been purchased were visited, and 45 raw chickens and chicken portions, and 25 cooked chickens and chicken portions, were submitted for bacteriological examination. *Salmonella agona* organisms were found in four raw chickens and three chicken portions. Swabs from the shops and faeces specimens from the staffs were reported to be negative and, as the poultry sold in the shops came from a large number of poultry suppliers, it was impossible to establish a common source.

An interesting sequence to this investigation was the swabbing of surface and utensils in 18 shops in the same vicinity selling cooked chickens and portions to ascertain if any salmonella contamination was present. Seventy-four swabs were submitted and all were negative.

A family outbreak of *Salmonella agona* infection concerned a man and wife, both of whom went out to business and who bought a considerable quantity of cooked foods including cold roast beef and chicken portions. Samples of the beef and chicken were obtained from the shops concerned and submitted for bacteriological examination, and *Salmonella agona* organisms were isolated from the roast chicken. Investigations were carried out at the shop from which the chicken was bought and *Salmonella agona* organisms were

again isolated from cooked chicken portions and unnamed salmonella organism was demonstrated in an uncooked bird, whilst *Salmonella agona* organisms were isolated from a raw chicken tray, a cooked chicken tray and a warm cabinet in which the cooked portions were kept. Faeces specimens submitted by the proprietor and his five assistants were all negative. Advice was given to the proprietor with reference to sterilising equipment and to the preparation, cooking, cooling and storage of raw and cooked chickens. He was requested to stop selling chickens and pies until the premises were thoroughly cleansed and free from contamination, which he achieved within seven days of the original visit.

As these premises gave the appearance of being clean and well run, this incident once again demonstrated the need for food handlers to have some basic knowledge of food poisoning organisms and how to prevent their dissemination to the general public.

A similar example came to light in the investigation of a single case of *Staphylococcus aureus* infection. It was alleged that a vanilla-filled cake had caused a severe attack of abdominal pain, vomiting and diarrhoea with prostration, about five hours after ingestion. Two cakes had been bought and the remaining one was submitted for bacteriological examination. A strain of *Staphylococcus aureus*, thought to be associated with food poisoning, was isolated. Investigation at the bakery, which supplied a large chain of shops, revealed that the vanilla filling was prepared by the night staff and filled into casings the following morning by the day staff. A large quantity was prepared as various types of cakes were filled, but any vanilla remaining after completion was destroyed. No other illnesses had been reported. With the co-operation of the Public Health Laboratory staff, all persons engaged in vanilla making or filling were swabbed, samples of the vanilla ingredients were taken, and utensils and surfaces used in making and filling were swabbed. The results showed that the vanilla ingredients were negative, but an enterotoxin producing strain of *Staphylococcus aureus* was isolated from a vanilla bag, a ladle and a table top, and from two members of the staff. Non-pathogenic *Staphylococcus aureus* organisms were isolated from five other employees.

An explanation of the bacteriological results was made to the management with the following consequences: (1) the vanilla bag and ladle were destroyed, (2) the affected table was sterilised, (3) an employee with a positive lip sore was suspended until the lesion cleared up, (4) improvements in methods were made and (5) the cleaning processes were overhauled.

In addition, 25 contacts of food poisoning cases occurring in other areas were investigated. All specimens were negative for salmonellae organisms but three persons, who had attended a dinner party, were found to be excreting *Clostridium welchii* organisms. Three persons with salmonella infections (reported by other authorities), who had taken up residence in Manchester, were kept under observation until three successive negative specimens were obtained.

Forty-three cases of suspicious illness in nine incidents were investigated. No food poisoning organisms were found, but one incident concerning 27 cases thought to be a virus infection, is worthy of note.

Eight members of a party of 23 from an old people's home suffered from nausea, abdominal pain, vomiting and diarrhoea, whilst on a week's vacation at a holiday camp, where other people had suffered similar symptoms which

had lasted about two days. All 23 were requested to submit samples of faeces for bacteriological examination; these were negative for food poisoning organisms. At intervals during the next 18 days, 19 more cases were reported from the home, and some of these had not been with the holiday party. Faeces specimens were submitted for bacteriological and viral examinations, but no virus or food poisoning organisms were isolated.

### Unsound food

Certificates of unfitness, issued in respect of unsound and unsaleable foods voluntarily surrendered for destruction, numbered 1,029 and necessitated 394 visits to wholesalers' and retailers' premises.

The amounts of foods surrendered and destroyed by incineration or burying on tips were:—

	tons	cwts.	qtrs.
Canned meat and fish	9	12	4
Fresh meat	2	2	3
Frozen foods	7	19	4
Miscellaneous canned goods	33	1	3
Other foods	10	18	3
	63	16	1

### The Imported Food Regulations, 1968

Unexamined containers of foodstuffs, other than fresh meat and vegetables, received into the City during the year, numbered 118. The nature of the contents of the containers, which comprised a variety of foodstuffs, are listed below.

The contents of the containers were examined and all new brands and varieties of foodstuffs were sampled and submitted for examination.

Commodity	No. of containers	Commodity	No. of containers
Asparagus	3	Lard	2
Bacon	1	Mexicorn	7
Biscuits	10	Niblets	13
Canned fruit	11	Pilchards	1
Canned meat	1	Premier jus (suet)	1
Canned salmon	10	Raisins	6
Canned tomatoes	9	Rice	6
Coffeemate	4	Soya bean flour	1
Corn	7	Split peas	1
Corn-on-cob	1	Tomato juice	2
Dehydrated onions	7	Wheat germ	9
Grain flour	1	Wip treme	1
Hops	3		

### Liquid Egg (Pasteurisation) Regulations, 1963

Visits to bakeries in various parts of the City for the sampling of liquid egg were continued. Fifteen samples from various producers were obtained and submitted to the Public Health Laboratory for examination by the alpha-amylase test prescribed in the Regulations. All the samples satisfied the test.

## Milk and ice cream control

The supervision of the processing and distribution of milk continued, with the regular inspection of all dairies and distributing depots in the City and the sampling of milk for bacteriological and biological examination. Similar measures were taken in respect of the manufacture and sale of ice cream. Six hundred and thirty-eight visits were paid to dairies and 106 to ice cream premises.

Routine visits to the five processing dairies were implemented by random sampling of the various designated milks in process of delivery to institutions and retail customers and from depots, retail shops and vending machines. There were 669 such samples taken, of which 47 failed the methylene blue reduction test.

Fifteen failures occurred in samples taken from one supply over a period of 18 days and were traceable to a compressor plant fault, which inhibited the cooling system. Another four failures at the same dairy were the result of keeping pasteurised milk in bulk overnight. Both these faults were corrected.

Fourteen failures, which occurred at another dairy over a similar period of time, were the result of keeping surplus milk too long before pasteurisation. Milk became surplus to requirements on days when cream and yogurt were not produced and, instead of diverting the milk to other processing plants, it was kept from day to day. The dairy was cautioned about this practice.

The remaining 14 failures were accounted for by shopkeepers selling unrefrigerated milk 24 hours after delivery and by samples taken from roundsmen during the warmer periods of the year.

No explanation could be found for two phosphatase failures of samples taken during distribution from one dairy. Repeat samples continued to be satisfactory.

### Prescribed tests of processed milk

Type of milk and test	No. of samples examined	Satisfactory		Unsatisfactory	
		No.	Percentage	No.	Percentage
Pasteurised					
Phosphatase .. .. .	338	337	99.7	1	0.3
Methylene blue .. .. .	338	295	87.3	43	12.7
Pasteurised (C.I.)					
Phosphatase .. .. .	66	65	98.5	1	1.5
Methylene blue .. .. .	66	64	97.0	2	3.0
Pasteurised (Homogenised)					
Phosphatase .. .. .	66	66	100.0	—	—
Methylene blue .. .. .	66	64	97.0	2	3.0
Sterilised					
Turbidity .. .. .	177	177	100.0	—	—
Ultra heat treatment					
Colony count .. .. .	22	22	100.0	—	—
Totals .. .. .	1,139	1,090	95.7	49	4.3

There were 18 complaints of dirty milk bottles and legal proceedings were instituted against one dairy, which supplied eight one-third pint bottles of milk containing foreign bodies to two schools on the same day. The dairy was fined £80 with £20 costs. In the remaining cases, the dairies concerned were cautioned.

### **Brucella abortus**

Twenty-two samples of untreated milk were submitted to the Public Health Laboratory and all were found to be negative to the milk ring test.

### **Langho Centre**

Three visits were made to The Langho Centre and samples of milk from the refrigerated bulk farm tank were submitted to the Public Health Laboratory and to the Public Analyst for statutory, biological and chemical tests. All samples were negative for brucella organisms and satisfied the methylene blue reduction test. The high quality of the milk produced on this farm was reflected in the average chemical analysis of 12.65 per cent total solids, 8.75 per cent non-fatty solids, and 3.90 per cent milk fat. Eighteen samples of the pasteurised milk supplied to the centre kitchens passed the statutory tests and the chemical and biological examinations.

### **Food and drugs**

Food and drug samples submitted to the Public Analyst numbered 2,250, of which 587 were milk samples. One formal and 11 informal samples contained a trace of added water, and one contained 1 per cent, but all repeat samples were satisfactory. Another informal sample of sterilised milk was found to contain 6 per cent added water and, although the dairy plant was checked by sampling at various points, no satisfactory explanation could be discovered and repeat samples were satisfactory. The dairies concerned were cautioned.

Mainly as the result of information received from dairies, 26 samples were taken from consignments from individual farms and samples taken from two bulk farm tanks had 2 per cent and 9 per cent of added water. Twelve churn samples from two farmers had added water in amounts varying from 4 to 12 per cent. Legal proceedings were instituted in all cases and four farmers were fined a total of £95 with £44.20 costs. One of four churn samples from one supplier was found to be deficient in fat, but the average fat content for the whole consignment was satisfactory.

Forty-six milk samples with non-fatty solids figures below 8.5 per cent (the presumptive minimum prescribed by the Sale of Milk Regulations) were adjudged genuine by the Hortvet freezing point test.

One thousand, six hundred and sixty-three samples of other foods and drugs were obtained and submitted for examination. The Public Analyst reported that, in his opinion, 68 were unsatisfactory or irregular and these were dealt with as follows:—

Twenty-three samples of tomato juice were found to have "Howard" mould counts in excess of 25 per cent positive fields. In one case, seven informal and five formal samples, taken from one consignment and found to be un-

satisfactory, resulted in the juice being re-exported. Another incident concerned a shop and the supplying warehouse, where eight unsatisfactory informal samples were reported. Nine tons were surrendered and destroyed. The remaining three samples were taken from a shop supply and the remaining stock was withdrawn from sale.

There were 16 adverse reports against labels and in six cases the labels were to be amended. Four referred to products which were satisfactory under old regulations, and there were no further stocks. Four labels complied with the 1953 labelling regulations, but would not comply with the 1970 regulations which come into operation on the 1st January, 1973, and action is under consideration in respect of the remaining two which refer to an illustration and a description.

Ten samples of sausages contained a permitted preservative and the butchers concerned were cautioned for not displaying the notice required by the Preservative in Food Regulations. In two of these cases there were slight deficiencies in the meat content, resulting in the manufacturers receiving a caution.

Meat deficiencies in five canned meat products were dealt with in two cases by the stock being withdrawn from sale. Repeat samples in two incidents were satisfactory, and the fifth contravention was referred to the authority in which the product was manufactured for sampling prior to canning.

A batch of condensed milk, from which two samples were found to be below the stated amount, was withdrawn from sale and the importers instigated investigations at the factory. Similar inquiries were made in respect of a canned sterilised cream which was deficient in fat. There were no further stocks at the retailers of a canned custard, which had a milk-fat deficiency, but further inquiries are being made at the wholesalers.

Two samples of grapefruit juice of the same manufacture were found to contain only 8 per cent fruit juice and should have been described as a fruit drink. The stock was withdrawn from sale in one shop and there were no further stocks in the second shop. The district in which the wholesalers' premises were situated were informed of the results of the analysis. This procedure was undertaken in respect of a lettuce found to have a fungicide residue in excess of the recommended amount.

Excessive amounts of tin were found in five samples of canned fruits. One sample was repeated and found to be satisfactory. Three samples of the same brand were the last of a trial import and no further stocks were available. The importers had no other products from the cannery concerned, but undertook to inform the producers of the analysis. The remaining sample was old stock and no further supplies were available.

An informal sample of minced beef, which contained preservatives, was sampled formally with similar results. Legal proceedings were instituted against the butcher who was fined £10 with £5 costs. Canned frankfurters, which were deficient in meat content and reported last year, were the subject of a prosecution against the importers, who were fined £20.

The samples of food and drugs which failed to meet the requirements of the Food and Drugs Act, Regulations or Orders, are summarised in the following tabular statement:—

Samples reported as adulterated or unsatisfactory and action taken

Private and informal samples				Legal proceedings						Formal samples						
Adulterated or unsatisfactory	No further stock available	Further samples obtained	Stock withdrawn	Cautions	Summonses	Number of samples	Number of convictions	Number dismissed	Amount of fines	Costs	Article	Adulterated or unsatisfactory	Further samples obtained	Stock withdrawn	Cautions	Number of samples
59†		13		3	4	14	4		£95	£44.20	Milk	16			1	16*
3					3	3	3		£55	£20	Beer and stout					
2		1	1								Canned condensed milk (sweetened)					
1				1							Canned cream					
3	1	1	1								Canned custard					
5	3	2									Canned fruit					
2	1		1								Canned fruit juice					
11	2	2	2	2							Canned meat and meat products					
18		8	10								Canned tomato juice	5		5		5
1					2	1	2		£2	£2	Chicken portion					
1		1							£10	£5	Fresh meat	1				1
1				1							Fresh vegetables					
2											Instant coffee (flavoured)					
1				1							Meat paste					
8					2	8	2		£80	£20	Milk, boiled bottled					
2											Milk substitute					
2				2							Pickles and chutney					
10		1		9	1	1	1		£20		Sausages					
2	2										Soft drinks					

\*Includes one sample adjudged genuine by average fat of consignment.

†Includes 46 samples adjudged genuine by Hortvet freezing point test.

## Clean Air

The most important single component of air pollution in Manchester is domestic smoke and this has been dramatically reduced by the establishment of smoke control areas, which now affect 75.4 per cent of the City's total area of 42.5 square miles.

Since 1959 the winter daily averages for smoke have been reduced by 77.2 per cent and those for sulphur dioxide by 52.1 per cent; there has been a striking improvement in visibility and in winter sunshine in the City centre. In the period 1961–70 the latter was 37 per cent higher than in the 1931–57 period.

Thus the objective—to reduce total smoke in heavily polluted areas by something of the order of 80 per cent—has nearly been attained and should be surpassed as the rest of the smoke control area programme is implemented. Orders to cover the rest of the City are being made as fast as the work can be accomplished and the Health Committee's aim is to complete this process within the next three years.

Over recent years the balance between different forms of air pollution has changed, and continues to change. At the present time the main air pollutants, in an arbitrary descending order of significance, comprise:—

- Domestic smoke
- Low level smoke from the burning of waste materials in the open
- Industrial smoke
- Sulphur dioxide at breathing zone level (mainly from domestic chimneys)
- Vehicle smoke and fumes
- Grit and dust
- Odours
- Toxic and other gases

The control of air pollution entails selecting the right remedy (if one exists) and applying it with intelligence and vigour. Particular problems have to be dealt with as they arise, and concurrently with the systematic establishment of smoke control areas and implementation of other provisions of the Clean Air Acts.

Industrial smoke from chimneys is now unusual, so much so that in 1972 no contraventions of the Dark Smoke (Permitted Periods) Regulations, 1958, were observed, and much of the "industrial" smoke (which accounts for 15–20 per cent, of all the remaining smoke) arose from the burning of waste in the open at industrial or trade premises. The majority of contraventions occurred at demolition sites, carburetors and scrapyards, which are not notable for the degree of responsibility exercised by the staff or by the management. The informal advice and persuasion technique appropriate to responsible management at factories is not so effective and formal punitive means have to be adopted more frequently to secure the desired result. Legal proceedings are adopted reluctantly as they involve a lot of paper work and are painfully slow—in one instance it took seven months to secure a nuisance order. Nevertheless, legal proceedings were instituted in respect of 16 contraventions due to smoke from burning wastes. It will be appreciated that the department is unpopular with the owners of this kind of business but the constant attrition is proving effective in reducing smoke emissions. On occasions it has been necessary to call out the Fire Brigade to extinguish fires which were beyond normal control.

The National Society for Clean Air held its first Clean Air Spring Seminar at the Grand Hotel, Manchester, in March. The Seminar, which was opened by the Lord Mayor of Manchester, Alderman D. J. Edwards, was attended by over 170 delegates. The papers covered a wide range of topics associated



with clean air and the response served to indicate that there is a definite requirement for technical seminars or symposia of this nature. Members of the department's staff participated, the Chief Public Health Inspector being the Chairman of the session on "Furnaces and Chimneys". The Principal Public Health Inspector (Clean Air) opened the discussion on "Dust and Gaseous Pollutants".

"Pollution" can be defined as "The disposal of waste in such a way as to cause damage to man or his environment". The elimination of pollution in one form may cause pollution in a different form, e.g. the burning of solid or liquid wastes may cause air pollution. Accordingly—on the simple premise that "if you don't burn it, it can't smoke"—preventive work includes providing information and advice about alternative methods of disposal of solid and liquid wastes.

The tables of pollution measurements which appear later illustrate that, despite the reductions so far achieved, the levels of sulphur dioxide in the City centre remain obstinately high. Evidence on the amount and sulphur content of fuels used in the City centre is being collected, with a view to an examination of the need to seek special powers to control the sulphur content of fuels burned in the central smokeless zones. Some further work remains to be done before an objective assessment becomes practicable.

### **Pollution from road vehicles**

Some emissions from motor vehicles are controlled by the Motor Vehicles (Construction and Use) Regulations, 1969, which are administered by the Police. The Regulations require that "Every motor vehicle shall be so constructed that no avoidable smoke or visible vapour is emitted therefrom", and prohibit the use of any motor vehicle which emits any smoke, visible vapour, sparks, ashes, cinders, or oily substance, which is likely to cause damage to property or injury to any person. The Police take appropriate punitive action against offenders and instituted about one hundred prosecutions in 1972.

For practical purposes the development of motor vehicle traffic in this country lies within the present century. At the outbreak of the First World War there were less than 400,000 such vehicles in use in Britain. Between the two World Wars a great increase in the number of vehicles occurred but since the late 1940's the pattern of change has been more complex and dramatic.

The amount of pollution from road vehicles depends, *inter alia*, on the numbers and types of vehicles, their engine size, the extent of their use, on the nature of the fuel consumed and on the type and condition of the engines.

The number of vehicles licensed in Great Britain in each of a sequence of years is given in the annual publication "Highway Statistics" (H.M.S.O.). These show that, between the years 1955–65 inclusive, the number of licensed vehicles more than doubled, rising from 6.4 to 12.9 million. The Road Research Laboratory has estimated that the number of vehicles will continue to increase; from 9.4 million in 1960 to 18.5 million in 1970 and to 26.6 million in 1980.

Manchester, already affected by vehicle congestion can expect some of this increase in urban traffic load and with it the associated additional air

pullution. Accordingly, it appears probable that by the time the smoke control programme is completed the most serious single component of air pollution in the City could be air pollution from motor vehicles.

The classic photo-chemical "smogs" which occur in Los Angeles and some other major cities abroad are due to a combination of vehicle emissions and hot sunshine in areas which for topographical reasons are chronically short of fresh air.

It has generally been held that photochemical air pollution is unlikely to be encountered in Western Europe, as there is less sunlight and air temperatures are lower at these latitudes, and not so much pollutant precursors (oxides of nitrogen and also hydrocarbons) are emitted from motor vehicles. However, measurements made in Germany in 1967 in the Netherlands in 1968 and 1969, and in Southern England in 1971, have shown high ozone levels considered to be evidence of photochemical smog formation. Thus with an increasing number of vehicles and increasing sunshine it is not beyond the bounds of possibility that photochemical smog could appear in Manchester during the next few years unless action is taken to prevent it. Fortunately, that action has already begun.

There is no simple answer to vehicle pollution and, as with most other forms of pollution, the solution will require a combination of action on several aspects at the same time. Some of the options open to us when attempting to reduce pollution from vehicles are:—

To reduce the concentration of emissions from individual vehicles, (better carburation, after-burning devices, control of lead in petrol, prosecution for excessive emissions).

To reduce the number of vehicles using a particular area, (improved public transport, ring roads, car-less zones, tolls, metering).

To keep traffic moving.

(One-way schemes, over-passes, priority lanes for buses).

But how realistic are these options. For example how could 20 million after-burners be checked even if they were provided? However, an optimistic sign is the welcome and growing understanding of the importance of public transport in the country's major cities.

In December, 1972 the SELNEC Passenger Transport Executive published a summary of their report "Lifeline 2000" dealing with the future of public transport for Greater Manchester. This concludes that the public transport system should be radically improved without delay if travel in the region is not to become intolerable. The report which describes proposals to provide a positive alternative to the private car as a means of getting increasing numbers of people to work, includes priority for buses along fourteen main routes into the City centre and the opening of the Piccadilly-Victoria tunnel in five years. The report expects a rapid expansion of car ownership and forecasts that for every 10 cars in 1966 there will be 25 in 1984. The use of cars is expected to increase by 150 per cent. Fast and frequent services by train and new "rapid transit" systems for public transport are suggested, at a cost of over £200 million.

The Department of the Environment has announced that, by October 1973, new cars will have to comply with the limits for the emission of carbon monoxide and hydrocarbons laid down by E.C.E. Regulation No. 15. This will

apply to cars first used on or after 1st October, 1973. Compliance with the Regulation will reduce emissions of carbon monoxide by up to 30 per cent and of hydrocarbons by up to a further 10 per cent as compared with the emissions from older cars. This will be achieved by using an improved carburettor and by the closer control of ignition by employing a better engineered distributor. This E.C.E. Regulation prescribes that the carbon monoxide concentration (by volume of exhaust gases emitted with the engine idling) must not exceed 4.5 per cent. The E.C.E. Regulations also require a device to be fitted to cars to prevent gases escaping from the crank cases; this has already been mandatory for new vehicles registered in this country since the beginning of 1972. This device, together with the new regulations, should mean a total reduction of up to 35 per cent in hydrocarbons emitted. Furthermore, diesel engined vehicles manufactured on or after 1st October, 1972, and first used on or after 1st April, 1973, will be required to conform to the provisions of the British Standard on diesel engines (BS AU 141a), which contains a strict limit on smoke emissions.

There is conflicting evidence about lead in the atmosphere and although present levels of lead emissions may not constitute a danger to health, it is undoubtedly desirable that they should, if possible, be reduced. The recent announcement by the Department of the Environment of a phased programme to reduce the lead content of petrol by almost half over the next three years is therefore welcomed.

A report "Air Quality Criteria and Guides for Urban Air Pollutants" (Technical Report Series, Number 506) was published by the World Health Organisation in April. It deals with the effects of sulphur oxides and suspended particulates, carbon monoxide, photo-chemical oxidants, and nitrogen dioxide on man and vegetation, suggests tentative standards and postulates short-term and long-term goals and is of particular interest in the context of pollution from vehicles.

The WHO Expert Committee specifically urge that the suggested standards should not be considered independently of the accompanying text (and they stress that standards, particularly those chosen as short-term goals, may evolve differently in different countries depending on the exposure conditions, socioeconomic situation, and the importance of other health problems), but, bearing that reservation in mind, it is nevertheless worthy of note that their long-term goals are annual means of 60 microgrammes per cubic metre ( $\mu\text{g}/\text{m}^3$ ) for sulphur dioxide and 40  $\mu\text{g}/\text{m}^3$  for suspended particulates.

Manchester's measurements and target levels are on a different basis (i.e. *winter* daily averages of 150  $\mu\text{g}/\text{m}^3$  for sulphur dioxide and 100  $\mu\text{g}/\text{m}^3$  for smoke), but for comparison the overall annual means of the eight measurement sites in 1972 were approximately 142  $\mu\text{g}/\text{m}^3$  for sulphur dioxide and 52  $\mu\text{g}/\text{m}^3$  for smoke. Two sites—Withington and Wythenshawe—were already better than the WHO long-term goal of 40  $\mu\text{g}/\text{m}^3$  for suspended particulates. Several of the measurement stations bettered the Manchester target levels in 1972 and if the present trend of substantial improvement continues the targets will be amended progressively as the higher standards of air quality are achieved.

### **Grit and dust**

At the present time emissions of grit and dust give rise to few complaints. These are normally in connection with gross and obvious emissions, susceptible to abatement by regulation or by the maintenance of existing arrestment plant.

During the last decade most new boiler plant installations have been oil fired and the reduction in coal fired installations lessens the potential grit emissions. Modern coal fired boiler plant is capable of being operated without emitting grit and no trouble with grit and dust emissions from normal industrial boiler plant, either coal or oil fired, was experienced during the year.

Grit and dust can be emitted from sources other than the burning of fossil fuels in boiler plant, e.g. from the burning of fuel in other kinds of plant and from other non-combustion processes such as sand-blasting or mould "knockouts". In general, the same methods of arrestment and control apply. In one case considerable difficulty was encountered in securing the abatement of an intermittent gross emission of black dust from an automatic casting machine, which gave rise to numerous and justified complaints, until eventually the works engineer—by crawling through a small dusty duct—found a small crack in the metal. When the machine was vibrating this defect allowed some of the dust to escape into an outgoing air-stream to by-pass the arrestment plant. Further complaints also arose about grit from hot blast cupola. A venturi scrubber is to be installed, at a cost of approximately £40,000.

One complaint related to emissions of dust from a cement depot. This was solved by modifications and improvements to the pipework and filters associated with the loading of lorries from silos and by better "housekeeping" at the plant.

Another case related to emissions from a process in which a protective coat was applied to ferrous metals by spraying with molten zinc. The emission was not near houses, but was affecting the condition of newly planted trees along a stretch of the Rochdale Canal Park. The investigation involved the taking of samples of leaves and soil for analysis by the City Analyst and consulting the Department of Botany at Manchester University. The emissions were stopped by the application of orthodox arrestment methods.

One other case related to complaints, during the summer, of the deposit on cars of very small opaque white globules shaped like a comma. Samples, examined microscopically and by infra-red spectroscopy, indicated that the material was a low melting glyceryl ester of a mono-basic acid which might be glyceryl 1:3 dilamate, arising from the manufacture of bread, ice-cream, or soap. The deposits occurred concurrently in two restricted but widely separated areas in the north and south of the City and whilst the appropriate possible manufacturing sources near the affected areas were checked it was concluded that the material was probably natural in origin, possibly excretions from certain trees or aphides. A search of the literature failed to establish such a source with certainty, but the deposits ceased when the spell of unusually hot weather ended.

Thus, whilst dealing with grit, dust, and other particulates accounted for a relatively small part of this work, the sources were varied and introduced interesting enquiries into particular processes.

### **Toxic and other gases**

Whilst the basic assumption is that "there are no toxic gases—only harmful concentrations", obviously any complaint or case which involves an actual or possible hazard to health is dealt with as a matter of urgency. In one case

the investigation of a complaint of "fumes" in a house revealed that a small oil fired central heating boiler had been connected to a flue with no proper outlet; so that whilst sophisticated investigations are sometimes called for the method is to consider the possibilities objectively, starting with the most obvious.

A possible source of toxic or corrosive emissions is the burning of certain plastic wastes; such as PVC (poly vinyl chloride)—which can emit hydrogen chloride and carbon monoxide; and plastics containing nitrogen (e.g. polyurethane foam) which in some conditions can produce hydrogen cyanide. The amount of plastics in refuse is increasing and a recent report "Incineration of Waste Material with Special Reference to Plastics and the Recovery or Treatment of Associated Gaseous Products" published in October by C. A. M. Robertson, I.C.I. Research Fellow in Environmental Pollution at the University of Manchester Institute of Science and Technology, is of particular interest in this context.

The following tables detail the number of contraventions reported to the Health Committee and of timed observations recording smoke emissions.

Cause of Emission	Action taken		Totals
	Caution	Prosecution	
Contraventions of section 16, Clean Air Act, 1956. Burning of waste at demolition sites, etc., causing nuisance .. .. .		7	7
Contraventions of section 1, Clean Air Act, 1968. Burning of miscellaneous solid wastes on land ..	2	9	11
Contraventions of section 9, Clean Air Act, 1968. Sale of unauthorised fuel in smoke control areas	1	2	3
Totals .. .. .	3	18	21

Fifteen cases came to Court (including 5 from late 1971) and eight cases have still to be heard. Convictions were secured in each case, four Nuisance Orders were obtained. Penalties totalled £205 in fines with £85 costs imposed.

Three coalmen were convicted for selling coal in smoke control areas (£70 fines, with £30 costs); the penalty in one case being £40 fines with £20 costs. One offender, in addition to being fined by the Court was also severely cautioned by the Regional Panel of the Approved Coal Merchant's Scheme, which has since notified members of the scheme that it intends to take sterner action in any future cases of conviction under the Act.

#### Timed observations recording smoke emissions

	Number	Total amount of dark smoke in minutes
Infringement of the Clean Air Acts .. .. .	18	211
Dark smoke but not infringing the Clean Air Acts ..	149	226
No dark smoke .. .. .	130	—
Totals .. .. .	297	437

## Notification and prior approval of furnace installations

Proposals to install new furnaces or erect new chimneys must be notified to the local authority so that the proposals can be assessed in the light of the relevant requirements of the Clean Air Acts.

Three hundred and forty-nine plans and specifications were received and examined and details of 78 furnace installations were submitted and approved in the year.

The type of fuel to be used in boiler plants and other furnaces, to which formal "prior approval" was granted, was as follows:—

<i>Fuel</i>	<i>Total installations</i>
Oil 26/35 seconds viscosity .. .. .	48
Oil 950 seconds viscosity .. .. .	1
Oil 3,500 seconds viscosity .. .. .	1
Gas and 35 seconds oil (intermittent) .. .. .	1
Gas .. .. .	27
	—
Total .. .. .	78
	—

In addition, six new boiler plants were installed in the central smokeless zone, where the over-riding requirement, under Section 35 of the Manchester Corporation Act, 1946, is that no smoke shall be emitted from any premises. As this requirement is more stringent than that imposed by the Clean Air Act, formal prior approval under the latter is not appropriate for the furnaces. The fuels concerned were gas in four cases and 35 seconds oil in two cases.

The furnaces approved included specialised muffle furnaces, cyanide baths for the heat treatment of metal and a diesel alternator for emergency electricity generation.

Proposals for the erection of 103 new chimneys were examined and approved under the provisions of the Clean Air Acts. In a further 13 cases, the proposed connection of new furnaces to existing chimneys was considered. Coal burning furnaces were, in two cases, converted to 35 seconds oil and, in one case, to gas. In each case the chimney was found to be of adequate height for use with the new fuel.

The types of proposed installation which have to be assessed cover a wide range. They included a 50 ton/hour electric arc melting furnace and associated plant at a steelworks and a venturi scrubber arrestment plant in connection with a hot blast cupola at an iron foundry. Both processes were subject to control by the District Alkali Inspector under the Alkali Etc., Works Acts, 1906. Close liaison is maintained with the Alkali Inspector in connection with the eleven "Registered Works" in the City and joint discussions took place with the British Cast Iron Research Association about the hot blast cupola.

Disposal of solid wastes problems result in a number of enquiries about incinerators. It is recognised that in some circumstances incineration may be the best method of disposal—e.g. hospitals, but the department seeks to

avoid the installation of a multiplicity of small incinerators and advises about other methods of disposal. If an incinerator is unavoidable then it has to satisfy the relevant requirements of the Acts as to smokelessness and chimney height. Some small traders are misled by advertisements and propose to install cheap incinerators which cannot meet the requirements. In two cases the department became aware of inadequate incinerators which had been installed without notification or approval and secured their removal by the owners. In one of these cases the circumstances were considered with a view to prosecution of the supplier under the Trades Descriptions Act, 1968, but as the incinerator was removed and the supplier went out of business it was decided that prosecution under that Act was unnecessary.

Three thousand nine hundred and sixteen visits were made to works; and 24,848 visits to premises during the survey of smoke control areas.

### Smoke control areas

In July 1971, the Department of the Environment requested local authorities to review their smoke control area programme with a view to achieving more rapid progress. That review was carried out and the adoption of certain improvements—notably the granting of the necessary financial priorities after an earlier period of financial stringency—has enabled progress to be accelerated to the extent that as many premises were included in Smoke Control Orders made in 1972 as in the previous five years put together.

The number of premises included in Orders "made" in different years is as follows:—

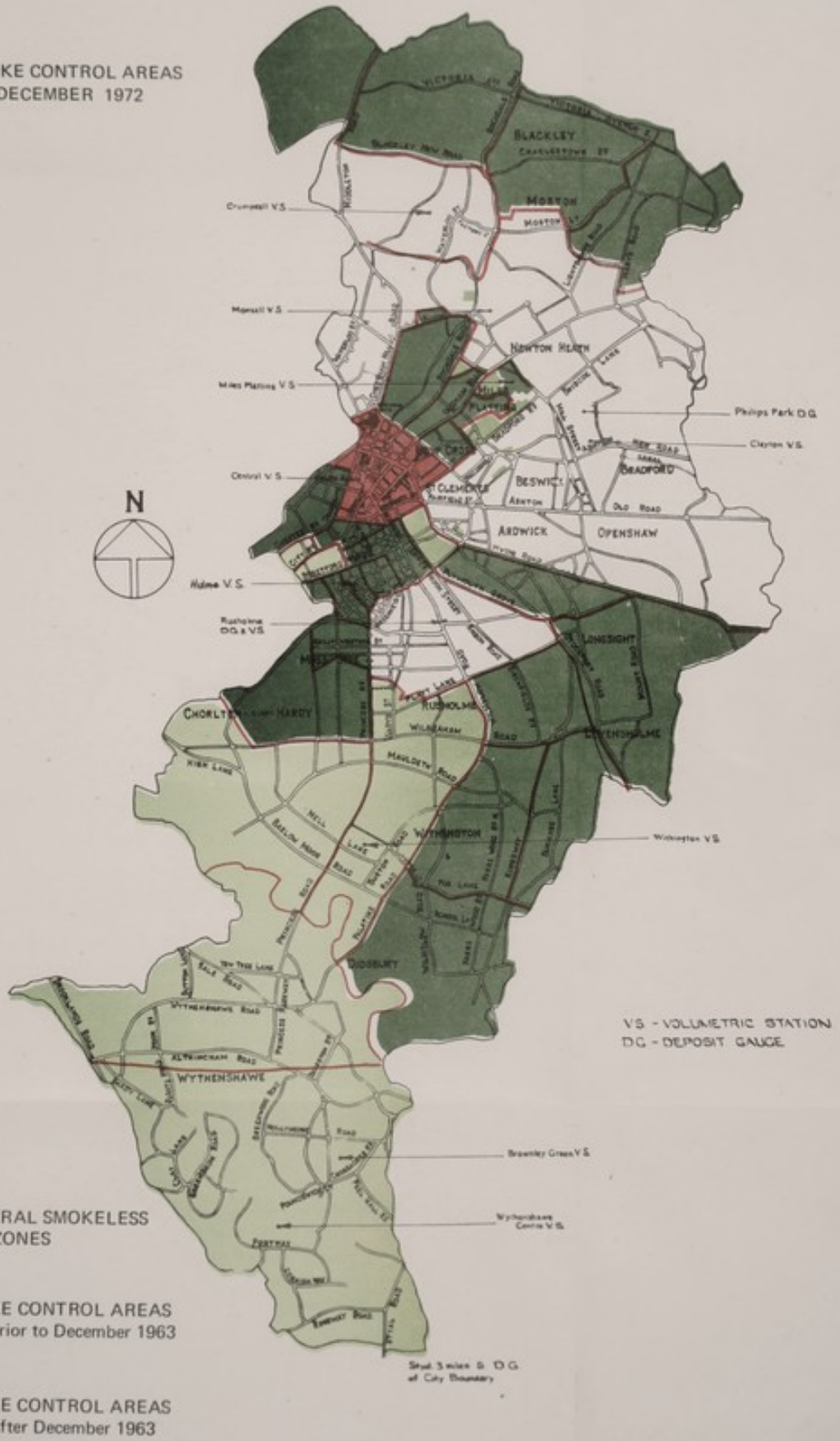
Year	Premises	Year	Premises	Year	Premises
1958	737	1963	18,625	1968	NIL
1959	NIL	1964	1,439	1969	10,548
1960	19,070	1965	14,878	1970	NIL
1961	9,405	1966	668	1971	5,219
1962	11,613	1967	5,985	1972	21,737

A further Order including 5,275 premises was approved by the Health Committee in December and is due to be "made" formally in February 1973.

The continuation of the existing programme strategy and external constraints will make it difficult to maintain this rate of progress, because it was made possible largely by a back-log of inspections which had been built up during the period of financial stringency—prior to 1971—when the Order-making rate was retarded. Also, because the initial survey of premises is a major task considered to be indispensable because in the opinion of the department it provides an essential opportunity to explain the case for smoke control to householders. 75.4 per cent of the City's total area of 42.5 square miles is now subject to smoke control orders (61.3 per cent in "operative" areas and 14.1 per cent in orders "made" and being brought into operation) and orders to cover the remainder are being introduced as quickly as the external constraints permit.

# CITY OF MANCHESTER

SMOKE CONTROL AREAS  
DECEMBER 1972







The position at the end of the year was as follows:—

Item	Category	Acres	Total Premises	Dwellings	Not Dwellings
1	Number in valuation list at 1st April, 1972	27,255	215,712	178,788	36,924
2	14 Smokeless Zones made under the Manchester Corporation Act, 1946..	523	4,764	2,623	2,141
3	9 Smoke Control Areas made on the "gas coke" basis	8,888	49,012	46,799	2,213
4	21 Smoke Control Areas made on the "hard coke" basis	7,294	42,411	38,461	3,950
5	Totals subject to OPERATIVE Smoke Control Areas	16,705	96,187	87,883	8,304
6	Percentage of Item 1 in "OPERATIVE" areas	61.29	44.00	48.60	21.97
7	4 Smoke Control Orders "MADE" not yet "OPERATIVE"	3,022	21,737	20,137	1,600
8	Percentage of Item 1 in orders "MADE" above	11.08	10.07	11.26	4.33
9	1 Smoke Control Order Approved by Health Committee (to be "MADE" in February, 1973)	826	5,275	5,016	259
10	Percentage of Item 1 in the order "APPROVED" above	3.03	2.44	2.81	0.70
11	Totals in Items 5, 7 and 9	20,553	123,199	113,036	10,163
12	Percentage of Item 1 in Items 6, 8 and 10	75.40	56.51	62.67	27.00
13	Percentage still to be covered by orders	24.60	43.49	37.33	73.00
14	Numbers still to be covered by orders	6,702	92,513	65,752	26,761
15	1 Proposed Smoke Control Area. Survey in progress	450	7,000	—	—

The number of outstanding premises (Item 14) is an overstatement; allowing for new premises built in existing smoke control areas and for demolitions due under Clearance or Compulsory Purchase Orders, the actual number of premises involving changes of appliances still to be included in Smoke Control Orders is around 43,000.

During the year seven Smoke Control Orders, accounting for 1,264 acres (1.97 square miles) and 5,219 premises, were confirmed and brought into operation; three Smoke Control Orders, accounting for 2,234 acres (3.49 square miles) and 16,053 premises, were made and confirmed; one Smoke Control Order, accounting for 788 acres (1.23 square miles) and 5,684 premises, was made but is not yet confirmed and one Smoke Control Order, accounting for 826 acres (1.29 square miles) and 5,275 premises, was approved by the Health Committee and is to be made early in 1973.

Whilst the "making" of Orders is an important part of the process of establishing smoke control areas, it is the actual changing of appliances and the use of smokeless fuels which achieves the objective of reducing air pollution. Bringing an Order into operation accounts for perhaps three-quarters of the time and effort involved in establishing a Smoke Control Area. Thus, the inclusion of a record number of premises in Orders "made" during the year carries with it the need for additional effort to bring the Orders into operation on time. The work-load is now heavier than at any previous time in the programme and additional staff has been engaged on the work and some streamlining in administration adopted to meet the extra demand.

Slum clearance, voluntary changes to smokeless fuels, and control of industrial emissions account for some of the remarkable improvements in air quality which have been achieved in recent years, but it is the direct

effect of Smoke Control Orders on emissions of domestic smoke and sulphur dioxide which has been the most important. Accordingly—whilst the beginning of the end of the smoke control area programme has been reached—the establishment of Smoke Control Areas to cover the remaining 25 per cent of the City's area continues as a top priority.

Unauthorised sales of coal in Smoke Control Areas still continue to be a problem. So far as air pollution is concerned they are a minor issue—the recorded smoke levels throughout the City are lower than they have ever been since measurements with the volumetric apparatus began in 1949, but from the public relations point of view they are a nuisance and cause complaints from householders and from bona-fide fuel merchants who honour their obligations and lose legitimate trade in smokeless fuels. Specific complaints are investigated and surveillance in the Smoke Control Areas maintained as resources permit, but the areas now cover more than 32 square miles and it is impracticable to maintain surveillance in all the areas all the time. It is hoped that the successful prosecutions mentioned earlier in the report, together with the internal discipline exercised by the trade will deter the few recalcitrant coalmen who continue deliberately to flout the law. Further prosecutions will be instituted if the need arises.

The department is engaged in reviewing the extent to which bituminous coal is retailed in prepared form from retail shops in or adjacent to Smoke Control Areas, so as to assess whether there is a need to ask for powers to control this trade.

Unusual confirmation of the ill effects of burning coal in a Smoke Control Area was provided by Fire Brigade statistics. During 1971, the number of chimney fires at Wythenshawe increased 2.5 times, due to the burning of coal when the Smoke Control Order was temporarily suspended for four months due to the shortage of solid smokeless fuel.

### **Recording of atmospheric pollution**

Smoke and sulphur dioxide are measured continuously by daily volumetric apparatus at eight sites located approximately along the north-south axis of the City; the results form part of the National Survey of Air Pollution.

The daily averages for 1959–72 and the winter daily averages for 1959–60 to 1971–72 are shown in the appended tables and graphs. It will be seen that the winter daily averages are the lowest ever recorded (since measurements began in 1949) and that the increases in smoke recorded during the 1970–71 winter, as a consequence of the temporary suspension of nine smoke control orders in the south of the city, because of shortages of solid smokeless fuels, has been overcome and the downward trend restored. Five of the seven sites concerned in the winter averages were better than the target level of 100  $\mu\text{g}/\text{m}^3$  for smoke and two of the seven sites were better than the target level of 150  $\mu\text{g}/\text{m}^3$  for sulphur dioxide.

Broadly speaking the amount of air pollution recorded depends on two factors; the amount emitted—which is more in a cold winter—, and the degree of dispersal—which is affected by wind and weather. Accordingly, direct comparison of one site with another, or one year with another, can be misleading—thus the longer term trends are the best guide to the effectiveness of the clean air policy.

The 1970–71 and 1971–72 winters were mild, but, even allowing for that, the reductions so far achieved are outstandingly good. Measurements began at different sites at different times so that it is difficult to express the degree of improvement as a simple figure. Table 2 shows the percentage reduction

at each site since measurements began. The "Withington" apparatus has shown the greatest reduction in smoke of any smoke control area in the whole of the North West Region and the improvement in other areas to windward, which are not yet subject to smoke control, e.g. Rusholme, is remarkable and illustrates the wisdom of the original decision to start the Smoke Control Area programme at the southern boundary of the City and to work northwards "with the wind", to achieve the maximum cumulative benefit. Whilst the best improvements are in Smoke Control Areas, the improvements to windward also illustrate the effect of pollution "drift". The overall winter averages show that since 1959 the amount of smoke in Manchester has been reduced by 77.2 per cent and sulphur dioxide by 52.1 per cent.

In July, Mr. C. M. Wood, of the Pollution Research Unit, University of Manchester, presented a paper to the Manchester and District Regional Clean Air Council, "Greater Manchester Study Paper No. 1—Meteorology with reference to Air Pollution" which included information about visibility and sunshine in Manchester.

Recorded sunshine levels in the City centre during the winter periods 1961–70 were 26 per cent higher than the corresponding figures for 1948–57; and the average monthly figures during 1961–70 were 50, 68 and 52 per cent higher in November, December and January than during 1948–57.

If 1961–70 is compared with the average values for 1931–57 the respective increases in sunshine were 12 per cent (year), 37 per cent (winter), and 40, 88, and 60 per cent (three winter months).

Over the last two decades there has been a very considerable increase in total sunshine hours and the evidence that the marked increase in sunshine is due to decreased air pollution is extremely strong. There has also been a striking improvement in visibility in the City centre (particularly with regard to less dense fogs) which is almost certainly due to the effects of smoke control.

An additional daily volumetric measurement site was brought into operation in Hulme in June.

Deposited pollution (grit and dust) is measured by standard deposit gauges at Philips Park, Rusholme and Styal, and these sites were maintained. The monthly and five year averages below show that the downward trend continues. These gauges are subject to interference and in March the Philips Park gauge contained 7 fish and probably other extraneous matter.

#### Standard Deposit Gauge 1972

(Grams per 100 square metres)

*Monthly averages together with the average for the previous five years*

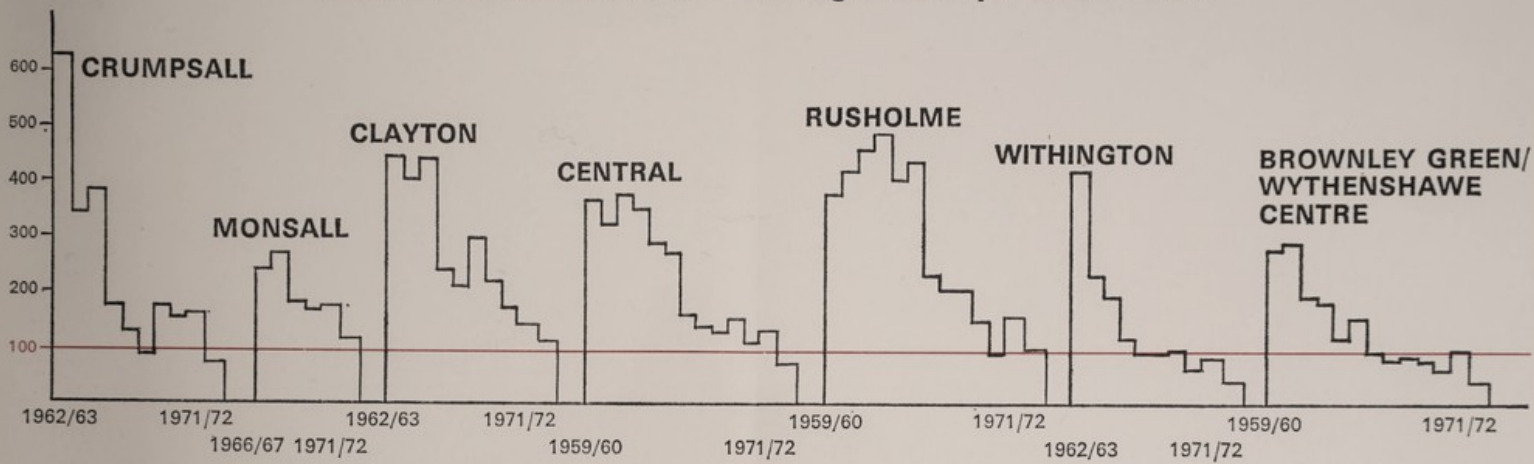
	Stations					
	Philips Park		Rusholme		Styal	
	1972	Five yearly average	1972	Five yearly average	1972	Five yearly average
Rainfall .. ..	71	77	64	75	67	70
Insoluble matter	528	564	365	370	115	117
Soluble matter ..	258	356	229	275	154	189
Total solids ..	786	920	594	645	269	306

**Volumetric apparatus for smoke and sulphur dioxide**  
**Daily averages in microgrammes per cubic metre**

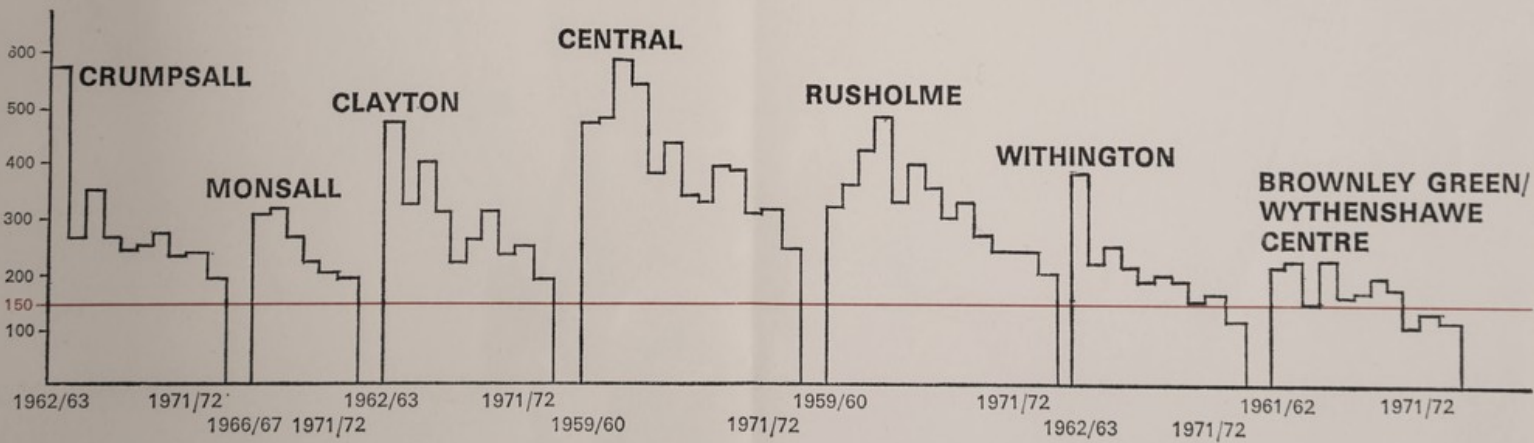
	Crumpsall		Monsall		Clayton		Central		Hulme		Rusholme		Withington		Brownley Green		Wythenshawe Centre			
	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Ratio	
1960 ..	—	—	—	—	—	—	286	373	—	—	316	278	—	—	—	—	—	—	—	—
1961 ..	—	—	—	—	—	—	220	354	—	—	290	271	—	—	—	—	—	—	—	—
1962 ..	—	—	—	—	—	—	243	383	—	—	318	309	—	—	245	226	168	—	—	—
1963 ..	325	311	—	—	292	290	214	313	—	—	282	281	—	—	211	202	159	—	—	—
1964 ..	250	223	—	—	312	288	207	297	—	—	304	261	—	—	150	170	139	—	—	—
1965 ..	180	236	—	—	208	276	139	283	—	—	216	298	—	—	98	175	82	—	—	—
1966 ..	106	187	177	231	177	229	100	250	—	—	155	215	—	—	74	158	—	—	—	—
1967 ..	79	189	182	242	181	188	100	282	—	—	155	239	—	—	64	139	—	—	—	—
1968 ..	91	205	134	216	169	256	102	274	—	—	117	227	—	—	61	150	—	—	—	—
1969 ..	114	185	112	194	138	216	96	267	—	—	88	208	—	—	54	131	—	—	—	—
1970 ..	109	186	112	157	121	192	83	222	—	—	99	197	—	—	51	123	—	—	—	—
1971 ..	84	187	107	179	85	173	96	234	—	—	88	200	—	—	49	120	—	—	—	—
1972 ..	49	149	62	138	60	155	57	181	49	127	70	179	—	—	34	108	—	—	—	—

## WINTER DAILY AVERAGES 1959-60 to 1971-72

SMOKE MEASUREMENT Microgrammes per cubic metre



## SULPHUR DIOXIDE MEASUREMENT Microgrammes per cubic metre





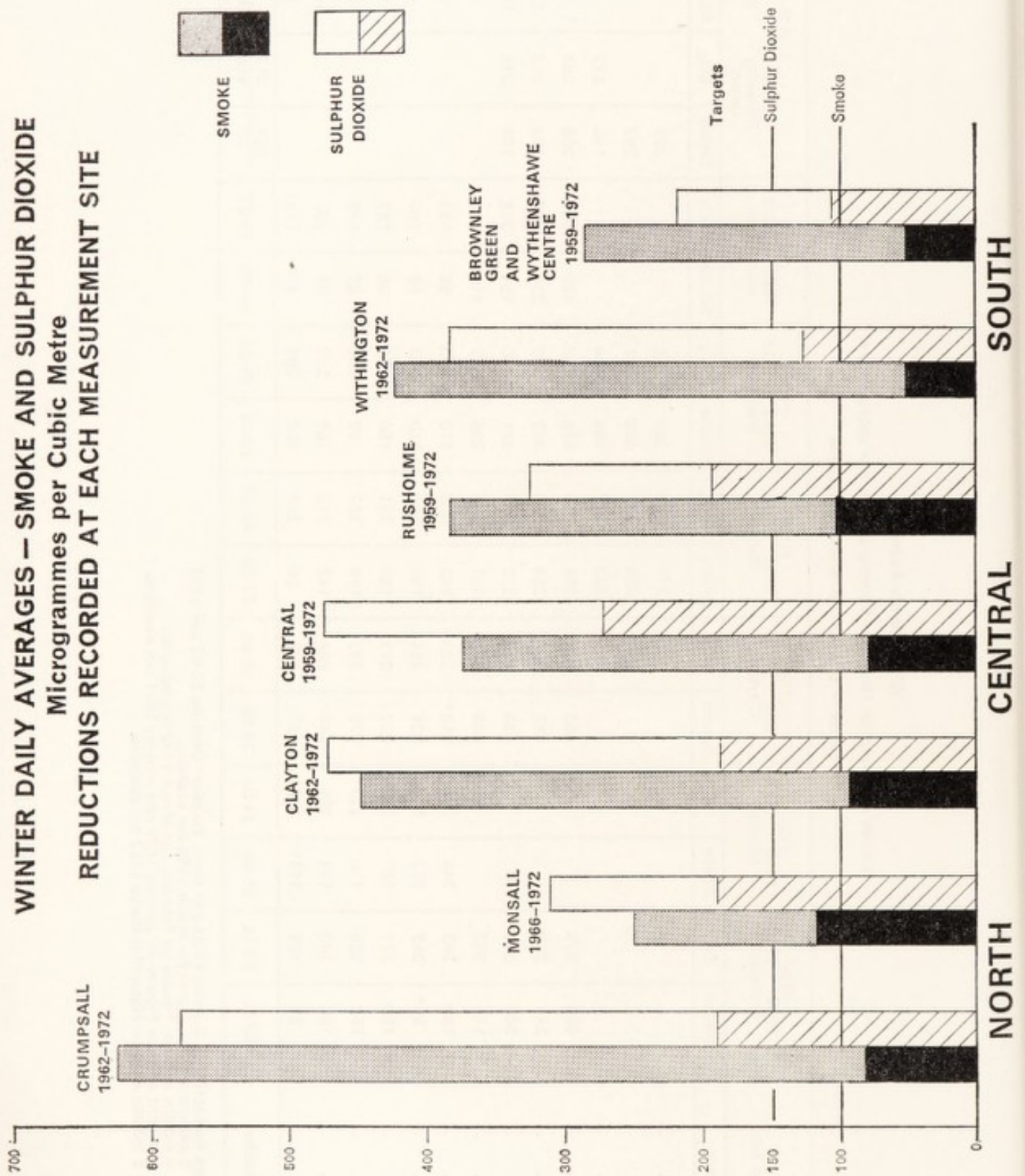
**Winter Daily Averages**  
**Smoke and Sulphur Dioxide—Microgrammes per cubic metre.**  
**Winter = October to March, inclusive**

Station No.	(16) 1972 Crumpsall		(19) 1972 Monsall		(15) 1972 Clayton		(11) 1972 Central		(18) 1972 Rusholme		(13) 1972 Withington		1959 Brownley Green		(17) 1972 Wythenshawe Centre	
	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>
1959-60	..	..	..	..	..	..	374	479	384	325	..	..	287	..	..	..
60-61	..	..	..	..	..	..	326	481	424	361	..	..	297	..	..	..
61-62	..	..	..	..	..	..	383	587	464	434	..	..	198	217	..	..
62-63	..	..	628	576	450	474	356	543	496	487	423	384	208	284	85	219
63-64	..	..	341	269	410	326	294	385	407	337	236	218	123	173	124	143
64-65	..	..	386	351	448	407	278	436	441	400	199	248	158	218	160	224
65-66	..	..	174	267	244	312	161	344	236	357	118	210	..	..	96	160
66-67	..	..	129	243	218*	223*	140	328	210	303	95	183	..	..	86	162
67-68	..	..	90*	252	306	264	135	395	210	332	95	192	..	..	88	190
68-69	..	..	178	271	222	313	156	391	150	274	98	187	..	..	80	172
69-70	..	..	152	235	175	237	116	307	92	246	67	149	..	..	65	102
70-71	..	..	158	240	149*	254*	142	312	159	243	91	167	..	..	105	138
71-72	..	..	84	195	95	196	86	244	102	204	45*	118*	..	..	47	110
Percentage Reduction	..	..	86-62	66-14	51-64	34-84	77-03	49-06	73-44	37-23	89-36	69-27	287	217	83-62	49-31
													47	110		

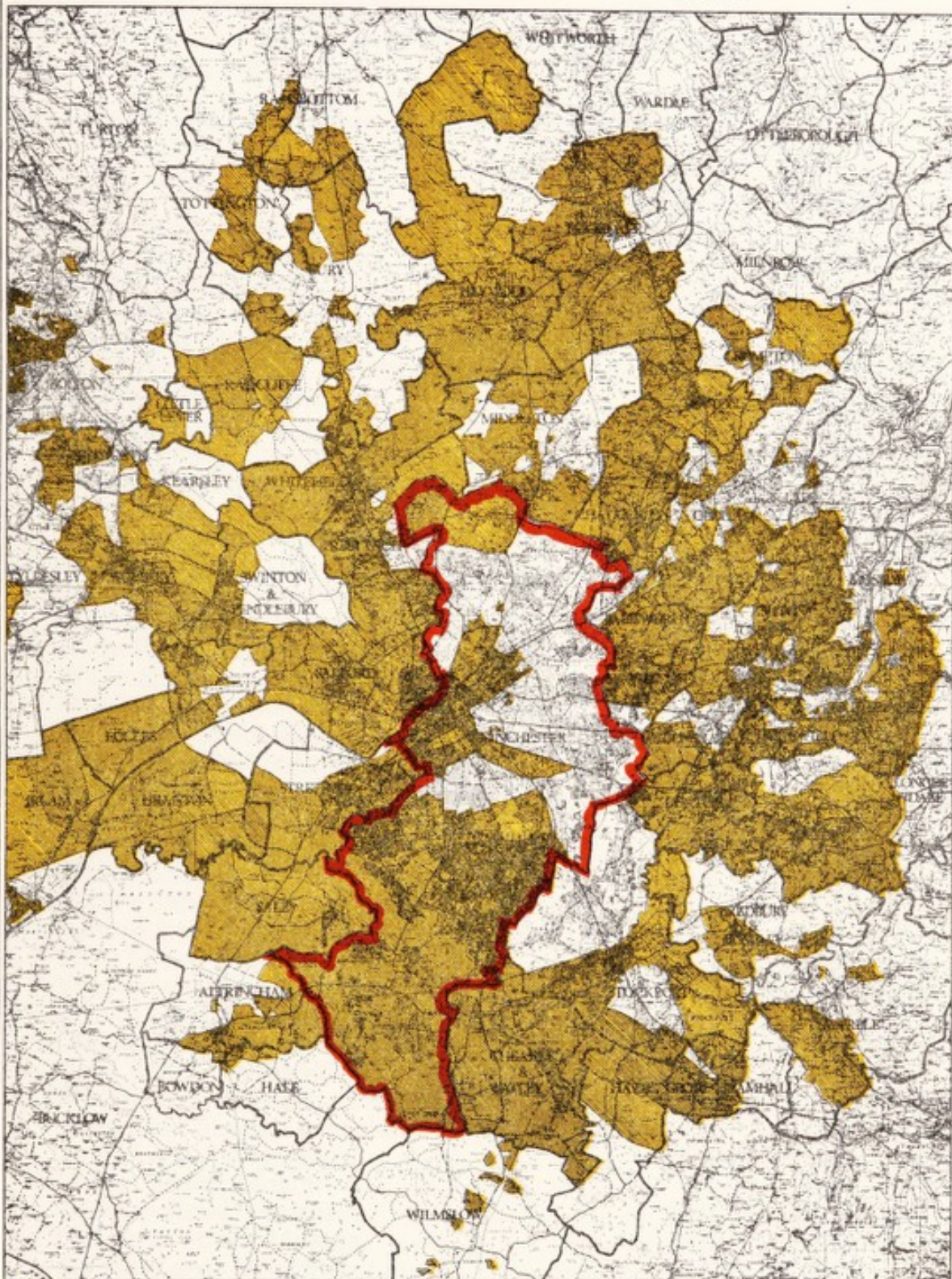
**Overall Average Reductions** Smoke 77-23 per cent. Sulphur Dioxide 52-07 per cent  
 \*Crumpsall 5 months average. Figure for March 1968 not available.  
 \*Monsall. 4 months average. Figures for February and March 1972 not available.  
 \*Clayton. 5 months average. Figures for January 1967 and January 1971 not available.  
 \*Withington. 5 months average. Figures for March 1972 not available.



**WINTER DAILY AVERAGES — SMOKE AND SULPHUR DIOXIDE**  
 Microgrammes per Cubic Metre  
**REDUCTIONS RECORDED AT EACH MEASUREMENT SITE**



# PROGRESS IN SMOKE CONTROL



SMOKE CONTROL  
 AREAS IN OPERATION BY 1-12-72  
 SCALE: 2½ INCHES TO 1 MILE

S. E. LANCS & N. CHESH. CONSULTATIVE COMMITTEE FOR THE  
 INVESTIGATION OF ATMOSPHERIC POLLUTION

E. WHEELER CPHL  
 CARTOGRAPHER,  
 PRESTWICH



## Housing Conditions

### Clearance areas and individually unfit houses

The clearance programme involved the inspection of houses in 95 localities.

Ninety-five were shown in the clearance programme schedules. During the course of the 1972 survey 6,767 properties were inspected in the 95 areas and of this number 4,891 houses were represented by the Medical Officer of Health as being unfit.

The location and composition of these areas is shown below.

<i>Area</i>	<i>No. of Houses</i>	<i>No. of Families</i>
Hyde Road, Ardwick .. .. .	30	16
Cotter Street, Ardwick .. .. .	8	6
Haxby Road, Gorton .. .. .	17	17
Mount Road, Gorton .. .. .	10	11
Newton Bank, Longsight .. .. .	3	3
Brownhill Buildings, Chorlton-cum-Hardy ..	11	11
Bellott Street, Cheetham .. .. .	40	45
Cheetham Hill Road, Cheetham .. .. .	7	11
Bignor Street, Cheetham .. .. .	82	92
Woodlands Street, Cheetham .. .. .	22	20
Style Street, City .. .. .	3	1
Copson Street, Withington .. .. .	302	280
Eccleshall Street, Clayton .. .. .	289	281
Halliwell Lane, Cheetham .. .. .	1,021	991
Hamer Terrace, Levenshulme .. .. .	55	53
Hyde Road, Gorton .. .. .	3	3
Slade Grove, Longsight .. .. .	143	152
Reddish Lane, Gorton .. .. .	6	6
Dunstable Street, Levenshulme .. .. .	55	58
Daisy Avenue, Longsight .. .. .	26	41
Midway Street, Levenshulme .. .. .	211	195
Boothroyden Terrace, Blackley .. .. .	6	6
Kate Street, Blackley .. .. .	58	56
Ashley Lane, Moston .. .. .	2	2
Sunny Bank, Belgrave Road, Moston ..	2	1
Ashton New Road, Clayton .. .. .	21	16
Fleet Street, Gorton .. .. .	94	88
Woodhouse Street, Gorton .. .. .	87	83
Broom Lane, Levenshulme .. .. .	11	12
Chapel Street, Levenshulme .. .. .	25	24
Alma Road, Levenshulme .. .. .	14	11
Albert Road, Levenshulme .. .. .	13	12
Thompson Street, Levenshulme .. .. .	83	77
Slade Lane, Longsight .. .. .	11	16
Walker Street, Moston .. .. .	98	89
Winston Road, Moston .. .. .	128	123
Ebsworth Street, Moston .. .. .	70	60
Kenyon Lane, Moston .. .. .	91	88
St. Mary's Road, Moston .. .. .	5	4
Chauncy Road, Moston .. .. .	7	7
Parkfield Road North, Moston .. .. .	13	11
Moston Lane, Moston .. .. .	17	17
Kingscliffe Street, Moston .. .. .	3	4

<i>Area</i>	<i>No. of Houses</i>	<i>No. of Families</i>
Grayson Street, Clayton .. .. .	98	90
Shoresfold Cottages, Levenshulme .. .. .	2	2
Barlow Road, Levenshulme .. .. .	124	120
Elbow Street, Levenshulme .. .. .	62	48
Cross Lane, Gorton .. .. .	4	4
Colliery Street, Bradford .. .. .	17	13
Wesley Street, Openshaw .. .. .	63	60
Sandal Street, Miles Platting .. .. .	85	81
Hulme Hall Lane, Miles Platting .. .. .	24	16
Lord North Street, Miles Platting .. .. .	2	1
Cringle Street, Newton Heath .. .. .	33	30
Wellington Road, Crumpsall .. .. .	63	58
Cromhurst Street, Crumpsall .. .. .	37	35
Birch Road, Crumpsall .. .. .	15	15
Cleveland Road, Crumpsall .. .. .	18	15
Parkhill Avenue, Crumpsall .. .. .	48	41
Fraser Road, Crumpsall .. .. .	26	23
Eaton Road, Crumpsall .. .. .	4	3
Seymour Road, Crumpsall .. .. .	3	3
Burnage Lane, Burnage .. .. .	6	6
Firgrove Street, Burnage .. .. .	28	27
Burnage Lane, Didsbury .. .. .	11	11
Fog Lane, Didsbury .. .. .	3	3
Millgate Square, Didsbury .. .. .	4	4
Stenner Lane, Didsbury .. .. .	2	2
Palatine Road, Northenden .. .. .	2	1
Wythenshawe Road, Baguley .. .. .	6	8
Floats Road, Baguley .. .. .	7	7
Nell Lane, Withington .. .. .	7	6
Lorne Road, Withington .. .. .	8	8
Sefton Street, Crumpsall .. .. .	36	38
Beswick Street, Ancoats .. .. .	2	2
North Road, Clayton .. .. .	12	12
Toxteth Street, Openshaw .. .. .	42	32
Kinross Road, Rusholme .. .. .	17	19
Deerpark Road, Whalley Range .. .. .	3	5
High Lane, Chorlton-cum-Hardy .. .. .	15	16
Acres Road, Chorlton-cum-Hardy .. .. .	125	118
Oswald Road, Chorlton-cum-Hardy .. .. .	56	53
Maidstone Avenue, Chorlton-cum-Hardy .. .. .	2	1
Ford Lane, Northenden .. .. .	61	57
Moor End, Northenden .. .. .	28	25
Trenchard Drive, Moss Nook .. .. .	2	2
Irvine Drive, Moss Nook .. .. .	3	3
Styal Road, Northenden .. .. .	3	2
Shady Lane, Northenden .. .. .	7	6
Albert Hill Street, Didsbury .. .. .	53	49
Rushton Street, Didsbury .. .. .	45	44
Crossway, Didsbury .. .. .	226	210
Cresswell Grove, Didsbury .. .. .	115	97
Cotton Hill, Withington .. .. .	21	21
Bibby Lane, Burnage .. .. .	2	1
	<hr/>	<hr/>
	4,891	4,654

In addition to the houses dealt with in clearance areas, a total of 114 individual houses were inspected and found to be unfit.

A total of 34 public inquiries were held in respect of housing compulsory purchase and clearance orders. These orders included 7,215 houses. This formidable number of enquiries is believed to be a record for one year outside the Greater London Council area and necessitated several inspectors from the Department of the Environment working simultaneously on tours of inspection of properties in the areas covered by the orders.

There were 35 compulsory purchase and clearance orders, involving 7,556 houses, confirmed. In 378 instances (5 per cent) the Department of the Environment's Inspector changed the classification of the premises. In the confirmed areas 600 houses were recommended for well maintained payments.

In 1967, the City Council approved a scheme under which houses in proposed clearance areas could be purchased in advance of compulsory purchase proposals if, on inspection, they were not unfit. The department considered 19 applications for such purchase. Detailed survey revealed that 13 houses were unfit and six were fit; the scheme has now been extended to include unfit houses.

Because of progress with the current clearance area programme the number of houses awaiting clearance was reduced to 24,422 by December 31st, 1972. Of this number, 7,556 were in confirmed clearance areas, and therefore due for demolition in the near future; 16,866 houses have been represented and were awaiting the decision of the Secretary of State for the Environment. No houses remained in the programme to be dealt with in 1973.

A characteristic of the year's clearance work has been the large number of clearance areas involved, many of which contained only a small number of houses. Much of the work was carried out in areas away from the City's inner core and involved houses in former rural areas, taken into the City by boundary extension and in what have been termed the old village centres which have been absorbed into the City.

The character of these areas contrasts with the conventional idea of clearance areas based on grid or a street pattern and great pressures have been exerted to prevent the demolition of the houses for reasons of visual amenity and historical grounds. Their value as a visual amenity must remain a matter of opinion and their historical associations would probably be difficult to uphold if the claims were subject to as rigorous a testing as is the department's view relating to their unfitness. Their retention has to be judged in the context of their value as healthy dwellings and the economic cost eliminating the consequence of decades of neglected maintenance, their lack of amenity and inherent structural defects.

### **Rehousing for medical reasons**

Applications for rehousing or transfer to other accommodation on medical grounds, numbering 4,971, were investigated. In appropriate instances the Medical Officer of Health made recommendations to the Housing Manager of appropriate degrees of priority for rehousing.

The Housing Manager notified the rehousing during the year of 1,057 households as a consequence of recommendations previously made by the Health Department.

## **Overcrowding**

Not since 1937 has there been a systematic attempt, nationally or locally, to assess the degree of overcrowding. The knowledge which the department obtains of actual cases suggests that overcrowding does not constitute a major problem in the terms of Housing Act standards, although those standards cannot be regarded as being particularly liberal.

Advantage was taken to do a statistical appraisal of the problem concurrently with the house condition survey and this did no more than confirm the information already available. The rate of overcrowding revealed by the survey was that probably only 1 house in 1,750 in the City is overcrowded.

## **Residual life of property**

The department deals annually with many enquiries relating to the residual life of property. These enquiries are made by post, telephone and in person. Most of the enquiries come from members of the public or professional advisors acting for them. Enquiries come also from other departments, for the information is of vital importance to them. A total of 25,254 enquiries was dealt with, including local land charge enquiries.

The length of time a house may be expected to provide satisfactory living accommodation is of great importance to the Corporation as it affects the City's housing stock and hence, housing policies and it is of importance to the individual to satisfy his need for a house.

On behalf of the Corporation the department undertakes the assessment of the residual life of houses. This is a task calling for considerable skill, knowledge of housing and mature judgement.

During the year a house condition survey was carried out and is described in a later paragraph and a start was made on the more detailed recording of house condition on large scale plans.

## **House condition survey**

The 1971 report indicated that a house condition survey was to be undertaken in 1972 and this was carried out.

As far as possible the conditions prescribed for the 1971 national house condition survey were observed, the same criteria and forms were used and the final results were computed with the computer programme used in the national survey.

The sample of houses consisted of a 1% random sample of all rated dwelling selected by the Corporation computer from the rating lists. Some adjustments had to be made because of demolitions, multiple rating and other factors, so that the survey sample totalled 1,677 houses.

A small team of six public health inspectors was trained to execute the survey and this was done in a period of about ten weeks. On the whole the public co-operated very well and much information was obtained.

It is important to remember that the survey was statistical in nature so that the results have to be interpreted with some caution and the range of statistical error accepted. Additionally, while the survey produced a numerical



Housing. The Old . . .





... and the New

assessment of the City's housing stock and thus quantified future problems, it did not indicate precisely the geographical areas of the City in which future action will be needed, nor did it indicate any orders of priority. These are tasks for field survey which is being undertaken.

The principle merit of the exercise was that it largely confirmed the opinions already formed and expressed by the department. As expected, the number of houses regarded as being improvable declined and the number regarded as being probably the subject of clearance, rose. The explanation for this is to be found in the fact that the improvable housing stock is eroded at one end by accelerated obsolescence and decay while, at the other, houses have been improved and are thus placed in the "no action" category.

As far as houses likely to be cleared are concerned the number was higher than the previous forecast made in 1971, although that estimate of 1,500 was subject to important qualifications. The figure revealed by the 1972 survey confirmed the observations that there had been rapid deterioration in houses previously regarded as having moderate residual life. Hence, the new figure indicated a rather more extensive, but still relatively modest, clearance programme within the next ten years.

The survey also indicated that almost all the improvement and clearance activity is likely to take place in properties constructed prior to 1919.

The following tables produced following the survey will be of interest.

*The slight variations in the calculated totals shown in the tables is due to the ratio between the number of dwellings surveyed and the total housing stock being fractional.*

#### Numbers of houses in construction periods

Total Housing Stock .. .. .	178,583
Post 1944 construction .. .. .	23.25 per cent 41,500
1919-1944 .. .. .	35.13 per cent 62,700
Pre 1919 .. .. .	41.62 per cent 74,300
	100.00 178,500
	178,583

#### Type of dwelling by date of construction

	House Type	Pre 1919	1919-1944	Post 1947	Total
1	Terraced .. .. .	60,279	16,401	10,756	87,436
2	Semi det. .. .. .	6,603	36,955	7,455	51,013
3	Detached .. .. .	745	2,236	1,810	4,791
4	Tempy. Prefab .. .. .	0	0	0	0
5	Building converted to more than 1 dwelling .. .. .	3,088	319	0	3,407
6	Purpose built block of flats ..	745	5,964	21,513	28,222
7	Non-residential and single dwelling .. .. .	2,875	852	0	3,727
Total	.. .. .	74,335	62,727	41,534	178,598

### Tenure by type of dwelling

Type	Owner/ occ.	Tenant	Local Auth.	Closed	No longer a dwelling	Vacant	Unob- tained	Total
Terrace	24,382	26,518	24,816	532	0	2,023	9,159	87,430
S/Det.	25,349	3,088	18,851	0	0	639	3,088	51,015
Detached	3,728	319	213	0	0	106	426	4,792
Temp. Bung.	0	0	0	0	0	0	0	—
Conv. Flat	426	2,343	0	0	0	213	426	3,408
Purpose Blt. Flat	523	1,597	25,455	0	106	426	106	23,213
Non-resid. & single Dwelg.	1,384	1,171	319	0	213	319	319	3,725
Total	55,792	35,036	69,654	532	319	3,726	13,524	178,583

Number of unfit houses for a supplementary clearance programme plus associated fit houses which might be demolished .. .. .	6,644 4,404
Number of fit houses improvable to 5 point standard .. .. .	17,000
Number of houses with standard amenities but further improvable (estimate) unsuitable for conversion to flats .. .. .	18,000

### Repair cost by date of construction (pre-1919) and tenure

Repair Cost £	Owner/ occ.	Other (Ten.)	Local Auth.	Closed	No longer a dwelling	Vacant	Unob- tained	Total
Less than 100	1,704	745	213	0	0	0	213	2,875
100-250	7,561	3,834	745	0	0	420	1,917	14,477
251-500	7,881	9,266	319	0	0	745	1,810	20,021
500-1,000	6,496	11,289	1,171	106	106	852	2,343	22,363
1,000-1,500	1,810	3,408	639	0	0	532	1,065	7,454
1,500-2,000	1,065	1,278	426	106	106	106	106	3,193
Over 2,000	426	639	319	339	0	213	426	2,362
Unobtainable	106	106	0	0	0	0	1,384	1,596
Totals	27,049	30,565	3,832	551	212	2,868	9,264	74,341

Note (a) prices mid 1972—add 33½ per cent for post survey price inflation.

### Estimated cost of repairs required

Estimated cost	Percentage of Houses in Sample
Under £100	28.8
£100-£250	33.8
£250-£500	14.0
£500-£1,000	14.0
£1,000-£1,500	4.2
£1,500-£2,000	1.8
Over £2,000	1.3
Unobtainable	2.1

Notes (a) These costs should be increased by 33½ per cent to cover post-survey price inflation.

### Houses in multiple occupation

The requirement to register houses in multiple occupation under the City of Manchester (Houses in Multiple Occupation) Informatory and Regulatory Scheme, 1970, was given further press publicity and 156 more houses were placed on the register following inspection. Another 122 houses were given consent to be let-in-lodgings, as required by section 57 of the Manchester Corporation Act, 1950. It is thought that there are still many houses in multiple occupation in the City which have not been registered or received the Council's consent. The City Planning Department, the Rates Department and the Fire Department advise this department when a house in multiple occupation is found and they are kept informed when such premises are dealt with by the Health Department.

During the year management orders under the Housing (Management of Houses in Multiple Occupation) Regulations, 1962, were made on 19 premises where the standards of management were unsatisfactory.

Formal action had to be taken in connection with unsatisfactory conditions and defects at 153 premises and 48 prosecutions were instituted for various contraventions.

### New permanent dwellings completed

In 1972, the Corporation completed the construction of 3,519 dwellings; 2,581 in the City and 938 outside. In the City, private developers built 538 dwellings.

The annual totals since 1946 have been as follows:—

Year	Completed by the City Council		Completed by private builders
	Dwellings in the City	Dwellings outside the City	Dwellings in the City
1946.. ..	293	—	36
1947.. ..	542	—	197
1948.. ..	1,772	—	356
1949.. ..	1,461	—	298
1950.. ..	2,146	—	270
1951.. ..	2,415	—	209
1952.. ..	2,142	80	322
1953.. ..	2,162	437	390
1954.. ..	1,055	1,086	303
1955.. ..	692	1,251	566
1956.. ..	684	684	368
1957.. ..	751	796	514
1958.. ..	818	639	349
1959.. ..	517	965	239
1960.. ..	392	562	260
1961.. ..	816	445	381
1962.. ..	1,476	1,409	508
1963.. ..	1,424	2,442	282
1964.. ..	892	3,047	544
1965.. ..	1,354	2,076	561
1966.. ..	956	1,636	252
1967.. ..	1,957	827	417
1968.. ..	1,881	465	391
1969.. ..	1,993	1,009	263
1970.. ..	2,442	595	289
1971.. ..	2,225	1,796	852
1972.. ..	2,581	938	538
Totals	37,839	23,185	9,955
	61,024		

### Repairs and inspection of dwellings

Health inspectors found 9,450 defective conditions at dwelling-houses and took action, either under the Public Health Act, 1936, or the more expeditious Manchester Corporation Acts, to secure repairs or abatement of nuisances. In the discharge of this duty a total of 21,471 visits were made.

In the first instances owners are notified informally of the defective condition and if they fail, after a reasonable time, to carry out remedial work statutory notices are served. In default of compliance with a statutory notice the Corporation has, in certain instances, power to execute the work; this is carried out by approved contractors under the supervision of the department and the cost is recharged. This procedure was adopted in 426 instances.

Applications to the Court for an order requiring the owner to abate a condition which was injurious to health or a nuisance had to be made in 26 cases and 22 orders were granted. Costs amounting to £169 were awarded. In a further three cases, proceedings were necessary to enforce compliance with an order. Fines and costs amounting to £90 were imposed.

An appreciable length of time frequently elapses between a complaint being made to the department and the execution of the repairs. Tenants are naturally annoyed by this delay and find it difficult to understand that the department can only act within the constraints of the legislation.

In addition, the slow response by property owners to the requirements of the department adds appreciably to the work-load.

To obviate these delays the department has in recent years obtained powers in various Manchester Corporation Acts to deal expeditiously with the more serious defects, e.g. roof repairs. A recent example of this procedure is contained in Section 35 of the Manchester Corporation (General Powers) Act, 1971, dealing with the repair of waterclosets, which was invoked on 83 occasions, thereby ensuring prompt action to remedy conditions needing urgent attention. This section contains powers relating to waterclosets in buildings, comparable with those which have been available under local Acts for many years, to deal with defective or stopped up drainage systems.

### Rent control and qualification certificates

Part III of the Housing Act, 1969, places a duty on the department to issue, at the request of a landlord of a dwelling-house subject to a controlled tenancy (x), a qualification certificate when the house has all the standard amenities, is in a good state of repair and is fit for habitation.

This will enable the tenancy to be taken out of rent control and become regulated instead. After this, the landlord may apply to the Rent Officer to fix a fair rent, which generally will be more than the controlled rent.

During the year Part III of the Housing Act, 1969, was amended and extended by the Housing Finance Act, 1972; the main effects are:—

- (1) The Act introduces a system of rent allowances paid by local authorities, to help private tenants who have difficulty in affording their rents.
- (2) The Act modifies the procedures for converting, from rent control to rent regulation, tenancies of dwellings which have all the standard amenities. It also allows landlords and tenants to agree the new rent between themselves, if they prefer, without reference to the landlord.
- (3) A general programme is prescribed for conversion from fair rent control to rent regulation, i.e. all other controlled dwellings except those which have been notified as unfit. This general programme provides for all tenancies to become regulated by 1st July, 1975.

Housing Act, 1969, Part III—Qualification Certificates

Year	1970	1971	1972	Total
Applications received .. .. .	1,699	985	511	3,195
withdrawn .. .. .	—	149	1,300	1,449
granted .. .. .	10	451	584	1,045
refused .. .. .	—	—	—	—

It will be seen from the above table that 701 applications for certificates had still to be resolved at the end of the year. This was because a disturbingly high proportion of houses failed to meet the required standard on first

inspection. In these cases the applications were not in the first instance refused, but a schedule of requirements was sent to the landlords, with an invitation to execute the work required to remedy the defects and offering a site meeting.

Both tenants and landlords have a right of appeal to the County Court against the decisions of a local authority, either in the issue of a certificate or a refusal to do so. No appeals have so far been lodged.

Because the standard of repair has to be appraised in relation to the age, character and location of the dwelling, a high standard of competence and judgement on the part of the health inspector is required in dealing with this aspect of the work.

The Department of the Environment and the City Council gave intensive publicity to this legislation, with special regard to the rent allowance proposals and the Health department's officers have assisted in appropriate cases with the dissemination of the information to tenants.

(x) Footnote.

A tenancy of a dwelling is controlled if it is privately owned, unfurnished, had a rateable value of £30 or below and the tenancy has continued since 6th July, 1957.

### **Rent Act, 1957**

No applications were received for certificates of disrepair.

### **Landlord and Tenant Act, 1962**

Action was taken in all cases coming to the notice of inspectors where there was non-compliance with the requirements of the Landlord and Tenant Act, 1962, relating to the provision of rent books and the information to be provided therein.

### **Improvement grants and general improvement areas**

#### *Improvement grants*

The approximate number of improvable houses was updated to 40,000, a number considered to be capable of being contained in a 10 year programme. Current valid applications for grant were slightly over 1,800, an application rate of 23 per 1,000 houses. This emphasises the size of the task to be undertaken and the encouragement required to induce property owners and tenants voluntarily to avail themselves of the facilities.

Various forms of grant-aid for the improvement of houses have existed since 1949, but the current code is contained in the Housing Acts, 1969/1971. The following grants are payable:—

#### *Standard grants*

This is payable as a right for the installation of the standard amenities for the first time, namely a sink, wash hand basin and bath in a bathroom, all with running supplies of hot and cold water, and an inside watercloset. After completion of the scheme, the house must be fit and available for use as a dwelling. In the case of general improvement areas, local authorities have power (Housing Act, 1969, section 36) to opt to give standard grants and this is the case in Manchester.

### Special grants

These consist of standard grants for houses in multiple occupation and are payable at the City Council's discretion.

### Improvement grants

These grants are payable at the discretion of the City Council, but are subject to the requirements of the Housing Acts.

The aim of an improvement grant is to produce a house with amenities which satisfy the "12 point" standard and which is in such a structural condition as to assure a future life of up to 30 years. The disadvantage of an improvement grant is that a minimum cost of £100 must be incurred but its major advantage is that, for the first time, grant paid may include the cost of some categories of repair and replacement, up to half the total cost of the scheme.

The improvement of dwelling-houses through the improvement grant procedure is an important part of the process of raising housing standards and of reducing the rate of obsolescence. It is a major instrument in national housing policy and increasingly generous and liberalised schemes have aimed to accelerate the rate of uptake and grants.

Applications increased from 1,067 in 1971 to 1,810 in 1972. A high proportion of these applications were made in the second half of the year, following the decision to increase the level of grant payable for the period to June, 1974. This explains the high number of grants processed at the year end and shown as pending in the accompanying table.

Type of grant	Approved		Disapproved		Pending		Withdrawn		Total
	owner/occupier	tenanted	owner/occupier	tenanted	owner/occupier	tenanted	owner/occupier	tenanted	
Improvement ..	129	38	95	8	542	184	34	15	1,172
Improvement conversion ..	4	9	—	—	28	60	—	5	288
Standard ..	175	82	18	3	127	89	25	3	347
Special ..	6	21	5	—	14	3	2	4	33
Totals 1972 ..	314	150	118	11	711	336	61	27	1,840
1971 ..	305	98	47	10	245	266	54	42	1,067

Most disapproved applications related to houses with short future lives, modern houses already fully equipped or applications relating only to repairs.

As a consequence of the more liberal attitude of the Housing Acts, 1969–1971, and the generous grant-aid afforded, the proportion of standard grants is declining. Good improvement schemes are well worth while and are supported fully by the department, but these involve appreciably more work in processing than do standard grant schemes.

The above table is only concerned with valid formal applications but, in addition, the department dealt with and encouraged a large number of enquiries from the public. Many of these were in detail, often involving site meetings with potential applicants, or to explain why an application could not be supported.

The cost of the execution of the required works in the case of 215 grants where work was completed was £92,155 with grant payments of £74,573. The work of improvement was supervised by the department's technical staff.



The department of Environment's mobile exhibition, to publicise and encourage owners and/or occupiers of dwelling-houses to improve their homes with a grant, has visited the City on several occasions in support of the department's publicity campaign, and has included officers addressing a number of public meetings.

### *Improvement areas*

The City Council in 1970 declared three general improvement areas, concerned with not only raising the standard of housing, but improving the immediate environment. One of the areas was a small Corporation housing estate while the other two were of private estates of about 550 houses in Fallowfield and Cheetham, and they were chosen as "pilot schemes" because it was considered that they were typical of so much of Manchester's improvable housing stock. The statutory declaration was made in December, 1971.

In November, 1972, a detailed report was submitted to the Health Committee recording the progress made and conclusions to be drawn from the experience so far gained.

The two general improvement areas were declared in December, 1971, and the Health Department has since worked under the clear limitation that what was done in the general improvement areas had to be achieved within the existing resources. It has always been understood that the purpose of having pilot areas was, eventually, to furnish the City Council with data relating to types of property suitable for improvement, difficulties in carrying through improvement area programmes and the cost, both in finance and in manpower, which would be entailed.

### **Common lodging houses**

Accommodation at the two remaining registered common lodging houses in the City has been reduced from 428 to 250 beds at the Salvation Army's premises in Francis Street and from 245 to 222 beds at their Chepstow Street premises. The average number of beds occupied nightly by paying lodgers during the year was 170 at Francis Street and 140 at Chepstow Street.

Following representations from the department, considerable improvements have been carried out at the Francis Street premises resulting in improved fire precautions, the provision of new kitchens, food stores, dining rooms, ablutions and sanitary accommodation all of which are now satisfactory.

The residual life of the Chepstow Street premises is limited and improvements here have been confined to means of escape in case of fire. This common lodging house has been the subject of negotiations between the Salvation Army and the District Valuer who have both been advised that any replacement would be required, by this Department, to conform to the interim standards laid down by the Department of the Environment.

Verminous persons at common lodging houses were visited by members of the Health Department nursing services who disinfected them. Their clothing was disinfected with ethyl-formate. The nearest Department of Health and Social Security reception and rehabilitation centre is at Sharp Street, Walkden, Lancs.

Seventeen visits were made to common lodging houses during the year, three of them as a result of complaints received and in each case these were in connection with defects in the sanitary accommodation which were speedily rectified, on request.

One mens common lodging house was demolished during the year and has been replaced by a purpose built hostel which is not registerable as a common lodging house. This new hostel is for 40 male residents, who are accommodated in 26 single bedrooms, four-three bed dormitories and one double bedroom. The average numbers of persons housed per day was 30. The men were charged £9.00 per week for bed, breakfast, evening meal and supper, with full board on Saturday and Sunday.

The charges at the Francis Street premises were:—

Dormitory beds	90p per day.
Cubicle beds	£1.00 per day.

These charges were for bed, breakfast and evening meal.

At the Chepstow street premises the charges were:—

50p per day for bed and breakfast.

Two hostels, one for men and one for women, owned by the Corporation and administered by the Department, were no longer designated as common lodging houses.

### **Caravan dwellers**

Two long established sites in private ownership, licensed in accordance with the Caravan Sites and Control of Development Act, 1960, continued to be inspected by the department, although one of these was seriously affected by the engineering activities associated with a major road scheme.

#### *Gypsy Caravan Park: Part II. Caravan Sites Act, 1968*

The Caravan Park, opened in June, 1971, to comply with the requirements of the above Act, provides 16 pitches, arranged in groups of four with separate sanitary and amenity facilities for each family. Four pitches have two standings to accommodate families with two vans.

The department experienced little administrative or management difficulties in the operation of the site. There were no rent arrears and the level of vandalism was low, but the standards of cleanliness fell short of what the department hopes to achieve.

The occupants were mainly engaged in the collection and sorting of scrap, whereas in the previous year the predominant occupation was laying asphalt, painting and contracting work, which took the male members away from the site.

The department did not discriminate between different ethnic groups of itinerants. English gypsies were the predominate group, but when mixed groups were in occupation higher management skills were called for. The arrival for two short periods of Romanies from the continent created a colourful interlude.

Adequate educational facilities were available within a short distance of the site and parents were made aware of this. No difficulty was experienced in obtaining assistance from the medical and the social services.

A high occupancy rate was maintained and in the last quarter of the year there was a waiting list for places.

The following table records the length of stay of families in residence at 31st December,

	Families
Under 5 weeks .. .. .	2
5 weeks—under 10 .. .. .	1
10 weeks—under 15 .. .. .	1
15 weeks—under 20 .. .. .	3
20 weeks—under 25 .. .. .	2
25 weeks—under 30 .. .. .	1
30 weeks—under 35 .. .. .	1
35 weeks—under 40 .. .. .	—
40 weeks—under 45 .. .. .	—
45 weeks—under 50 .. .. .	3
over 50 weeks .. .. .	2
	—
	16
	—

The site was visited by representatives of other local authorities and it continued to arouse the interest of the press and broadcasting media.

### *Itinerant dwellers*

The department continued to act as the co-ordinating body to deal with complaints from the public concerning the illegal occupation of land and alleged nuisance by itinerants, mainly Irish tinkers. Various departments and the Police Authority were involved.

Ninety complaints were received and action, appropriate to the particular circumstances, was taken. The effectiveness of this varied and there was no doubt the public locally were subjected to insanitary conditions and nuisance in various forms.

The department has for many years relied on the nuisance clauses in the Public Health Act, 1936, and on powers in a Local Act obtained in 1956 to deal with these complaints. Part II of the Caravan Sites Act, 1968, made provision for local authorities to apply to the Department of the Environment for a designation order to prohibit the occupation of land by itinerants following the provision by the Council of a permanent site for them.

Since a Caravan Park within the terms of the Act was opened in June, 1971, shortly afterwards the City Council applied for a designation order, but this was delayed, to the exasperation of both the elected members and the officers of the City Council. Eventually a deputation from the City Council saw the Minister in October and at the close of the year the Order, to take effect from 1st April, 1973, was laid before Parliament.

### **Canal boats**

Crews manning canal boats plying between the docks at Liverpool and Manchester have to sleep on board more frequently than in the past. None of the boats have families on board. No cases of infectious disease were reported.

Thirty-four inspections of 17 canal boats were made at the Hulme locks. The owners of two vessels were required by written notice to carry out improvements to bring the boats to a satisfactory standard.

## Occupational Hygiene

### Industrial premises

The working conditions in factories is mainly the responsibility of H.M. Factory Inspectorate, except in respect of the requirements concerned with sanitary accommodation, which are dealt with by the Health Department. Additionally, in factories without mechanical power, the Factories Act provisions as to cleanliness, overcrowding, temperature, ventilation and drainage of floors are enforced by the department.

The number of factories on the register, and inspections made were:—

Premises (1)	Number on register (2)	Inspections (3)	Number of written notices (4)	Occupiers prosecuted (5)
(1) Factories in which sections 1, 2, 3, 4 and 6 are to be enforced by local authorities .. .. .	350	71	12	—
(2) Factories not included in (1) in which section 7 is enforced by the local authority .. .. .	4,039	302	14	1
(3) Other premises in which section 7 is enforced by the local authority (excluding out-workers premises)	54	52	—	—
Total .. .. .	4,443	425	26	1

Particulars (1)	Number of cases in which defects were found				Number of cases in which prosecutions were instituted (6)
	Found (2)	Remedied (3)	Referred		
			To H.M. Inspector (4)	By H.M. Inspector (5)	
Want of cleanliness (s. 1) ..	14	—	3	6	—
Overcrowding (s. 2) ..	1	—	1	—	—
Unreasonable temperature (s. 3)	—	—	—	—	—
Inadequate ventilation (s. 4) ..	5	—	—	2	—
Ineffective drainage of floors (s. 6)	—	—	—	—	—
Sanitary conveniences (s. 7)					
(a) Insufficient .. .. .	1	—	—	1	1
(b) Unsuitable or defective ..	7	—	1	8	—
(c) Not separate for sexes ..	—	—	—	—	—
Other offences against the Act (not including offences relating to outwork) .. .. .	25	—	25	17	—
Totals .. .. .	53	—	30	34	1

In one case it was necessary to institute legal proceedings to ensure the provision of adequate sanitary accommodation. Fines and costs amounting to £20.00 were imposed.

## Non-industrial employment

### *Offices, Shops and Railway Premises Act, 1963*

The health, welfare and safety of workers in shops, offices, catering establishments, railway premises and fuel depots is protected by the provisions of the Offices, Shops and Railway Premises Act, 1963 and by Regulations made under the Act.

The Act, which follows the pattern of the Factories Act, includes provisions relating to cleanliness, overcrowding, temperature, ventilation, lighting, sanitary conveniences and washing facilities, drinking water, safety of machinery, hoists and lifts, fire precautions, first-aid facilities and the notification of accidents.

### *Registration*

An employer is required to notify the local authority, on a form prescribed for this purpose, of his intention to employ labour. Premises registered for the first time during the year number 635 compared with 352 in 1971 and 258 of these came to light as a consequence of an inspection by the department. Premises which ceased to be subjected to the Act numbered 603.

The total number of registered premises and of persons employed at the end of the year is shown in the following table. :—

Class of premises	Number of premises registered during the year	Number of premises withdrawn from the register	Number of registered premises at the end of the year	Number of persons employed
Offices .. ..	318	338	4,931	104,303
Retail shops.. ..	207	149	3,795	23,068
Wholesale shops, warehouses .. ..	72	57	652	14,084
Catering establishments, canteens .. ..	38	59	905	13,424
Fuel storage depots	—	—	12	71
<b>Totals 1972.. ..</b>	<b>635</b>	<b>603</b>	<b>10,295</b>	<b>154,950</b>
1971.. ..	352	933	10,263	151,012

### *Inspections and contraventions*

There were 2,991 detailed inspections of premises made under the Act compared with 2,835 in 1971. The class of premises inspected being as follows :—

Offices .. .. .	1,035
Retail shops .. .. .	856
Wholesale shops, warehouses .. .. .	205
Catering establishments .. .. .	892
Fuel storage depots .. .. .	3
	2,991

Arising from these inspections the following unsatisfactory conditions were found and dealt with.

#### Analysis of contraventions

Section	Number of contraventions found	Section	Number of contraventions found
4	Cleanliness .. .. 406	13	Sitting facilities .. .. 5
5	Overcrowding .. .. 4	14	Seats (sedentary workers) .. 16
6	Temperature .. .. 162	14	Eating facilities .. .. 2
7	Ventilation .. .. 49	16	Floors, passages, stairs .. 216
8	Lighting .. .. 80	17	Fencing exposed parts machinery .. .. 95
9	Sanitary conveniences 291	18	Protection of young persons —
10	Washing facilities .. 181	19	Training of young persons —
11	Supply of drinking water 12	23	Prohibition of heavy work .. —
12	Clothing accommodation 39	24	First aid .. .. 318
			No abstracts .. .. 355
			Others .. .. 119
			Not registered .. .. 258
			Total 1972 .. .. 2,594
			Total 1971 .. .. 1,753

The total number of visits of all kinds made by inspectors to registered premises under the Act was 6,241.

#### Legal proceedings

Generally, contraventions of the Act were dealt with by advice, followed up by formal correspondence. In six instances, however, this failed to secure compliance and prosecutions were instituted for:—

Section of Act		Informations laid	Convictions
4	Cleanliness .. ..	4	4
6	Temperature .. ..	1	1
9	Sanitary conveniences .. ..	2	2
10	Washing facilities .. ..	1	1
16	Floors, passages, stairs .. ..	1	1
17	Fencing exposed parts machinery	1	1
50	Abstract of information for employees .. ..	1	1

Fines and costs amounting to £421.00 were imposed.

#### Accidents

Section 48 of the Offices, Shops and Railway Premises Act, 1963, imposed on occupiers of premises the duty of notifying the Health Department, without delay, when an accident to an employee causes fatal injury or prevents a worker from carrying on his usual occupation for more than three days.

Notification of 253 accidents was received and, where possible, investigated. Most of these accidents were preventable and appropriate advice was given by public health inspectors.

It is probable that the actual number of accidents occurring is greater than the number reported and this should be taken into account when assessing injury rates. The premises and persons involved were as follows:—

#### Analysis of reported accidents

Cause	Offices	Retail shops	Wholesale warehouses	Catering establishments open to public, canteens	Total 1972	Total 1971
Machinery .. .. .	8	5	2	—	15	10
Transport .. .. .	1	1	—	—	2	4
Falls of persons .. .. .	41	15	6	10	82	84
Stepping on or striking against object or persons	31	20	8	1	60	39
Handling goods .. .. .	8	21	17	12	58	34
Struck by falling object ..	8	7	2	3	20	29
Fires and explosions .. .. .	1	—	—	—	1	1
Electricity .. .. .	1	—	—	1	2	2
Use of hand tools .. .. .	1	5	—	1	7	13
Not otherwise specified ..	3	2	1	—	6	15
<b>Totals 1972 .. .. .</b>	<b>103</b>	<b>86</b>	<b>36</b>	<b>28</b>	<b>253</b>	<b>—</b>
<b>Totals 1971 .. .. .</b>	<b>46</b>	<b>47</b>	<b>38</b>	<b>43</b>	<b>—</b>	<b>231</b>

There was no fatal accident.

#### *Hoists and lifts*

The (Hoists and Lifts) Regulations, 1968, made under Section 20 of the Act, impose a statutory requirement on engineers employed by insurance companies to inform the Health Department of defective equipment; 145 reports specifying 585 contraventions were notified.

The statutory requirements that a lift in guides should be examined by a competent person, usually an Insurance Company engineer, leaves gaps which permit hazardous conditions to continue. The inspection is primarily concerned with the engineering aspects and, within those limits, ensures adequate protection against danger to users. There is, however, a wider field of hazards to persons employed about the building and there is a history of accidents, many serious, to maintenance staff from such causes as unfenced counter-weight traverses, unsafe means of access, (especially where climbing is involved), unfenced liftways, inadequate lighting in, and misuse of, lift motor rooms and access ways, and the use of cranked winding handles.

There is a dual standard implied in requiring a "competent person's" report on the intrinsic safety of the installation and the requirements of the local authority inspector, which can cover any of the above matters. One recent case, which related to the misuse of slings used to support a lift cage whilst the ropes were being renewed gave rise to comments from the owners of the building that the requirements should tally. This is not necessarily possible, as the department's main concern is safety to employees as well as the basic safety of the appliance. This approach applies to the whole field of mechanical hoisting and lifting.

It is a serious omission in the Regulations that "unguided" appliances are not subject to the requirements of a competent person's regular report and

certificate. Many skip, teagle and electric hoists are thus exempt and are dependent for supervision on the visits of local authority inspectors. A trend is noted for fork-lift trucks to be used as goods hoists, these also being exempt from inspection and report requirements, but the potential risks have still to be covered by the inspector at the time of the inspection.

Accidents to employed persons on escalators and paternoster lifts are few although the potential hazards are known. As far as is known such mishaps have been confined to the elderly, the handicapped and children. As the use of these appliances will increase in the future, the safety of such personnel carriers needs to be closely studied.

The perennial problem of trapping in dumb-waiters and in other hand-operated hoists is being minimised by the strict application of the Regulations. With a history of fatalities caused by these simple machines, most of the appliances now in use have been modified to reduce the hazards to users.

### *Conveyors*

Conveyors are used in increasing numbers in commercial premises and some large offices are using non-stop belt systems to carry documents within their premises. Large multi-level systems are found and these involve not only "mangling" risks, but the danger of trapping between floors and fixtures.

The hazards range from trapping in "slatted" belt systems to "in-running nips" in roller and belt conveyors where once a finger and or a portion of clothing is entrapped, severe injury involving mangling, amputation of limbs, or death may result.

The methods of guarding follow basic principles and it is a subject of concern that such appliances can be freely installed without meeting the basic rules for safe use. As accidents are invariably severe the responsibility for ensuring a safe appliance should rest primarily with the manufacturers and it should not be left to the user or to the visiting inspector to devise safeguards, which are essentially a responsibility of the makers. British Standards exist and should be followed to ensure the safe use of these mechanical aids. Even so, the slatted type of conveyor poses difficult problems of trapping between the opening and closing slats. A system of prior-notification of the installation of such appliances should be a requirement of the law.

Many existing installations have needed the re-location of the control mechanism; this should always be within hand-reach of trapping points.

### *Machinery*

New designs of shredders, grinders and chippers are appearing in the food preparation industry. Credit for this may be due to the local authorities who required makers to supply "safety kits" for existing machines. Garbage grinders, increasingly used in kitchens, now have "swan-necked" feed chutes which prevent the intrusion of hands into the grinders.

These replace the older, open-topped models, which require the fitting of complicated grid guards. Chippers, which had many access points to the knives, are now being made fully enclosed, with trapped feed hoppers.



Most machines have associated electrical hazards and may fail to reach the appropriate British Standards in design or manufacture. Coupled with the fact that maintenance in use is often poor, the users may be exposed to electrical as well as to mechanical hazards.

Failure to assemble correctly even simple fittings, such as a power plug, implies that maintenance is lax, especially when vibration, heat, oil or grease can cause deterioration to insulation and earthing standards. Electrical installations are, additionally, a primary cause of fires. Thus a great deal of time is spent in explaining to occupiers of premises the need for regular checks for electrical as well as mechanical hazards.

### *First-Aid*

Despite the requirements of the law, the provision, standard and location of first-aid equipment varies widely. It is often not appreciated that an emergency may put a person at grave risk especially when a lack of first-aid equipment is coupled with their unskilled application. This is emphasised in the revised leaflet S.H.W.1. regarding burns, scalds and bleeding. Each first-aid box should contain this new leaflet.

A further need is the inclusion in first-aid boxes of instruction on mouth to mouth resuscitation.

Routine checks were made on premises where more than 150 persons are employed qualifying for "Exemption Certificates" in relation to the first-aid room and its staffing. Fifteen premises were so exempt.

Spot checks often reveal that the location of the first-aid provision is not known and that the requisite notices giving essential information and the names of nominated "first-aiders" are not always exhibited. Opposition from some firms to the display of first-aid notices is attributed to a desire to "play down" the subject.

### *Information for employees*

The department's experience is that at premises where the required abstract of the Act is not provided, further deficiencies will be found in association with a lack of appreciation, by both management and employees, of the real purpose of the statute. It is a measure of the efficacy of the department's work in upgrading working conditions, if an alert employer appreciates the purpose of the enquiry regarding the exhibition of the Abstract, and his staff use the information to check whether deficiencies need to be remedied.

Routine matters, such as the provision of adequate sanitary, drying and washing facilities, improved lighting and heating, suitable seating and foot rests, are increasingly being attended to without the opposition encountered in the early days of inspection.

### *In-service training*

The public health inspector deals with the amelioration of unsatisfactory working, ventilation and cleanliness as an extension of his primary functions as an environmental health officer. Involvement in the mechanical, electrical and chemical aspects of the work have created a need for "in-service" training. Officers are sent on courses of instruction as these become available,

departmental training resources are being expanded and technical equipment acquired; the availability of the appropriate technical literature must be ensured. The department acknowledges the help and advice, always given unstintingly, by H.M. Factory Inspectorate.

### *Problems of redevelopment*

During 1972 there was marked acceleration in the rate of City Centre redevelopment.

Hundreds of buildings containing businesses registered under the 1963 Act have been razed and their sites are being re-developed. This poses two problems. The revision of the register of premises in accordance with the Act, for the changes in occupation which affect registrations, renders a realistic coverage of the city difficult; and secondly, ensuring that the new premises comply, when first occupied, with the requirements of the statute and regulations. Attention has previously been drawn to the volume of work entailed in this important process and the attendant difficulties in securing adequate statistical credit for the man hours expended.

As redevelopment proceeds, the control of noise, dust and industrial nuisances is necessary for the reasonable occupation of contiguous premises. Many of the remaining premises are being cleaned, re-built, or improved. The control of civil engineering operations is of paramount importance, since the noise, vibration and dust created taxes staff engaged in sedentary occupations in adjoining buildings.

Operators of noisy machines, which also cause dust and fumes as by-products need to be advised on the methods of abating any such nuisances. Some hopeful signs are the development of "quiet" compressors and air driven equipment, but until prior-prescribed conditions are specified, it is often very much a case of dealing with events after a nuisance is in existence.

This problem is discussed elsewhere in greater detail.

### *Safety and health at work*

In 1972, the Robens Committee reported to Parliament on the whole field of standards of health, safety and welfare of workers. The report underestimated the part played by Local Authorities and their staff in duties prescribed by the Offices, Shops and Railway Premises Act, 1963, and the Factories Act, 1961.

The opinion expressed in the reports, that the primary responsibility for dealing with occupational accidents and diseases lies with those who create the risks and those who work with them, is contrary to experience in the field, which indicates that there is a prime need for the independent assessment of hazards since these are often not obvious to those involved in day-to-day industrial or commercial operations.

The report claims to recognise indications of a reluctance to reach satisfactory levels of action, and, thus, both employers and enforcing agencies are regarded as being apathetic. It is suggested that to recommend co-operation instead of regulation might lead to more equivocation. Unfortunately, the impact of the 1963 Act, which added responsibilities for safety to the department's prime concern for health and welfare in commercial premises, was insufficient to move all local authorities to act energetically; since most local

authorities started to administer the Act with virtually no experience and little provision for in-service training, the comment that performances were uneven was not particularly percipient. The actual or potential contribution of local authorities to this essential service seems to have been inadequately considered. Before the stage of revising present statistics is reached the conclusions of the report with regard to local authority participation should be reconsidered with care.

The report also considers the extension of powers to safeguard members of the public from hazards in connection with industrial, commercial premises and construction sites, and this is welcomed. This will relate the control of the working environment to the control of general pollution.

The part which could be played by the newly created local authorities should be vigorously pressed at the planning stages of any new legislation, which is to replace the Factories and the Offices, Shops and Railway Premises Acts.

Formal legal applications for prohibition orders under section 22 of the Act are rarely made, because employers and owners of premises mainly respond to the informal representations. In some cases machinery and installations are no longer economically viable and the production of out-moded models cease as pressure is created by different uses. Examples have occurred with accounting, printing, food and waste disposal machines, where repeated representations to the users of hazardous machines have resulted in new generations of machines being introduced and fitted. This policy of consultation is preferred to a mere repressive, prohibitory attitude.

Certain classes of machines tend to lag behind this developmental trend. Belt and slatted type conveyors, for example, involve intricate methods of guarding, which should be "built-in" to installations being integrated with the design of the basic machine. Few conveyor manufacturers or their servicing staff are aware of the necessity to guard the obvious "head and tail" positions, much less the more involved tensioning trapping points. Slatted type conveyors presenting trapping points difficult to guard should be the subject of special study.

The long-suffering attitude of staff, prepared to endure hardship and risk to avoid disturbing employers, is contributory to the difficulty securing the rectification of dangerous conditions. The cold, dark, dirty conditions of many places of employment are accepted without complaint and await the visit of the inspector to improve matters.

The methods mainly used to secure improvements, include a full verbal comment at the time of the inspection followed by an informal notice, which will contain specific details of recommended methods of complying with the requirements. References to appropriate handbooks, data notes, codes of practice and trade or professional booklets are made at an early stage and the results have been promising. In one case, the projected nationwide use of a wrapping machine was prevented after a notice from the department had outlined the risks involved in the use of the original machine.

The sanctions of section 22 are therefore necessary, even if only as a last resort. It is felt that time spent on instituting checks on installations, maintenance and design of machines equipment and buildings is far more productive of results than is legal action.

The fundamental requirements to ensure safe processes, premises and equipment in the field of occupational hygiene are gradually becoming obvious and the need for education and information is as real for the enforcing officer as for the employer and owner of premises.

The following examples illustrate the type of action taken by the department to secure satisfactory conditions in circumstances where, had there been no co-operation, resort to section 22 action would have been justified.

Several persons had fallen over a car park perimeter chain stretched alongside a busy footpath at a height of only 12 in. from the pavement. The premises were registered under the Act and it was held that the chain constituted a hazard under section 22, although at the time employees of the firm had not been involved.

The chain was undoubtedly a hazard and eventually was replaced by a striped pole fixed at a higher level.

It was recommended that bands of hazard warning tape with its high visible warning characteristics and wrapped round the pole, would be an additional improvement.

Hazards in connection with vehicle loading are common in commercial premises and after incidents involving falls from bays a City store was advised to mark obstructions for loading bay edges with international hazard warning tapes. The effect is to highlight obvious trapping and falling areas and to reduce the hidden risks to persons working with vehicles in restricted areas.

A major banking organisation, with necessary high security areas, had problems with risks of trapping at self-closing barrier gates. The use of sensitive edged gates was prescribed for obvious reasons, but to indicate the trapping points the use was made of hazard warning tape. The effect is to draw attention to the closing edges and as the doors are closed by remote control the necessity for clear warnings is very necessary.

Hazard warning tape has numerous uses in situations; where low head rooms, protruding pipes and obstructions, which cannot be removed, temporary floor openings and trap door edges which require marking; these can be safe-guarded by the clear indication of warning tape. The Post Office is a prolific user of this means of hazard warning and it is a method which merits wider application.

An investigation into an accident at a public house revealed that a staff member had fallen down the cellar opening behind a bar, left open by a person who had entered the cellar previously.

Following a previous accident at this point a collapsible rail guard had been fitted to the adjoining wall, but it had not been used in this case.

Enquiries elicited the fact that many employees had in the past fallen down the same trap opening over a number of years.

It was suggested to the brewery that if a quadrant guard was fitted to battens screwed to the underside of the trap door, the opening would immediately be guarded on its widest side by the cheek of the quadrant, automatically covering the open edge when the trap was raised.

Shoot bolts secured the quadrant guard in the raised position and ensured that the trap-door was stayed in a vertical position, acting as a guard itself to that side of the opening.

As the trap-door was fitted in a corner of the bar, the guarding of the trap was complete and permitted easy access to the cellar steps over the curved edge of the quadrant guard.

A grab-rail was fitted to the wall alongside the opening affording a hand-hold for persons entering or leaving the cellar.

### Outworkers

The Factories Act, 1961, section 133, requires that factory occupiers and contractors shall send copies of lists of outworkers, employed in certain classes of work, to the Local Authority in February and August of each year.

Details of the different trades shown in the returns are as follows:—

Trade	Outworkers	
	Inside City	Outside City
Clothing .. .. .	331	417
Tailoring .. .. .	30	11
Overalls .. .. .	6	14
Umbrellas .. .. .	—	—
Gloves .. .. .	—	—
Quilts .. .. .	22	4
Travel bags .. .. .	18	11
Chamois leather .. .. .	—	14
Handbags .. .. .	4	1
Household textiles .. .. .	16	15
Furriers .. .. .	3	3
Cartons .. .. .	—	2
Totals .. .. .	430	492

The names and addresses of those employed outside the City were notified to the appropriate Local Authorities.

Four hundred and twenty-four visits were made to the persons notified to the department as homeworkers, but a high proportion stated that they were no longer engaged in this work. It is proposed to investigate this discrepancy when the 1973 returns are received. No cases were found of homework being carried on in unwholesome or undesirable premises.

The department provided statistical information to the National Economic Development Office concerning homeworking in the clothing industry.

## **Agricultural (Safety, Health and Welfare Provisions) Act, 1956**

The provision of the Agricultural (Safety, Health and Welfare Provisions) Act, 1956, are applicable where persons are employed at farms, nurseries, market gardens and small-holdings. There were 29 of these units in the City and at 18 of them labour was employed. Inspections revealed no infringements of the statute.

## **Construction (Health and Welfare) Regulations, 1966**

These Regulations, made under powers conferred by the Factories Act, 1961, apply to certain building operations and works of engineering construction. In general they are enforced by H.M. Inspector of Factories, but local authorities are concerned to ensure that adequate sanitary accommodation is provided. Twenty notifications were received of building operations coming within the scope of the Regulations and subject to the surveillance of the department.

Formal action was necessary in two instances to secure the cleanliness of sanitary accommodation.

## **Shops Act, 1950 to 1965**

### **Young Persons (Employment) Acts, 1938 and 1964**

In the enforcement of the various requirements, including those relating to assistants' weekly half-holidays, the employment of young persons, Sunday trading and evening closing 3,595 visits were made.

Complaints continued to be received concerning alleged offences in regard to Sunday trading including the activities of street traders and contraventions of sections of the Act relating to persons registered for trading on Sundays on religious ground. Following observations by the department's inspectors, 71 firms were prosecuted and fines and costs amounting to £1,592 were imposed. In a number of instances these firms had previous convictions and the imposition of the maximum fine, £20, is not a sufficient deterrent.

The Criminal Justice Act, 1972, has, however, amended the Shops Act, 1950, to provide, from 1st January, 1973, increased penalties for certain offences of trading or carrying on business on Sunday. The maximum penalty will be £200.

A number of shopkeepers were cautioned for failing to observe the prescribed hour for evening closing and there was one prosecution.

The number of persons, registered on religious grounds, who wished to trade on Sundays up to 2.00 p.m. subject to their shops being closed each Saturday was 264 compared with 254 in 1971.

Nine certificates were issued, granting conditional exemption from half-day and evening hour closing requirements at exhibitions where retail trading was subsidiary or ancillary to the main purpose of the exhibition.

## **General Environmental Conditions**

### **Infectious diseases**

Public health inspectors investigated 816 notified cases of infectious disease. The home circumstances of a further 333 cases of infantile gastro-enteritis were investigated jointly with a health visitor.

Port health authorities notified the arrival of 82 persons, from countries where smallpox was endemic, who did not possess valid certificates of vaccination. Each person, after vaccination on arrival, was visited and kept under surveillance for the prescribed period.

Port health authorities also notified the destination addresses of 768 long-stay immigrants, including 222 from Pakistan, 259 from Africa and 93 from India. This enabled the staff of the department to advise the immigrants of the health services available and of the procedure for registering under the National Health Services Act, 1948, with a general medical practitioner. Additionally, advice and information was given, where appropriate, on housing and environmental matters, especially where long-stay immigrants were living in houses in multiple occupation or were engaged in food businesses.

The death of a woman within the area of a neighbouring local authority from pulmonary anthrax, following a holiday in Tunisia, necessitated the tracing by health inspectors of persons who had been fellow passengers with her in the aircraft in which she travelled. Disinfection of the aircraft was carried out by a senior health inspector.

There were 3,110 visits and associated investigations by public health inspectors directed to the prevention of the spread of infectious disease.

### **Defective drains and sewers**

It was necessary to serve 599 notices under the provisions of section 41 of the Manchester Corporation Act, 1950, requiring attention, without delay, to stopped up drains, private sewers, soil-pipes, wastepipes and waterclosets.

At 169 premises the work was executed by approved contractors, in default of the owners complying with the notice and at a further 37 premises the owners requested the Corporation to arrange for the work to be carried out.

At 803 premises, immediate repairs to public sewers were undertaken, on the instructions and under the surveillance of the department in accordance with emergency provisions of section 23 and 24 of the Public Health Act, 1936, (as amended by section 33 of the Manchester Corporation Act, 1946). Defective public sewers at 24 premises were also remedied following the service of notices under section 24 of the Public Health Act, 1936.

The investigation of the condition of the drains believed to be defective took place at 297 premises. In each instance where defective drains were found, appropriate action was taken to secure their repair. The most common causes of these examinations were rat infestations, percolations into basements or sub-floor spaces, recurring stoppages in drains, suspected defects, subsidences, and offensive smells.

### **Sanitary accommodation**

Under various statutory enactments, adequate standards of sanitary accommodation were enforced.

At 22 business premises and 68 dwellings, pail closets were in use and at a further three dwellings privy middens continued to be used. There was a reduction in this anachronistic type of sanitary accommodation from 105 premises to 93. These conditions continue, either because no sewer is available in the vicinity, or the premises have only a short residual life. Schemes were in course of preparation, to provide water-closet accommodation and to drain premises to a newly constructed sewer in the Heyhead area of the City.

## Disposal of refuse

*The Director of Cleansing has supplied the following information on the total of 264,765 tons of refuse dealt with by his department which undertakes the municipal collection and disposal of refuse.*

	<i>Tons</i>	<i>Percentage</i>
Controlled tipping .. ..	249,219	94.1
Sales, manufacturers, etc. ..	4,280	1.6
Refuse handling plant .. ..	11,266	4.3
	<hr/>	<hr/>
1972	264,765	100.0
1971	250,053	
	<hr/>	

The Cleansing Department's widely publicised free household collection and disposal service, including dealing with bulky articles such as unwanted furniture and abandoned motor vehicles, has remained readily available to the public. Nevertheless, rubbish continued to be dumped on land and in passages, necessitating action by the Health Department to secure its removal.

In 253 instances, statutory action was necessary to secure the abatement of nuisances arising from accumulations of offensive matter, frequently deposited in unoccupied premises not secured against unauthorised access.

Surveillance of 64 sites used for tipping continued. At the majority of these sites formal tipping had ceased, but such sites did continue to attract fly-tipping. This is an offence under section 19 of the Civic Amenities Act, 1967, but there were difficulties in its enforcement because the persons responsible could not be identified.

Progress was made in landscaping and the development for other purposes of some of the discontinued tips.

Fly breeding at one controlled tip gave rise to nuisance at a nearby school premises. The disturbance of covering material by large numbers of seagulls left decomposing refuse uncovered, thereby permitting fly breeding; appropriate remedial action was taken.

## Deposit of Poisonous Waste Act, 1972

### The Deposit of Poisonous Waste (Notification of Removal or Deposit), Regulations, 1972

Early in 1972, public attention was focused on the dangers resulting from the uncontrolled tipping of poisonous or other hazardous waste. Although this danger had previously been well documented, Government action was precipitated by the discovery of quantities of cyanide contaminated waste on tips in the Midlands.

An immediate investigation of all known tipping sites in Manchester, either disused or currently in use, failed to reveal anything to cause alarm. A number of incidents were reported by members of the public; all these concerned old chemical containers and were dealt with appropriately. One drum labelled "Sodium Cyanide" was in use in a garden as a waterbutt. It



was found to be several years old and had been obtained from a waste food merchant, it being a common practice in this trade to use metal drums which had previously been used as containers for a variety of materials.

As a consequence of the public disquiet, the Deposit of Poisonous Waste Act, 1972, became operative, in part, on 30th March, 1972. The Act has two main features. First, it makes it an offence punishable by heavy penalties to deposit on land any poisonous, noxious or polluting waste in circumstances in which it can give rise to an environmental hazard. Secondly, it introduces a notification procedure which together with the Deposit of Poisonous Waste (Notification of Removal or Deposit), Regulations came into force on the 3rd August, 1972, and requires those concerned to give Local Authorities and River Authorities information about the nature and quantities of wastes arising or being deposited in their areas.

Although the Act was hastily drafted and could have been made more effective, it does, however, provide an important new avenue into pollution control and the notification procedure will supply valuable information as to the nature and quantity of poisonous wastes being produced. A major result of the Act is that methods of trade waste disposal are now being much more seriously considered and in this context, the department has established a valuable liaison with various commercial and academic organisations whose problems in this field are considerable.

The satisfactory administration of the Act is likely to impose a much heavier burden than a superficial examination of its terms suggests, particularly in view of the number of large engineering and chemical plants and of teaching and research institutions in Manchester, where considerable quantities of waste are produced, much of which is of complex composition. Much of the waste produced in Manchester contains substances which fall within the terms of the Act and Regulations, but little of this waste is disposed of by tipping within the City. Almost all is removed by private waste contractors to tips and plants elsewhere, in some instances as far afield as Cumberland and Essex. Only by special arrangement can any such materials be deposited on Corporation tips and, in effect, these tips do not accept this type of waste.

Not all of the poisonous waste is produced by industrial concerns, and since the Act came into force the department has made arrangements for the collection and disposal of small quantities of toxic chemicals from Government Departments, hospitals, schools and other educational institutions. Domestic refuse can also contain material which is hazardous, especially discarded insecticides, rodenticides and garden chemicals. Consideration also needs to be given by the Central Government to the need for the provision of disposal instructions for such substances on containers.

During the period between 31st August, 1972, when the notification procedure came into force and 31st December, 1972, 33 firms notified the removal of 744 consignments of poisonous waste. These notifications were given, in the main, by the larger firms and the department is not satisfied that it is receiving all the notifications which ought to be made, especially from some of the smaller concerns. Steps are being taken to secure a better rate of notification.

The accompanying table shows the nature and quantities of waste notified to the department up to 31st December, 1972.

**Deposit of Poisonous Waste Act, 1972**  
**Notifications of deposit of waste, received during the period 3rd August-31st December, 1972**

Classification	August		September		October		November		December		Cumulative Total	
	By Vol.	By Wt.	By Vol.	By Wt.	By Vol.	By Wt.	By Vol.	By Wt.	By Vol.	By Wt.	By Vol.	By Wt.
	Galls	Tons	Galls	Tons	Galls	Tons	Galls	Tons	Galls	Tons	Galls	Tons
1. Solid												
a. Cyanide .. .. .	—	—	—	—	—	2	—	—	—	—	—	2
b. Metallic and others .. .. .	—	55	—	332	—	295	—	314	—	308	—	1,304
c. Asbestos .. .. .	—	‡	—	60‡	—	72‡	—	105‡	—	160	—	399
d. Pharmaceutical .. .. .	—	—	—	—	—	—	—	—	—	—	—	—
2. Solutions and Sludges												
a. Acid (metallic) .. .. .	10,500	7	980	—	11,100	—	5,500	—	4,800	10	32,880	17
" (without metals) .. .. .	—	48	1,665	21	—	4	2,200	4	—	—	3,865	81
b. Alkaline (metallic) .. .. .	—	—	—	—	1,500	—	—	—	1,200	—	2,700	—
" (without metal) .. .. .	1,200	6	1,305	20	32,190	—	28,600	—	27,000	—	90,295	26
c. Neutral (inorganic) .. .. .	12,000	67	42,000	72	6,540	169	6,000	169	9,320	160	75,860	637
" (organic) .. .. .	—	5‡	1,855	‡	—	74	—	2‡	—	2	1,855	84
" (mixed) .. .. .	—	8	1,000	24	—	—	3,000	—	—	—	4,000	32
3. Oily Wastes												
a. Mineral .. .. .	—	—	3,165	—	1,825	—	—	—	1,170	—	6,160	—
b. Fatty .. .. .	—	—	—	—	—	—	—	—	—	—	—	—
c. Oil/Water emulsions .. .. .	—	—	400	—	2,184	—	—	‡	3,300	—	5,884	—
4. Tarry Wastes .. .. .	—	4	—	—	—	14‡	—	‡	—	‡	—	19
5. Solvents												
a. Combustible .. .. .	—	—	3,255	—	3,165	1	1,500	1	—	1	7,920	3
b. Non-combustible .. .. .	—	—	—	—	—	—	—	—	—	—	—	—
Totals .. .. .	23,700	201	55,625	529‡	58,504	631‡	46,800	596‡	46,790	645‡	231,419	2,605

Summary of proceedings before Justices

Infringements	Number of summonses	Number dismissed	Number withdrawn	Convictions	Abatement orders made	Penalties £	Costs £
Housing conditions (Public Health Acts and Housing Acts) .. ..	91	—	32	37	22	443	249
Food : standards .. ..	24	—	3	21	—	307	121
Food : hygiene .. ..	93	5	7	81	—	990	140
Occupational hygiene.. ..	9	—	2	7	—	95	20
Clean air .. ..	19	—	2	12	5	188	130
Caravans .. ..	7	—	7	—	—	—	—
Noise .. ..	1	—	—	—	1	—	1
Shops: Sunday trading, evening closing hours .. ..	72	—	—	72	—	1,002	615
Totals .. ..	316	5	53	230	28	3,025	1,276
							4,301

## **Rodent control**

During the year, 7,666 initial inspections were made following notifications of suspected infestation. The presence of rats was confirmed in 2,406 instances. All, except nine, were minor infestations.

Cases of confirmed mice infestations numbered 4,130. Complaints were dealt with as promptly as possible. Where treatment was carried out, premises were revisited to determine the efficacy of the work and continued until there was no evidence of bait being taken, or other visible signs of infestation. The rodenticides and techniques used were those recommended by the Ministry of Agriculture, Fisheries and Food. No charge is made for rodent control work at domestic premises, but business premises are charged on the basis of the labour content and materials used in the work.

Rodent operators are not only bait layers but must be capable of giving advice on proofing of premises, waste disposal, and other relevant matters. Where necessary, examinations of structure and drainage systems are made to ascertain sources of infestations and harbourage points.

It is very disturbing to note that during the year infestations by rats and mice were found in new structures. This indicates that there are design and construction faults in some new premises which, if eliminated, would prevent infestations arising.

It is not uncommon to find inspection chamber covers displaced or missing, sewer connections not sealed up during site preparations and lengths of disused drains still connected to the sewer.

Ducts which vertically traverse multi-storey blocks and house the piped main services have not been baffled to prevent the spread of infestation by rats and mice. All too frequently "pipe run" apertures are left open, with consequent infestations of wall cavities. The huts and cabins used by workmen for meals leave much to be desired, as the low standards of "house-keeping" and cleanliness give rise to many complaints of rodent infestations.

The important task of sewer treatment is carried out by City Engineer's and Surveyor's Department using fluoracetamide in a bait of oatmeal plus a mould inhibitor. Of 5,944 sewer access chambers baited, 383 were rat infested. Effective and regular sewer treatment reduces the chances of surface rat infestations.

During the year a review of the rodent control service was commenced by the management services unit of the Town Clerk's department, in response to a request from the Health Department. It is anticipated that the outcome will be a better and more mobile service.

## **Insect pests**

The Health Department continued to assist householders and, in some instances, occupiers of business premises in the identification of various types of insects, mostly household and garden pests.

The Entomologist and his assistant at the University of Manchester have been most helpful in confirming the identification of some of the more unusual insect pests brought to the department and listed below :

scaria—flies—breeding in soil  
pshychoda—flies—breeding in sewage farms, etc.  
leptocera caenosa (2) } breeding in soil contaminated by organic  
leptocera crassimara } matter  
molt grubs  
cimex lectularius—bugs  
plaster beetles (2)  
black ants—niger—(2)  
sarcophaga—feeds on caterpillars  
tawny mining bees—(andrena fulva)  
attengenus pellio—(2)  
mites  
dermestes maculatus  
dermestes lardarius (6)  
cockroaches (2)  
wasps (2)  
cat fleas (4)  
dog flea  
fruit flies  
psocides  
devils' coach horse beetle

The department continued to assist householders in the eradication of insect pests, the most common being infestations by cockroaches.

Departmental action was required to secure the cleansing of 72 filthy or verminous premises, and the Housing Director reported that the disinfection service of the Housing Department dealt with insect infestations at 1,320 municipal houses.

Two serious fly infestations were eradicated, one at a cottage-type estate property and the other in a ground floor flat of a tower block of property. In both cases the flies were identified as *paracoelenella caenosa*, emanating in the first instance from a drainage fault located deep underground and, in the second case, from a faulty drainage connection, exposed following a stoppage on the drainage system to the tower block. The contaminated soil had thus provided a medium for the breeding of flies in the site sub-soil.

### Feral pigeons

The department continued to deal with complaints arising from the presence of starlings and pigeons in various parts of the City and there is evidence to suggest that the nuisance, damage and annoyance caused by pigeons is increasing. Information on the elimination of such infestation was made available to the owners of the properties concerned.

The effective reduction of pigeon flock density will only be achieved when the feeding of the birds by the public is controlled and action is taken to deny the birds nesting sites.

The department continued to be licensed by the Ministry of Agriculture, Fisheries and Food to use stupefying baits to take feral pigeons although during the year no occasion arose where the use of this technique could be applied.

## **Fouling of footpaths by dogs**

The Corporation bye-law, making it an offence for a person being in charge of a dog to allow the dog to foul the footpath, whilst expressing public opinion does not provide an effective legal deterrent.

The department continued to seek the co-operation of dog owners in keeping the streets free from this nuisance by making a direct approach to them through a request printed on the annual dog licence reminder cards.

## **Offensive trades and effluvium nuisances**

The number of offensive trades registered, for a limited period in accordance with section 107 of the Public Health Act, 1936, and in operation at the end of the year remained at six. There are also 10 other designated offensive trades which by reason of their long-standing are not required to seek periodic renewal of registration. The conduct of all these businesses is subject to action under the provisions of the Public Health Act, 1936, if the need arises, but this was not necessary.

Eleven works in the City are registered under the Alkali etc. Works Regulations Act, 1906. These are under the control of H.M. Alkali and Clean Air Inspectorate with whom a close liaison is maintained.

Special surveillance continued in a mixed industrial and residential area where several of the foregoing works are situated and ensured that any temporary emission of offensive vapours, caused by mechanical failures within the works, can be detected and remedied as quickly as possible.

Complaints of effluvium nuisance from other sources were investigated and resolved without the need to take formal action.

The department co-operated with the Department of the Environment Working Party on the suppression of odours from offensive and selected other trades.

## **Noise nuisances**

The department received and investigated 242 complaints of noise nuisance, compared with 211 in 1971. Fifty of these complaints related to noise from industrial sources.

"Noise" can be defined as "unwanted sound" and "nuisance" as "an inconvenience materially interfering with the ordinary comfort, physically, of human existence, not merely according to elegant or dainty modes of living, but according to plain and sober and simple notions among the English people". Thus to decide whether sound is "noise" and the noise a "nuisance" can sometimes be fraught with difficulty.

Noise is now widely recognised as a form of pollution which seriously detracts from environmental amenities and is attracting more public attention and consequently more complaints and the subject of noise nuisance is bedevilled by more frustration and acrimony than any other type of nuisance.

Whilst the question of nuisance is a subjective matter, measurement is necessary as a precursor to action to remedy. The methods of BS. 4142 are used where appropriate, but not as a means of imposing a simple, arbitrary, decision in any particular case. Often the most difficult feature of abatement is to convince the offender that the nuisance exists; some remain unconvinced even after the service of notice under the Noise Abatement Act, 1960.

Undue interference with sleep is obviously a nuisance to the hypersensitive type of person, even though it may not be a "nuisance" in law or in relation to BS. 4142. This type of case is particularly difficult to deal with and tends to be very frustrating for all concerned.

If the local authority is satisfied that a nuisance exists then the statutory action is mandatory. Nevertheless, the technique of informal advice and persuasion, is invariably adopted initially, because it is more easy to secure the abatement of certain noise nuisances due to "bad housekeeping" or "bad manners" or "thoughtlessness" in this way. When the noise is produced by machinery or inherently noisy processes it is more difficult to arrive at a satisfactory solution.

In November, the British Acoustical Society organised a seminar on "Neighbourhood Noise", with particular reference to the establishment of noise abatement zones or noise control zones, containing a number of noise sources, to enable interested parties to have the opportunity of discussing the problems associated with the designation of areas in which noise is to be abated or otherwise controlled. It seems likely that this approach—so successful in the clean air context—will instigate the necessary legislation, but because of the nature of noise, it is apparent that noise control areas are likely to be a more difficult concept to establish than smoke control areas.

"The Code of Practice—for reducing the exposure of employed persons to Noise", published by the Department of Employment in 1972, includes much useful information on methods of measurement and the use of equipment and summarises the measures to be taken by management and employees to control exposure to noise. The code is welcomed as a significant contribution to the reduction of neighbourhood noise.

Road traffic noise is the most widespread single component of the problem in towns. The department carried out a series of measurements for the City Engineer for use in connection with a Public Inquiry into new road proposals.

The White Paper, "Development and Compensation—Putting People First", published by the Department of the Environment, deals with major urban road and airport runway noise. It clarifies the policy of the central government with regard to the problem and it is anticipated that measurements by the department may be called for if such cases arise.

Several complaints referred to noise from domestic and small industrial boilerplant, due to incorrect combustion causing a "throbbing" or "pulsating" noise. These were resolved by ensuring proper combustion. Small domestic installations with boilers in a shed or outhouse, and subject to inadequate maintenance or servicing, can, in a few cases, become so neglected that their "hunting" for air causes sufficient noise to annoy neighbours.

Noise arising from amplified music at club premises was resolved by making representations to the licensing justices.

A detailed noise survey enabled some noise reduction to be effected at a brickworks. During the investigation staff of the department were able to advise the firm about a suitable adhesive to secure lifting pads of a pneumatic

brickmaking machine; this enabled the firm to reduce breakdowns and to increase production, both at the particular works concerned and at other depots. Also, a proposed change of kiln firing from coal to L.P.G. will reduce the number of vehicles visiting the site and thereby reduce traffic noise.

Alterations were secured to a ventilation system which was causing noise interference with telephone use in a city office.

A pillar press at a factory was causing excessive noise to the occupiers of a room below the press. The press was repaired as a temporary measure and was subsequently replaced by a new machine, which abated the nuisance.

Complaints recurred about noise from a fume extract fan which was the subject of an Abatement Notice in 1971. The nuisance was temporarily abated by a change in working hours and sound proofing measures are now being adopted.

Informal action secured the reduction of noise at night from the loading of vehicles and the use of a loudspeaker system at a factory.

In recent years, and 1972 was no exception, there has been extensive demolition of buildings in the City Centre as well as houses in clearance areas. The department has been concerned with numerous complaints arising from noise and dust nuisances from building demolition and road works. Powers contained in the Public Health Acts, failed to provide an effective remedy.

The Corporation therefore sought additional powers in the Manchester Corporation (General Powers) Act, 1971, to deal expeditiously with nuisances arising from stationary internal combustion engines, air powered tools and compressors and noise and dust from building demolition and road works.

The legislation was made known to contractors and others engaged in the building and construction industries and complaints received in respect of operations at 20 different sites were resolved by health inspectors.

Unmuffled compressor tools and compressor units inadequately equipped for reducing noise were the most common source of complaint. Seven of the complaints related to dust nuisances.

Extensive civil engineering works on motorway construction, involving bridging the River Mersey, resulted in the receipt of complaints of noise nuisance from pile driving and construction traffic. These were the subject of representation to the Road Construction Unit of the Department of the Environment, who endeavoured to have the noise reduced to the minimum.

The sound insulation of dwellings near the Manchester Airport continued.

#### **Land used by pleasure fairs**

In accordance with the agreement between the Showmen's Guild and the Corporation, application was made to hold nine pleasure fairs on approved sites, eight on public recreation grounds or parks and one on land cleared for re-development.



Action was necessary at two of these fairs to secure satisfactory sanitary accommodation and a water supply. In another case, generating and other equipment had to be re-sited to avoid a possible noise nuisance.

Health inspectors continued to visit these fairs when in operation, to ensure that the terms of the agreements were being observed and that stall-holders complied with the requirements of the Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations.

### **Rag flock and other filling materials**

Twenty-two premises, compared with 23 in 1971, were registered under the Rag Flock and Other Filling Materials Act, 1951, and subsequent regulations, for the use of designated filling materials in the manufacture of upholstery (10), quilts (9), bedding (2) and pillows (1). The reduction was due to one premises being demolished.

No rag flock is manufactured in the City, but three premises were licensed for the storage of rag flock prior to distribution to manufacturers.

Twenty-six visits were made regarding the enforcement of the Regulations—22 to registered premises and four to licensed premises. Fourteen samples of designated filling materials were obtained and submitted to the prescribed analyst for examination. These samples comprised cotton felt (5), rag flock (3), woollen felt (3), Algerian fibre (1), washed flock layered (1) and bedding flock (1); all were found to satisfy the relevant standards contained in the Rag Flock and Other Filling Materials Regulations, 1971.

### **Consumer Protection Act, 1961**

#### **Nightdress (Safety) Regulations, 1967**

These regulations impose requirements in relation to nightdresses, and accordingly under the Act, subject to certain exceptions, no person may sell or have in his possession for sale a nightdress not complying with the Regulations.

Visits were made to shops and market stalls to ensure observance of the Regulations, and it is evident that the manufacturers and retailers are familiar with requirements, stitched-in labels being used in appropriate cases to warn against fire hazard.

#### **Toys (Safety) Regulations, 1967**

These prohibit the sale of toys (other than table tennis balls) made of cellulose nitrate which is dangerously inflammable and also prescribe the maximum permissible amount of lead in any paint used on toys.

Samples of imported babies pram rattles and nodding head miniature dolls were tested for celluloid, but were found to be made of polystyrene.

Three samples of childrens paints were the subject of analysis for lead content, but all were found to be satisfactory.

A sample of painted toys also gave satisfactory results when checked for lead content, and children's assembly kits submitted for analysis were found to be made from polystyrene.

Great use is being made of the multi-coloured plastics even for the battery driven mechanical toys, thus minimising the need to use paint.

Soft toys of excellent quality are mainly of British manufacture.

### **The Electric Blankets (Safety) Regulations, 1971**

These Regulations, made on 1st December, 1971, were effective from 1st January, 1972; they impose requirements in respect of electric blankets to prevent or reduce the risk of death or personal injury.

Visits made to ensure observance of the Regulations showed that electric blankets made by reliable manufacturers carry the appropriate British standards mark and have either a two or three year guarantee.

Electric blankets of British Electrotechnical Approvals Board standard are exempt from the technical requirements of the Regulations, but it has been observed that all "boxed" electric blankets do carry the appropriate wording of being either "under blankets" or "over blankets", plus the statutory cautionary warnings appropriate to the type of electric blanket.

Electric blankets not approved by the British Electrotechnical Approvals Board would require to be sampled and tested at the Appliance Testing Laboratories of the Electricity Council and the cost to the local authority of the full test to British Standard 3456—A4 would be £150, but the British Electrotechnical Approvals Board have a surveillance procedure that appears to be effective in detecting fairly quickly any cases of non-compliance with the recognised trade standard.

Entry into the Common Market will necessitate some kind of procedure for the inspection of imported goods prior to distribution in this country.

### **Poison beads**

On 25th May, 1972, the B.B.C. evening television programme—"Points West"—included an interview with a health training officer.

The interview centred on a type of necklace, brought to this country from Central America, Africa, and Asia, made up of peas grown in these countries. Analysis of the peas had indicated that they were extremely poisonous and as was to be expected the interview resulted in a considerable amount of enquiry from the public.

The peas in question are known as precatory or rosary peas and are of an attractive appearance being red and black and resembling a lady-bird.

A "telex" message, circulated to police throughout the country, advised that both the police and the public should contact their local health department regarding the disposal of such beads. The department received 30 necklaces either through the police or directly from persons concerned.

In 15 instances people surrendered their necklaces for disposal as almost all contained some of the small red and black peas. At the request of the individual owners the remaining necklaces were examined by the City

Analyst, who reported that most of the necklaces contained seeds of *abrus precatorius* and *ormosia* or seeds of the genus *erythrina* many of which contained poisonous alkaloids. The respective owners were informed accordingly. In some instances the beads were returned at the owners request, but all other necklaces were destroyed.

### **Export of second hand clothing**

The department certified the disinfection, carried out by steam under pressure, of 46 articles of second hand clothing in order to comply with the requirements of importing authorities.

Four health certificates were issued in connection with the export of washed rags to Portugal.

### **Swimming baths**

Forty-nine swimming baths were in use, all being supplied with mains water and all were equipped with continuous filtration plant having a "turn over" period of approximately four hours or less dependent upon bathing loads.

Fifteen baths were at schools or colleges and another seven, including three open air pools, were privately owned. Two swimming baths, privately owned, were not in use owing to staffing difficulties, but could be re-opened.

One new childrens' teaching pool was opened in September at Bank Meadow Primary School—Limebank Street, Ardwick. This had a uniform depth of three feet and each week children from 20 primary schools in the City attended for instruction. An interesting innovation has been the invitation to mothers with children in the nursery class to bathe with their children at one session each week.

Alumina ferric or alum are used as coagulents in the treatment plants and an alkalinity of approximately pH 7 to 8 is maintained by using soda ash. Some of the more recent school bath installations use diatomaceous silica filtration and sterilization is secured at all baths by the use of chlorine.

Each bath was visited when in use for the purpose of inspection and to carry out "on the spot" tests for the alkalinity and the free residual chlorine content of the water.

Samples were also taken to the Public Health Laboratory for bacteriological examination and in nine of the 67 samples examined the 24 hour plate count proved to be unsatisfactory, but following recommended attention to the plant repeat samples complied with the approved standard.

The failure of an occasional sample to comply with the recommended standard does not necessarily indicate that the swimming bath water is dangerous, but indicates the need to enquire into water processing techniques.

The creation of the canal system in the early years of the industrial revolution has resulted in waterways which are frequently a source of nuisance and a serious hazard to children, but which cannot be entirely closed because of drainage and water abstraction rights acquired by riparian

owners. Typical of this was the Rochdale Canal which acts also as a feeder to the still used Bridgewater Canal. In order to make the canal safe and to add to visual amenity and reduce nuisance, the City Council adopted a plan to landscape part of the canal and to reduce its depth to about six inches, giving sufficient flow for the feeder purposes but leaving it shallow enough to be safe. This costly treatment included the paving of the canal sill and in one part the shallow area thus produced is used in warm weather as a children's paddling pool.

As a precautionary measure this area was kept under surveillance by the department and the water sampled, judged by the standard classification for river water, the chemical analyses indicated that it could be classified as "clean" on most occasions and only two samples were reported at the lower "fairly clean" standard. Bacteriological standards were also found to be satisfactory for water of this category. Twelve chemical and 12 bacteriological samples were taken in the year.

### **Watercourses**

Statutory responsibility for watercourses in the City rests with the Mersey and Weaver River Authority, but the Rivers Department and the Health Department maintain a surveillance for rodent infestations and for the pollution of watercourses and canals.

It was necessary to direct the attention of the Mersey and Weaver River Authority to the polluted condition of the Fallowfield Brook, which was giving rise to nuisance and affecting residents in Levenshulme and Fallowfield.

Debris wilfully thrown into the Baguley Brook at Wythenshawe caused a blockage following a storm and gave rise to serious flooding of dwelling-houses. The department assisted in the cleaning and disinfection of sub-floor cavities.

Dumping of refuse in the River Irk and on its banks has, over the years, created nuisance and made it difficult to prevent rat infestations. The department welcomes the commencement of the first stages of a scheme to landscape the banks of the rivers from the City Centre to the boundary.

The City Engineer reports that the construction of culverts, to contain sections of Platt Brook and Moston Brook, are well advanced and a length of the Chorlton Brook culvert has been completely cleared of debris. The Charlestown Road connecting sewer has been completed thus preventing the continued pollution of the Boggart Hole Brook which passes through one of the City's larger parks.

The Department of the Environment published in 1972 volume 2 of the "River Pollution Survey of England and Wales"; it is apparent from the report that North West is one of the most heavily polluted areas in the country. In the Mersey and Weaver River Authority's area only 34 per cent of the sewage receives satisfactory treatment.

### **Hairdressers' premises**

There are 742 ladies and gentlemen's hairdressing businesses on the register a small proportion being combined.

During the year, 11 new registrations were effected and, six registrations were cancelled.

Redevelopment and changing fashions have also resulted in a reduction in the number of City Centre premises.

Premises inspected, generally in conjunction with the Offices, Shops and Railway Premises Act and Shops Act, were with three exceptions, found to be satisfactory.

Staff of the Health Department and of the Town Clerk's Department collaborated on the revision of the byelaws, as provided in the Manchester Corporation (General Powers) Act, 1971.

### **Establishments for massage or special treatment**

The annual licensing of establishments for massage or special treatment is in accordance with the provisions of Part IX of the Manchester Corporation Act, 1924 and byelaws; and licenses were approved in respect of 55 establishments as follows: chiropody (31), physiotherapy (5), massage chiropody and electrical treatment (3), sauna, sunlamp and infra-red (1), sun-ray and high frequency (1), sauna and "toning-up" body massage (1), massage, electrical treatment, light baths and exercises (1), sauna and massage and low output electrical and sun-ray (1), massage, manicure, chiropody and electrical treatment (1), massage and chiropody (1), physiotherapy including massage, radiant heat ultra-violet and exercises (1), "Hawkins current" low frequency electrical treatment to assist women to lose weight—electrical treatment (1), manicure, chiropody and electrical treatment (1), massage (non-medical)—"keep-fit"—sauna, steam bath and sunray (1), massage remedial exercises and infra-red lamp and chiropody (1), massage, steam bath and beauty treatment (1), steam bath and massage connected with beauty treatment (1), sauna bath with sun-ray and exercise facilities (1), sauna baths—"keep-fit" massage with ultra violet and infra-red lamps (1).

When considering applications for the licensing of establishments affording treatments defined in the Act, consideration is given to both professional, or technical, qualifications and the experience of the person, or persons, giving treatment, and to the suitability of the premises.

The majority of establishments licensed annually by the Corporation have been in practice in the City for many years. Forty-five visits to these premises confirmed that satisfactory standards of hygiene were being maintained.

### **Sale of certain poisons**

There was a further reduction in the number of persons, 333 compared with 389 in the previous year, listed with the department for the sale of poisons specified in Part II of the Poisons List under the Pharmacy and Poisons Act 1933. This is mainly indicative of the extent to which scheduled persons are not being used in the manufacture of more commonly used household disinfectants, insecticides and detergents.

Infringements of the labelling, packaging or storage requirements or of keeping of records were dealt with informally.

## **Burial grounds and exhumations**

Following the receipt of Home Office Licences, given under section 25 of the Burial Act, 1857, the department supervised four exhumations to ensure the observance of due care and decency and the prevention of any risk to health as required by the terms of the respective licences.

The remains were re-interred in the same cemetery, the circumstances being that in two instances relatives preferred other grave sites; in the third case the body had been interred in the wrong grave and, in the fourth case, the removal was from a common to a private grave at the request of the deceased person's relatives.

Supervision was also arranged to satisfy foreign consular and customs requirements in connection with the transportation overseas of six bodies.

## **Public conveniences**

In conjunction with the City Planning Department, schemes were formulated for the provision of new conveniences in association with urban renewal, the proposed Piccadilly-Victoria underground railway and major redevelopments in the City Centre.

Restrictions on capital expenditure continued to affect the building programme, but at the end of the year conveniences for both sexes were under construction at Beswick, to provide facilities to serve the new district centre. Unsatisfactory and worn out accommodation was being replaced at Crumpsall and Clayton.

The conveniences to be provided in Clayton are being erected on the perimeter of a park and are designed to serve the general public as well as users of the park.

Conveniences formed as part of a municipal car park at the junction of Church Street and Tib Street, and readily accessible to the general public, were opened. These conveniences conform to the requirements of the Disabled Persons Act, 1970

The improvement of Rochdale Road in the vicinity of Queen's Park necessitated the demolition of conveniences and their replacement nearby.

A proper design approach to the planning and equipment of new conveniences continued.

Changes approved by the National Joint Council for Local Authorities' Services (Manual Workers) affecting weekend working conditions, the introduction of equal pay for women attendants, and additional holidays together with a self-financing productivity bonus scheme based on work study, have appreciably improved the take-home pay and time-off at weekends for the 90 workers engaged in the service, with the result that the recruitment and retention of suitable staff for this unattractive work has improved.

The number of public conveniences is now as follows:—

				<i>Men</i>	<i>Women</i>	<i>Total</i>
Conveniences	..	..	..	65	61	126
Urinals only	..	..	..	37	—	37
						—
						163
						—

Generally, conveniences are open at all times.

Free hand washing facilities are provided at all conveniences, but the extent to which it was possible to make available hot water, soap and paper towels, in the absence of attendants, remained limited by misuse and vandalism, which continued at the same level as in former years. One prosecution, resulting in a fine of £10, was imposed by the Justices.

The department supplied information and observations on the incidence of damage and misuse in public conveniences to a Home Office Committee investigating vandalism generally.

### **Submission of plans: Building Regulations, 1972.**

Three hundred and sixty-two plans were forwarded by the City Architect and were examined by the district and specialist inspectors in relation to their particular interests. This ensured that the various aspects of environmental health and occupational hygiene were covered in relation to proposed works, so that any omission or potential contravention could be rectified before work was completed. When appropriate, the attention of developers was directed to the requirements of the Chronically Sick and Disabled Persons Act, 1970, with regard to the provision of special watercloset compartments and the need for easy access thereto for disabled persons.

## **Sewerage and Sewage Disposal**

### **Sewerage**

*The City Engineer and Surveyor who is responsible for the provision and maintenance of the sewerage system of the City has supplied the following information:—*

“The final section of main drainage work 6, which will relieve pollution and flooding in the Openshaw and Bradford Districts of the City is now under construction. Work is progressing well and the contract should be completed to schedule.

Charlestown Road connecting sewer has been completed, thus preventing the continued pollution of the Boggart Hole Brook. The resewering of the Scotland Hall Road/Briscoe Lane area is complete and should prevent flooding which formerly occurred in this area.

The construction of a new sewer in the Heyhead area of the City has made main drainage facilities available for the first time to some 30 houses.

Cheadle and Gatley U.D.C. are in the course of constructing, in East Didsbury, a new outfall sewer to join the Manchester main drainage system at Didsbury Park. This will replace the present outfall through Northenden. To make additional capacity available in the main sewer in Barlow Moor Road necessitated by the new outfall sewer, the City is constructing a new storm sewage overflow from the main sewer at Rowsley Avenue to the River Mersey near Darley Avenue, Didsbury.

The construction of the Platt Brook culvert is now well advanced and construction is proceeding on the culverting of the Moston Brook between Church Lane and Monsall Road. The 'J' intercepting sewer is being replaced over the same length and a new storm sewage overflow is being constructed to replace a number of unsatisfactory overflows in the Moston area of the City.

A length of about  $\frac{1}{4}$  mile of the Chorlton Brook twin culvert on the northern edge of Hough End Playing Fields has been cleared of debris which completely blocked one barrel. A grating is to be fitted at the upstream end to intercept debris.

Work is in progress on the reconstruction, due to its poor condition, of a length of the sewer in Crescent Road. A contract has been let for the construction of approximately two miles of main sewer in Moston Lane. This work is expected to commence shortly and should eliminate flooding which has affected the Moston Lane area for many years. A reduction in the pollution of the Moston Brook should also result.

Work commenced in June, 1972, and should be completed shortly, on the construction of a new sewer in Sackville Street, to allow for large scale comprehensive commercial redevelopment.

Work is now in progress on the construction of a diversion sewer, to take the place of a length of the 5 ft diameter main sewer in Collyhurst Road just south of Smedley Road, which had been affected by mining subsidence when the Bradford Colliery was in operation. Further repairs are required to be carried out to the main sewer and to a storm sewage overflow on it in Rochdale Road near Collyhurst Street, which has been similarly affected".

## **Sewage, treatment and disposal**

*The Director of the Rivers Department which undertakes the treatment and disposal of sewage, including a large volume of trade effluent from the City and certain adjacent districts, has supplied the following information:—*

"The principal sewage treatment plant for Greater Manchester is at Davyhulme, in the Urban District of Urmston. The works deals with domestic sewage from approximately 800,000 inhabitants of Manchester and 13 neighbouring local authorities. However, such is the degree of industrialisation of the area, that, due to the liquid process wastes from industrial premises, the pollutorial loading on the treatment plant is equivalent to that from a population exceeding 2 million persons.

As the treated effluent constitutes some 40 per cent of the dry weather flow in the Manchester Ship Canal at Barton, a high standard of sewage treatment is required. Although major extensions were only completed in



1966, increased loading, mainly from industrial sources, necessitated further extensions to provide additional sedimentation, biological oxidation and sludge treatment facilities. These were in course of commissioning at the end of 1972 and will double the treatment capability of the works. Further extensions to the inlet works are now being designed.

The separated sludge is taken to sea in specially constructed ships and deposited in deep water in the Irish Sea. This service has been extended to several neighbouring authorities who joined with Manchester to set up a Sludge Disposal Consortium, constructing a further 3000 tonne ship, to be operated by the Rivers Department on their behalf. This consortium also engaged consultants to investigate the feasibility of a 288 km sludge pipeline scheme to serve 3.5 million people in the North-West, using the Manchester fleet to convey the sludge from Merseyside to the designated spoil ground. Concurrently, the Department of the Environment had set up an independent working party to investigate the long term effect of sludge disposal in Liverpool Bay. Their report, which was generally favourable, was published by H.M.S.O. under the title "Out of Sight, Out of Mind".

# REPORT OF THE PUBLIC ANALYST

J. B. Aldred, M.A., M.Chem.A., F.R.I.C.

The highlight of the year, as far as the laboratory was concerned, and indeed for the scientific service provided for the City, was the move into new purpose built accommodation the first such in the history of the laboratory, early in February. It has previously been reported that due to redevelopment of the district where the laboratory was originally situated, it had been necessary to move into temporary accommodation in 1965. During the subsequent period the working conditions had been such that the activities of the laboratory had to be severely restricted and the staff were very conscious of the fact that they could not provide the Corporation with a laboratory service of adequate quality.

The new laboratory, which is situated in the Hulme development area, provides not only more space for the staff but also a better layout and improved facilities in general. Although it was possible to transfer virtually all the scientific apparatus from the old laboratory, the opportunity was taken to purchase additional equipment which was needed urgently to enable the laboratory to tackle the many problems presented by modern living. The major instruments acquired were an atomic absorption spectrophotometer, and an infra-red spectrophotometer, together with equipment for photography and extra equipment for microscopy. These instruments will enable increased attention to be paid to the contamination of food in particular and the environment in general, by the many toxic metals which are currently causing public concern. They will also facilitate the identification and determination of a wide range of other chemical substances, whether they occur as ingredients or contaminants in products submitted for analysis or whether it is a matter of identifying an unknown material submitted as such. Amongst other uses, the photographic equipment enables a permanent record to be made of the condition of a sample when it arrives in the laboratory. This facility can be of importance in cases where, for example, a perishable foodstuff is contaminated with mould which could spread very rapidly or where the necessity to carry out further analytical work involves the destruction of the sample itself.

The situation of the laboratory in a residential area of the City raises the question of whether it might be considered a nuisance by the local residents. In fact a properly run laboratory should not give rise to smells or otherwise annoy people round about, except from that part of the work which has to be carried out in fume cupboards. These cupboards employ forced ventilation which could emit unpleasant or toxic fumes to the atmosphere. To avoid this possibility all the fume cupboards have been linked to a central ventilation fan and the air is washed free from fumes in a scrubber unit before it is discharged to the atmosphere.

The fundamental reason for the existence of the public analyst's laboratory is the necessity to analyse samples taken under the Food and Drugs Act. Sampling followed a similar pattern to previous years and details are recorded later in this report. Included in the programme was a number of samples for examination for pesticide residues, as part of a national survey being carried out with the co-operation of the great majority of Food and Drug Authorities. This was the third such annual survey, the first having taken place during

1966/67, by means of which it will be possible to measure any trend in pesticide residue levels and hence assess the potential long term hazard to the community.

Work continued on a number of other topics including atmospheric pollution, for the Clean Air Section, analysis of fertilisers and feeding stuffs samples, submitted under the Fertilisers and Feeding Stuffs Act by the Parks Department and a variety of work for other sections and departments and a number of outside bodies. On occasions advice on various topics is provided for other departments without the need for laboratory work. In this category came problems brought about by the Deposit of Poisonous Waste Act, 1972. It is too early to predict what the final outcome of this Act will be but it is certain that there will be a need to check analytically that the wastes which are being disposed of agree with the statements being made by the people depositing them. Experience of sewage authorities over many years, in checking effluents against their declared composition, shows the need for this.

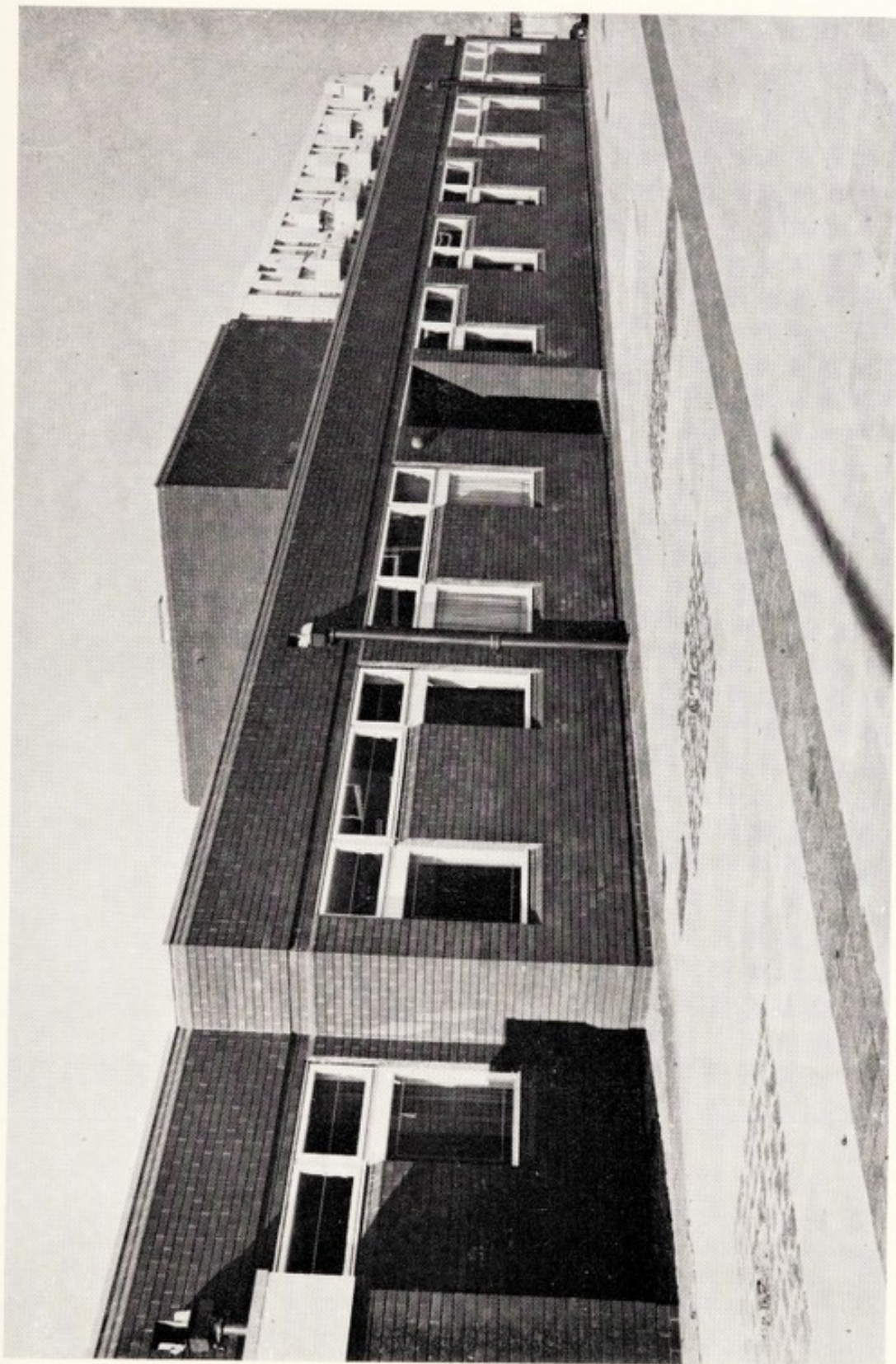
The complexity and precision of analysis needed to provide the required information on modern food products demands expensive equipment but, once purchased, this can be used for a variety of purposes outside the field of food and drug analysis. By undertaking work from a number of sources the greatest economy in the use of both equipment and expertise can be achieved.

Looking to the future, the public analyst's laboratory, which will remain under local authority control could form a nucleus for a comprehensive scientific service to all departments of the new authority.

## Samples examined in the laboratory

### Health Department:—

Food and Drugs Act, 1955—Inspectors' samples ..	2,250
—Samples associated with complaints ..	39
Miscellaneous ..	4
Atmospheric Pollution:	
Daily smoke and sulphur dioxide .. .. .	2,096
Deposit gauges .. .. .	30
Waters:	
Routine and complaint samples—drinking water	63
Other waters .. .. .	24
Miscellaneous .. .. .	72
Direct Works Department:	
Miscellaneous .. .. .	4
Education Department:	
Contract samples .. .. .	3
Parks Department:	
Fertilisers and Feeding Stuffs Act, 1926 .. .. .	99
Miscellaneous .. .. .	4
Trading Standards Department:	
Miscellaneous .. .. .	2
Port Health Authority:	
Food samples .. .. .	96
Waters .. .. .	4
Housing Department:	
Water .. .. .	1
Miscellaneous samples .. .. .	28



View of the Public Analyst's new Laboratory.



## Food and drugs adulteration

### Food and Drugs Act, 1955

Summary of food and drug samples showing adulteration or other irregularity

Article	Number unsatisfactory
Beverage, instant coffee flavoured .. .. .	2
Cream, sterilised (canned) .. .. .	1
Custard (canned) .. .. .	3
Fruit (canned) .. .. .	5
Fruit juice (canned) .. .. .	2
Meat products:—	
Fresh meat .. .. .	2
Canned products .. .. .	11
Paste .. .. .	1
Sausages .. .. .	10
Milk .. .. .	29
Milk, condensed skimmed sweetened (canned) ..	2
Milk, imitation dried .. .. .	2
Pickles .. .. .	2
Soft drink .. .. .	2
Tomato juice (canned) .. .. .	23
Vegetables, fresh .. .. .	1
	—
Total unsatisfactory samples .. .. .	98
	—

### Composition of milk

The average values for the percentages of fat and non-fatty solids in all milks free from added water are set out below:—

	Milk samples other than Channel Islands			Channel Islands Milk samples		
	No.	Fat per cent	Non-fatty solids per cent	No.	Fat per cent	Non-fatty solids per cent
First quarter .. .. .	81	3.66	8.53	10	4.35	8.95
Second quarter .. .. .	148	3.59	8.66	22	4.46	9.00
Third quarter .. .. .	124	3.64	8.72	17	4.58	9.03
Fourth quarter .. .. .	138	3.71	8.68	18	4.71	8.96
Average for year .. .. .	491	3.65	8.66	67	4.54	8.99

### Adulteration of milk

Apart from the period in the first quarter when the laboratory was in process of transfer from one set of premises to another, the sampling continued at a similar rate to previous years. Out of a total of 510 samples of ordinary milk and 77 samples of Channel Islands milk, 17 samples of ordinary milk and 10 samples of Channel Islands milk were found to contain added water.

Prosecutions were instituted against four farmers for selling milk containing added water, the highest level of added water recorded being 12 per cent. In addition a shopkeeper was cautioned following the findings of a trace of added water in milk sold for consumption on the premises.

In the report for 1968 it was recorded that the introduction of more accurate methods of analysis had led to the detection of small amounts of added water in a number of bottles of milk offered for retail sale. Little trouble from this source was encountered during the next two years but in 1971 twelve and in the current year eleven instances were recorded. There are two possible explanations of such occurrences. One explanation is the mixing at the dairy of substantially adulterated milk from one farm with genuine milk from a number of other farms. The other explanation is the addition of water in the dairy itself, probably by the faulty operation of the plant. In either case, although the proportion of added water is small, because very large volumes of milk are involved, the total amount of added water is quite considerable. The problem of identifying the source of contamination in each individual instance is complicated by the current trend towards the delivery of milk to the dairies in bulk tankers. This makes it impossible to sample the milk of individual farms at the dairy as it is normally done when it is delivered in churns.

The fat content of milk is governed by the Sale of Milk Regulations, 1939, which lay down a presumptive minimum of three per cent of fat, although it is permissible to sell milk with a lower fat content, if it can be shown to be of the same composition as given by the cow. On this basis, three samples were reported to be deficient in fat. Two of these samples were associated with other samples which contained substantial amounts of added water. The third represented a single churn from a consignment of several churns. As the other churns all had fat contents well above the minimum, no further action was taken.

The Sale of Milk Regulations, 1939 also lay down a presumptive minimum of 8.5 per cent of non-fatty solids in milk below which the addition of water is assumed. Forty-six samples of milk were found to be deficient in non-fatty solids but shown to be free from added water by the Hortvet freezing point test. The average composition of all samples was very similar to that recorded in recent years.

## **Samples other than milk**

### **Some notes on cases of adulteration or irregularity**

*Cream.* The composition of cream is governed by the Cream Regulations, 1970 which lay down standards for eight different categories, ranging from clotted cream which contains not less than 55 per cent of milk fat, to half cream containing not less than 12 per cent of milk fat. Of 24 samples of cream received during the year one was reported as being unsatisfactory. It was a sterilized cream which had a fat deficiency of 3 per cent.

*Custard, canned.* During the year seven samples of canned custard were received and three were the subject of adverse report. In all instances the adverse report was due to a deficiency of fat in the custard. The labels on these samples each bore a list of ingredients, in accordance with the Labelling Regulations, and each declared the product to be made of fresh milk. In fact partly skimmed milk had been used. In two instances the fat content of the custard was under 1 per cent and in the other under 2 per cent. Following the adverse report on one of the samples, a product of the same manufacturer was submitted later in the year with an amended label. This declared the presence of separated milk in addition to full cream milk but, even so, the fat content of the product had been increased so that the full cream milk could appear first on the list of ingredients.

*Fruit, canned.* Of a large number of samples of canned fruit examined during the year, five samples were reported to have excessive contamination by tin. This is, of course, due to the attack of the tin lining of the can by the acids in the fruit. In consequence canned fruits have an appreciably shorter shelf life than such products as canned meats. There is no legal limit to tin contamination but the generally accepted maximum is 250 parts per million. The highest figure recorded was on a sample of mango pulp which contained 450 parts per million of tin. All the unsatisfactory samples were imported produce and where necessary the importers communicated with the original suppliers in order to prevent a recurrence of the trouble.

*Grapefruit juice, canned.* Two samples of grapefruit juice were found, on analysis, to contain only 8 and 10 per cent of grapefruit juice respectively. Both samples contained a certain amount of added sugar but the deficiency in fruit juice content was due almost entirely to the presence of added water.

*Meat products.* The composition of the majority of meat products, both canned and fresh, has been controlled by Regulations since the beginning of 1969. As meat is one of the most expensive of foodstuffs and shows signs of becoming even more expensive with the passage of time, it is important to ensure that all meat products contain the correct proportion of meat. No instance of a serious deficiency in meat was encountered during the year although small deficiencies were recorded on six occasions. A sample of pork sausages was found to be 3 per cent deficient in meat. Various canned products, chopped beef, stewed steak with onions and gravy, pork luncheon meat and stewed steak with gravy, had deficiencies ranging from 4 per cent to 12 per cent. In addition one sample of sausages, although the total meat content was just satisfactory, was found to contain an undue proportion of fat, resulting in a deficiency in lean meat content.

In all, the various Regulations lay down standards for several dozen different meat products. With such a variety it is very difficult for the consumer to know from the label whether the product he is buying is one which contains a high or low proportion of meat. In order to try to overcome this difficulty, the Regulations lay down precise requirements as to labelling. Each product is allocated to a particular category and all products which come within one category have to be labelled in a very similar manner. Seven samples of pre-packed meat products were received during the year, which were considered to be labelled incorrectly. Four samples, meat with gravy, meat with mushrooms and gravy and two samples of curried meat, only bore the manufacturer's product name without giving the correct classification. Some products, which would otherwise be subject to a standard of meat content, are exempted from the Regulations if the words "ready meal" are included in immediate proximity to the name of the products and if certain other conditions are fulfilled. One of these conditions is that the illustration should not suggest that meat is a major ingredient of the product. In two instances products described as "ready meal" were considered to be incorrectly labelled.

Sausages are permitted to contain the preservative sulphur dioxide provided a notice to the effect is displayed in a prominent position in the shop. Ten samples were found to contain this preservative although no notice to the effect had been displayed. Although sulphur dioxide is permitted in sausages, it is not permitted in any other meat products. Although this may sound illogical at first sight, it is, nevertheless, a reasonable requirement. Sausages, being a mixture of meat with a cereal binder, are particularly prone to souring.



The use of sulphur dioxide helps to delay this process. On the other hand, the indiscriminate use of sulphur dioxide in meat products is not desirable for a number of reasons. One is that sulphur dioxide destroys vitamin B<sub>1</sub> and meat is a valuable source of this vitamin. Two samples of minced beef were found to contain sulphur dioxide. Following the report on one of these samples the vendor was prosecuted.

*Milk, condensed.* Two samples of skimmed sweetened condensed milk contained the equivalent of a smaller amount of milk than was declared on the label. The manufacturers withdrew further stocks from sale and investigations were made at the factory.

*Pickles.* The only unsatisfactory samples recorded under this heading involved two minor labelling irregularities. In one instance the name and address of the manufacturer was not included on the label and in the other the list of ingredients was not given in the correct manner.

*Soft drinks.* Again two samples were found to have unsatisfactory labels. The infringements of the Regulations were due to changes in the labelling requirements that were brought about by the prohibition of the use of cyclamates in soft drinks in January, 1970. It was stated that both these samples represented old stock and further stock was withdrawn from sale. As both these samples were received during the second half of the year they must have been over two-and-a-half years old if the explanation offered was correct.

*Tomato juice.* In earlier years reports have been made of the detection of mould in tomato products, principally tomato purée. Most of the samples involved had been received by the Port Health Authority and over the years a considerable quantity of tomato products has been rejected due to excessive mould contamination. During the year 17 samples of tomato juice were the subject of adverse report due to excessive mould contamination.

No canned tomato products are manufactured in this country and there is therefore no possibility of first hand control of the quality of tomatoes used. If mouldy tomatoes are used either for the manufacture of juice or any other tomato product, a certain amount of mould will be carried over into the final product. This mould can be detected by microscopical examination by the technique known as the Howard Mould Count. This technique gives a measure of the degree of contamination and adverse reports are issued when this is deemed to be excessive. At present there is no legal standard for mould contamination of tomato products in this country, although tentative standards have been established in court for tomato purée.

As a result of the work carried out during the year a quantity of tomato juice was withdrawn from sale.

*Vegetables.* One sample of lettuces was found to have an excessively high residue of fungicide. Further details are given under the heading of pesticide residues.

## **Consumer complaints**

A total of 39 samples was examined in connection with complaints from consumers during the year. These samples are examined either on behalf of the Food Inspectors or, in the case of samples from the wholesale market, for the Chief Veterinary Officer.

*Contamination of food.* The greatest number of samples received could be classified under this heading. Sometimes well defined articles were present but on other occasions the food contained a rather shapeless piece of dark coloured material which needed identifying. Two objects of this nature, both appearing in meat pies, were shown to be overheated meat and there was therefore no justification for the complaint. On the other hand, a dark patch in another meat pie was shown to consist of mould and in yet another pie a mixture of mould and machine oil. A dark patch on the surface of a pasteurised cream dessert was also shown to consist of mould.

The superficial appearance of objects which are found in food is sometimes rather misleading. This can lead to complaints which are either not justified or shown to be not as serious as at first thought. A can of infant food was found to contain an object having the appearance of a small caterpillar. Microscopical examination showed it to be a grain of rice from which the husk had not been completely removed. The baby food in question was in fact based on rice. A can of baked beans was alleged to contain two human hairs but again microscopical examination revealed that this was not so. The hairs in question were shown to be jute fibres, which could have been derived from a sack. Although they should not have been present in the beans they were not considered as objectionable as human hairs.

Some brown specks in a sample of dried skimmed milk powder were shown to be particles of dried milk which had been overheated in the drying process and hence partially charred. Brown specks in a pineapple milk shake were found to be due to the same cause. On the other hand, some foreign material which settled to the bottom of a bottle of sterilized milk was shown to consist of a mixture of cornflour and pea or bean flour. This had not been cooked and therefore must have gained access to the bottle after it had been sterilised.

Other miscellaneous complaints of foreign matter in food included some crystals which had been found after a member of the public had spread some processed cheese on a piece of crispbread. The crystals were shown to be magnesium ammonium phosphate and were probably derived from the emulsifying salts which are a normal ingredient of processed cheese. Some dark specks which were floating in a bottle of limeade were shown to be due to a growth of yeast and algae. Brown bread which was alleged to have a gritty texture contained 0.3 per cent of sand. A beetle in some yoghurt was identified as a meal worm beetle. The phosphatase test showed that it had been subjected to heat and had therefore not gained access to the yoghurt after it was packed.

Only two samples were received during the year where it was alleged that the contamination had affected the taste of the food. These were a sample of sausages which were alleged to taste bitter and a sample of fried fish which was thought to be contaminated with detergent or disinfectant. In neither instance could any contamination be found and both were considered to be of satisfactory quality.

*Nature and composition of food.* A loaf of black bread was submitted with the complaint that it contained added colouring matter. On analysis it was in fact found to contain an added red colour. The Regulations only allow the use of caramel for colouring bread and therefore an offence had been committed.

A sample of chilli powder was received with the complaint that it was in fact paprika. Both chillies and paprika are derived from fruits of the same family.

They are thus very similar although chillies are characterised by a pungent taste whereas paprika has a more earthy flavour. Analysis of the sample showed the complainant to be justified in his allegation.

A sample of cider which was alleged to be of very poor quality was found to contain between 40 and 50 per cent of added water, when compared with other bottles of the same brand. Another bottle taken from the same shop from which the complaint sample was bought was found to be of normal composition. It was thought possible that the complaint sample had been diluted with water after purchase.

In a number of other instances analysis showed the complaint to be not justified. A can of stewed steak with gravy was shown to be genuine, as were samples of ghee and chicken. Although a sample of milk was shown to be free from added water, by the Hortvet Freezing Point test, it was, in fact, deficient in non-fatty solids and therefore of poor quality.

*Sickness.* In the majority of cases of sickness the cause is bacterial and samples are examined by the Public Health Laboratory. However, occasionally, there is a possibility of the cause of sickness being uncovered by chemical analysis. Two samples were examined during the year, one of oysters and one of sweet martini, but in neither instance was a chemical cause of sickness found.

## Drugs

Forty-three samples of drugs were submitted to the laboratory during the year. About three quarters of these represented preparations which could be bought over the counter by members of the public, the other quarter being drugs which are only available on prescription. All samples received were reported as being of satisfactory quality.

## Metallic contamination of food

Samples are regularly tested for the presence of traces of arsenic, copper, lead, mercury and tin as appropriate. In general the determinations are limited to those foods which are particularly liable to be contaminated with the metal in question, although spot checks are occasionally carried out on other foodstuffs in order to give an overall picture of the degree of metallic contamination encountered. The notes on individual metals are given below.

*Lead.* No samples apart from one received from the Manchester Port Health Authority, contained lead in excess of the limits laid down in the Lead in Food Regulations, 1961. During the year the Ministry of Agriculture, Fisheries and Food published a survey of Lead in Food by the Working Party on the Monitoring of Foodstuffs for Heavy Metals. In this report it was recorded that the average lead content of canned baby food was 0.24 parts per million. This was considered to be unacceptably high, although well below the general limits of 2 parts per million contained in the Regulations. Samples examined in this laboratory gave an average of 0.25 parts per million for lead in canned baby food, which was in very close agreement with the figure in the Ministry report. Samples of similar foods packed in jars had an average lead content of below 0.05 parts per million. Towards the end of the year the Lead in Food (Amendment) Regulations, 1972, were published. These will have the effect of reducing the maximum of lead content of baby food to 0.5 parts per million. Some of the canned baby foods examined contained very close to this amount of lead and the manufacturers will have to take steps to reduce the lead contamination of these foods if occasional samples over the limit are not to be encountered.

*Mercury.* Mercury can gain access to food both from the general level of mercury in the environment and from the use of mercury fungicides on growing crops. A total of 53 samples was examined during the year. These were largely composed of samples of canned fish, although a number of other samples were included as part of the survey of pesticide residues. Of the canned fish examined, tuna again showed the highest contamination with mercury. The average mercury content found was 0.23 parts per million which was within the range reported in the previous two years. The average mercury content of eight other varieties of canned fish was 0.05 parts per million. Frozen swordfish steak received from the Port Health Authority contained 1.45 parts per million of mercury which was reported as being excessive. It is understood that this product was exported from the United States following the finding of excessive high mercury by the American Analysts.

A sample of pears was found to contain 0.42 parts per million of mercury but otherwise the residues found in non-fish products were extremely low.

### **Pesticide residues**

This was the third year of a survey of pesticide residues which was carried out in Public Analysts' Laboratories throughout the country. The first two years ran from August 1966 to July 1968 and this third year will enable any general trend in the levels of pesticide residues to be detected. The comprehensive testing of a sample for pesticides is a very complex procedure. By pooling the resources of all laboratories it is, however, possible to get an overall picture of the possible hazard from this type of food contamination without a disproportionate expenditure on the part of any single authority.

A total of 35 samples was examined during the year, 27 of which formed the allocation of work to this laboratory from the National Survey. Traces of DDT were found in samples of fresh cod, peaches, lamb, and butter and BHC in cheese, lamb and milk. In all instances the levels of insecticide were low and well below the recommended maxima.

A sample of lettuce contained 23 parts per million of dithiocarbamate fungicide. This represented a very high level of contamination and indicated the incorrect use of the fungicide. Normally the fungicide is applied some time before harvesting, with a result that only a very small residue remains at the time of sale. It appeared in this instance that the fungicide may have been applied at the time of, or even after harvesting in order to prevent spoilage during distribution. The Local Authority in whose area the lettuces were grown, were notified, so that they could take the matter up with the growers.

None of the National Survey samples were found to contain organo phosphorus insecticide. Eight samples were tested for the presence of mercury.

When unacceptably high levels of pesticides are detected in samples of fresh fruit and vegetables, there is sometimes considerable difficulty in identifying the grower responsible. The procedure adopted can be illustrated by reference to another instance of the finding of high levels of dithiocarbamate fungicide in lettuces. The Lancashire County Analyst reported high levels of the dithiocarbamate thiram in some lettuces which had been distributed from the Manchester Wholesale Market. The Lancashire Authorities notified the Health Department and six samples of lettuces from different suppliers were submitted from wholesale market. One of these

samples contained the very high level of 47 parts per million of thiram, whereas only traces were detected in the other samples. This showed that the unsatisfactory lettuces were being received from a distributor in Kingston-upon-Hull, but as he received lettuces from more than one grower, further investigation in that area was necessary before the person responsible could be identified.

### **Miscellaneous samples examined for the Health Department**

Although it was a matter of comparatively little significance, one of the events which attracted most public attention during the year was the "ladybird bead" scare. A necklace made of the seeds of *abrus precatorius*, a small red and black seed of the pea family, had been found in another part of the country. These seeds are known to be poisonous and the matter was widely reported in the National Press, with the recommendation that anyone possessing any suspicious beads should take them to their local Health Department. It is interesting to note that necklaces received in the laboratory were found to contain a number of different poisonous seeds in addition to the ones reported in the press. Amongst these, for example, were various species of *erythrina*, other members of the pea family and castor seeds. In some instances it is not known exactly how poisonous these seeds are. No one can be blamed for this lack of knowledge, it is simply a matter that man has not yet learnt everything about his surroundings. In order to preserve a sense of proportion in this matter, it should be remembered that there are a large number of poisonous plants in this country which cause little public concern. A child gathering a bunch of wild flowers including, say foxgloves, is handling poisonous material. Again he or she would be ill advised to use the stems of the hemlock plant as pea shooters, in view of the fate of Socrates. The berries of the yew are deadly poisonous but there is no public outcry against growing this tree—and there are many others.

Fourteen samples were received for analysis for compliance with the requirements of the Toys (Safety) Regulations. These Regulations lay down stringent limits for the content of a number of toxic metals in paint on toys. They also prohibit the use of celluloid as a plastic in the manufacture of toys. All samples received were satisfactory.

A number of samples of sterilized milk were received in connection with an investigation at a dairy, following a report of added water in a sample. The investigation was designed to show whether water could be picked up during the sterilization process if the bottle tops were incorrectly fitted. No evidence was found that water could be picked up in this way from this particular sterilizer. It was therefore concluded that the added water must have gained access to the milk at an earlier stage. Twenty-one samples of milk from the Langho Epileptic Colony were examined. Although this Colony has now been transferred to the Social Services Department, the facilities at the laboratory remain available to check the composition of the milk produced on the farm.

From time-to-time samples are received which bear no relation to any other samples. These present their own particular problems and on occasions a certain amount of light relief. Thus water, which was being used for cleaning a building in the city centre, was suspected of being responsible for a large number of holes in the tights worn by office girls who had walked passed the building during their lunch-hour. Analysis showed it to be a perfectly normal water with nothing added and it was also possible to demonstrate that it

did not have any effect on nylon. Two hundredweight of an unknown material which had been dumped in a city street were shown to be a rather unusual building aggregate and therefore harmless. A solvent was being sold for use by model makers, when applied to the surface of polystyrene it would dissolve the surface of the plastic, enabling two pieces to be joined together without the use of a separate adhesive. A model maker had reported that after using this substance he had felt unwell. On analysis the solvent was shown to be benzene. The vapour of this substance is quite poisonous and its use is undesirable except under carefully controlled laboratory conditions. In addition the label did not comply with the requirements of the Petroleum (Consolidation) Act, 1928, benzene being a highly inflammable substance.

## Water samples

The water samples examined may be classed as follows:—

Drinking waters						
Samples taken to investigate complaints .. .. .						13
Routine examinations and checks on previous complaints						11
Investigations into lead content .. .. .						39
Housing Department .. .. .						1
Ships drinking water .. .. .						4
Water other than drinking waters						
Rochdale canal .. .. .						15
Miscellaneous .. .. .						9
						—
						92
						—

## Drinking water

The public analyst's laboratory is concerned with the public health aspect of water from the chemical point of view and the "wholesomeness" of the water supply is the primary consideration. The corresponding responsibility from the bacteriological point of view is borne by the Public Health Laboratory Service. The examination of samples by these two laboratories serves as an independent check on the regular tests carried out in the Waterworks Laboratory.

All eleven samples taken for routine examination were found to be normal and reported as wholesome subject to a satisfactory bacteriological report.

Most of the complaints from individual consumers related to the dirty or discoloured appearance of the water. In only one instance, the water containing a small deposit of brown-black particles identified as rust, was there even limited support for these complaints from the samples submitted to the laboratory. In one other sample, where the complaint had been made about the taste, chlorine could be detected organoleptically.

Samples of water were taken at thirteen premises in connection with investigations into the extent of pollution of water passing through lead piping.

These investigations were motivated by the erratic finding of high lead content in certain routine samples of water and indicated that where this occurred the lead was mainly in particulate form.

## **Other water samples**

Fifteen samples taken over the year from the stretch of the Rochdale canal which is now a landscaped children's play area indicated that the water could be classified as "clean" when judged by the standards recommended for river waters by the Royal Commission on Sewage Disposal.

Five samples of sub-floor cavity water were analysed to ascertain source.

Four samples from the Manchester Regional Transfusion Centre were analysed in connection with contaminated distilled water from a still; the investigation indicated that the still rather than the water supply was responsible for the trouble.

## **Samples from other sources**

Two hundred and forty samples were submitted by other departments and outside bodies in connection with the enforcement of various Acts and Regulations and the checking of the quality of goods purchased by the Corporation.

In the latter category were samples of disinfectant fluid submitted by the Education Department and examined for compliance with the British Standards Specification.

Two groups of samples were submitted by Direct Works Department in connection with problems which had occurred in Corporation establishments. Deposits in batteries from a public building were shown to be due to the adventitious use of lithium bromide solution instead of distilled water for topping up purposes. A white film in a school oven originated from sublimation of a sealing compound due to overheating.

A sample from the hot water system of a modern flat was analysed on behalf of the Housing Department. It was found to be contaminated with globules of oil and contained a deposit of rust; it was considered that a fault in the original installation of the plumbing could have caused this.

Samples of West Indian Bread and Lancashire Hotpot were examined for the Trading Standards Department in connection with the requirements of the Weights and Measures Act.

## **Parks Department**

Ninety-nine samples were submitted for analysis under the Fertilisers and Feeding Stuffs Act 1926. Six of the samples were feeding stuffs and gave rise to four adverse reports. The other 93 samples were fertilisers of which 36 were reported as unsatisfactory. Altogether this represented a failure rate of 40 per cent which is much higher than experienced previously and gives cause for considerable concern. Many fertilisers have to be examined for trace elements as well as bulk composition. Some of these constituents are present at very low levels and it is only necessary for one such ingredient to be outside the prescribed limits of variation for an adverse report to be made on it. Wrongly declared trace elements accounted for eight adverse reports; one third of all samples examined had a bulk composition which was outside the permitted limits allowed on the declaration of ingredients.

Four samples of soil were examined for toxic metals in connection with crop failure on an allotment.

## **Manchester Port Health Authority**

A total of 100 samples was received during the year made up of four samples of ships' drinking water, 30 samples of tomato purée and 66 samples of other foodstuffs. The general foodstuffs included canned fruit products, flour and sugar confectionery, pickles, canned and frozen meat products and a number of more exotic items. Adverse reports were given on five samples. Frozen swordfish contained 1.45 parts per million of mercury which was considered excessive and egg white solids contained a non-permitted emulsifier, sodium lauryl sulphate. In addition three samples of Asian origin were reported against—supari and mukhwas (Indian chewing compounds) because they contained 3 per cent and 1.8 per cent of mineral hydrocarbons respectively and eatable lime (for consumption with betel nut) because it contained 21 parts per million of lead.

A number of samples was pre-packed for retail sale and on eight occasions labelling irregularities were found. These irregularities would only represent an offence against the Labelling Regulations when the products were offered for sale. Nevertheless, they were noted in the reports so that the importers could be warned and take suitable action to correct the labels. Such samples included flour confectionery, several meat products of Chinese origin and maple butter.

The 30 samples of tomato purée represented six consignments; from Hungary, Greece, Turkey and Spain. These were examined for mould content using the Howard Mould Count technique. The maximum limit for this count is 50 per cent positive fields; all six consignments complied with this limit, the overall average mould count for all samples examined being 34 per cent positive fields.

### **Drinking waters**

All samples were found to be wholesome subject to a satisfactory bacteriological report.

## **Measurement of atmospheric pollution**

The national survey of air pollution is based on the results obtained by the standard volumetric apparatus for the determination of smoke and sulphur dioxide. Work has continued at the same sites as last year. In addition the move of the laboratory to new premises afforded an opportunity to open a new site in the Hulme area. The site, designated as site number 22, is within the laboratory and the first results were recorded during June.

Measurements of deposited matter have also been made by the analysis of samples collected in three standard atmospheric deposit gauges. The gauges are sited in selective areas having high, medium and low air pollution.

Samples are also examined in connection with specific complaints from members of the public. Dust from the bonnet of a car had a composition consistent with it being deposited in the neighbourhood of a galvanizing works, but its composition suggested that the greater part of the dust was not derived from this source. A minute amount of a sticky substance from the bonnet of another car had characteristics consistent with it being derived from a chemical used in a nearby factory. A number of soil samples were examined for contamination with toxic metals. Although there was some evidence of contamination it was not sufficient to harm any plants growing in the soil.



Volumetric apparatus for smoke and sulphur dioxide  
Daily averages—microgrammes per cubic metre

Station No.	11 Central		13 Withington		15 Clayton		21 Springfield -Crumpsall		17 Wythenshawe Centre		18 Rusholme Chest-Clinic		19 Monsall		22 Hulme Public Analyst	
	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>	Smoke	SO <sub>2</sub>
1972																
January ..	79	241	52	133	101	205	73	242	51	118	99	197	90	180	—	—
February ..	75	239	46	111	52	176	68	157	44	105	77	201	N	N	—	—
March.. ..	61	226	N	N	60	183	62	173	34	91	78	190	N	N	—	—
April .. ..	29	150	18	69	35	134	21	53	16	73	33	162	N	N	—	—
May .. ..	39	166	N	N	25	139	21	135	17	85	79	166	39	101	—	—
June .. ..	37	121	18	77	21	118	20	101	14	74	41	128	30	83	28	93
July .. ..	40	126	22	99	29	107	24	126	19	85	36	136	30	99	28	97
August .. .	34	108	18	79	31	112	19	96	20	84	25	N	28	85	22	75
September ..	59	163	38	123	81	151	44	152	39	119	64	191	63	138	52	132
October .. .	62	177	39	137	81	151	41	139	36	116	78	193	74	145	60	167
November ..	74	223	38	121	97	212	86	194	42	94	111	191	98	208	70	175
December ..	94	228	49	135	113	173	111	215	41	108	116	209	108	207	85	153
Daily average for year ..	57	181	34	108	60	155	49	149	31	96	70	179	62	138	49	127

The results were calculated from tables supplied by Warren Spring Laboratory, sulphur dioxide from tables dated 1961 and still currently in use, smoke from revised tables dated 1965

# VETERINARY SERVICES

At national level the year was notable for the absence of foot and mouth disease, rabies and swine fever and the first recorded introduction into the United Kingdom of swine vesicular disease.

Once again there was no instance of notifiable disease in either animals or poultry within the City.

Following the elimination of bovine tuberculosis and swine fever, it is gratifying to record that progress of the scheme for eradicating brucellosis had resulted at year end; 32.6 per cent of the cattle population of England and Wales, over the age of 6 months, were brucellosis free. Under The Brucellosis (Eradication Areas) (England and Wales Order), 1971, new eradication areas continue to be added to those already in existence as the position improves locally, and progress can be expected to accelerate as more disease free animals become available to replace those slaughtered under the scheme.

Swine vesicular disease appeared on several south midland farms in December, and was accompanied by symptoms indistinguishable clinically from those of foot and mouth disease. Animals other than pigs are not affected, however, and this, together with serological tests, established its identity.

The Swine Vesicular Disease Order, 1972 became operative on 15th December, thereby rendering the disease notifiable and imposing restrictions similar to those which are applied in outbreaks of foot and mouth disease.

As in previous years valuable assistance has been rendered by the staff of the Public Health Laboratory and by the Public Analyst on the numerous occasions when advice has been sought.

## **The Food and Drugs Act, 1955**

## **The Meat Inspection Regulations, 1963**

## **The Meat Inspection (Amendment) Regulations, 1966**

## **The Meat Inspection (Amendment) Regulations, 1971**

These Regulations prohibit the movement of a carcass, or any part thereof, from a slaughterhouse until the carcass has been inspected to the required standards and stamped accordingly.

The entire throughput of Manchester Abattoir was inspected in accordance with these Regulations.

### **The Slaughterhouses Act, 1958**

### **The Slaughterhouses (Hygiene) Regulations, 1958**

### **The Slaughterhouses (Hygiene) (Amendment) Regulations, 1966**

Three prosecutions were taken for contravention of these Regulations, fines of three pounds and costs of two pounds being imposed in each instance; in addition two further infringements were reported for prosecution and 11 written warnings issued.

### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations, 1966**

One instance of contravention of these Regulations was reported for prosecution and written warnings were issued in respect of 33 further infringements.

### **School canteens**

Two thousand visits were made to school canteens and 87 visits to central kitchens supplying meals to schools; in addition, 210 visits were made as a result of special requests for advice as to the wholesomeness or quality of individual consignments of food supplied by contractors.

### **Bacteriological examination of shellfish**

Eighteen samples were taken and none was rejected.

### **Exportation of meat**

Most countries importing meat or meat products require each consignment to be accompanied by a certificate affirming that the commodity was derived from animals found to be free from disease on both ante-mortem and post-mortem veterinary examination.

Five hundred and twenty-four consignments involving 33,391 carcasses were exported to countries within the European Economic Community and 102 cases of canned goods were exported to destinations in the Far East.

### **The Imported Food Regulations, 1968**

Under these Regulations a local authority receiving advanced information of the intended arrival of imported food, which has not been examined at the port of entry, becomes responsible for its inspection. Ten thousand and sixteen notifications were received, each consignment being subsequently inspected to the required standard.

### **The Importation of Carcasses and Animal Products Order, 1972**

This Order, which came into operation on 1st May, prohibits the importation of carcasses or animal products except under the authority of, and in accordance with, the provisions of a licence issued by the Ministry of Agriculture, Fisheries and Food.

## **The Slaughter of Animals Act, 1958**

One of the provisions of this Act prohibits the slaughtering of food animals by any person not being the holder of a licence, or provisional licence to slaughter.

Forty-one licences and 10 provisional licences were issued.

## **The Slaughter of Poultry Act, 1967**

This Act requires that when turkeys or domestic fowl are slaughtered, unless this occurs instantly as a result of decapitation, dislocation of the neck or other approved method, it must be preceded by stunning in order to render the bird insensible prior to death.

Exemptions are included to permit slaughter by the Jewish and Muslim methods; a further provision necessitates registration of all premises on which stunning of domestic fowl and turkeys takes place.

## **Slaughter of Poultry (Humane Conditions) Regulations, 1971**

The requirements of these Regulations are intended to ensure the well-being of turkeys and domestic fowl awaiting slaughter. Provisions are incorporated to prohibit unnecessary pain or distress and to ensure adequate ventilation, lighting and protection from extremes of weather.

The length of time during which these species may be held head downwards and the minimum period which must elapse between slaughtering and plucking is rigidly defined. A further requirement enforces the immediate slaughter of any injured poultry.

### **Poultry inspection**

Number of poultry processing premises within the district..	..	8
Number of visits to these premises .. .. .	.. .. .	250
Total number of birds processed during the year .. .. .	.. .. .	441,500

### **Types of birds processed :—**

Turkeys .. .. .	6,400
Ducks .. .. .	5,950
Hens .. .. .	371,950
Broilers .. .. .	55,000
Capons .. .. .	2,200

Percentage of birds rejected as unfit for human consumption	0.7 per cent
Weight of poultry condemned as unfit for human consumption	12,000 lbs.

## **Pet Animals Act, 1951**

This Act prohibits the keeping of a pet shop without a licence granted by the appropriate local authority.

Provisions are incorporated to prevent overcrowding, sale at too early an age or undue exposure to disease, and to ensure an adequate supply of water, food, warmth and ventilation.

Thirty-six licences were issued and 150 visits of inspection undertaken by the veterinary staff.

### **Animal Boarding Establishments Act, 1963**

This Act requires all boarding establishments for dogs and cats to be licensed by the appropriate authority. Provisions are incorporated to ensure satisfactory housing, feeding and exercising of dogs and cats in boarding kennels.

Additional requirements necessitate the isolation of sick animals and the keeping of a register of all admissions and departures.

Five licences were issued and 60 visits of inspection made by the veterinary staff.

### **The Diseases of Animals Act, 1950**

#### **The Diseases of Animals (Waste Food) Order, 1957**

The principal requirement of this Order is that all "waste food" intended for consumption by animals and poultry must be boiled for one hour in a plant licensed by the local authority for this purpose. This provision is intended to prevent the spread of disease amongst animals and poultry as a result of contact with infected food.

Twenty-six plants were licensed and 120 visits of inspection made.

### **The Transit of Animals Orders, 1927 to 1947**

#### **The Conveyance of Live Poultry Order, 1919**

The requirements of these Orders are intended to ensure humane and hygienic conditions for the transportation and exposure for sale of animals and poultry. Two hundred and twenty visits of inspection were made.

### **Notifiable diseases of animals**

#### *Anthrax*

The national incidence of this disease again showed a substantial decrease and no case occurred within the City. As part of routine precautionary measures, however, microscopical examinations were undertaken in respect of 7 cattle, 68 sheep and 33 pigs which were suspected of being affected.

#### *The Brucellosis (England and Wales) Order, 1972*

#### *The Brucellosis (England and Wales) Compensation Order, 1972*

These Orders, which came into operation on 1st November, empower The Minister of Agriculture, Fisheries and Food to slaughter any animal in an Eradication Area which is found to be affected with brucellosis and to pay compensation to the owner.

*The Foot and Mouth Disease Order, 1938*

*The Swine Fever Order, 1963*

*The Tuberculosis Order, 1964*

*The Fowl Pest Order, 1936*

No outbreaks of these diseases occurred within the City.

*The Foot and Mouth Disease (Infected Areas) (Vaccination) Order, 1972*

The above Order came into operation on 27th October and defines the duties of owners of animals in Infected Areas in instances where a policy of vaccination may be decided upon.

*The Live Poultry (Restrictions Order), 1971*

*The Live Poultry (Restrictions) Amendment Order, 1972*

Under these Orders, local authorities are empowered to grant licences for holding exhibitions of poultry, subject to the provision that records indicating the origin and destination of the birds are kept available for inspection. An application to hold an exhibition of poultry as part of the Manchester Flower Show in July was approved.

*The Rabies (Importation of Mammals) Order, 1971*

This Order, which came into operation on 10th January, revoked The Exotic Animals (Importation) Order, 1969; it prohibits the importation of 10 additional orders of mammals without a licence issued by the Ministry of Agriculture, Fisheries and Food; a provision of all such licences would be the requirement of a minimum period of six months quarantine.

Licences issued in respect of vampire bats require quarantine for life.

*The Diseases of Animals (Approved Disinfectants) Order, 1972*

This Order, which revokes and replaces The Diseases of Animals (Approved Disinfectants) Order, 1970, and The Diseases of Animals (Approved Disinfectants) (Amendment) Order, 1972, came into operation on 10th October. The schedule of approved disinfectants and their recommended dilutions are redefined.

*The Regulation of Movement of Swine Order, 1954*

This Order prohibits the movement of pigs from a market unless accompanied by a licence issued by the local authority. One of the provisions of such a licence is that, in the case of private premises, the pigs shall be detained there under conditions of isolation for a minimum period of 28 days.

Seventy visits of inspection were undertaken.

TABLE A.

**Animals inspected at time of slaughter at the City Abattoir 1970-1972**

Year	Cattle	Sheep and Lambs	Calves	Pigs
1970	41,797	219,016	3,488	37,532
1971	45,544	190,862	2,323	33,546
1972	50,613	206,820	1,108	28,774

Table B.

**Total condemnation of various foodstuffs 1970-1972**

Year	Meat (tons)	Fish and shell-fish (tons)	Fruit (tons)	Vegetables (tons)	Game (head)	Poultry (head)	Rabbits (head)	Eggs (No.)	Canned meats milk and sundry provisions (lbs.)
1970	130.56	23.93	171.10	268.29	281	6,998	693	998	4.53
1971	160.59	22.26	180.91	234.83	160	6,741	958	200	8.75
1972	174.45	19.00	217.91	274.06	135	9,818	906	Nil	4.14

Table C.

**Food condemned at the City Abattoir and Wholesale Meat Market**

	1972	1971
	tons	tons
Total weight of meat condemned at the City Abattoir and Wholesale Meat Market .. .. .	174.45	160.59
Of which the weight of dressed meat consigned from places other than the City was .. .. .	43.45	28.65
Included in which were imported offal amounting to	530 lbs.	2,220 lbs.

Table D

## Carcases inspected and condemned in 1972

	Cattle excluding cows	Cows	Calves	Sheep and lambs	Pigs
<i>Number killed and inspected:—</i>					
At the City abattoir .. .. .	39,613	11,000	1,108	206,820	28,774
Brought into the City after killing .. .. .	21,048		443	429,186	91,973
(figures for 1971) .. .. .	37,055		932	590,328	87,070
<i>All diseases except tuberculosis</i>					
Whole carcases condemned:—					
At the City abattoir .. .. .	30	—	23	340	85
Brought into the City after killing .. .. .	16	—	1	6	621
Carcases of which some part or organ was condemned:—					
At the City abattoir .. .. .	16,071	—	35	8,937	1,828
Brought into the City after killing .. .. .	528	—	6	262	1,148
Percentage of the number inspected affected with diseases other than tuberculosis:—					
At the City abattoir .. .. .	31.752	—	3.159	4.283	6.353
Brought into the City after killing .. .. .	2.508	—	1.354	0.061	1.249
<i>Tuberculosis only:—</i>					
Whole carcases condemned:—					
At the City abattoir .. .. .	—	—	—	—	—
Brought into the City after killing .. .. .	—	—	—	—	—
Carcases of which some part or organ was condemned:—					
At the City abattoir .. .. .	—	—	—	—	104
Brought into the City after killing .. .. .	—	—	—	—	—



Table E  
Incidence of tuberculosis

Year	Cattle slaughtered at abattoir	Condemned for tuberculosis		Percentage incidence	Pigs slaughtered at abattoir	Condemned for tuberculosis		Percentage incidence
		Carcases	Part carcasses and organs			Carcases	Part carcasses and organs	
1970	41,797	—	7	0·017	37,532	—	343	0·91
1971	45,544	—	—	—	33,546	—	153	0·46
1972	50,613	—	—	—	28,774	—	104	0·36

**Amount of unwholesome food condemned**

								1972	1971
								lbs.	lbs.
<b>Meat :—</b>									
Beef	..	..	..	..	..	..	318,854	296,109	
Mutton	..	..	..	..	..	..	35,722	24,194	
Veal	..	..	..	..	..	..	1,345	1,900	
Pork	..	..	..	..	..	..	34,327	35,201	
Imported offal	..	..	..	..	..	..	530	2,220	
								390,778 lbs. = 174·45 tons	359,724 lbs. = 160·59 tons
<b>Fish :—</b>									
Fish	..	..	..	..	..	..	25,722	29,409	
Shellfish	..	..	..	..	..	..	16,871	20,443	
								42,593 lbs. = 19·00 tons	49,852 lbs. = 22·26 tons
								Head	Head
Game	..	..	..	..	..	..	135	160	
Poultry	..	..	..	..	..	..	9,818	6,714	
Rabbits	..	..	..	..	..	..	906	958	
Fruit	..	..	..	..	..	..	488,118 lbs. = 217·91 tons	405,239 lbs. = 180·91 tons	
Vegetables	..	..	..	..	..	..	613,889 lbs. = 274·06 tons	526,014 lbs. = 234·83 tons	
<b>Miscellaneous :—</b>									
								lbs.	lbs.
Evaporated, condensed and other milk	..	..	..	..	..	..	22	89	
Canned meats and meat products	..	..	..	..	..	..	5,265	10,570	
Sundry provision	..	..	..	..	..	..	3,990	8,946	

### Main causes of condemnation

The weight of meat and offal condemned from the various causes specified was as follows:—

	Meat lbs.	Offal lbs.	Total Year ended 31st December, 1972	Total Year ended 31st December, 1971
Tuberculosis .. ..	1,527	132	1,659	6,584
Decomposition .. ..	39,449	5,719	45,168	28,466
Decomposition bone taint	449	20	469	1,242
Injury .. ..	7,531	996	8,527	10,644
Abscess .. ..	17,125	162,482	179,607	113,063
Emaciation .. ..	910	82	992	1,284
Dropsy .. ..	20,168	2,130	22,298	24,917
Parasitic distomatosis ..	—	79,465	79,465	98,321
Parasitic hydatid .. ..	—	17,882	17,882	15,070
Parasitic C. bovis .. ..	—	4,546	4,546	9,250
Mastitis .. ..	450	—	450	1,414
Metritis .. ..	—	—	—	1,020
Septicaemia .. ..	2,794	100	2,894	6,891
Pyæmia .. ..	3,766	79	3,845	10,771
Pneumonia .. ..	417	24	441	495
Pleurisy .. ..	5,146	1,023	6,169	6,728
Emphysema .. ..	—	—	—	—
Pericarditis .. ..	272	527	799	692
Peritonitis .. ..	1,313	1,183	2,496	6,850
Enteritis .. ..	290	220	510	289
Nephritis .. ..	34	179	213	123
Uraemia .. ..	45	5	50	282
Arthritis .. ..	4,374	7	4,381	5,840
Actinomycosis .. ..	464	1,682	2,146	2,588
Necrosis .. ..	205	12	217	120
Contamination .. ..	412	36	448	289
Icterus .. ..	832	4	836	760
Pigmentation .. ..	121	382	503	1,086
Neoplasm .. ..	935	163	1,098	1,036
Swine erysipelas .. ..	521	8	529	159
Fatty change .. ..	279	—	279	578
Abnormal odour .. ..	444	319	763	1,442
Moribund .. ..	943	—	943	1,249
Immaturity .. ..	146	9	155	181
<b>Totals .. ..</b>	<b>lbs. 111,362</b>	<b>lbs. 279,416</b>	<b>lbs. 390,778 ≡ 174.45 tons</b>	<b>lbs. 359,724 ≡ 160.59 tons</b>

The above includes meats surrendered at the Chief Inspector's Office and meat condemned at shops, warehouses etc., a total of 2.35 tons.

NOTE: The number of condemnations in respect of Tuberculosis was as follows:—

	Year ended	
	1972	1971
Whole carcasses of:		
Beef .. ..	—	—
Pork .. ..	—	—
Part carcasses and organs:		
Beef .. ..	—	—
Pork .. ..	104	153

**Poultry and game, fruit and vegetables, provisions etc., destroyed as being unfit for human consumption, during 1972.**

Poultry and Game		Vegetables	
	<i>Head</i>		<i>lbs.</i>
Fowl	9,487	Artichokes	220
Turkeys	94	Asparagus	160
Ducks	203	Beans	2,960
Pigeons	24	Beetroot	1,879
Geese	10	Cauliflower	93,164
Pheasants	46	Cabbage	126,182
Grouse	88	Carrots	120,791
		Cucumber	13,371
		Corn	1,140
		Celery	4,748
		Chicory	55
		Courgettes	1,429
		Coriander	75
		Lettuce	22,281
		Leeks	172
		Mushrooms	3,627
		Onions	83,016
		Okra	819
		Potatoes	74,096
		Peas	6,350
		Parsley	1,098
		Parsnips	9,166
		Radish	3,403
		Sprouts	29,912
		Spices	960
		Swedes	4,724
		Turnips	3,768
		Watercress	4,323
		Miscellaneous	
			<i>lbs</i>
		Canned Meats	5,265
		Bacon	1,281
		Cheese	158
		Cream	22
		Lard	400
		Frozen Foods	1,407
		Preserves	480
		Pastries	264
Fruit	<i>lbs.</i>		
Apples	49,331		
Apricots	1,980		
Aubergines	2,325		
Avocados	2,876		
Bananas	2,161		
Bilberries	147		
Cherries	6,680		
Capsicum	4,446		
Dates	200		
Grapes	19,082		
Gooseberries	1,260		
Grapefruit	11,304		
Lemons	4,897		
Melons	96,965		
Mangoes	1,837		
Nectarines	554		
Nuts	2,170		
Oranges	95,263		
Pears	44,675		
Peaches	48,351		
Plums	14,098		
Pineapples	1,492		
Raspberries	824		
Rhubarb	2,829		
Strawberries	2,437		
Tangerines	5,820		
Tomatoes	64,214		

# FAMILY HEALTH SERVICE

## Introduction

Throughout the year the family health services were developed and consolidated, forging new links with other community, hospital and local authority services which will be of great value for the future. Such links were not developed without full co-operation of all the staff members who needed to understand the reasons for change and to accept the principles involved. Medical, nursing and clerical staffs all played important individual parts in the service and could be relied upon to continue to do so as even greater changes present themselves with the approach of the reorganisation of the National Health Service in 1974.

Major reorganisation of the nursing section of the family health service commenced in October with the appointment of Miss E. France as Director of Nursing Services, Miss M. Thistlethwaite and Mrs C. Maxwell-Bradley as divisional nursing officers. This was in accordance with the City Council's decision to adopt the Mayston structure for the nursing services of the Health Department. Towards the end of the year, arrangements were in hand for the appointment of six area nursing officers and 30 first-line managers to complete the management structure. It was expected that all these posts would be filled during the early months of 1973. Apart from the Director of Nursing Services, the service remained functional in Manchester.

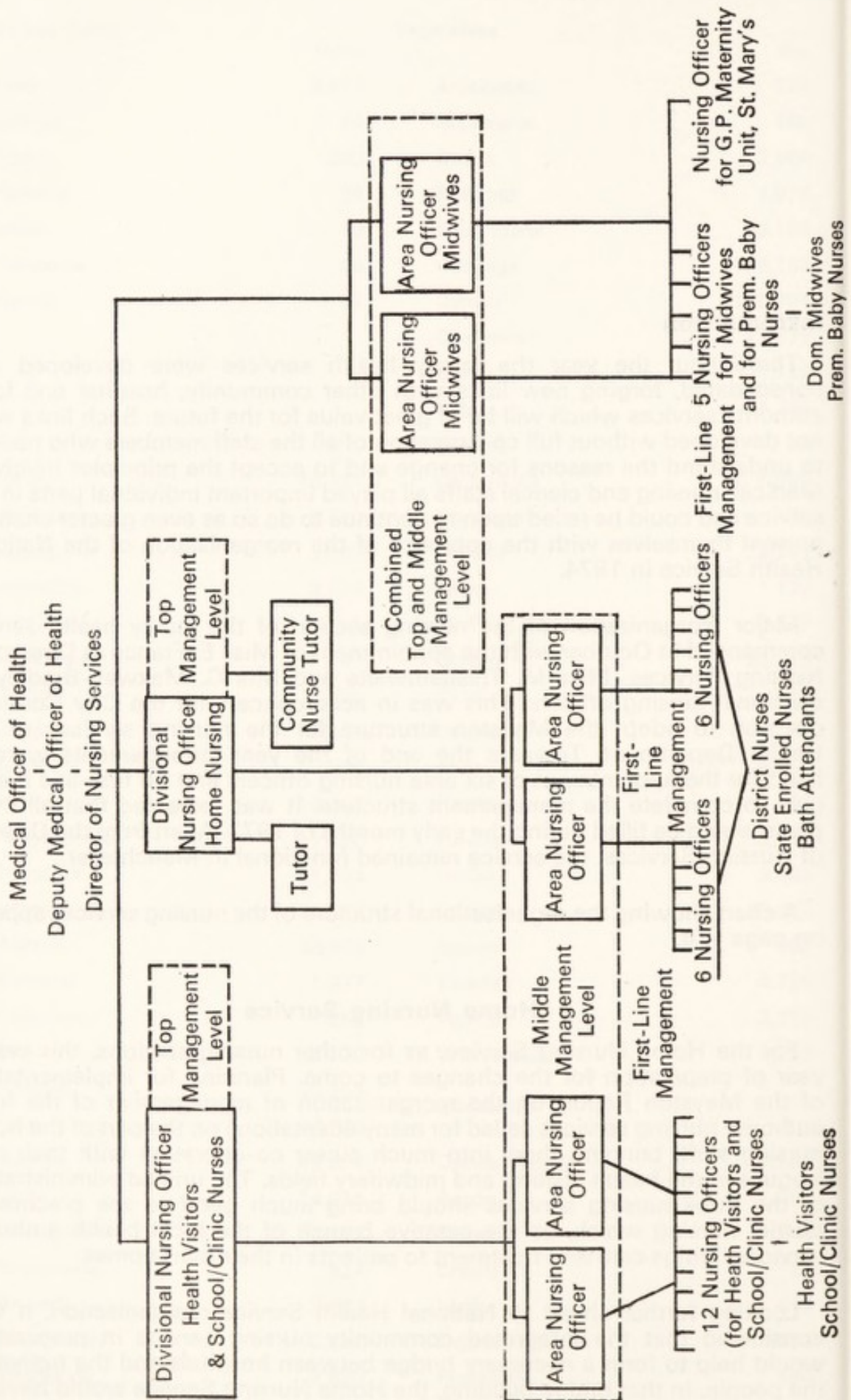
A chart showing the organisational structure of the nursing services appears on page 174.

## Home Nursing Service

For the Home Nursing Service, as for other nursing sections, this was a year of preparation for the changes to come. Planning for implementation of the Mayston Report on the reorganisation of management of the local authority nursing services called for many adaptations on the part of the home nursing staff, bringing them into much closer co-operation with their colleagues in the health visiting and midwifery fields. The unified administration of the three nursing services should bring much good to the practice of district nursing which, as the curative branch of the local health authority services, brings care and treatment to patients in their own homes.

Looking further ahead to National Health Service reorganisation, it was considered that the integrated community nursing service in preparation would help to form a necessary bridge between hospitals and the homes of the people. In that bridge building, the Home Nursing Service would have an important part to play.

# Organizational Structure of the Nursing Services



## Statistics—General Nursing

	1972	1971
Patients on books 1st January .. ..	3,556	3,274
New cases attended .. ..	11,885	10,983
Total cases nursed .. ..	15,441	14,257
Total nursing visits .. ..	333,977	317,728
Total visits by bath attendants .. ..	23,884	17,451

### Classification of patients and nursing visits

	1972		1971	
	<i>Patients</i>	<i>Visits</i>	<i>Patients</i>	<i>Visits</i>
General care .. ..	4,584	139,463	4,267	135,764
Injections .. ..	4,513	94,001	4,674	95,467
Dressings .. ..	4,869	79,723	3,908	73,124
Miscellaneous .. ..	1,475	20,790	1,408	13,373
Totals .. ..	15,441	333,977	14,257	317,728

### Classification of new cases

Age-groups	1972	1971
0-4 years .. ..	295	292
5-14 years .. ..	495	365
15-64 years .. ..	5,613	5,262
65 and over .. ..	5,482	5,064
Total .. ..	11,885	10,983

The year again saw a marked increase in the number of patients nursed and visits paid to them. The number of new patients increased from 10,983 in 1971 to 11,885; nursing visits from 317,728 to 333,977.

The hospital liaison service and the attachment of district nurses to doctors' group practices undoubtedly accounted for this development in the service by increasing the doctors' appreciation of the district nurses' contribution. The rise in the number of aged persons in the general population was another factor, as the number of persons over 65 increased far more than the number of persons in other age groups.

The increase in the number of visits made by bath attendants was proportionally larger: by 6,433, from 17,451 to 23,884. Bath attendants visited elderly infirm people to assist them in bathing and personal hygiene at regular intervals. Alongside other workers, they enabled many elderly people to remain in their own homes.

## Staff

The Home Nursing Service suffered a severe loss through the deaths of two key members of staff within three months. Mrs. A. T. Lawe, Area Superintendent in Hulme and Moss Side for ten years, died after a long illness which she bore with great fortitude. Mrs. M. McGrath, Deputy Superintendent of Home Nursing, fell ill suddenly and died after only a few weeks. Throughout her illness she was sustained by the thought of returning to her post. Both these colleagues embodied the finest traditions of nursing: totally dedicated to the care of the sick and to their task of training and leading the nurses on their staff. Their contribution to the Manchester Home Nursing Service is greatly missed at this time of change.

In October Miss Thistlethwaite, Superintendent District Nurse, was appointed Divisional Nursing Officer (District Nursing) as a beginning of the reorganisation under the terms of the Mayston Report. Further appointments in this new management structure will be made in the New Year.

### Staff employed at the end of December 1972

#### Nursing staff

Divisional Nursing Officer .. .. .	1
District Nurse Tutor .. .. .	1
*Assistant Superintendents .. .. .	3
Senior District Nurses .. .. .	14
3 Hospital liaison	
2 Night nurses	
9 Team leaders	
District Nurses .. .. .	45
Student District Nurses .. .. .	8
State Registered Nurses .. .. .	29
State Enrolled Nurses .. .. .	38
Surgery/Clinic Nurses .. .. .	2
Bath Attendants .. .. .	15
Total .. .. .	156

\*Two of these assistant superintendents were appointed to new posts of Area Nursing Officer and one was appointed to a post of Nursing Officer during December.

#### Hospital liaison

The hospital liaison service gains in importance year by year. The total number of patients referred by the seven hospitals served rose from 1,478 in 1971 to 2,624 in 1972, a 64 per cent increase.

This demonstrated the constantly increasing awareness on the part of hospital staff of the role the Home Nursing Service can play in the early discharge of patients. In other words, the hospital liaison officers performed the work of a first-class public relations officer, lessening the pressure on hospitals and leading to greater contentment of the patients who returned earlier to their own home surroundings.

It can be confidently expected that in the future reorganisation of the National Health Service such liaison between hospitals and the community will play an even greater part.

Hospitals					<b>1972</b>	<b>1971</b>
United Manchester Hospitals	..	..			1,025	133
University Hospital of South Manchester (Withington Hospital)	..	..	..		600	480
Burton House (Geriatric Unit)	..	..			310	288
Wythenshawe Hospital	..	..	..		176	218
Crumpsall Hospital (Geriatric Unit)			..		142	138
Jewish Hospital	..	..	..	..	138	139
Booth Hall Hospital	..	..	..	..	233	82
Totals	..	..	..	..	<u>2,624</u>	<u>1,478</u>

### United Manchester Hospitals

The hospital liaison scheme within the United Manchester Hospitals has completed its first full year.

Most of the year was spent in extending the scheme to more departments of the hospital group than had been possible in 1971 so that it could be made fully operational. During the latter part of 1971, the scheme was operative within the Manchester Royal Infirmary and the Royal Eye Hospital only, but in January liaison commenced with St. Mary's Hospital (Gynaecology) and in May with Barnes Hospital at Cheadle. The scheme was further extended to include the Private Patients' Wing of the Manchester Royal Infirmary in October.

During the year, the hospital staff became much more aware and appreciative of the service which provided for the continuous nursing care of patients when they returned to their homes.

Most of the work carried out within the group was of an acute nature. The general surgical wards made most use of the service, some 80 per cent of the referrals coming from this area. In the main, the requests were for the removal of sutures and for the dressing of wounds following surgery. These two items formed the bulk of the work requested.



It became evident that patients were being discharged home at an earlier date whenever possible and were not being asked to return to the ward a few days later to have sutures removed or wounds checked as previously. Those who had to travel long distances were especially appreciative of this service.

Discussion between senior nursing staff in the Home Nursing Service and hospitals commenced for the drafting of an information sheet. It was envisaged that the sheet would be used to pass on full nursing details to the district nurse when the patient was discharged home for continuing care.

### **University Hospital of South Manchester (Withington Hospital)**

The hospital liaison scheme continued to provide proof of its value to community health by giving and receiving information regarding patients, thus establishing continuity of care between hospital and home.

The number of referrals, especially for sterile dressings and removal of clips and sutures increased with the reopening of the five-day ward toward the end of the year. From this ward patients were discharged immediately into the community, their after-care being referred directly to the hospital liaison sister instead of the outpatients' department as formerly.

A good relationship continued to exist between staff members of Burton House, the geriatric unit, the day hospital and the hospital liaison scheme. The Thursday geriatric meetings attended by all disciplines concerned with geriatric care continued. The hospital liaison sister accompanied the geriatricians on selected domiciliary visits.

### **Wythenshawe Hospital**

There was a decrease in referrals to the District Nursing Service, mainly due to preparation by the various wards and departments for transfer to the new Wythenshawe Hospital.

Interest in district nursing care of the patient and the achievements possible in the home were stimulated during the latter part of the year by the opportunity offered to each ward sister to accompany a district nurse on her home visits for one day.

### **Crumpsall Hospital Geriatric Unit**

The number of geriatric patients referred to the liaison sister by the geriatricians remained steady.

Many of these patients attended the day hospital on one or two days a week in the period immediately following their discharge. This arrangement helped considerably in supporting the frail or confused patient at home. At a later date many of these patients were transferred to a day centre run by the Social Services Department. This cut down the number of visits paid by the nurse to give treatment and supervision to new patients. A number of home assessment visits were subsequently requested by the day hospital staff.

These visits were mainly to report on the patients' home conditions, diet and health or attitudes of relatives giving support. It was frequently expedient to enlist the help of district nurses to encourage patients to attend the day hospital regularly.

Three refresher courses were arranged at Crumpsall Hospital during the year. Two were for state registered nurses and one was for state enrolled nurses. The Matron of the hospital requested the liaison sister to give an account of her work in the community to each of these groups.

### **Booth Hall Hospital**

The first complete year of operating a liaison scheme with Booth Hall Children's Hospital showed encouraging evidence that this was a much needed service. A total of 233 children were referred to the liaison sister who carried out approximately half the treatments and referred the remainder to other district nurses, particularly in the south of Manchester. Most of the requests were for removal of sutures and dressings to post-operative wounds or burns.

The following cases may be of note, having required unusual treatments, considerable nursing skill and close supervision in their own homes:—

a six-year-old Mongol girl who developed diabetes;

a two-and-a-half-year-old girl with cerebral degenerative disorder requiring naso-gastric feeds;

children with chronic constipation successfully treated with rectal wash-outs;

supervision and support of a 16-year-old mentally retarded boy with ileostomy, who was discharged home after five years' continuous hospitalisation.

To encourage children to return to school whilst still having their treatment, the district nurse often visited at home after 4.30 p.m.

The linking of the District Nursing Service with a children's hospital was considered, above all, to be of direct benefit to the children. The period of separation from home and parents was shortened, thus minimising emotional trauma. Many children returned to their mother's care under the guidance of the district nurse and made a speedy recovery.

### **Jewish Hospital**

The hospital liaison sister continued to visit this hospital three times each week.

Two other liaison sisters, from Salford and Lancashire County, also served this hospital, thus providing a complete service in a wider area for all patients who needed nursing care on their discharge home.

Hospital referrals—number of patients and age groups

Reason for referral	United Manchester Hospitals	University Hospital South Manchester (Withington Hospital)	Burton House (Geriatric Unit)	Wythenshawe Hospital	Crumpsall Hospital (Geriatric Unit)	Jewish Hospital	Booth Hall Hospital	Totals
Surgical .. ..	660	444	19	88		110	223	1,544
Dressings .. ..	245	176	18	43		57	84	623
Removal of sutures/clips .. ..	415	268	1	45		53	94	876
Burns .. ..							45	45
Medical .. ..	231	111	189	58		25	10	756
General nursing .. ..	132	73	150	38	31	20		444
Enemata .. ..	2	4	23	4				33
Injections .. ..	51	31	6	14	13	5		120
Ophthalmic .. ..	42				88			42
Other medical .. ..	4	3	10	2			10	117
Assessments and supervisory .. ..	134	45	102	30	10	3		324
Total .. ..	1,025	600	310	176	142	138	233	2,624
Age Groups:	Under 65 Over 65	Under 65 Over 65	Under 65 Over 65	Under 65 Over 65	Under 65 Over 65	Under 65 Over 65	0-4 5-16	Total 2,624
	315 710	432 168	20 290	108 68	5 137	82 56	105 128	

### **Night nursing service**

The night nursing service, nearing the end of its sixth year, was run by only two nurses for the whole of the City and it was a remarkable achievement that they were able to provide continuity of service to many patients.

Recruitment of staff with the necessary qualities for this work was not easy. The night nurse was on her own, had no one to turn to and yet had very ill patients to deal with. She drove long distances during the hours of darkness often from north to south of the City and back in one night. It followed that she needed self-reliance, capacity for independent judgement as well as courage and devotion to her patients.

During the year 196 patients were visited and received 2,403 visits. Many of these visits were to patients in their terminal illness requiring nursing care and pain relieving injections. In some cases eight hourly treatments were carried out, thereby preventing the need for hospital admission. Thus two children with spina-bifida suffering from urinary infections were able to have antibiotic therapy eight hourly.

There were severe cases of elderly patients suffering from chest infections who received nursing care and medication twice during the night. Patients, especially those living alone, threatened by hypothermia benefited from a night visit, a hot drink. The service was appreciated by patients, relatives, and their doctors.

### **District nurse attachment to general practitioners**

Ten years previously few had heard the word "group attachment" but by this year it cropped up wherever district nurses met to talk about their work and mostly it was discussed in enthusiastic terms. What is meant by the term "group attachment"?

Traditionally the district nurse worked 'on her district' visiting all patients within it and carrying out her nursing care for many family doctors. In these earlier days doctors worked single-handed or in partnerships and rarely saw the district nurse in their surgeries to discuss patients and their illnesses.

During the 1960's more and more general practitioners associated to form medical group practices which served a large number of patients. The spread of health centres and group practices had made closer co-operation between doctors and nurses in the community a practical possibility.

Later, experiments were made in attaching district nurses to general practitioner groups confining their work to the patients on these doctors' lists. By the end of the 1960's group attachment had become an accepted pattern of district nursing practice and had gained the support of both professions. It had been demonstrated beyond doubt that patients benefited greatly from this partnership between their doctor and their nurse.

In Manchester, group attachment of district nurses pioneered at Darbshire House and Hulme House expanded until, by the end of the year, group attachment schemes were in force in 57 medical practices involving 169 general practitioners and 70 district nurses.

### **District nurse training**

The purpose of district nurse training was to enable the nurse to perform efficiently her duties in the community nursing service. Family health care

was increasingly provided by community health teams based on general medical practice and health centres. To enable students to appreciate this concept of care during training they worked, under the supervision of a practical work instructor, either attached to a group practice or from a health centre. Observation visits were arranged to give insight into the role and function of other colleagues working in the community.

For example—a day was spent with both the health visitor and domiciliary midwife and visits were arranged to establishments provided by the Social Services Department for the care of the mentally and physically handicapped and the elderly in the community.

Time spent with the hospital liaison officers helped the students to appreciate the full scope of duties covered by the District Nursing Service, giving them an understanding of the importance of co-operation with hospitals for the ultimate benefit of the patient and enabling them to appreciate the implications which early hospital discharge had on the service as a whole.

Caring for the patient in his own home is fundamental to the district nurse and it was expected that by increasing the student's knowledge of community services, the training course would enable her to maintain a high standard of total patient care and to fulfil her educational and supportive role in a domiciliary setting.

During the year, two courses of training were undertaken leading to the examination for the National Certificate of District Nursing awarded by the Department of Health and Social Security. Thirty-three students participated in the training courses, eighteen of whom were Manchester students. As in previous years, students from Bury, Bolton, Rochdale, Salford and Stockport attended Manchester for the lecture blocks and tutorial sessions.

All students who entered for the May examination were successful. Ten students were entered to take the written examination in January 1973.

### **Enrolled nurses**

Nineteen students participated in two courses of in-service training for state enrolled nurses which were held during the year. Ten students were from Manchester, two from Bolton, three from Rochdale, two from Salford and two from Stockport. The 10-week course of instruction was in preparation for National Certificate in District Nursing (S.E.N.) and the theoretical content of the course comprised 10 weekly study days. Practical training and experience was carried out in the students' own employing authority.

Throughout the course emphasis was placed on the practical nursing of patients in their own homes. Instruction was given in the classroom and on the district regarding the adaptation of hospital nursing methods and techniques to the variety of conditions the nurse could expect to encounter in the home. The needs of the individual patient and availability of equipment were also taken into account.

All the students who entered for the September examination were successful and they participated in the training courses enthusiastically.

### **Bachelor of Nursing Course—University of Manchester**

Manchester Health Department continued to participate in the supervised practical training for the district nursing content of the degree course. Practical experience is spread over the four-year training period and its

aim to prepare the student to be a competent practitioner of district nursing skills and to highlight the contribution made by the district nursing service to the care of patients in the community. During the year blocks of practical experience tutorial sessions were arranged to give the students knowledge of various aspects of district nursing appropriate to their stage in training.

### **In-service training courses—bath attendants**

A five-day course of in-service training for bath attendants spread over a three-week period was held in September. Seven bath attendants participated; all had joined the service within the last 12 months. The course aimed to give them an insight into community services, their role in the health teams and the art of home visiting. A wide variety of related topics was covered by film strips, talks, discussions and practical demonstrations. The course was generally well received, participants were vocal and felt it was beneficial.

### **In-service lectures**

Two lectures were held in May, the subjects discussed being "The Treatment of Varicose Ulcer" and "Mental Illness". Both these lectures were well supported and of great interest and benefit to the staff who attended.

### **Practical work instructors' course**

A pilot course of instruction for practical work instructors was held in November. This was a new venture for the District Nurse Training School in Manchester and the aim of the course was to help the district nurses involved in the practical training of district nurse students to appreciate their role in the practical instruction of students of all grades. To help achieve this aim, the syllabus was designed to review and extend their professional skills and knowledge, together with a study of the basic principles of education.

The course consisted of five consecutive study days and was attended by twenty-one experienced district nurses from Manchester and the six surrounding local authorities who participate in the district nurse training courses. All the participants appeared interested and enthusiastic and during the evaluation of the course gave many useful suggestions and passed constructive criticism which will be most helpful in the planning of future courses. The course was of great benefit and at the students' request a follow-up study day was arranged for April 1973. Courses were planned to be held at regular intervals in future years.

## **Health Visiting**

The various functions of the health visitor are discussed in detail in other parts of the report, but it is necessary to stress that the health visitor is primarily concerned with the health of the community and that social work as such is outside her province. During the year she was encouraged to refer social problems which it is her duty to identify, to the appropriate social work department, and the number of these referrals demonstrated the extent to which she became initially involved. She should have been able to make such referrals in the confident belief that they would be followed up and only frustration resulted when this was not done. Lack of social work personnel meant that many cases could not be accepted by the Social Services Department and the health visitor tried to sort out the problems as best she could. Meetings between the two departments, Health and Social Services, were

held to try to overcome the difficulties and attempts were made to identify priority cases but Health Department staff will continue to be involved in the social aspects of their work until a full establishment of experienced social workers exists.

Co-operation and communication are important factors in the successful deployment of health visitors as well as other community nurses, general practitioners and hospital staff without which the building of an integrated health service will be impossible.

Continuity of visiting by the same health visitor is essential if she is to know her families and give maximum help and advice. Unfortunately a decrease in the number of staff employed this year together with a high turnover of personnel made this impossible to achieve in some areas of the City.

Increasing difficulties were encountered in relating health visitors' case-loads to general practitioners' lists but even so considerable progress was made in this undertaking during the year.

The approved establishment in the health visitors' section and the numbers employed at the end of the year were as follows:—

	<i>Approved establishment</i>	<i>Employed (approximate whole-time equivalent)</i>
Divisional Nursing Officer .. .. .	1	1
Deputy Superintendent Health Visitor	1	1
Group Advisers .. .. .	7	5
Health visitors in charge of centres ..	19	19
Health visitors .. .. .	85	57
Health visitors (part-time) .. .. .	—	11
School nurses/clinic nurses .. .. .	90	66
School nurses/clinic nurses (part-time) .. .. .	—	11
Town Hall clinic sister .. .. .	1	1

### Training course for health visitors

Students enrolled on course September 1971—September 1972 .. .. .	40
Students who completed their training .. .. .	36
Sponsored by Manchester Health Department .. .. .	5
Seconded from Midwifery Service .. .. .	1
Student who withdrew from training (Re-entered training September 1972) .. .. .	1
Candidates successful in final examination .. .. .	33
referred in written paper 1 .. .. .	1
referred in oral examination .. .. .	2
successful in referral examinations .. .. .	3
Students enrolled September 1972 .. .. .	44
Sponsored by Manchester Health Department .. .. .	10

The course continued to be held in Bracken House, an annexe of the Manchester Polytechnic. Whilst the general programme of lectures remained the same the interaction between tutors and fieldwork instructors increased. Students aided by their instructors presented parts of health visiting studies to their colleagues to demonstrate health visiting skills in a wide variety of

situations. These discussions, together with those held with social work students led to a greater awareness of roles and functions and it was hoped to continue and develop similar programmes in future years.

Following the implementation of the modified syllabus in 1971, the two part examination pattern was introduced during the year and given a mixed reception. Part I consisted of five three hour papers and was found to be very demanding of students. Tutors were concerned about this and also questioned whether five papers were the most effective way of assessing the knowledge and attitudes of a student health visitor even when Part I was considered in conjunction with Part II, which consists of an oral examination and four health visiting studies. In arranging the examination it proved difficult for marking to be completed, the mini-oral for borderline candidates and the examiners meeting to be held before the commencement of the period of supervised practice. In order to achieve this it was necessary to curtail the third term lecture programme by one week. The inclusion of a neighbourhood study (which replaced the project) in Part II of the examination was of benefit in that students began to apply their knowledge of sociology, social policy and public health to the area in which they practised.

Due to an increasing need for experienced and well qualified fieldwork instructors, courses for their preparation continued :—

November 1971–May 1972

18 health visitors completed the six week course, of whom two were seconded from Manchester.

November 1972–May 1973

35 health visitors have enrolled of whom three are seconded by Manchester.

Following the success of the two-day course held last year to prepare health visitors to assess the students period of supervised practice, a similar course was held in June 1972.

21 health visitors attended (of whom two were seconded by Manchester).

The need for other courses for nurses working in the community has also been recognised by the Polytechnic and in September 1972 following the appointment of a specialist tutor, a course for the preparation of occupational health nurses began with an enrolment of 30 students. It is interesting to note that several of the students have been seconded from National Health Service hospitals although the larger number are from major industries in the area.

Both health visitors and occupational health nurses should benefit from contact with each other in training.

This contact, as well as previously mentioned links with other students, will help future workers in the community to achieve the integrated service which is the aim for 1974.

Tutors continued to participate in the teaching of other groups of students in the Polytechnic and to provide teaching and administrative experience for health visitors taking the teachers certificate at Bolton College of Education.

On 1st September the "Training Course for Health Visitors" was transferred to the Manchester Polytechnic in accordance with the present trend to incorporate this training into educational establishments.



## In-service training

The topic chosen for the 33rd annual refresher course for health visitors, school nurses and others engaged in health education was "the Battered Baby Syndrome".

As in previous years representatives of other local authorities, hospitals and voluntary organisations were present to hear the excellent lectures. All participants were agreed that the course had proved valuable and instructive.

The importance of post graduate refresher courses has always been recognised but in order that they should produce the best practical results they must be planned and organised to meet the particular needs of those attending. Many rewarding courses were organised by the Health Visitors' Association and Royal College of Nursing and were made available to staff.

Because of the impending implementation of the Mayston structure of nursing management and the integration of the health services, preparatory courses are being arranged in co-operation with the Regional Hospital Board and the Manchester Polytechnic to help nursing staff understand the implications of proximate reconstruction of the health services.

## Conferences and post-graduate courses

Organisation	Place	Title	Duration of Course	Numbers attending
Health Visitors' Association		Middle Management Course Part 1	8 days	1 group adviser
Lancashire County Council Education Committee	Stretford Technical College, Manchester		Non-residential Jan. / March (½ day per week)	8 health visitors
Health Visitors' Association	Ripon	Middle Management Course Part 2	11 days	1 group adviser
Health Visitors' Association	Ripon	New Priorities	11 days	4 health visitors
Council for Education and Training of Health Visitors	London	Annual Study Days	3 days	2 health visitor tutors
Health Visitors' Association	Oxford	The Supportive Role of the Health Visitor	10 days	2 health visitors
School nurses	Oxford	School Nurse Course	10 days	4 school nurses
Nurse administrators	Liverpool	Nurse Administrators Course	2 days	Superintendent health visitor

## Prevention of accidents

The gadgets and labour-saving devices which form an essential part of life today are often potentially dangerous. Accidents caused by them are recorded every year and many are caused by carelessness.

The commonest types of accident are poisoning in children due to adults' carelessness in making medicines easily accessible; dislocation of limbs by falling; cuts; burns and scalds. Plastic bags constitute a great danger to children who may easily suffocate whilst playing with them.

Health visitors continued to proffer advice supplementary to that which was given in posters and leaflets and constantly reminded parents of the need to supervise young children when playing outdoors. Parents were encouraged to see that their children were trained in road safety.

### Care of aged and infirm persons

The increase in the numbers of elderly people needing special care has posed a major problem for health visitors. This problem is intensified if the elderly person lives alone. By the very nature of their solitude, they are very much at risk of illness and accident and if ready help is not quickly available, tragedy can easily result.

It is felt that closer co-operation between health visitors and general practitioners is providing a better service for this vulnerable group but health visitors, together with social workers, have found from experience that the help of neighbours, when it can be co-opted, can prove invaluable.

During the year, one group practice in co-operation with Withington Hospital Geriatric Unit, undertook a survey into their patients over 75 years of age.

Approximately 368 such elderly people were visited by the two health visitors concerned and the results have yet to be analysed but, most important, immediate action was taken to provide for ophthalmic examination, hearing tests, home help service and many other needs which the survey revealed. A long list of patients requiring continued routine visits by health visitors has also been compiled.

There were 982 new patients referred to the Department who required continuing visits by health visitors, compared with 841 in 1971.

The following statistics include comparable data from 1971:—

	1972	1971
Voluntary admissions to hospitals .. .. .	169	83
Admitted to nursing homes .. .. .	40	8
Transferred to:—		
Social Services .. .. .	76	112
Other services .. .. .	45	3
Died at home .. .. .	192	170
Compulsory removal .. .. .	1	—
No further action necessary .. .. .	76	140
No trace .. .. .	26	11
Removed outside Manchester area .. .. .	72	51
Carried forward .. .. .	2,386	2,102
<b>Total cases dealt with .. .. .</b>	<b>5,314</b>	<b>2,672</b>

It will be noted that the number of cases dealt with during the year shows a sharp increase and is, no doubt, related to the increase in the number of health visitors whose case-loads are related to general practitioners' lists.

## Midwifery

During the year 7,652 births to Manchester citizens were notified in the City, 785 fewer than in 1971. This gave a birth rate of 14.2 per 1,000 population against 16.46 in 1971. This reduction in the birth rate was the main reason for the decrease in the number of births although the reduction in population was also a contributing factor.

There was an increase in the number of mothers delivered in the general practitioner unit and a consequent decrease in the number of home confinements.

	<b>1972</b>	1971
Domiciliary confinements (live births) .. ..	458	831
General practitioners unit (live births) .. ..	303	89
	761	920
Total .. .. .	761	920

The number of family planning clinics was increased from 18 weekly sessions in 1971 to 28 weekly sessions in 1972 and domiciliary family planning visits were commenced. An average total of five and a half midwives undertook duties for family planning purposes. Two training programmes in family planning were carried out; this involved a further number of midwives for staffing clinics, used for practical work connected with the courses of training. Midwives attended 2,373 sessions in 1972 compared with 1,531 sessions in 1971.

The Cytomegalovirus project which was introduced in 1971 was also carried out and midwives continued to take buccal swabs from all babies born at home or in a general practitioners unit.

### Radio telephones

The radio telephone continued to be a valuable aid, enabling midwives to obtain medical aid speedily, and ensuring that midwives on the district could be directed to the homes of patients, or to the general practitioners unit when they were needed.

### Notification of intention to practise

There were 353 notifications of intention to practise, as follows:—

Municipal midwives	Maternity Homes having no resident medical officer	Training institutions	Total
81	5	267	353

### Supervision of midwives

This statutory duty was undertaken by the Supervisor of Midwives and two assistants.

Visits were made as follows :—	1972	1971
To hospitals and nursing homes .. .. .	35	116
To midwives in their own homes .. .. .	52	72
To antenatal and mothercraft classes .. .. .	105	105
Supervision of nursing and labour visits .. .. .	154	240
Routine inspection of records .. .. .	70	103
Meetings and lectures attended outside the Town Hall ..	3	9
Visits to general practitioners surgeries .. .. .	2	5
Evening visits to depot regarding night system .. .. .	2	7
Lectures given .. .. .	8	8
Pupils examinations .. .. .	2	9
Family planning clinics .. .. .	101	67
Visits to St. Mary's General Practitioners Unit .. .. .	51	38
Miscellaneous .. .. .	60	73
Family planning domiciliary visits .. .. .	19	—

The Supervisor of Midwives acted as an examiner at the Central Midwives Board examinations on three occasions.

### Municipal midwives

The establishment provides for 79 midwives but at the end of the year 53 full-time and 17 part-time midwives were in post.

There has been no difficulty in the recruitment of new staff. Many applications by midwives to join the staff could not be considered as only a few vacancies occurred.

The decrease in home confinements resulted in fewer deliveries per midwife, but other duties undertaken by the midwifery staff have changed their pattern of work.

The work of all full-time and part-time midwives are as follows:—

	1972	1971
Antenatal visits to patients in their own homes .. .. .	4,057	4,763
Nursing visits to booked patients .. .. .	8,080	11,334
Visits to patients discharged from hospital .. .. .	48,808	51,695
Home investigations .. .. .	6,774	8,482
Visits to patients in early labour .. .. .	888	1,275
Number of visits to patients requiring domiciliary family planning .. .. .	2	—
No access visits .. .. .	4,696	4,944

As well as these duties the midwife obtained all blood specimens from expectant mothers attending local authority antenatal clinics, took blood specimens from babies for the Scrivers Test, staffed the general practitioner units, and undertook liaison with the maternity hospitals and general practitioners. They were also responsible for teaching pupil midwives, and all students who accompanied them on their visits, and for the maintenance of equipment and records.

There were 584 expectant mothers who booked a midwife for home confinement; there were 126 cancellations for the following reasons:—

	Number of mothers
Booked St. Mary's G.P. Unit .. .. .	2
Patients request for hospital confinement ..	13
Removals from Manchester .. .. .	12
Medical condition .. .. .	10
Miscarriage .. .. .	7
Social reasons .. .. .	2
Rhesus negative with antibodies .. .. .	4
Ante-partum haemorrhage .. .. .	8
Anaemia .. .. .	4
Malpresentation .. .. .	18
Twin pregnancy .. .. .	8
Pre-eclampsia toxæmia .. .. .	5
Premature labour .. .. .	6
Post maturity by dates .. .. .	21
Delay in labour .. .. .	7
Previous obstetrical history .. .. .	2

Confinements in hospitals not staffed by a resident medical officer dropped from 468 in 1971 to 341 in 1972. Lorna Lodge Nursing Home, which was run by the Methodist Church continued as a maternity home for the unmarried girl, but confinements were carried out at one of the City Hospitals. Following discharge from hospital all patients were returned to Lorna Lodge for post-natal care.

There were 49 babies born at home before the arrival of a midwife, 24 when the patient was booked for hospital, five when booked for the general practitioners unit, 16 booked for home confinement and four when the patient had failed to make any arrangements for the confinement.

### General medical practitioner units

The two services that were introduced in 1971 allowing expectant mothers to book their own general practitioner and domiciliary midwife to undertake care during the antenatal, labour and postnatal period, but instead of the confinement taking place within the home, the patient was delivered in the main labour ward suite of Crumpsall or St. Mary's maternity hospitals, continued to operate successfully.

### Crumpsall general practitioner unit

This unit was not used as widely as expected due to the hospital building programme that was being carried out in 1972. Twelve patients were delivered in the unit during 1972. Expectant mothers who booked for this unit were taken to the hospital by the midwife when labour was established, the midwife remaining with the patient during labour. Mothers and babies were transferred home four hours after delivery accompanied by the midwife.

### Saint Mary's general practitioner unit

This unit of 25 lying-in beds and two labour wards continued to be staffed by domiciliary midwives with auxiliary staff from St. Mary's Hospital. It was

operational from 1971, staffed by midwives working on an eight hour shift rota, and a sister-in-charge. All full-time domiciliary midwives assisted in the duties on this unit. An average total of five and three-quarter midwives undertook these duties during the year.

At the beginning of the year the number of patients booked each month was 40. In February, at the request of the Consultant Obstetrician, this was increased to 60 each month. Unfortunately the demand for bookings on the unit has remained approximately 40 per month. This has resulted in under-use of the unit and on occasions only two or three beds have been occupied.

The reasons for the under-use of the 25 beds were many, among them, the decrease in the birth rate and the reluctance of some general medical practitioners to use the unit for their patients; there was also the fact that the numbers of beds required was estimated over 10 years ago when the hospital was designed and by the time the unit was opened in 1971 the beds over-provided for present day requirements.

The future of this unit will need consideration by all concerned if the facilities provided are to be fully utilised.

During the year, Part two pupil midwives have undertaken the delivery of patients on the unit with supervision from their own teaching midwife.

A number of deputations, from integration and management courses being held in the City were given conducted tours around the unit. The local general practitioners have also showed their keen interest by introducing medical students in training in Manchester, and visiting doctors from European countries on their rounds.

Mothercraft and post-natal exercises remained an important part of the teaching programme, so preparing mothers for the care of the baby at home. Depending upon the social conditions of the patients, early discharge was quite popular as 53 per cent of patients delivered were discharged under four days. A number of fathers were present with their wives during labour and the delivery. The unit worked satisfactorily, providing a homely atmosphere for the mothers and job satisfaction for the midwives. There was good liaison between hospital staff, general practitioners and the domiciliary midwives, which in view of future integration seemed appropriate.

Total admissions	..	..	..	..	407
Mothers discharged not in labour	..	..			43
Total deliveries	..	..	..	..	292
Manchester residents		..	..	..	256
Non-Manchester residents	..	..	..		36

Of the patients booked for confinement on the unit 44 were cancelled for the following reasons:—

Aborted	..	..	..	..	..	12
Booked for home confinement		..	..			3
Booked for other hospitals	..	..	..			4
Removals	..	..	..	..	..	25

There were 74 patients transferred to the St. Mary's Hospital Consultant Unit during the antenatal and labour period for the following reasons:—

Antenatal transfers				
Pre-eclampsia toxæmia	..	..	..	11
Postmaturity by dates	..	..	..	19
Antepartum hæmorrhage	..	..	..	9
Premature labour	..	..	..	3
Placenta prævia	..	..	..	3
Rhesus negative with antebodies	..	..	..	1
Unstable lie	..	..	..	14
Medical conditions	..	..	..	14
Transferred in labour				
Delay in labour	..	..	..	31
Premature labour	..	..	..	4
Pre-eclampsia toxæmia	..	..	..	2
Antepartum hæmorrhage	..	..	..	2
Foetal distress	..	..	..	16
Malpresentation	..	..	..	8
Transferred during the post-partum period				
Tubal ligation	..	..	..	6
Postpartum hypertension	..	..	..	1
Postpartum hæmorrhage	..	..	..	2

Transfer home was arranged according to the patients needs and the advice of the general practitioner and domiciliary midwife, the day of discharge home from the unit was as follows:—

	1	2	3	4	5	6	7	8	9	10+
Number .. ..	14	42	128	42	39	24	20	15	10	15

### Antenatal care

Eighteen antenatal clinics were held weekly, but due to the decrease in home confinements the attendances were poor.

Midwives made 2,488 attendances at antenatal clinics. At all clinics blood specimens were taken by the midwives.

Seventeen general practitioners held antenatal clinics in their own surgeries, the midwife being present.

Attendances at mothercraft classes continued to decrease, due to the fall in home confinements.

A mothercraft session was held at one of the maternity hospitals each week by the domiciliary midwives, and both home and hospital booked patients were encouraged to attend. At the same hospital the domiciliary midwives held a weekly teaching session for postnatal mothers, in the care of the baby.

Midwives made 4,057 antenatal visits to patients in their own homes, a decrease from 4,763 in 1971. These included visits made at the request of hospital staff, to patients who had defaulted at a hospital clinic.

## Deliveries

The analysis of births in the City according to place of delivery was as follows:—

Domiciliary confinements		General practitioner unit by domiciliary midwives		Institutional		Total
Doctor booked	Doctor not booked	St. Mary's hospital	Crumpsall hospital	Institutional	Maternity homes without a resident medical officer	
445	14	292	12	11,716	341	12,820

The number of births notified within the City was 12,820, a decrease of 1,694. 5,168 were to mothers resident outside Manchester and 284 Manchester mothers were delivered outside the City.

## Stillbirths

There were 105 notified stillbirths within the City compared with 138 in 1971. Of the 105 to Manchester mothers 2 occurred within domiciliary practice.

## Analgesia

Trilene analgesia was administered to 604 mothers. All midwives are equipped with trilene apparatus and one midwife with gas and oxygen equipment.

## Home investigation visits

Midwives made 6,774 visits at the request of the hospital authorities to assess whether the home was suitable for medically fit patients who could be discharged home early. The total for the year was 8,482.

By carrying out this aspect of the midwives work extra care has been taken to ensure that there was adequate provision made within the home before a newborn baby was transferred from hospital. Advice and written instructions were also given to the mother during the antenatal period, to protect the baby from undue cold and infection.

## Early discharge following hospital delivery

This scheme remained unchanged during the year when 5,666 mothers were discharged before the ninth day: in 1971 the number was 6,237. A total of 1,116 mothers were discharged after the ninth day. The domiciliary midwives attended 95 per cent of all delivered mothers and babies born to Manchester residents. The care needed by these mothers and babies formed a major part of the domiciliary midwives work.

## Training and educational activities

Ten midwives attended the Family Planning training course introduced by the Health Department. This made available 25 full-time midwives and 11 part-time midwives trained to assist in the 28 weekly family planning clinics.



There were 43 domiciliary midwives approved by the Central Midwives Board to undertake training pupils. Fifty-eight pupils received district training compared with 80 in 1971. These pupils were from the three Part two training schools in Manchester; 29 from St. Mary's Hospital, 14 from Crumpsall Hospital, 15 from Withington Hospital.

In addition 45 obstetric students and seven district nurse students were provided with domiciliary midwifery training experience, accompanying midwives on their visits and attending an antenatal clinic; one other observer to the section included the Chief Nursing Director of India, Miss Sood, who was particularly interested in the family planning clinics.

Eleven midwives attended a compulsory post-graduate course under Rule two of the Central Midwives Board.

### **The Emergency Obstetric Unit (Flying Squad)**

This service based at St. Mary's Maternity Hospital continued to serve the City of Manchester and surrounding areas.

Manchester local authority ambulances provided transport which took the equipment, an obstetrician and, if necessary, an anaesthetist, to the home or nursing home where the service was required. The ambulance was also available to transfer the patient to hospital if required.

### **Maternal deaths**

The Registrar General recorded no maternal deaths in Manchester during the year. Three deaths were investigated for the Confidential Report into Maternal Mortality.

### **Infant mortality**

In 1971 and 1972, 52 per cent of births were males and 48 per cent females, but of the 172 deaths under one year in 1972, 60 per cent were males and only 40 per cent females, an excess of male mortality. Of these deaths 69 per cent, (118), occurred in the neonatal period, the great majority (106) being in the early neonatal period; 67 per cent (70) of the male and 71 per cent (48) of the female deaths under one year of age were located in the neonatal period.

Of the neonatal causes of death, 81 per cent (57) of male and 63 per cent (30) of female neonatal deaths were classified to perinatal causes (International Classification of Diseases Codes 760-779); 13 per cent (9) of male neonatal deaths and 27 per cent (13) of female neonatal deaths were ascribed to congenital anomalies (Codes 740-759).

Of the 57 male and 30 female neonatal deaths ascribed to perinatal causes, 47 per cent (27) of the male deaths and 63 per cent (19) of the female deaths were classified to anoxia and hypoxia (code 776); 26 per cent (15) of these male deaths and 23 per cent (7) of these female deaths were ascribed to unqualified immaturity (code 777). In addition, 25 per cent (14) of male and 7 per cent (2) of female deaths were due to birth injury (code 772). Thus these three causes accounted for 98 per cent of male and 93 per cent of female neonatal deaths.

In the post-neonatal category, 63 per cent (34) of the 54 deaths were male and 37 per cent (20) were female; 41 per cent (22) of these deaths were due to infections of the respiratory tract, 22 per cent (12) due to congenital anomalies and 20 per cent (11) due to the "Sudden Death in Infancy Syndrome".

The following table compares the mortality rates over the last six years.

Year	Mortality Rates					
	Stillbirths	Perinatal	Early Neonatal	Neonatal	Post-neonatal	Infant
	per 1,000 total births (live and still)		per 1,000 live births			
1967.. ..	19.6 (15.1)	32.5 (25.4)	13.2 (10.8)	14.3 (12.5)	8.5 (5.8)	22.8 (18.3)
1968.. ..	15.9 (14.3)	29.9 (24.7)	14.3 (10.6)	16.1 (12.4)	10.3 (5.9)	26.4 (18.3)
1969.. ..	16.5 (13.2)	32.9 (23.4)	16.6 (10.3)	18.2 (12.0)	10.8 (6.0)	29.0 (18.0)
1970.. ..	15.4 (13.0)	30.0 (23.5)	14.9 (11.0)	16.7 (12.3)	6.7 (5.9)	23.4 (18.2)
1971.. ..	15.2 (12.0)	28.9 (22.0)	13.9 (10.0)	15.0 (11.6)	8.5 (5.9)	23.5 (17.5)
1972.. ..	13.4 (12.0)	27.1 (21.7)	13.9 (9.8)	15.3 (11.5)	7.0 (5.7)	22.3 (17.2)

Rates in parenthesis apply to England and Wales.

The relatively large fluctuation in this table in the Manchester rates compared with the National rates is because the latter are an average of a very large number of births, etc., compared to Manchester's number of 10,000 births or less.

The rates relating to infant mortality, still-births and perinatal mortality were the lowest ever recorded in Manchester.

### Premature baby service

There were six midwives trained in the care of premature and ill babies in post at the end of the year. One vacancy existed and the appointment of a suitable candidate was made to commence duty in 1973.

The decentralisation of the staff from the Town Hall, which took place in 1971 continued to be beneficial, staff having no difficulty in car parking facilities which was a time saving factor.

Of the 885 babies referred to the premature baby staff, 25 babies were discharged from hospital against medical advice, an increase from 16 in 1971.

The number of homes visited by the premature baby sisters, which, in their opinion were well below the standard for the adequate care of these babies has increased. Cots had to be improvised, hot water bottles lent, secondhand baby clothes given. Despite these efforts some babies were readmitted to hospital, and the following example demonstrates some of the difficulties.

*Case A.* A premature baby, birth weight 4 lbs. 1 oz. was discharged home from hospital to the care of the mother, on the 27th day—discharge weight 5 lbs. Prior to discharge five visits were made by the premature baby staff to the home to ascertain home conditions before access was gained. These were found to be extremely poor. The mother, 35 years of age, was separated

from her husband and living with another man. There were five children to her husband, aged from eight to 14 years, and two to the putative father, one 18 months old being educationally sub-normal and the premature baby.

The mother was mentally slow, and unable to read or write. On the infant's discharge from hospital the mother and baby were visited by the premature baby sister three times a day for the first week, twice a day during the second week and then daily for a further four days.

Appointments for the infant to attend the paediatric out-patients' clinic at the hospital were not kept by the mother, and the premature baby sister conveyed the mother and infant there by car on three occasions. The mother continually mismanaged the infant's feeding. Finally the infant was readmitted to hospital. During this period the 18 month old child was found to have a high temperature and the mother had refused to call in the general practitioner. This was done by the premature baby sister, and the child was admitted to hospital with a chest infection. Further visits were made by the premature baby staff when the baby was once again discharged and supervision was continued by the nursing staff until the baby was 7 lbs. in weight. At this stage it was transferred to the care of the health visitor.

There was good liaison between hospital and domiciliary staff. A premature baby sister visited all maternity hospitals most weeks to be present when the consultant paediatrician held his out-patient clinic and/or accompanied him on his round of the special baby care unit.

During the year 85 student nurses accompanied the premature baby sisters on their visits to gain an insight on community care for premature babies.

A summary of visits is given as follows:—

	1971	1972
To mothers and babies under 21 days ..	—	4,774
To mothers and babies over 21 days ..	—	3,022
To paediatric clinics .. .. .	150	182
To hospitals other than clinics .. ..	105	165
To maternal and child health clinics ..	135	192
To general practitioners' surgeries ..	79	164
Home assessments .. .. .	—	525
General practitioners' unit .. .. .	13	50

An analysis, by birth weight, of the premature infants referred for care, together with the numbers transferred to hospital whilst in the care of the premature baby sisters, is given below:—

Weight at birth	Number	Transferred to hospital
Under 3 lbs. 4 ozs. .. .. .	8	1
3 lbs. 4 ozs.—4 lbs. 6 ozs. .. .. .	108	3
4 lbs. 7 ozs.—4 lbs. 15 ozs. .. .. .	125	6
5 lbs. 0 ozs.—5 lbs. 8 ozs. .. .. .	296	10
5 lbs. and over .. .. .	348	9
Totals	885	29

Feeding established on discharge of the babies was as follows:—

Breast fed .. .. .	52
Breast and complement fed .. .. .	28
Artificially fed .. .. .	673

Of 15 babies known to have died, the registered causes of death were as follows:—

Bronchopneumonia .. .. .	7
Sudden death in infancy .. .. .	1
Intestinal obstruction .. .. .	1
Acute bronchiolitis .. .. .	2
Congenital heart disease .. .. .	1
Congenital pulmonary atresia .. .. .	1
Renal failure (Down's disease) .. .. .	1
Meningitis .. .. .	1

Twenty-eight babies were known to have been transferred to hospital for the following reasons:—

Chest infection .. .. .	9
Gastro enteritis .. .. .	2
Failure to thrive .. .. .	6
Salmonella infection .. .. .	3
Cyanosis .. .. .	1
Infected umbilicus .. .. .	1
Rh. negative .. .. .	2
Convulsion.. .. .	1
Admitted with mother puerperal psychosis .. .. .	1

### Premature live and stillbirths

Particulars of premature live births notified (as adjusted by transferred notifications) are shown below:—

In hospital (including G.P. units) .. .. .	617
At home .. .. .	27
In private nursing homes .. .. .	2
	<hr/>
	646
	<hr/>

The number of premature stillbirths notified (as adjusted by transferred notifications) was:—

In hospital .. .. .	65
At home .. .. .	—
In private nursing homes .. .. .	—
	<hr/>
	65
	<hr/>

Weight at birth	Premature live births												Premature stillbirths			
	Born in hospital						Born at home or in a nursing home						Born			
	Transferred to hospital on or before 28th day						Died									
	Total births		within 24 hours of birth		in 1 and under 7 days		in 7 and under 28 days		Total births		within 24 hours of birth		in 1 and under 7 days		in 7 and under 28 days	
1 2 lb 3 oz or less	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		
2 Over 2 lb 3 oz up to and including 3lb 4oz	21	20	1	—	1	1	—	—	—	—	—	—	15	—		
3 Over 3 lb 4 oz up to and including 4lb 6oz	39	22	10	4	4	1	—	—	—	—	—	—	18	—		
4 Over 4 lb 6 oz up to and including 4lb 15oz	123	14	3	1	1	—	—	—	—	—	—	—	17	—		
5 Over 4 lb 15 oz up to and including 5lb 8oz	161	1	1	1	9	—	—	—	—	—	—	—	9	—		
6 Total ..	273	3	1	2	14	—	—	—	—	—	—	—	6	—		
	617	60	16	8	29	2	—	—	—	—	—	—	65	—		

1 = 1,000g, or less, 2 = 1,001 - 1,500g, 3 = 1,501 - 2,000g, 4 = 2,001 - 2,250g, 5 = 2,251 - 2,500g.

### Analysis of Stillbirths

(Figures compiled in the department)

Cause	Totals	Males	Females	Legitimate	Illegitimate	Place of confinement		Stillbirth certified by					
						Hospital or nursing home	Domiciliary	Doctor	Midwife	Uncertified			
Maternal conditions :—													
Diseases in mother .. .. .	5	3	2	5	—	5	—	5	—	—	—	—	—
Disease of pregnancy :—													
Toxaemia .. .. .	3	2	1	2	1	3	—	3	—	—	—	—	—
Difficult labour .. .. .	3	—	3	3	—	3	—	3	—	—	—	—	—
Other complications of pregnancy :—													
Premature rupture of membrane ..	1	—	1	1	—	1	—	1	—	—	—	—	—
Placental and cord conditions ..	29	17	12	23	6	29	—	29	—	—	—	—	—
Foetal conditions :—													
Congenital anomalies :—													
Anencephalus .. .. .	13	5	8	10	3	13	—	13	—	1	—	—	—
Hydrocephalus .. .. .	2	1	1	1	1	2	—	2	—	—	—	—	—
Spina bifida .. .. .	3	1	2	3	—	3	—	3	—	—	—	—	—
Multiple .. .. .	3	2	1	2	1	3	—	3	—	—	—	—	—
Other congenital anomalies .. .. .	1	—	1	1	—	—	—	—	—	1	—	—	—
Other conditions :—													
Haemolytic .. .. .	2	1	1	2	—	2	—	2	—	—	—	—	—
Macerated .. .. .	20	12	8	18	2	20	—	20	—	—	—	—	—
Anoxic .. .. .	9	5	4	8	1	9	—	9	—	—	—	—	—
Unspecified .. .. .	8	4	4	7	1	7	—	7	—	1	—	—	—
All causes .. .. .	102	53	49	86	16	100	2	101	1	—	—	—	—

Stillbirths, perinatal deaths, neonatal deaths, post-neonatal deaths and infant death rate, 1952-1972

Year	Total live and stillbirths	Stillbirths		Perinatal Deaths		Neonatal Deaths		Post-neonatal Deaths		Deaths under 1 year and stillbirths		Infant death rate per 1,000 live births
		Number of stillbirths	Rate per 1,000 live and stillbirths	Number of perinatal deaths (stillbirths and deaths under 1 week)	Rate per 1,000 total live and stillbirths	Number of neonatal deaths, 0-4 weeks	Rate per 1,000 total live births	Number of deaths under 1 year and stillbirths	Rate per 1,000 total live and stillbirths	Number of deaths under 1 year and stillbirths	Rate per 1,000 total live and stillbirths	
1952	12,716	349	27.45	575	45.22	269	21.75	155	12.53	773	60.78	34.28
1953	12,573	355	28.24	583	46.37	255	20.87	118	9.66	728	57.90	30.53
1954	12,232	389	31.80	587	47.99	237	20.01	112	9.46	738	60.33	29.47
1955	12,022	318	26.45	496	41.26	215	18.37	117	10.00	650	54.07	28.37
1956	12,291	324	26.36	538	43.77	241	20.14	117	9.78	682	55.49	29.92
1957	12,755	331	25.95	555	43.51	261	21.01	113	9.09	705	55.27	30.10
1958	12,657	322	25.44	533	42.11	237	19.21	79	6.41	638	50.41	25.62
1959	12,638	306	24.21	498	39.40	223	18.08	102	8.27	631	49.93	26.35
1960	12,922	327	25.30	530	41.01	237	18.82	129	10.24	693	53.63	29.06
1961	13,294	291	21.89	531	39.94	268	20.61	120	9.23	679	51.08	29.84
1962	13,873	302	21.77	530	38.20	263	19.38	150	11.05	715	51.54	30.43
1963	13,599	288	21.18	508	37.35	247	18.56	144	10.82	679	49.93	29.37
1964	13,555	272	20.07	479	35.34	244	18.37	138	10.39	654	48.25	28.76
1965	12,775	258	20.20	448	35.07	213	17.02	124	9.91	595	46.58	26.92
1966	12,208	223	18.27	383	31.37	198	16.52	108	9.01	529	43.33	25.53
1967	11,531	226	19.60	375	32.52	162	14.33	96	8.49	484	41.97	22.82
1968	10,909	173	15.86	326	29.88	173	16.11	110	10.25	456	41.80	26.36
1969	10,165	168	16.53	334	32.86	182	18.21	108	10.80	458	45.06	29.01
1970	9,566	147	15.37	287	30.00	157	16.67	63	6.69	367	38.37	23.36
1971	9,068	138	15.22	262	28.89	134	15.01	76	8.51	348	38.38	23.52
1972	7,833	105	13.40	212	27.06	118	15.27	54	6.99	277	35.36	22.26

**Legitimate and illegitimate live births and deaths of infants under one year of age—Manchester and England and Wales**  
(Registrar General's returns 1952-1972)

Year	LIVE BIRTHS				DEATHS UNDER ONE YEAR OF AGE									
	Legitimate	Illegitimate	Totals	Illegitimate percentage of total live births	Illegitimate percentage of total live births England & Wales	Number		Rate per 1,000 related live births			England and Wales			
						Legitimate	Illegitimate	Totals	Legitimate	Illegitimate	Totals	Legitimate	Illegitimate	Totals
1952	11,549	818	12,367	6.61	4.80	398	26	424	34.46	31.78	34.28	27.2	34.9	27.6
1953	11,450	768	12,218	6.29	4.75	352	21	373	30.74	27.34	30.53	26.5	33.0	26.8
1954	10,967	876	11,843	7.40	4.70	322	27	349	29.36	30.82	29.47	25.1	32.1	25.4
1955	10,879	825	11,704	7.05	4.66	312	20	332	28.68	24.24	28.37	24.5	31.7	24.9
1956	11,052	915	11,967	7.65	4.80	327	31	358	29.59	33.88	29.92	23.4	28.5	23.7
1957	11,407	1,017	12,424	8.19	4.80	337	37	374	29.54	36.38	30.10	23.0	30.0	23.1
1958	11,291	1,044	12,335	8.46	4.88	284	32	316	25.15	30.65	25.62	22.3	27.8	22.6
1959	11,186	1,146	12,332	9.29	5.09	298	27	325	26.64	23.56	26.35	21.9	27.4	22.0
1960	11,412	1,183	12,595	9.39	5.44	338	28	366	29.62	23.67	29.06	21.5	26.4	21.7
1961	11,675	1,328	13,003	10.21	5.90	355	33	388	30.41	24.85	29.84	21.1	25.3	21.4
1962	11,974	1,597	13,571	11.77	6.60	355	58	413	29.65	36.32	30.43	21.3	27.3	21.7
1963	11,634	1,677	13,311	12.60	6.90	344	47	391	29.57	28.02	29.37	20.8	26.0	21.1
1964	11,507	1,776	13,283	13.37	7.24	330	52	382	28.68	29.28	28.76	19.4	26.3	19.9
1965	10,741	1,776	12,517	14.19	7.66	280	57	337	26.07	32.09	26.92	18.5	24.9	19.0
1966	10,205	1,780	11,985	14.85	7.89	251	55	306	24.60	30.90	25.53	18.5	24.6	19.0
1967	9,442	1,863	11,305	16.48	8.40	210	48	258	22.24	25.76	22.82	17.9	23.7	18.3
1968	8,866	1,870	10,736	17.42	8.52	239	44	283	26.96	23.53	26.36	17.8	23.4	18.0
1969	8,203	1,794	9,997	17.95	8.41	218	72	290	26.58	40.13	29.01	17.4	25.4	18.1
1970	7,696	1,723	9,419	18.29	8.25	166	54	220	21.57	31.34	23.36	17.5	25.9	18.2
1971	7,228	1,702	8,930	19.06	8.38	168	42	210	23.24	24.68	23.52	16.9	24.1	17.5
1972	6,178	1,550	7,728	20.06	8.62	133	39	172	21.53	25.16	22.26	16.9	21.1	17.2



**Causes of death in infancy and childhood**  
(Figures compiled in the department)

Cause of Death	Under 1 year				1 to 5 years				Total under 5 years		
	Under 4 weeks	Under 1 year			1 to 5 years						
	4 weeks and under 3 months	3 months and under 6 months	6 months and under 1 year	Totals	1-	2-	3-	4-		Totals	
Enteritis and other diarrhoeal diseases .. .. .	—	2	—	1	3	2	—	—	—	3	6
Other infective and parasitic diseases .. .. .	—	—	—	—	—	—	—	—	—	—	—
Malignant neoplasms .. .. .	—	—	—	—	—	—	—	—	—	—	—
Endocrine etc., diseases .. .. .	—	—	—	—	—	—	—	—	—	—	—
Other diseases of blood .. .. .	1	—	—	—	1	—	—	—	—	—	—
Meningitis .. .. .	—	1	—	—	1	—	—	—	—	—	—
Other diseases of nervous system .. .. .	—	—	—	—	—	—	—	—	—	—	—
Circulatory diseases .. .. .	2	—	—	—	2	1	—	—	—	2	4
Pneumonia .. .. .	2	5	5	2	14	2	2	—	—	5	19
Other diseases of respiratory system .. .. .	—	2	4	5	11	3	2	—	—	3	14
Intestinal obstruction and hernia .. .. .	—	—	1	—	1	—	—	—	—	—	—
Other diseases of digestive system .. .. .	—	—	—	1	1	—	—	—	—	—	—
Musculoskeletal diseases .. .. .	—	—	—	—	—	—	—	—	—	—	—
Congenital anomalies .. .. .	15	8	3	2	28	1	6	—	1	8	36
Birth injury .. .. .	8	—	—	—	8	—	—	—	—	—	8
Difficult labour .. .. .	16	—	—	—	16	—	—	—	—	—	16
Anoxia .. .. .	45	1	—	—	46	—	—	—	—	—	46
Maternal conditions unrelated to pregnancy .. .. .	—	—	—	—	—	—	—	—	—	—	—
Toxaemia of pregnancy .. .. .	—	—	—	—	—	—	—	—	—	—	—
Other complications of pregnancy .. .. .	—	—	—	—	—	—	—	—	—	—	—
Condition of placenta .. .. .	—	—	—	—	—	—	—	—	—	—	—
Termination of pregnancy .. .. .	—	—	—	—	—	—	—	—	—	—	—
Haemolytic disease .. .. .	2	—	—	—	2	—	—	—	—	—	2
Condition of foetus .. .. .	1	—	—	—	1	—	—	—	—	—	1
Immaturity unqualified .. .. .	22	—	1	—	23	—	—	—	—	—	23
Suffocation in bed or cradle .. .. .	—	—	—	—	—	—	—	—	—	—	—
Accident motor vehicle .. .. .	1	—	—	—	1	6	—	—	—	1	7
Other violence .. .. .	1	6	4	1	12	—	2	—	—	2	14
Ill defined .. .. .	—	—	—	—	—	—	—	—	—	—	—
Totals .. .. .	116	25	18	12	171	15	12	5	6	38	209

There were no deaths from syphilis, measles, scarlet fever, poliomyelitis, diphtheria, whooping cough or meningococcal infection

**Deaths under one year of age from major causes 1952-1972**  
(*Figures compiled in the department*)

Year	Immaturity unqualified		Injury at birth		Congenital anomalies		Other diseases of early infancy		Diarrhoeal diseases		Respiratory diseases		Total deaths	Infant mortality rate per 1,000 live births
	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births		
1952..	86	7.0	43	3.5	77	6.2	78	6.3	19	1.5	83	6.7	424	34.3
1953..	85	7.0	44	3.6	53	4.3	70	5.7	9	0.7	70	5.7	373	30.5
1954..	52	4.4	44	3.7	81	6.8	90	7.6	11	0.9	49	4.1	349	29.5
1955..	62	5.3	31	2.6	72	6.2	71	6.1	6	0.5	54	4.6	332	28.4
1956..	70	5.9	29	2.4	66	5.5	92	7.7	5	0.4	54	4.5	358	29.9
1957..	86	6.9	44	3.5	64	5.2	83	6.7	2	0.2	56	4.5	374	30.1
1958..	80	6.5	40	3.2	48	3.9	82	6.6	5	0.4	39	3.2	316	25.6
1959..	63	5.1	33	2.7	53	4.3	85	6.9	3	0.2	37	3.0	325	26.4
1960..	79	6.3	28	2.2	75	6.0	82	6.5	15	1.2	43	3.4	366	29.1
1961..	91	7.0	44	3.4	79	6.1	81	6.2	12	0.9	57	4.4	386	29.7
1962..	74	5.5	48	3.5	63	4.6	75	5.5	32	2.4	72	5.3	415	30.6
1963..	79	5.9	50	3.8	55	4.1	79	5.9	11	0.8	78	5.9	390	29.3
1964..	58	4.4	36	2.7	79	5.9	89	6.7	16	1.2	61	4.6	382	28.8
1965..	54	4.3	43	3.4	56	4.5	83	6.6	8	0.6	64	5.1	336	26.8
1966..	47	3.9	25	2.1	51	4.3	77	6.4	10	0.8	68	5.7	306	25.5
1967..	49	4.3	20	1.8	42	3.7	55	4.9	14	1.2	58	5.1	258	22.8
1968..	48	4.5	20	1.9	44	4.1	61	5.7	11	1.0	70	6.5	282	26.4
1969..	49	4.9	17	1.7	43	4.3	66	6.6	23	2.3	68	6.8	290	29.0
1970..	35	3.7	12	1.3	39	4.1	64	6.8	7	0.7	39	4.1	220	23.4
1971..	29	3.2	10	1.1	39	4.4	57	6.4	4	0.4	45	5.0	210	23.5
1972..	22	2.8	16	2.1	34	4.4	50	6.5	4	0.5	26	3.4	172	22.3

## Health Centres

### **Brunswick health centre**

This centre was the first in the City's health centres capital development programme and provided comprehensive local health authority services and school health services including dental facilities.

A number of family health services staff was based at the centre including a senior medical officer, an area nursing officer, a fieldwork instructor, health visitors and school nurses, district nurses, premature baby sisters, chiropodists and bath attendants.

The health centre provided a considerable focus of general practitioner and local authority medical services within one building working so far as was possible as an integrated unit.

### **Beswick health centre**

This centre, the second in the City's health centres capital development programme, was completed in July and commenced operation in August. The building, located in the Beswick comprehensive redevelopment area, was designed to fit into the neighbourhood centre. Other community services were provided nearby.

The cost of erecting and furnishing the health centre was £130,875. The building, a two-storey structure employing the CLASP system of construction, was designed by the City Architect. It consisted of a light steel frame supporting prefabricated roof and floor decks, the external walls being clad in precast exposed aggregate concrete panels. The internal walls, consisting of vinyl faced metal partitions, were designed to contain electrical and plumbing services. Heating and hot water supply were provided by gas-fired boilers.

Local authority services provided from the centre included infant health clinics, antenatal and relaxation clinics, toddlers' clinics, screening test of hearing sessions, family planning and cytodiagnosis sessions, family guidance, chiropody services including a chiropodial laboratory, school health services including minor ailment clinics, immunisation, vision testing, speech therapy and dental services.

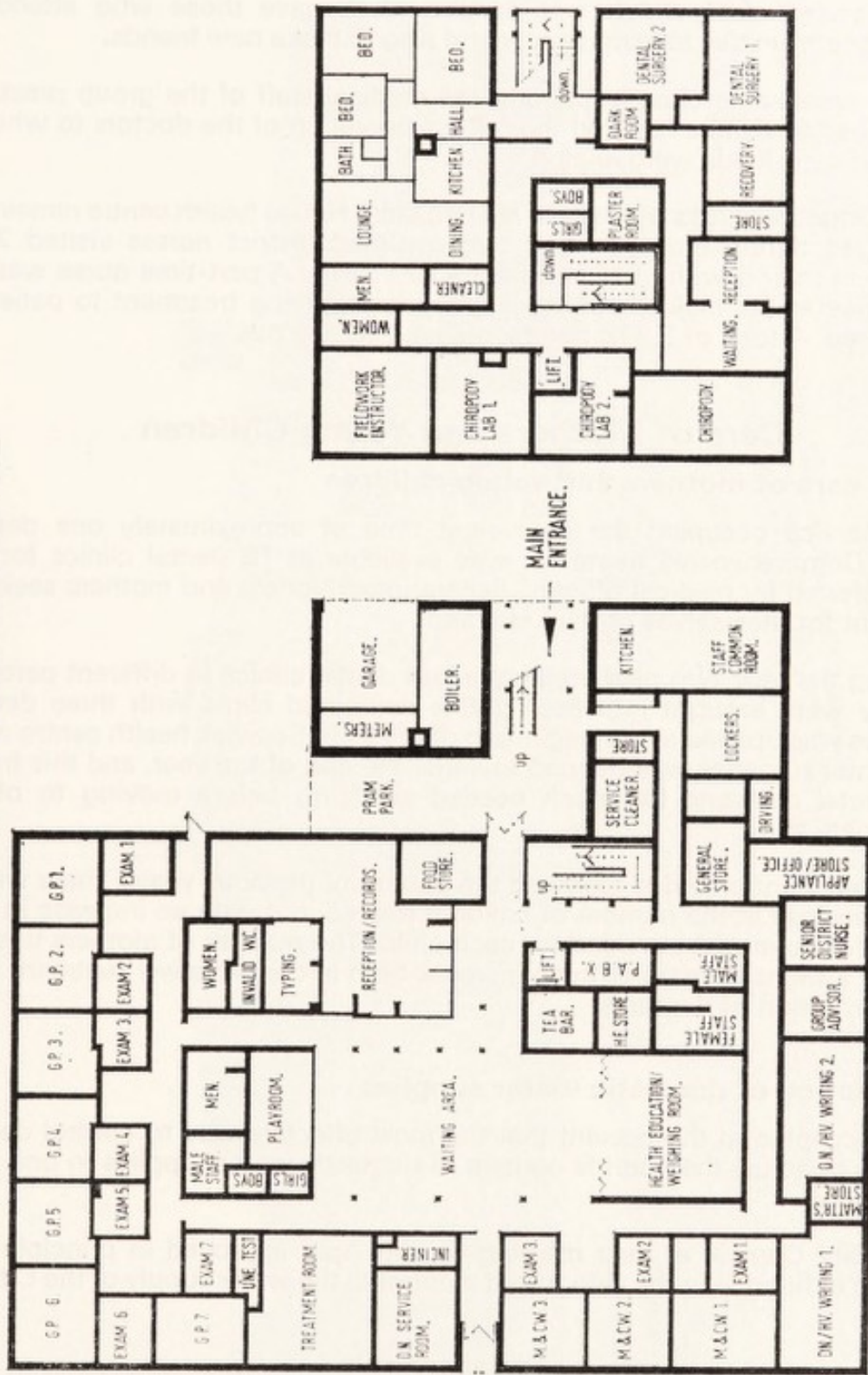
The Health Department staff appreciated not only the improved facilities which were available for the local authority services but, even more important, the opportunities which working with general practitioners in ideal conditions offered to improve the co-ordination of the local health services and the general practitioner services to the consequent benefit of patients.

Several visits were made to the centre by various bodies, the most notable of these being His Royal Highness, Prince Fatafehi Tu'ipelehake, C.B.E., Prime Minister of Tonga and the Hon. Tupua Tamasese Lealofi IV, Prime Minister of Western Samoa.

### **Darbishire House health centre**

Darbishire House health centre is in an area of the City where demolition is taking place. The size of the health visitors' case-loads was clearly affected by this as was the number of children attending the centre. However, the decrease in numbers was temporary, for new houses were planned for this district and building had commenced. A new extension to the centre provided amongst other amenities a quiet room which was available for screening tests of hearing.

# BESWICK HEALTH CENTRE



**FIRST FLOOR**

**GROUND FLOOR**

The toddler clinic was held once a fortnight and, as in previous years, only about 50 per cent of those invited attended.

The antenatal clinics previously held on Tuesday and Thursday were combined into one session on Tuesday afternoons.

The sewing class which met once a week gave those who attended regular opportunities to learn to sew and also to make new friends.

There were some changes among the medical staff of the group practice but the health visitors enjoyed the full co-operation of the doctors to whose lists their case-loads were related.

The district nursing staff pattern at Darbshire House health centre remained unchanged during the year. The two qualified district nurses visited 207 patients in their own homes and paid 4,822 visits. A part-time nurse was in attendance at the majority of surgery sessions, giving treatment to patients as required. A total of 3,578 treatments was carried out.

## **Care of Mothers and Young Children**

### **Dental care of mothers and young children**

The service occupied the equivalent time of approximately one dental officer. Comprehensive treatment was available at 18 dental clinics for all cases referred by medical officers, general practitioners and mothers seeking treatment for themselves or their children.

During the year two new well equipped dental clinics in different parts of the City were brought into use. Hulme combined clinic with three dental surgeries was opened at the beginning of the year. Beswick health centre with two dental surgeries was opened towards the end of the year, and this freed two dental caravans for much needed servicing before moving to other appropriate sites.

The treatment provided followed the pattern of previous years. There was a small decrease in the number of children treated, but with an increase in the amount of treatment provided for each child. The number of mothers treated showed a slight increase with an increase both in conservative treatment and in the provision of dentures.

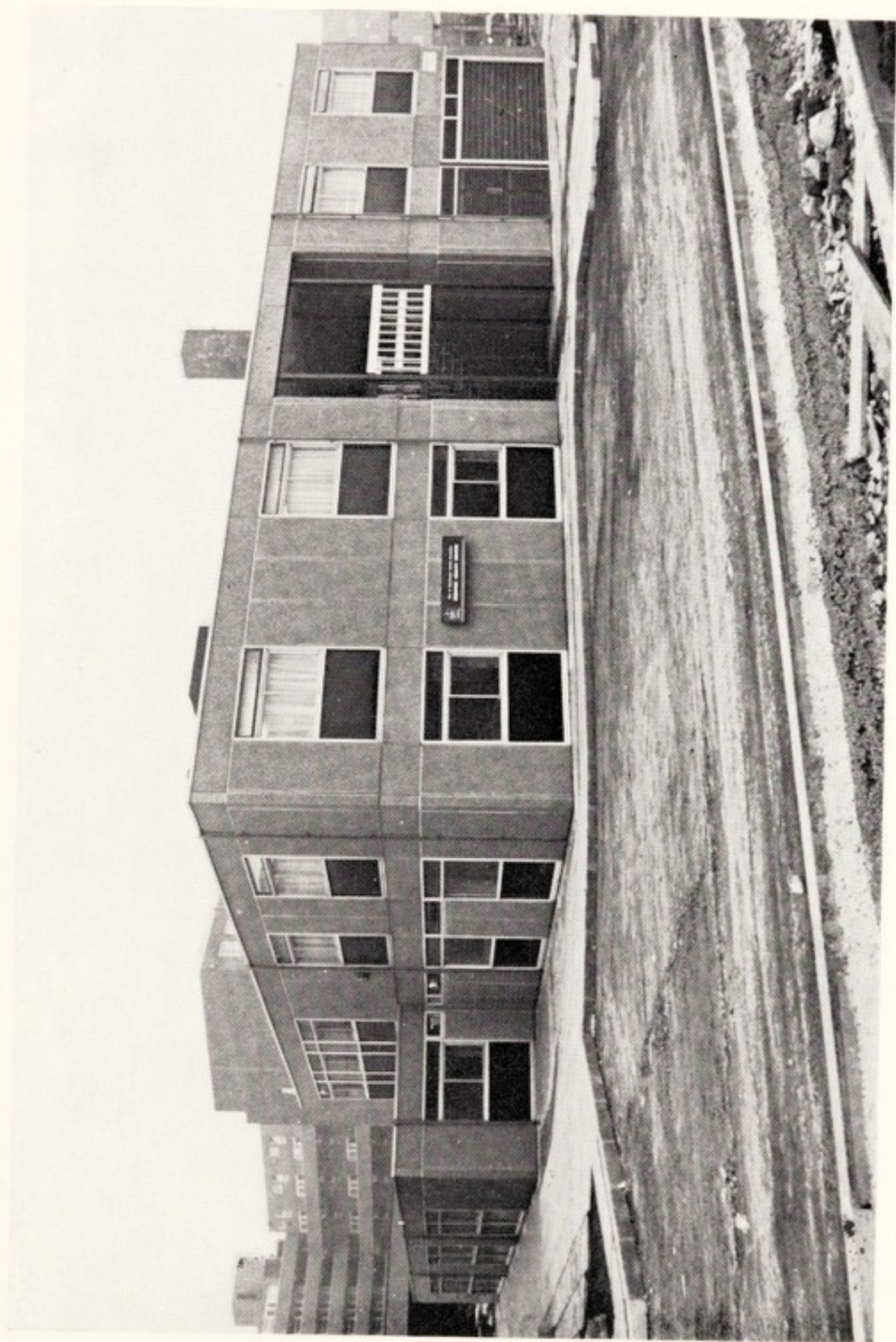
### **Fluoridation of domestic water supplies**

It is accepted at the present that the most effective way to control dental decay is to adjust the fluoride content of domestic water supplies to one part per million.

The City Council at their meeting on 5th April approved in principle the addition of fluoride in the recognised amount to the water supply of the City.

### **Dental care of children in special schools**

Children in attendance at special schools who, due to their physical and/or mental handicaps, rejected dental treatment offered in the usual accepted manner were provided with a functional dentist, with fillings and extractions done under intravenous or inhalation anaesthesia administered by a consultant anaesthetist.



The new Health Centre at Beswick.



Visit of H.R.H. Prince Fatafehi Tu'ipelehake, C.B.E., Prime Minister of Tonga and Hon. Tupua Tamasese Lealofi IV, Prime Minister of Western Samoa, to Beswick Health Centre.



Chairman of the Health Committee, Alderman Dr. J. Taylor, J.P., M.B., Ch.B., discussing the Dental Suite at the new Beswick Health Centre with the Medical Officer of Health.





### Treatment given

One hundred and nine children had 340 fillings, 295 extractions and 129 general anaesthetics were administered.

### Dental care of people in aged people's homes

Due to the uneven distribution of general dental practitioners in the City, a number of matrons of aged people's homes have been unable to obtain dental treatment for their residents, and appealed to the department for assistance. Although it does not come under the orbit of the department, on humanitarian grounds treatment has been provided for a small number of old people, for relief of pain, removal of sepsis and, where considered beneficial, the provision of dentures.

### Dental services for expectant and nursing mothers and children under 5 years

#### Part A Attendances and treatment

Number of visits for treatment during 1972

	Children 0-4 (incl.)	Expectant and nursing mothers
First visit	434	216
Subsequent visits	355	358
Total visits	789	574
Number of additional courses of treatment other than the first course commenced during year	57	20
Treatment provided during the year— number of fillings	576	377
Teeth filled	496	290
Teeth extracted	538	501
General anaesthetics given	191	75
Emergency visits by patients	28	23
Patients X-rayed	3	14
Patients treated by scaling and/or removal of stains from the teeth (prophylaxis)	84	63
Teeth otherwise conserved	70	—
Teeth root filled	—	4
Inlays	—	—
Crowns	—	5
Number of courses of treatment completed during the year	371	155

#### Part B Prosthetics

	Children 0-4 (incl.)	Expectant and nursing mothers
Patients supplied with full upper or full lower (first time)	—	56
Patients supplied with other dentures	—	40
Number of dentures supplied	—	120

#### Part C Anaesthetics

General anaesthetics administered by dental officers	—	142
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## Part D Inspections

	Children 0-4 (incl.)	Expectant and nursing mothers
Number of patients given first inspections during year	541	207
Number of patients in A and D above who required treatment	402	197
Number of patients in B and E above who were offered treatment	400	196
Number of patients re-inspected during year	57	20

## Part E Sessions

Number of dental officer sessions (i.e. equivalent complete half days) devoted to maternal and child health patients

For treatment	358
For health education	110

## "At Risk" register

Names of children who were "At Risk" of developing disabilities but did not show signs of a handicap at birth were placed on this register.

They were selected according to specific criteria from information received on every child born to Manchester citizens. This information was supplied by maternity hospitals or the domiciliary midwifery service. The criteria had been received at the beginning of the year in the light of previous experience and modern thought on "At Risk" registers. Details of the year's additions to the list are given below. It is interesting to note that 563 of the children placed on the list had perinatal hypoxia. This represents 73 per cent of the total additions to the list.

The development of children at risk was watched carefully by medical officers and health visitors to ensure that the earliest signs of a handicapping condition were detected and investigated. Registers can be of great value if every child is followed up in this way, otherwise they become just a cumbersome list, time consuming in their preparation.

A total of 771 infants were placed on the register for the following reasons:—

Deafness or blindness in parents or siblings	.. ..	6
Severe physical or mental handicap in parents or siblings	.. ..	9
Family contact with rubella in pregnancy	.. ..	3
Low birth weight—1,800 grammes or less	.. ..	66
Severe perinatal hypoxia	.. ..	563
Convulsions	.. ..	15
Hyperbilirubinaemia	.. ..	82
Prolonged poor sucking	.. ..	3
Other	.. ..	24
Total	.. ..	<u>771</u>

The total number of children on the register at the end of the year was 2,344. During the year 851 children were removed from the register for the following reasons:—

Normal development confirmed	..	..	..	479
Died	..	..	..	18
Removed from the City	..	..	..	304
Handicap diagnosed	..	..	..	50
Total	..	..	..	<u>851</u>

### Handicap register

This is a register of all known Manchester children who had physical or mental handicaps.

Sources of information required to assess the need to list these children included notification of birth cards (which noted congenital malformations), doctors, health visitors, etc. Each child was categorised according to the list below:—

- Defects of nervous system
- Diseases of the ear
- Diseases of the eye
- Defects of cardiovascular system
- Defects of respiratory system
- Defects of alimentary system
- Nutritional and metabolic disorders
- Endocrine disorders
- Defects of urinogenital system
- Diseases of the blood
- Skeletal and muscular defects
- Skin diseases
- Other disorders—mongolism

Throughout the year special observation was kept on all children on this list by both the centre medical officers and the health visitors in whose areas the children resided. Required visits were made by the health visitors who reported and discussed their findings with the centre medical officers. Each child's progress was assessed against the background of its home and disabilities. Sometimes this required the medical officer to visit the family at home after obtaining the general practitioner's consent. It was the aim of everyone dealing with these children to help them to develop to their fullest potential.

The number of children listed on the register at 31st December was 995. Many of these children had more than one handicap.

During the year 524 names were placed on the "Handicap" register for the following reasons. Thirty one of these children had multiple defects.

Defect	Age of notification					Total No. of defects registered at 31st December 1972
	Under 6 months	6 months and under 1 year	1	2	3 and 4 years	
<b>Defects of nervous system</b>						
Mental retardation .. .. .	2	—	8	5	7	66
Autism .. .. .	—	—	—	—	1	2
Cerebral palsy .. .. .	1	5	7	5	6	53
Epilepsy .. .. .	1	2	4	4	10	43
Hydrocephalus .. .. .	8	4	2	3	1	48
Spina bifida .. .. .	8	—	2	3	—	39
Speech disorders .. .. .	—	—	—	6	29	50
Other—delayed development	1	1	17	10	16	114
<b>Diseases of the ear</b>						
Partial hearing loss .. .. .	—	3	17	5	17	61
Profound hearing loss .. .. .	—	1	2	4	2	19
Other .. .. .	—	—	1	—	—	2
<b>Diseases of the eye</b>						
Squint .. .. .	2	6	16	15	30	102
Partial sight .. .. .	—	—	—	—	2	13
Blind .. .. .	—	1	—	—	—	2
Other .. .. .	3	—	1	1	—	15
<b>Defects of cardiovascular system</b>						
Congenital heart disease .. .. .	12	10	6	5	4	81
Other .. .. .	1	—	1	—	—	6
<b>Defects of respiratory system</b>	3	2	10	8	21	61
<b>Defects of alimentary system</b>						
Hare lip .. .. .	6	—	1	1	—	26
Cleft palate .. .. .	9	—	1	1	—	31
Other .. .. .	4	2	1	1	—	17
<b>Nutritional and metabolic disorders</b>						
Coeliac disease .. .. .	—	—	5	2	2	17
Fibrocystic disease .. .. .	2	—	—	—	1	10
Phenylketonuria .. .. .	2	—	—	—	—	9
Other .. .. .	2	3	4	2	2	23
<b>Endocrine disorders</b>						
Hypothyroidism .. .. .	1	1	—	—	—	6
Diabetes .. .. .	—	—	—	—	1	2
Other .. .. .	1	—	—	—	2	3
<b>Defects of urinogenital system</b>	13	3	1	1	1	53
<b>Diseases of the blood.. .. .</b>	—	2	2	3	5	13
<b>Skeletal and muscular defects</b>						
Talipes .. .. .	20	2	—	2	2	69
Congenital dislocation of hip	10	—	4	1	1	29
Other .. .. .	11	6	4	2	1	65
<b>Skin diseases .. .. .</b>	2	2	1	—	1	19
<b>Other disorders—mongolism</b>	16	4	2	2	—	61
<b>Totals .. .. .</b>	141	60	120	92	165	1,230 *

\* One hundred and forty children had multiple defects.

Number of children on "Handicap" register 31st December, 1971—935.  
 Number of children on "Handicap" register, 31st December, 1972, 1,060

During 1972, 430 cases were removed from the register, the reasons being given below :—

Died .. .. .	17
Recovered .. .. .	45
Removed from the City .. .. .	98
Transferred to schools (5 years of age) ..	270

Under Section 34 of the Education act, 1944, children who, because of a disability, may require special education in the school were referred to the School Health Section between the ages of 2 and 5 years. This year 160 such children were referred.

### Notification of congenital malformations apparent at birth

During 1972 the total number of malformations reported as present at birth was 170, of which 143 were in live births and 27 stillbirths. Notification of these congenital malformations was made to the Department of Health and Social Security and uniformity of terminology was ensured by using the Department's classification.

	0	1	2	3	4	5	6	7	8	9	Total
	Central nervous system	Eye, ear	Alimentary system	Heart and great vessels	Respiratory system	Urogenital system	Limbs	Other skeletal	Other systems	Other malformations	
Live births ..	30	7	23	5	—	16	64	—	14	12	171
Stillbirths ..	29	1	2	—	1	—	4	—	1	3	41
Total .. .. .	59	8	25	5	1	16	68	—	15	15	212

The 212 malformations classified above were in respect of 170 children of whom 30 were born with more than one malformation.

### Nurseries and Child-Minders Regulation Act, 1948 Health Services and Public Health Act, 1968—Section 60

Although the responsibility for registration of persons and premises under the Nurseries and Child-Minders Regulation Act 1948 as amended was transferred to the Director of Social Services, the Family Health Services retained the medical responsibility for the surveillance of the health of persons applying to become child-minders, organisers of private day nurseries or playgroup leaders.

Medical questionnaires of the staffs of proposed private day nurseries, playgroups and child minders were scrutinised by medical officers and the premises were visited regularly to ensure that a high standard of medical care was maintained.

A special public health inspector made 336 visits or revisits during the year investigating applications for registration, increase in maximum permitted numbers or complaints received. His reports and the medical recommendations were forwarded to the Director of Social Services.

## **Maternal and child health centres**

### **Work of the medical officers in the child health clinics**

Regular progress examinations formed an important part of the departmental medical officers' work in the clinics and health centres. These doctors have had many years of experience enhanced by attendance at various training courses in developmental paediatrics. In March, they began to use the new child health record card on which details of the ante-natal care, birth and perinatal periods had already been recorded for the children born in St. Mary's Hospital and at home. The medical officers thereafter recorded the examination of infants at six weeks, six months and one year. These "Progress Examinations" will continue to be undertaken at regular intervals up to the age of five years, when the record cards will be passed on to the School Health Service. It was considered necessary to run a "pilot" scheme in the first instance but next year it may be possible to include all Manchester children in the scheme. Difficulties have been experienced in encouraging mothers to bring children for examinations but it is hoped that these difficulties will gradually be resolved.

Medical officers continued to play an active part in the regular surveillance of children on the "Handicap" and "At Risk" registers, each one undertaking this work for a defined area of the City. Two doctors attended regular out-patient sessions at Withington Hospital to examine neonates and plans were completed for one doctor to undertake sessional work at Booth Hall hospital early in 1973, when a clinic for children suffering from spina bifida is to be opened.

Many opportunities presented themselves for senior medical officers to meet consultant colleagues in hospital and the community and to sit on various committees. There was an increasing awareness of the value for the future which these meetings presented.

## **Clinics**

Weekly clinics were held in the maternal and child health centres as follows—

Infants	..	..	..	..	62
Toddlers	..	..	..	..	26
Ante-natal	..	..	..	..	22

Medical officers were in attendance at the above clinics, with the exception of eight infant sessions and 22 ante-natal sessions which were taken by health visitors and midwives respectively. At ante-natal clinics, midwives, when necessary, continued the practice of taking blood specimens.

## Physiotherapy

There was a substantial decline in the number of children referred to the school health service for physiotherapy treatment and the number of children referred for artificial sunlight treatment also showed a decrease.

Relaxation classes, each supervised by a midwife, continued to be held weekly at 14 selected centres throughout the City and at six other centres as required.

## Domestic science classes

The number of sewing classes held at the various maternal and child health centres remained unchanged throughout the year, eight sewing classes being held weekly.

Each of the classes, supervised by a qualified teacher, proved to be of value to the regular attender. At the end of the year one sewing teacher was employed on a sessional basis.

## Attendances

Attendances during 1972, with comparable figures for 1971, are given below:—

	1972	1971
<b>Ante-natal sessions</b>		
New cases .. .. .	835	1,233
All cases .. .. .	1,242	1,717
Attendances .. .. .	5,663	7,756
<b>Post-natal sessions</b>		
Cases .. .. .	—	2
Attendances .. .. .	—	2
<b>Relaxation and mothercraft classes</b>		
Attendances .. .. .	511	1,027

There was again a fall in the number of attendances at the antenatal clinics, and a corresponding reduction in the numbers attending the relaxation and mothercraft classes. This was attributed to the lower number of births occurring in the City and a corresponding reduction in the number of home confinements, with the availability of more hospital beds.

	1972	1971		
<b>Physiotherapy</b>				
Attendances .. .. .	47	80		
<b>Artificial sunlight</b>				
New cases (children) .. .. .	2	3		
All cases .. .. .	2	3		
All treatments .. .. .	12	6		
<b>Infant and toddler sessions</b>				
Under 1 year .. .. .	32,453	38,800		
1-2 years .. .. .	37,672	30,007		
2-3 years .. .. .			7,789	9,562
3-4 years .. .. .			3,587	5,080
4-5 years .. .. .			2,728	5,236
	<u>70,125</u>	<u>88,685</u>		



An analysis of the attendances at the infant and toddler sessions is given in the following table:—

Centre	<i>No. of children who attended during the year and who were born in</i>				<i>No. of attendances during the year by children who were born in</i>			
	1972	1971	1967/70	Total	1972	1971	1967/70	Total
Abbey Hey .. ..	339	364	368	1,071	3,445	527	479	4,451
Ancoats .. ..	82	92	99	273	707	248	153	1,108
Baguley .. ..	142	203	296	641	640	843	625	2,108
Beswick (Openshaw)	163	176	229	568	826	720	480	2,026
Brunswick .. ..	152	174	304	630	736	614	432	1,782
Burnage .. ..	133	141	220	494	850	871	319	2,040
Charlestown .. ..	241	290	324	855	2,250	741	532	3,523
Cheetham .. ..	83	77	102	262	674	303	144	1,121
Chorlton-cum-Hardy	359	376	483	1,218	1,645	1,657	916	4,218
Clayton .. ..	151	196	225	572	852	1,096	457	2,405
Collyhurst* .. ..	154	273	324	751	615	833	721	2,169
Crumpsall .. ..	282	351	481	1,114	2,939	948	738	4,625
Darbishire House ..	214	223	274	711	699	779	434	1,912
Didsbury .. ..	168	235	576	979	1,093	1,466	1,010	3,569
Gorton .. ..	155	200	177	532	601	841	320	1,762
Harpurhey .. ..	229	272	312	813	1,110	1,124	810	3,044
Hulme .. ..	208	223	275	706	1,568	436	373	2,377
Levenshulme .. ..	325	443	497	1,265	1,446	1,763	1,090	4,299
Moss Side .. ..	314	372	409	1,095	2,425	908	537	3,870
Newton Heath .. ..	137	177	260	574	535	737	443	1,715
Northenden* .. ..	93	115	176	384	410	587	287	1,284
Northern Moor .. ..	164	168	274	606	724	841	488	2,053
Plant Hill .. ..	154	236	295	685	1,846	520	410	2,776
Unitarian Church ..	36	12	2	50	126	55	6	187
Wilbraham .. ..	177	189	270	636	792	866	518	2,176
Withington .. ..	282	273	352	907	1,420	1,333	506	3,259
Woodhouse Park ..	442	428	464	1,334	1,479	1,911	876	4,266
<b>Total .. ..</b>	<b>5,379</b>	<b>6,279</b>	<b>8,068</b>	<b>19,726</b>	<b>32,453</b>	<b>23,568</b>	<b>14,104</b>	<b>70,125</b>

\*Includes sub-centre

### Minor ailments

One hundred children under five years of age were referred by centre medical officers to the school health service for the treatment of minor ailments. Reasons for referral were as follows:—

Defective vision .. ..	17
Other eye defects .. ..	5
Speech defect .. ..	38
Skin condition .. ..	13
Chiropody .. ..	9
Enuresis .. ..	1
Others .. ..	17

### Welfare foods

Welfare foods were obtainable at specified times from all of the 29 maternal and child health centres in the City.

National welfare foods (as distinct from proprietary welfare foods) were obtainable by anyone who presented the appropriate coupon and/or who was prepared to pay the appropriate cost. Proprietary foods costing less than the manufacturer's recommended price were also available to all mothers who regularly attended the child health centres. Proprietary foods were issued to families with low incomes without charge if, in the opinion of the medical officer, a particular proprietary food was medically essential for a child.

In 1972, the cost to the Corporation of free issues of proprietary foods was £67, compared with £52 in 1971.

Issues of national welfare foods were as follows:—

Period	<i>National dried milk—tins/ packets</i>	<i>Cod liver oil —bottles</i>	<i>A, D &amp; C vitamin tablets/ packets</i>	<i>Orange juice —bottles</i>	<i>Children's vitamin drops</i>
1967.. ..	56,984	11,153	5,809	93,180	—
1968.. ..	37,969	7,958	5,109	82,170	—
1969.. ..	21,317	6,984	5,067	84,958	—
1970.. ..	14,306	7,463	5,344	94,255	—
1971.. ..	11,521	5,741	4,316	91,556	8,221
1972.. ..	12,571	1,249	3,268	28,922	17,648

These figures exclude issues to hospitals, day nurseries and non-maintained schools.

### Voluntary workers

Much appreciated voluntary assistance at maternal and child health centres was given by ten ladies who made 136 attendances.

### Mothers' clubs

As reported last year, it has proved uneconomic to run mothers' clubs and there is only one remaining in the City. This has an uncertain future, but during the year it has been attended by a small group of mothers and an interesting programme of talks and activities was arranged.

### Rickets

In July, the Health Committee requested the Medical Officer of Health to report on the apparent increase of rickets occurring in children of 11–14 years.

The position in Manchester regarding this disease was that 11 cases occurred in children known to the Health Department, four of these being under school age. Only one child was a member of an English family, the remainder being from immigrant families. The children were mostly from working-class homes with unsatisfactory dietary histories, but in only two families was more than one child affected. Six of the children were born in Manchester, the other five in varying parts of the world, i.e. Kenya, India and Pakistan.

In the case of the Manchester children, a good deal of health education in the preventive field had been undertaken by health visitors prior to diagnosis but it was obvious that the advice had not been followed regarding suitable diets. In most cases the diagnosis was made between 18 months and two years of age, when a normal walking pattern should have been established. Five were first noticed by local authority medical officers in the City and two others were found as a direct result of investigation into the families of the original cases. The others came to light through general practitioner and hospital services. Since diagnosis all the children have received therapy, including vitamins, under hospital supervision, and at the end of the year were making progress.

The Health Department was alert to the necessity to continue with preventive measures concerning this disease.

It was considered that many children might be "at risk" of developing rickets and it was therefore essential to make sure that preventive measures were adequate, including the provision of vitamins A and D. Vitamins A, D and C drops issued by the Department of Health and Social Security were obtainable from maternal and child health clinics in two ways only—either on payment of 5p or on production of vouchers issued by the Department of Health and Social Security to those families who were in receipt of social security grants. The Health Department was merely the agent for distribution and had no discretionary powers to issue them free. However, vitamins A and D drops (without C) were available free through the clinics at the discretion of the medical officers.

When it was considered that a free issue of vitamins A and D was essential to a child, this was recommended by a centre medical officer.

## **Prevention of illness, care and after care**

### **Chiropody**

The service increased steadily during the year although there were difficulties caused by staff changes especially during the first half of the year.

Full-time members of the chiropody staff increased their involvement in the treatment of school children. Four thousand eight hundred and forty-nine treatments were given during the year, an increase of 2,825 compared with the previous year.

It is essential that an expansion of the chiropody service is maintained so that more frequent relief can be given to a larger number of the elderly and physically handicapped patients. Long periods between treatments cause distress and, instead of maintaining a reasonable standard of comfort, deterioration of the condition occurs.

Beswick health centre, opened in August, provides a modern chiropodial suite with two chiropody chairs and includes a new chiropodial appliance laboratory. The laboratory is equipped to enable it to undertake all aspects of modern chiropodial appliance technology.

The number of persons on the waiting list at the end of the year for first-time treatments at clinics was 1,116 and for domiciliary visits 146. Sessions were commenced at Beswick health centre and Constable Street clinic. Extra weekly sessions were held at Brunswick health centre and Plant Hill clinic.

The one voluntary organisation providing chiropody treatment on an agency basis had a staffing problem during the year and it was necessary for the patients to be transferred to clinics manned by Health Department chiropodists.

At the end of the year the chiropody service had a staff of 10 full-time chiropodists, including the Chief Chiropodist. In addition, 21 private chiropodists undertook clinic sessions and/or domiciliary visits. The plans to expand the service, under discussion at the end of 1971, were completed in May, when the establishment was increased to 25 full-time chiropodists or part-time in lieu. With the increasing workload, it is essential that we continue to develop a good career structure within our own chiropody service, Greater variety in treating various categories of patients and the class of work undertaken will help our progressive chiropody health team.

The following statistics give an indication of the volume of work undertaken by the chiropody section:—

Patients on the register at 31st December in 1970, 1971 and 1972

Receiving treatment	Elderly persons			Physically handicapped persons			Expectant mothers		
	1970	1971	1972	1970	1971	1972	1970	1971	1972
At municipal clinics ..	4,848	5,529	7,341	55	67	114	2	4	9
At home ..	3,142	3,211	4,607	88	101	150	—	—	—
Total .. ..	7,990	8,740	11,948	143	168	264	2	4	9

Treatments given

Treatment received	Number of treatments (all classes)		
	1970	1971	1972
At municipal clinics .. .. .	15,920	17,749	20,118
At home .. .. .	11,179	12,229	13,445
Total .. .. .	27,099	29,978	33,563

Close liaison has been maintained between family doctors, other sections of the Health Department, Social Services Department and the chiropody staff throughout the year.

### Convalescence

Patients were sent for recuperative holidays to the following homes:—

Dr. Garrett Memorial Home, Conway (Children aged 2-5 years) .. .. .	31
Delton Convalescent Home, Blackpool (Adults) .. .. .	11
Seabright Convalescent Home, St. Annes (Adults) .. .. .	8
Lear Home of Recovery, West Kirby (Adults) .. .. .	24
"Binswood" British Red Cross Home, Didsbury, Manchester (Adults) .. .. .	59

Adults were referred for a recuperative holiday by their general practitioner or by local health authority staff in the course of their routine visits. All adult patients were visited by an experienced member of the health visiting staff to decide which type of convalescent holiday home was most suitable.

Patients accepted for a seaside holiday must be fit to travel to the holiday centre by public transport and not require any nursing or medical care.

Frail patients and those who were housebound were offered a place at "Binswood" provided they were not incontinent or unable to look after themselves.

## Pre-diagnostic screening tests

### Metabolic disease of the newborn

During the year a total of 7,942 blood samples for the 'Scriver's' test were obtained mainly by domiciliary midwifery staff although some were taken by hospital staff and health visitors. Two cases of phenylketonuria were detected during the year. Unless detected and treated these children would have become severely mentally subnormal.

### Congenital dislocation of the hip

During the year the names of ten children with this condition were placed on the "handicap" register. Midwives continued to test for this defect at birth. Early diagnosis is essential for adequate treatment.

### Screening tests of hearing

Health visitors trained in the techniques of screening tests of hearing undertook the testing of infants and toddlers throughout the year at 24 clinics and one further clinic until its closure in September. This closure resulted in a slight reduction in the number of children tested in the last quarter of the year but the position should improve when a new building becomes available in 1973.

Medical officers referred all children who failed their screening test, for audiological assessment to either the Department of Audiology at the University, or to Shawbrook School for partial hearing pupils.

Summary of screening tests undertaken

Centre	No. of sessions	No. of children tested	No. of children passed	No. of children awaiting re-test	No. of children referred to Dept. of Audiology and Shawbrook School for diagnostic tests
Abbey Hey .. ..	51	400	385	8	7
Ancoats .. ..	36	121	105	1	15
Baguley .. ..	46	286	274	7	5
Beswick .. ..	27	139	137	2	—
Brunswick .. ..	48	233	212	11	—
Burnage .. ..	12	125	120	2	3
Charlestown Road ..	46	297	289	3	5
Chorlton-cum-Hardy ..	45	312	301	8	3
Clayton .. ..	23	130	126	1	3
Collyhurst .. ..	22	157	151	5	1
Crumpsall .. ..	89	438	377	14	47
Darbishire House ..	38	163	156	5	2
Didsbury .. ..	27	248	232	10	6
Gorton .. ..	29	154	145	7	2
Harpurhey .. ..	30	181	165	4	12
Hulme .. ..	46	200	175	9	16
Levenshulme .. ..	41	472	419	10	43
Moss Side & Wilbraham	88	426	367	28	31
Newton Heath .. ..	32	139	139	—	—
Northenden .. ..	24	110	92	11	7
Northern Moor .. ..	22	208	198	6	4
Plant Hill .. ..	46	195	192	—	3
Surrey Lodge .. ..	13	96	95	1	—
Woodhouse Park ..	55	518	446	37	35
Withington .. ..	37	429	410	5	14
Totals .. ..	973	6,177	5,708	195	264

## **Diabetes**

Part of the routine procedure of admission for all new patients admitted to the district nurses visiting list, was the testing of urine. The patient's own doctor was informed of any abnormality discovered.

During the year, one patient was found to have glycosuria, an old lady of 75 years of age. The patient's own doctor was informed and she was referred to hospital for further tests.

## **Cervical cytology**

The importance of cervical cytology is easily forgotten by women in the community unless they are constantly reminded of the service. Throughout the year every effort was made to keep the service in the public eye, regular clinic sessions being devoted to the work at health centres throughout the City. In addition, women were encouraged to attend any of the authority's 28 family planning clinics for cytology quite apart from seeking family planning advice. In this way many women attended for an examination after an interval of three years from their initial test. All new patients attending family planning clinics had a cytology test unless they had proof of a recent test elsewhere. Those taking oral contraceptives had the test at yearly intervals.

## **Cytology in industrial premises**

Women employees at industrial firms, large stores and offices were again offered cytology. A team consisting of a medical officer, nurse and clerk visited the premises for this purpose. Some of the firms had been screened three years previously and their employees were therefore due to be recalled automatically after this period of time in accordance with arrangements made with the department of cytology at Christie Hospital.

Whenever feasible, a short questionnaire was given to employees. This asked the reasons for refusing a test if this was declined. Eleven firms took part in this exercise and 1,600 employees completed the questionnaire. One fifth of these declined the invitation to have the test without a satisfactory reason. It was disappointing that all firms did not take part in this short exercise, but efforts will be directed towards motivation of the large group who did not wish for the test.

## **Cytology in conjunction with general practice**

In March a co-ordinated attempt to increase the number of women coming forward for cytology was made between the Health Department and general practitioners of one practice in a central area of the City. This pilot scheme was launched with great enthusiasm by all concerned, i.e. general practitioners, medical officers, health visitors and clerks etc.

Publicity was given by a personal letter from general practitioners to women on their lists who were known to have no previous smears, inviting them to attend one of three clinics (two afternoon and one evening) arranged for alternate weeks. The letter pointed out that a choice of doctor could be made, i.e. one of the general practitioners or a woman doctor from the Health Department. Two examination rooms were available, one for each doctor, with an accompanying health visitor or clinic nurse. Clerical assistance was given to compile the list of patients to be invited. Those patients who did not attend at the first invitation were visited in their homes by the health visitors attached to the practice and a further invitation was given and an appointment made to attend the surgery the following week.

It was intended that 100 women should be invited to come forward on alternate weeks, but their enthusiasm and response was poor and the cost

involved was too great to justify further efforts after the initial group had been dealt with.

Details of the project:—

Number invited .. .. .	80
Number who had had previous smear (not shown on medical record)	14
Number unsuitable .. .. .	4
Number of women eligible for the test .. .. .	62
Number of smears taken following initial invitation .. .. .	25
Number requiring follow-up .. .. .	37
Number of smears taken after follow-up .. .. .	20
Total number of smears .. .. .	45

During the year a total of 10,876 cytological examinations were effected and of these 4,659 were carried out on women who had not previously been tested.

A total of twenty positive smears was reported, eight being found in women being tested for the first time. In addition vaginal infection was found in 938 cases and pelvic examinations revealed 1,917 other abnormalities.

### 1. Local Authority clinics

#### (a) Distribution of cytodiagnostic results by age groups 1972

	Under 20 years	20/29 years	30/39 years	40/49 years	50/59 years	60 years and over	No age given	Total
New smears	437	1,779	736	338	171	47	—	3,508
Repeat smears	101	1,707	1,522	1,074	731	182	—	5,317
Negative smears	536	3,458	2,232	1,405	896	229	—	8,756
Positive smears	—	8	6	2	2	—	—	18
Suspicious smears	2	20	20	5	4	—	—	51
Total	538	3,486	2,258	1,412	902	229	—	8,825

#### (b) Cervical smears obtained from 1964 to 1972 at Local Health Authority clinics

	1964	1965	1966	1967	1968	1969	1970	1971	1972
Negative smears	2,364	3,081	3,754	4,065	5,402	5,379	6,835	7,940	8,756
Positive smears	16	34	29	38	41	34	20	19	18
Suspicious smears	17	35	60	141	118	67	36	44	51
Total	2,397	3,150	3,843	4,244	5,561	5,480	6,891	8,003	8,825

Cervical smear tests continued to be carried out at regular sessions at maternal and child health centres throughout the City and were also included in the facilities provided at the Department's family planning clinics. A total of 8,825 tests were carried out and of these 3,508 were initial tests. Positive smears were reported in 18 cases representing an overall incidence of 2.04 per thousand of all tests taken in the clinics. Patients whose test proved positive were immediately referred to their general medical practitioner for necessary treatment. Repeat smears were taken in 5,317 instances, representing 60.25 per cent of all tests effected during the year at local health authority clinics.

## 2. Tests taken at industrial premises

### (a) Distribution of cytodiagnostic results by age-groups 1972

	Under 20 years	20/29 years	30/39 years	40/49 years	50/59 years	60 years and over	No age given	Total
New smears	120	496	178	199	143	14	1	1,151
Repeat smears	4	156	168	263	280	28	1	900
Negative smears	124	650	343	459	417	42	2	2,037
Positive smears	—	—	—	1	1	—	—	2
Suspicious smears	—	2	3	2	5	—	—	12
Total.. ..	124	652	346	462	423	42	2	2,051

### (b) Cervical smears obtained from industrial premises 1968-1972

	1968	1969	1970	1971	1972
Negative smears ..	5,826	3,668	1,994	2,014	2,037
Positive smears ..	28	17	6	1	2
Suspicious smears ..	19	25	5	10	12
Total .. ..	5,873	3,710	2,005	2,025	2,051

The practice of offering facilities to firms within the City so that their employees could be tested at their place of employment was continued and a total of 23 firms were visited and 2,051 women were tested, 1,151 being tested for the first time. Only two positive smears were reported representing an overall incidence rate of 0.98 per thousand, the rate being considerably less than that of clinic patients.



### 3. Distribution of total number of cytodiagnostic results by age groups 1972

	Under 20 years	20/29 years	30/39 years	40/49 years	50/59 years	60 years and over	No age given	Total
New smears ..	557	2,275	914	537	314	61	1	4,659
Repeat smears ..	105	1,863	1,690	1,337	1,011	210	1	6,217
Negative smears	660	4,108	2,575	1,864	1,313	271	2	10,793
Positive smears ..	—	8	6	3	3	—	—	20
Suspicious smears	2	22	23	7	9	—	—	63
Total ..	662	4,138	2,604	1,874	1,325	271	2	10,876

### 4. Other abnormalities found in 1972

	Industrial	Clinics	Total
Trichomonas .. .. .	82	527	609
Monilia .. .. .	60	269	329
Erosion .. .. .	422	1,013	1,435
Polyps .. .. .	31	82	113
Cervicitis .. .. .	39	190	229
Inflammatory changes ..	5	51	56
Fibroids .. .. .	—	1	1
Prolapse .. .. .	—	5	5
Other, e.g. cysts, etc... ..	1	77	78
Total .. .. .	640	2,215	2,855

## Haemodialysis in the home

### Adaptations of homes to install artificial kidney machines

Since 1968 when local authorities were authorised to carry out conversions or adaptations to domestic premises for the purpose of installing artificial kidney machines for the treatment of chronic kidney failure, ten homes have been adapted for haemodialysis.

Following requests from the Medical Director of the Artificial Kidney Unit at Withington Hospital, arrangements were made for the haemodialysis

organiser from the hospital and a representative from the Health Department to meet patients and their relatives in their own homes to discuss the necessary adaptation requirements.

Adaptation of a room in the home, usually an existing bedroom, was carried out by the Direct Works Department within an approved limit of £300 per home. The room chosen for the installation of the kidney machine must be large enough for a single bed and the dialysis equipment and necessary supplies. There may be need for additional electrical wiring to meet the demand of the dialyser machine which requires a 30 amp. supply. Provision of a direct supply of hot and cold water to a sink capable of completely immersing the artificial kidney is essential. The walls and ceiling of the room should be washable and the floor must be water-resistant to contain any water leaks. Adequate drainage of waste material is essential and additional plumbing may be necessary. Shelving is required for the storage of one month's supply of sterile dressings and containers of concentrated fluids.

Good liaison between the representatives of the Health and Direct Works Department and the haemodialysis administrator at the Artificial Kidney Unit ensured speedy and trouble-free conversions.

The expensive dialysis machines and equipment were provided and maintained by the South Manchester Hospital Management Committee, who were responsible for the extra electricity consumed and the installation and rental of a bedside telephone to enable the patient to easily summon help. Considerable work was entailed by the staff at the Kidney Unit with regard to the maintenance and frequent distribution of supplies to service each patient's machine.

Home dialysis freed the hospital from the routine work of dialysis but considerable hospital training of both the patient and the relatives was involved before transfer to home dialysis. Treatment at home was supervised by the Kidney Unit staff until the patient and relatives were fully acquainted with the procedure.

Home dialysis not only saved on hospital beds but also saved the patient's travelling time and the period of separation from other members of the family. Patients received treatment in the relaxed atmosphere of the home environment and they led a reasonably full family life. The risk of cross-infection in supervised home dialysis was minimal compared with dialysis in hospital. The cost of domiciliary haemodialysis to the community as a whole was far less than that of hospital treatment.

At the end of the year, nine patients were receiving kidney treatment in their own homes. During the year one application was received and the home was adapted for home dialysis.

### **Laundry service**

The demand for this service available to chronic sick persons nursed at home increased during the year, 181 persons being supplied free with laundered bed linen and/or night attire compared with 97 in 1971. Deliveries and the collection of soiled articles were made twice weekly.

The laundering of soiled articles was carried out in a most satisfactory manner at Springfield Hospital.

Disposable absorbent paper pads continued to be supplied as an alternative to linen draw sheets, particularly to patients who were doubly incontinent. These pads proved to be of considerable help in fulfilling the needs of these particular patients, and during the year 2,183 patients received benefit from this service.

The problem of disposal of the soiled pads was overcome outside smoke control areas by burning on domestic fires and in incinerators or, provided they were well wrapped, by the normal refuse disposal services. To this end, large incinerators or disposal units capable of dealing with the soiled pads were incorporated into all purpose-built health centres, maternal and child health centres and combined clinics in the City and were also provided at various maternal and child health centres already in existence.

Protective pants and interliners continued to be supplied free of charge and during the year 312 necessitous disabled persons were supplied compared with 204 in 1971. This service was available to handicapped persons on the recommendation of either a general medical practitioner or a district nurse.

### **Loan of sickroom equipment**

Sickroom nursing requisites continued to be available on loan free of charge from either district nurse report centres or by application directly to the Health Department. These applications were substantiated by a doctor, district nurse, health visitor or midwife.

During 1972 there was an increase in the numbers of persons applying for this service, 2,042 applications being received as compared with 1,895 in 1971.

### **Tuberculosis**

The 11,137 notifications of all forms of tuberculosis in England in 1971 was only a small reduction on the previous years' notifications and the disease remained the sixth most common notifiable communicable disease. With 1,330 deaths in 1971 (846 respiratory and 484 other forms of the disease), tuberculosis still maintained its position as the cause of more deaths each year than any of the other notifiable communicable diseases.

With around 20 per cent of these deaths occurring in patients whose disease was only diagnosed after death, there is obviously no room for complacency.

While there is much speculation as to the reasons for our failure to reduce the incidence of this disease more rapidly, there is no doubt that the unrecognised and undiagnosed respiratory case has a high potential for spreading this infection.

The following table indicates the percentage reduction in deaths and notifications in Manchester in the periods 1922-42, 1942-62 and 1962-72.

### Percentage reduction of tuberculosis in periods specified

Period	All forms			Respiratory			Non-respiratory		
	1922-42	1942-62	1962-72	1922-42	1942-62	1962-72	1922-42	1942-62	1962-72
Deaths ..	43	88	60	37	88	60	67	90	63
Notifications	40	64	47	46	59	51	66	86	3

#### Tuberculosis—district nurse

Patients receiving treatment for tuberculosis in their own homes have always formed part of the district nurse's general case load. Gone are the days of long months spent in hospital on complete bedrest. Now, after a short period of active hospital treatment, patients are sent home to continue drug therapy administered by the district nurse. In these cases health surveillance of patient and family is carried out by the district nurse.

During the year a total of 102 patients received nursing treatment compared with 93 in the previous year.

#### Tuberculosis health visiting

Two liaison health visitors maintained contact between the Chest Clinic and the health visitors on the areas, keeping the latter informed of patients' progress and their regular or failed attendance at the Chest Clinic, as well as of cases with positive sputum living in the community who were in need of domiciliary follow-up visits.

These two experienced liaison health visitors at the Consultant Chest Physicians' requests made many visits to homes to investigate social backgrounds of patients who were reluctant to accept hospital treatment or who perhaps refused to take the prescribed drugs and thus hindered their early recovery. They also carried out Tine tests on contacts under the age of 21 years, sometimes having to make visits to their place of employment.

#### B.C.G. vaccinations

In 51 sessions 669 pre-vaccination Heaf tests, 516 B.C.G. vaccinations and 369 conversion Heaf tests were carried out. In addition to contacts of tuberculosis cases, patients included newly arrived immigrant children, school children who had missed appointments at school and student nurses and other hospital staff.

#### Home helps

A home help can be of invaluable assistance in a tuberculous household. Staff who undertook this work were volunteers and arrangements for them to have chest X-ray examinations were made every two years. Their period of duty was limited to three months in active tuberculosis cases. Five patients suffering from tuberculosis were given help during the year.

#### Department of health and Social Security

Financial anxiety was frequently a burden to the family containing a patient suffering from tuberculosis and officers of the Department of Health and Social Security were understanding and sympathetic in providing financial assistance to those in need.

## Food grants

Supplementary milk and food grants were made to tuberculous patients whose income fell below a scale laid down by the Health Committee. This scale is periodically revised and at the end of the year was as follows:—

One adult (single or widow)	..	..	..	£7.00
One parent and one child	..	..	..	£9.00
Two adults	..	..	..	£10.50
Two adults and one child	..	..	..	£12.50
(Plus £2.15 for each additional child)				
(Plus 50p to persons receiving supplementary pensions)				

An allowance was made for rent where this exceeded 75p per week. Fifty-five grants were made during the year.

## Housing

Forty-seven applications for rehousing on medical grounds were referred by the Housing Survey Section of the Health Department. In every case a medical report was received from the consultant chest physician and a home conditions report was submitted by the health visiting staff to the Medical Officer of Health, who subsequently recommended rehousing in 17 cases.

## Colonisation

The Health Committee assumes financial responsibility for the maintenance of patients accepted by village settlements after a period of observation. At 31st December, 1972, there was one patient in Barrowmoor Hall Tuberculosis Colony, and one in Papworth Village Settlement, Cambridgeshire.

## Loans

A small legacy bequeathed to the Corporation for the purpose of helping tuberculous patients, made possible the gift of bedding and clothing to nine needy patients. In order to safeguard the isolation of patients nursed at home, bed and bedding were loaned as necessary and any articles required for nursing care were loaned at the request of the domiciliary nurses.

Sputum boxes were distributed free of charge and premises, beds and bedding were disinfected without cost to the patient.

## Notifications

On 31st December, there were 1,865 persons on the Tuberculosis Notification Register and 79 Manchester patients were receiving treatment in hospitals and sanatoria. New cases of respiratory tuberculosis notified decreased from 202 in 1971 to 192 in 1972. There were 136 male cases (134 in 1971) and 56 female cases (68 in 1971). In addition, the Medical Officer of Health was informed of 11 cases (12 in 1971) of respiratory tuberculosis from local registrars' death returns and three cases (nine in 1971) by posthumous notification.

New cases of non-respiratory tuberculosis decreased from 36 in 1971 to 35 in 1972. There were 16 male cases (15 in 1971) and 19 female cases (21 in 1971). In addition, the department was informed of two cases (none in 1971) of non-respiratory tuberculosis from local registrars' death returns, two cases from the Registrar General (none in 1971) and one case (one in 1971) by posthumous notification.

**Tuberculosis (pulmonary and non-pulmonary)**  
**Incidence and deaths in age groups for years 1921, 1941, 1961, 1966 - 1972**

Year	0—		1—		5—		15—		45—		65—		Total		Totals								
	Pul.	Non-pul.	Pul.	Non-pul.	Pul.	Non-pul.	Pul.	Non-pul.	Pul.	Non-pul.	Pul.	Non-pul.	Pul.	Non-pul.	Cases	Deaths							
																	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases
1921 ..	10	4	39	16	203	25	64	924	604	173	89	376	283	31	17	46	35	1598	967	545	252	2143	1219
1941 ..	3	—	14	5	36	6	18	610	366	124	42	266	241	13	11	39	61	968	679	258	115	1226	794
1961 ..	—	—	15	—	27	—	—	178	2	27	2	139	31	4	3	23	17	382	51	39	5	421	56
1966 ..	—	—	—	—	13	—	—	139	3	24	1	82	22	6	1	31	17	377	42	37	3	314	45
1967 ..	1	—	12	—	12	—	—	144	5	17	—	77	19	5	1	23	18	265	42	27	2	292	44
1968 ..	2	—	18	—	22	—	—	130	4	25	3	63	17	5	3	26	15	261	36	38	7	299	43
1969 ..	—	—	—	—	17	—	—	81	2	43	1	55	12	3	9	19	9	177	23	68	17	245	40
1970 ..	1	—	8	—	16	—	—	88	4	28	—	58	10	6	—	23	21	194	35	38	1	232	36
1971 ..	—	—	7	—	14	—	—	94	3	25	3	60	7	4	1	27	21	202	31	36	4	238	35
1972 ..	—	—	8	—	10	—	—	92	2	22	1	57	4	10	1	25	22	192	28	35	3	227	31

**Summary of notifications of tuberculosis during the**  
**period 1st January to 31st December, 1972**

FORMAL NOTIFICATIONS

	Number of primary notifications of tuberculosis (new cases) by age													Total (all ages)
	0-1	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	
Respiratory, males ..	—	—	6	1	—	6	12	27	17	27	20	16	4	136
Respiratory, females ..	—	1	1	4	5	10	8	8	4	7	3	5	—	56
Non-respiratory, males ..	—	—	—	—	—	3	—	2	5	3	2	1	—	16
Non-respiratory, females ..	—	—	1	—	1	4	4	3	1	4	—	1	—	19

**Primary notifications of and deaths from tuberculosis**  
**Comparative figures for years 1969-1972**  
*(Rates per thousand of the population)*

Year	Primary notifications						General death rate Manchester	Death rate all respi- ratory diseases except tuberculosis (M/cr.)	Death rates, tuberculosis Manchester						Death rate, respiratory tuberculosis, England and Wales
	Respiratory			Non-respiratory					Respiratory			Non-respiratory			
	M. Rate	F. Rate	Per- sons Rate	M. Rate	F. Rate	Per- sons Rate			M. Rate	F. Rate	Per- sons Rate	M. Rate	F. Rate	Per- sons Rate	
1969	0.44	0.17	0.30	0.10	0.13	0.12	12.70	1.99	0.07	0.01	0.04	0.05	0.01	0.03	0.022
1970	0.44	0.22	0.33	0.07	0.06	0.06	12.57	2.09	0.10	0.03	0.06	—	0.00	0.00	0.019
1971	0.51	0.24	0.37	0.06	0.07	0.07	13.15	1.94	0.09	0.02	0.06	0.01	—	0.00	0.019
1972	0.53	0.20	0.36	0.09	0.07	0.07	13.57	1.96	0.10	0.00	0.05	0.01	0.00	0.01	0.020

**Source of notification of tuberculosis**

Source	Respiratory		Non- respiratory		Totals
	M.	F.	M.	F.	
Private practitioners	..	..	..	..	6
Manchester chest clinic	..	..	138	13	151
Baguley chest clinic	..	..	—	2	2
Other chest clinics	..	..	1	—	1
Manchester hospitals	..	..	42	17	59
Other hospitals	..	..	5	3	8
Totals ..	..	..	192	35	227

Of the 227 notifications of all forms of tuberculosis in 1972, 65 referred to Commonwealth immigrants and 6 to European and other immigrants. The notification rates were:—2.37 per 1,000 population for the Commonwealth and other immigrants\* and 0.31 per 1,000 population for the remaining residents of Manchester.

*\*estimated population in Manchester, 30,000. The population of persons of the various nationalities is not known.*

The nationality, age and sex distribution of the Commonwealth and other immigrant cases notified was:—

Age group years	Commonwealth								Non-Commonwealth							
	Caribbean		Indian		Pakistani		Asian		African		Other		European		Other	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0-4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5-15	0	0	1	1	2	3	0	0	0	0	0	0	0	0	0	0
16-40	5	1	2	4	17	11	0	0	0	0	1	0	2	0	1	2
41-60	4	1	0	0	2	4	0	0	3	0	0	0	0	0	1	0
over 60	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Total	9	2	3	6	23	18	0	0	3	0	1	0	2	0	2	2

The duration of residence in Manchester of the Commonwealth and other immigrant cases notified was:—

Years of residence at onset of illness	Number of notifications
0-	9
1-	9
2-	9
5-	24
10 and over	20
Total	71

Of the 35 new cases of non-respiratory tuberculosis notified in 1972, 23 were Commonwealth and other immigrants, whose country of origin was Pakistan (13), India (4), the Caribbean (6).

The site of disease in these 23 cases notified was lymphatic system (14), vertebral column (3), abdomen (3), bones and joints (2) and mediastinal glands (1). In the remaining 12 cases, the site of the disease was lymphatic system (2), genito-urinary tract (2), abdomen (3), vertebral column (2), meninges (3).



As in previous years, a small, but by no means unimportant, number of cases of tuberculosis were first notified after death. Of the 14 notifications of respiratory tuberculosis in this category, four were females and 10 were males. The females were one 59 years, one 81 years and two 84 years of age respectively. The 10 males were distributed by age as follows: one 36 years, two 66–67 years, two 71–72 years, one 74 years, two 79 years and two 81 years. There were five cases of non-respiratory tuberculosis notified after death—two females aged 62 years and 76 years and three males, aged 58, 59 and 65 years.

### Prevention and early diagnosis of pulmonary tuberculosis

During the year a scheme was introduced to try to identify high risk persons in the City. Arrangements were made following approval of the Local Medical Committee for high risk persons to be referred directly to the static mass X-ray unit in the basement clinic of the Town Hall Extension. To check the success of this scheme it was agreed that a copy of the X-ray report would be sent to the Medical Officer of Health. Initially, persons living in houses in multiple occupation have been selected for screening and forms were handed to the occupants by either the local health visitor or public health inspector. The scheme did not get properly started until towards the end of the year but out of 111 referred for chest X-ray, 24 came for examination. No case of pulmonary tuberculosis was identified.

### Mortality

Deaths from respiratory tuberculosis numbered 28, three less than in 1971, consisting of one female and 27 males. Two males and one female died from non-respiratory tuberculosis compared with four males in 1971. Of the 28 deaths from respiratory tuberculosis, 25 were the result of active disease and three due to late effects of tuberculosis. The three deaths from non-respiratory tuberculosis were meninges (1), renal (1) and unspecified (1).

The age and sex distribution of the tuberculosis deaths was:—

Age in years	Respiratory		Non-Respiratory	
	Male	Female	Male	Female
0–	0	0	0	0
15–	0	0	0	1
25–	0	0	0	0
35–	2	0	0	0
45–	1	0	1	0
55–	3	0	0	0
65–	14	0	1	0
75–	7	1	0	0

### Mass radiography health survey

*The following report has been supplied by Dr. J. Rimington, Medical Director of the Mass Radiography Service—Southern Division.*

During the year the two Units of the Southern Division of the Mass Radiography Service visited the following establishments within the City of Manchester.

Basement Clinic, Manchester Town Hall,  
 John Dalton College,  
 Didsbury College,  
 H.M. Prison,  
 McLaren Memorial Baptist Chapel, Chorlton-cum-Hardy,  
 Wilbraham Road Congregational Church Hall, Alexandra Park,  
 Barlow Moor Methodist Church Hall, Chorlton-cum-Hardy,  
 The Dell, Old People's Home, Gorton.

In addition, visits were also made to 17 establishments for the examination of tuberculosis contacts.

Members of the general public residing in the following Municipal Wards were invited to attend specially arranged sessions: Chorlton, Alexandra, Lloyd Street and Barlow Moor. All householders residing in these wards were sent a letter from the Medical Officer of Health indicating the centres together with the dates and times of the sessions, and urging them to take advantage of the Mass Radiography facilities. In addition, the surveys were publicised by means of posters and leaflets in shops, libraries, church halls and other buildings.

The results of the surveys are summarised in the following tables. Table I is based on a 10 per cent sample of the record cards completed during the survey. The table is not strictly accurate in detail, but is sufficient to give a fairly correct indication of sex distribution of the various examinee groups attending the Unit. The other tables are strictly accurate, having been compiled from the individual record cards, but it should be noted that about 10 per cent of the abnormal cases were not fully diagnosed when this report was compiled and they have been included under the most likely classification.

A supplement gives details of the cases referred and abnormalities discovered during the special X-ray sessions at the Town Hall Extension Basement Clinic—these figures have been extracted from those of the main report.

**Table I—persons examined**

	Males	Females	Total
General Practitioner referrals .. ..	1,980	1,320	3,300
Contacts, positive reactors .. ..	120	90	210
Other contacts .. ..	2,320	680	3,000
Immigrants .. ..	20	20	40
Factories/Offices .. ..	210	90	300
Contacts with children .. .. (statutory requirement)	1,850	4,410	6,260
Prisoners .. ..	1,510	—	1,510
Old People's Homes .. ..	20	40	60
General Public .. ..	1,930	2,640	4,570
	<u>9,960</u>	<u>9,290</u>	<u>19,250</u>

**Table II—diagnosis tuberculous cases**

	Males	Females	Total
Tuberculosis—healed .. .. .	18	16	34
Tuberculosis requiring occasional clinic supervision .. .. .	27	24	51
Tuberculosis requiring treatment or close supervision .. .. .	46	18	64
	(4.61)	(1.93)	(3.32)

**Table III— types of examinee with tuberculosis requiring treatment or close supervision**

	Males	Females	Total
General practitioner referrals .. .. .	29	4	33 (10.00)
Contacts .. .. .	10	2	12 (4.00)
Contacts with children .. .. . (statutory requirements)	2	5	7 (1.12)
Inmates of prisons etc. .. .. .	3	—	3 (1.92)
General public .. .. .	2	7	9 (1.99)
	—	—	—
	46	18	64
	—	—	—

The figures shown in brackets show the discovery rate per thousand persons examined found with tuberculosis requiring treatment or close supervision.

**Table IV—non-tuberculosis cases**

	Males	Females	Total
Malignant neoplasms .. .. .	36	6	42
Non-malignant neoplasms .. .. .	3	6	9
Lymphadenopathies .. .. .	3	—	3
Sarcoids .. .. .	1	2	3
Congenital cardiac and vascular abnormalities .. .. .	2	2	4
Acquired cardiac and vascular abnormalities .. .. .	46	50	96
Acquired abnormalities of bony thorax and soft tissues .. .. .	5	3	8
Bacterial and virus infections .. .. .	68	31	99
Bronchiectasis .. .. .	17	4	21
Emphysema .. .. .	10	—	10
Fibrosis .. .. .	30	14	44
Spontaneous pneumothorax .. .. .	1	—	1
Pleural effusion .. .. .	2	—	2
Pleural thickening or calcification .. .. .	13	6	19
Abnormalities of the diaphragm .. .. .	6	10	16
Miscellaneous .. .. .	10	8	18
	—	—	—
	253	142	395
	—	—	—
Failed to attend for further investigation	5	1	6

**Comments**

- (1) Total examinations decreased to 19,250 during 1972 compared with 26,630 in 1971. The cause of the decrease being a greater concentration upon "special" groups, i.e. contacts, doctors' cases, persons in contact

with children, etc. rather than routine public/industrial groups which produce larger numbers of less productive X-rays.

- (2) The number of cases of tuberculosis requiring treatment or close observation detected was 64 compared with 52 in 1971. The discovery rate (3.32 per thousand) was considerably higher than that found nationally, and emphasises the necessity for continued use of mass radiography in the City of Manchester. Although tuberculosis contacts and doctors' cases were largely responsible for the high rate, the discovery rate among the general public (1.99 per thousand) and industry (1.12 per thousand) is far too high for complacency and well above the national average.
- (3) Forty-two cases of malignant neoplasm were found, the majority being primary bronchial carcinomata in middle-aged or elderly male cigarette smokers. Although 44 were found in 1971, the total examinations were larger then, and, in fact, the discovery rate in 1972 was much higher.
- (4) Numerous other significant abnormalities were found and referred for further investigation, e.g. 96 cardio vascular lesions and 99 non-specific inflammatory lesions.

All the abnormalities detailed in the Tables were referred for investigation or treatment either to Chest Physicians, Thoracic Surgeons, Cardiologists or general practitioners.

#### *Supplementary mass radiography report*

The Manchester Hospital Board's Mass Radiography Service (Southern Division) has continued to hold regular chest X-ray sessions in the Basement Clinic of the Town Hall Extension.

Details of cases referred and abnormalities discovered are given below, but it should be noted that these have been extracted from the figures of the main report for the City of Manchester and these are not in addition to those figures.

<i>Examinee group</i>	<i>Number</i>
General practitioner referrals .. .. .	3,197
Contacts of tuberculous cases .. .. .	174
Statutory examinations (persons in contact with children) .. .. .	5,182
Public and Industrial groups .. .. .	208
Immigrants .. .. .	32
 All groups .. .. .	<hr/> 8,793
 <i>Abnormalities discovered</i>	 <i>Number</i>
Tuberculosis requiring treatment or close supervision	40
Tuberculosis requiring occasional supervision .. .. .	25
Neoplasms .. .. .	33
Cardiac lesions .. .. .	58
Other significant abnormalities .. .. .	211
 All abnormalities .. .. .	<hr/> 367
 Failed to attend for further investigation .. .. .	 1

The success of these special sessions is evident in the increase of persons referred from 6,959 in 1971 to 8,793 in 1972, and the number of active tuberculous cases (40) and neoplastic lesions found (33).

## Family planning

A good deal of thought had been put into the possible development of a direct family planning service for the citizens of Manchester prior to 1967, when the National Health Service (Family Planning) Act, 1967, gave permissive powers to local authorities to run such a service. Plans were, therefore, ready to be implemented on a formal basis in that year. It must be remembered that for many years prior to this date most medical officers of the Health Department had been offering family planning advice to mothers and others informally in the maternal and child health clinics and at other points of contact.

The first clinics, opened in 1967, were in scattered areas of the City.

The need for additional clinics soon became obvious and by the early part of the year, 28 weekly clinics were in operation covering every local health authority child health centre and the main teaching hospital of the City; thus all Manchester citizens were living within easy reach of a family planning clinic. Further extensions of this service to meet future needs could easily be planned. All clinics were staffed by a medical officer, midwives and clerks, who worked as a team. The doctors and nurses were fully trained and experienced in all family planning principles and techniques, including the use of intra uterine devices, so that there was no restriction on the advice and method of treatment which could be prescribed at any clinic. The nurses provided an important service seeing patients to enhance the medical officer's instructions to teach the correct use of a cap, pill, etc., to check intra uterine devices at other than the initial visit, to take blood pressures, etc. After training, they also took smears for cytology at 12-monthly intervals for all patients taking oral contraceptives. The clerical staff was in attendances for the booking-in of patients and to help the steady "through-put" of patients in the clinics, and was responsible for the issue of supplies as prescribed by the medical officers. The role of each member of the team was, therefore, a very positive one.

When the City of Manchester started the Family Planning Service in 1967 this included domiciliary visiting which provided counselling by health visitors and midwives. Patients in need were transported to clinics and when unable to attend were occasionally visited by medical officers.

In May, domiciliary family planning was expanded by providing comprehensive and free home visiting by the medical staff of the Department for groups of patients identified by health visitors and midwives in the course of their daily duties, or referred by obstetricians and family practitioners.

Those particularly at risk or who found it difficult to attend clinics at prescribed times included:—

- (a) The mothers of large families (in one instance 22 pregnancies) poorly motivated yet anxious to obtain advice and help.
- (b) Younger mothers with frequent, often annual, pregnancies.
- (c) A smaller group of women who by reason of neurosis or psychosis were unable to attend routine clinics.

In the six months from June–December, 128 visits were paid to the homes of 58 patients. The full range of contraceptive advice was provided in the

domiciliary service as in the clinic service. Patients will be kept under review so that the effectiveness of this development can be evaluated.

A weekly family planning clinic held in the main teaching hospital of the City was staffed by medical officers, midwives and clerks of the Health Department in the same way as those held in child health centres. Hospital in-patients, or those recently discharged formed the greater proportion of attenders, but local residents were also seen. After this initial visit, patients were referred to the family planning clinic most convenient to their home for follow-up and further advice. The hospital made the clinic premises and disposable articles available free of charge.

Consultation and advice were free to all patients who were Manchester citizens. Supplies were also given free on medical and social grounds.

### *Training*

- (1) For medical and nursing staff who will practise in the clinics the rapid expansion of services necessitated an increase in trained medical and nursing staff. Two courses of training were, therefore, arranged in February and September. Invitations to join in these courses were offered to neighbouring local authorities who were running, or anticipating the development of, their own family planning service. This was thought to be the only training course of its kind organised by a local health authority in this country. Twenty-five doctors and nurses participated in each training course which began with three full days of theoretical work. Consultants from the City hospitals assisted with this part of the course, giving lectures and taking part in discussions on relevant anatomy, physiology, pathology, genetics, psychiatry and all methods of contraception and administration. This was followed by the attendance of each trainee at seven family planning sessions in the City's own family planning clinics for practical instructions given by the medical officers and other members of the clinic teams. The joint training of medical officers and nurses was found to be helpful for future team relationships. It was possible to run the courses at a cost of £20 per trainee, including instruction in I.U.D. techniques. Since the first course in September, 1971, 75 doctors and nurses have been thoroughly trained. These training courses will continue to be organised twice a year. Application is being made for recognition of the training by the Royal College of Obstetricians and Gynaecologists.
- (2) General principles of family planning for all Health Department nursing staff.

Two one-day courses were arranged to enable all members of staff who came into contact with families and the public, particularly in their homes, to appreciate the need for family planning, and to be trained to educate men and women about the importance, safety and simplicity of contraception. Further courses of this type were planned for 1973 to include social workers, probation officers and other local authority staff.

### *Students*

- (3) Opportunities were offered to medical and nursing students to spend one or two sessions in the family planning clinics during their training.

**Analysis of New Cases**

**Table 1.**

	Number of new patients seen during the year		
	Married (including the widowed, separated or divorced)	Unmarried	Total
Male	11	—	11
Female	3,574	703	4,277
<b>Total</b>	<b>3,585</b>	<b>703</b>	<b>4,288</b>

**Table 2.**

Number of new patients seen during the year who were:—	Medical cases	363
	Non-medical but needy	1,483
	Other non-medical cases	2,442
	<b>Total</b>	<b>4,288</b>

**Table 3.**

Number of new patients seen during the year who were initially advised to use:—	Sheath	322
	Pill	2,655
	Diaphragm	189
	I.U.D.	917
	Other methods	399
	No method advised	269

**Details of patients and attendances by age-groups 1967-1972**

**Table 4**

Year	Under 20 years		20/29 years		30/39 years		40 + years		Total No. of patients	Total No. of attendances
	No. of patients	No. of attendances	No. of patients	No. of attendances	No. of patients	No. of attendances	No. of patients	No. of attendances		
1967.. ..	37	72	454	1,112	229	536	37	97	757	1,817
1968.. ..	153	362	1,706	4,156	754	1,431	92	187	2,705	6,136
1969.. ..	341	936	2,399	6,552	880	2,117	122	326	3,742	9,931
1970.. ..	488	1,298	3,256	9,415	1,076	2,862	154	436	4,974	14,011
1971.. ..	643	1,812	4,371	11,831	1,442	3,690	245	616	6,701	17,949
1972.. ..	884	2,692	4,871	13,463	1,699	4,934	578	836	8,032	21,925

## Family guidance service

There was an increase in the number of patients attending the Family Guidance clinics during the year. A sixth clinic was opened in October at the new Beswick health centre, which was well attended. Arrangements were made to open another centre at Woodhouse Park in 1973.

One became increasingly aware of the family which under stress was liable to produce a "battered baby". Efforts were made to try to help these families before one of the children was injured. Health visitors were particularly alert to this problem. They referred several mothers to the family guidance clinic who were under such stress that they were at risk of being "pre-battering" parents.

During the year arrangements were made for the psychological social worker to do an extra session's work in the service. This made it possible for her to do more home visits.

Members of the family guidance service were greatly saddened by the death of Mrs. W. Jones who was receptionist when Lady Jefferson opened the first voluntary clinic. Mrs. Jones' death was a great loss to the clinics as she was always so willing to help patients as well as staff.

There were regular case conferences held at Darbshire House. Dr. Grant reported as follows on the year's work:—

"The opening, in the course of the year, of an additional clinic in the Beswick health centre, was reflected in an overall increase in the number of individuals who sought help. These continued to come to us, largely through other sections of the Health Department, and from general practitioners. A smaller but considerable proportion came from other professional individuals and from social agencies. Broadly speaking, from year to year there appeared to be little difference in the sources of referral apart from a consistent but slow increase in the proportion referred by general practitioners.

During the year however, so far as diagnosis of problems was concerned, there was a very definite increase in the proportion of difficulties related to family concern. This was for the most part, stress and concern related to children within the family and during the year the number of cases seen approximately doubled. This was no doubt due partly to the closer liaison with the child guidance service which continued to develop and also perhaps was increasingly due to the prevalence of disturbance in children within the family situation and the repercussions upon parents and others. It was one of the advantages of a service such as ours that these problems could be dealt with in a preventative way and as part of a total situation".

Liaison between the child guidance service of the Education Department and the family guidance service continued to be very good. In several cases the family guidance service was able to support the parents of children who attended the child guidance clinics. Similarly, the services of the child guidance clinics were most helpful, particularly where a child was refusing to attend school.



## Case load

	Beswick	Brunswick	Charlestown/ Collyhurst	Darbishire House	Didsbury	Northenden	Totals
Old cases	4	9	11	24	17	29	94
New cases	6	83	37	28	29	45	228
<hr/>							
Total cases seen	10	92	48	52	46	74	322
Total number of interviews during the year	25	229	104	206	243	235	1,042

## Source of referral of cases:

Health visitors .. .. .	80
General practitioners .. .. .	67
School health service .. .. .	32
Own initiative .. .. .	21
Maternal and child health clinics	15
Family guidance staff .. .. .	14
Senior medical officers .. .. .	14
Relatives .. .. .	13
Medical social workers .. .. .	11
Child guidance service .. .. .	8
Other clients .. .. .	8
Brunswick health centre .. .. .	7
Citizens Advice Bureau .. .. .	7
Education Department .. .. .	7
Social Services Department .. .. .	4
Family planning clinics .. .. .	3
Marriage Guidance Council .. .. .	2
Press .. .. .	2
Probation officers .. .. .	2
Student health service .. .. .	2
Friend .. .. .	1
Hostel wardens .. .. .	1
Samaritans .. .. .	1

322

## Diagnosis of problem in all cases:

Family concern—advice sought	132
re children .. .. .	128
re other relations .. .. .	4
Marital disharmony—without apparent individual disorder .. .. .	94
Individual disorder—	
predominantly psychiatric .. .. .	83
personality disorder .. .. .	50
anxiety state .. .. .	12
depression .. .. .	18
sexual problems .. .. .	3
Extra-family problems—	
other people, financial and housing .. .. .	13

322

## Co-ordinating committee for the care of children neglected or ill-treated in their own homes

A senior medical officer attended meetings of Areas one and three regularly and was able to help in co-ordinating the work of general practitioners, hospitals and various social departments in the care of patients, particularly those suffering from mental illnesses. Arrangements were made for children to be admitted to convalescent homes or day nurseries to relieve stress upon mothers who were finding it difficult to cope with their own illness and caring for their families.

## Liaison between the family health service and the child guidance service

The senior medical officer continued to be responsible for medical matters concerning the child guidance service of the school health service.

Regular meetings with the principal educational psychologist were attended to discuss cases where medical problems were involved. Discussions as to future treatment of a particular child took place with the child's parents and general practitioner and on many occasions a medical examination was made at a child guidance clinic with reference to hospital consultants for investigation when required.

## Community Relations

The Community Relations Officer has continued through this year to work in close co-operation with the Manchester Council for Community Relations working as part of a team for the promotion of sound community relations in the City. In particular he has undertaken work connected with the Social Services Sub-Committee, the Playgroups Working Party and the Fair Housing Group of the Community Relations Council acting as secretary to the first two groups and carrying out the secretarial function jointly with the Senior Community Relations Officer for the Fair Housing Group. This work has included servicing the Housing Advice Centre and work on a piece of housing research which should be completed early next year and financial supervision of the playgroups.

The Community Relations Officer dealt with a number of individual enquiries from members of the public with particular problems during the year and also with enquiries from other agencies including hospitals, schools, social workers and health visitors and there was some co-operation with the Race Relations Board.

The Officer was responsible for the organisation of a Summer Play Project in Cheetham in co-operation with the City Education Department and it is hoped that this kind of provision will be repeated next year.

A number of speaking engagements were undertaken on subjects connected with race relations and immigration, both within the Town Hall to student public health inspectors, trainee mid-wives and home helps and to other bodies such as Rotary Clubs, Church Groups and Schools.

The Community Relations Officer has continued to represent the Medical Officer of Health on the Longsight/Moss Side Community Project Committee and has attended a series of meetings on the future of Cheetham. He has also undertaken supervision of two students during the summer period and for the first nine months of the year was responsible for the Police Cadet placements with the Community Relations Council.

In Community Relations terms one of the major events of the year was President Amin's decision to expell citizens of Asian origin from Uganda. The Senior Community Relations Officer was asked to act as agent for the Uganda Resettlement Board in Manchester and the Community Relations Officer assisted him in this function attending meetings of a voluntary co-ordinating committee and helping in the resettlement of the families arriving in Manchester. A great deal of time from September onwards was spent on this function and in making arrangements for possible flight diversions to Manchester Airport. Only two flights were in fact diverted to Manchester Airport, both on 1st November and the Community Relations Officer was in charge of the resettlement operation there on that day. A great deal of co-operation was received from voluntary organisations in the City and surrounding districts. Co-ordination of local authority effort in the same field was much more difficult particularly because of the difficulties created by local government boundaries.

Discussions are in hand on the future of the Authority's work in community relations, in view of the impending reorganisation of Health Services, and we look forward to further close co-operation with the Community Relations Council in our efforts to improve community relations in the City during the coming year.

## Incidence of blindness

### (National Assistance Acts)

*The following information has been kindly supplied by the Director of Social Services and most is in the form required by the Department of Health and Social Security.*

#### Follow-up of registered blind persons

	Cause of disability		
	Cataract	Glaucoma	Others
(i) Number of cases registered as blind during the year 1972 in respect of which section D of form B.D.8 recommends:—			
(a) no treatment .. ..	2	3	40
(b) treatment (medical, surgical or optical) ..	16	13	62
(ii) Number of cases at (i) (b) above which on follow-up action have received treatment .. .. .	16	13	62
(iii) Number of cases at (ii) above in which:—			
(a) vision improved .. ..	—	—	—
(b) sight restored .. .. .	—	—	—
(c) treatment continuing at end of year .. .. .	14	13	59

#### Follow-up of registered partially-sighted persons

	Cause of disability		
	Cataract	Glaucoma	Others
(i) Number of cases registered as partially-sighted during the year 1972 in respect of which section D of form B.D.8 recommends:—			
(a) no treatment .. ..	2	—	14
(b) treatment (medical, surgical or optical) ..	29	17	51
(ii) Number of cases at (i) (b) above which on follow-up action have received treatment .. .. .	29	17	51
(iii) Number of cases at (ii) above in which:—			
(a) vision improved .. ..	—	—	—
(b) sight restored .. .. .	—	—	—
(c) treatment continuing at end of year .. .. .	27	16	50

## Summary of register of blind persons for 1972

					Twelve months ended 31-12-1972	Twelve months ended 31-12-1971
Number of cases on register	..	..	..	..	1,195	1,174
<i>add</i>						
Number of new cases	..	..	..	..	136	96
Removals into area	..	..	..	..	17	22
					<hr/> 1,348	<hr/> 1,292
<i>deduct</i>						
Number of deaths	..	..	..	..	51	68
Removals out of area	..	..	..	..	17	29
					<hr/> 68	<hr/> 97
					<hr/> 1,280	<hr/> 1,195
	1972				1971	
	Males	Females			Males	Females
	514	766			482	713

## Analysis of register of blind persons

					at 31-12-1972	at 31-12-1971
Number of cases						
<i>Children:—</i>						
Under 5 years of age	..	..	..	..	6	5
5 to 15 years of age— —at school	..	..	..	..	15	11
—not at school	..	..	..	..	7	8
<i>Adults over 16 years of age:—</i>						
At school	..	..	..	..	7	4
Under training	..	..	..	..	7	8
Not training but trainable	..	..	..	..	3	2
Trained but unemployed	..	..	..	..	2	2
Employed at blind institutions or elsewhere	..	..	..	..	128	131
Unemployed	..	..	..	..	1,105	1,024
					<hr/> 1,280	<hr/> 1,195

<i>Age periods</i>						
0- 4 years of age	..	..	..	..	6	
5-10	"	"	..	..	16	
11-15	"	"	..	..	6	
16-20	"	"	..	..	11	
21-29	"	"	..	..	43	
30-39	"	"	..	..	42	
40-49	"	"	..	..	61	
50-59	"	"	..	..	133	
60-64	"	"	..	..	97	
65-69	"	"	..	..	101	
70-74	"	"	..	..	162	
75-79	"	"	..	..	158	
80-84	"	"	..	..	196	
85-89	"	"	..	..	138	
90 plus	"	"	..	..	110	
					<hr/> 1,280	

There was an increase of eighty-five on the register of blind persons compared with 1971 ; the largest increase was in persons over 80 years of age.

## Summary of register of partially-sighted persons for 1972

				Twelve months ended 31-12-1972	Twelve months ended 31-12-1971
Number of cases on register	..	..	..	717	667
<i>add</i>					
Number of new cases	..	..	..	113	86
Removals into area	..	..	..	4	5
				834	758
<i>deduct</i>					
Number of deaths	..	..	..	15	16
Removals out of area	..	..	..	9	2
Transfers to blind register	..	..	..	35	41
				59	23
				775	717
<b>1972</b>					
New cases	<i>Males</i>	<i>Females</i>		<i>Males</i>	<i>Females</i>
	44	69		37	49
<b>1971</b>					

## Analysis of register of partially-sighted persons

				at 31-12-1972	at 31-12-1971
Number of cases					
<i>Children:—</i>					
Under 5 years of age	..	..	..	1	2
5 to 16 years of age—not at school	..	..	..	4	2
5 to 16 years of age—at school	..	..	..	32	32
Over 16 years of age—at school	..	..	..	3	5
<i>Adults over 16 years of age:—</i>					
Under training	..	..	..	5	4
Available for training	..	..	..	16	13
Employed elsewhere..	..	..	..	81	80
Unemployed	..	..	..	633	579
				775	717

<i>Age periods</i>					
0- 4 years of age	..	..	..	1	
5-10	..	..	..	16	
11-15	..	..	..	20	
16-20	..	..	..	23	
21-29	..	..	..	49	
30-39	..	..	..	25	
40-49	..	..	..	33	
50-59	..	..	..	53	
60-64	..	..	..	48	
65-69	..	..	..	63	
70-74	..	..	..	75	
75-79	..	..	..	121	
80-84	..	..	..	110	
85-89	..	..	..	82	
90 plus	..	..	..	56	
				775	

The number of registered partially-sighted persons increased by 58 compared with 1971 ; the largest increase was in persons aged 75-79.

## Classification of cases of blindness certified and registered in 1972

	Males	Females	Total
New cases from 1st January to 31st December, 1972 .. .. .	57	79	136
Number of deaths during 12 months .. .. .	26	25	51

Ages at which blindness occurred	New cases			Present age periods		
	Males	Females	Total	Males	Females	Total
0	6	1	7	—	—	—
1	—	—	—	—	—	—
2	—	—	—	2	—	2
3	—	—	—	1	—	1
4	—	—	—	—	—	—
5-10	—	—	—	2	1	3
11-29	—	—	—	—	—	—
30-39	1	—	1	—	—	—
40-49	3	1	4	1	—	1
50-59	7	6	13	8	4	12
60-64	6	7	13	4	6	10
65-69	2	11	13	6	7	13
70-74	9	12	21	8	13	21
75-79	10	11	21	6	11	17
80-84	6	16	22	12	17	29
85-89	3	8	11	4	15	19
90 and over	2	4	6	3	5	8
Unknown	2	2	4	—	—	—
Totals	57	79	136	57	79	136

<i>Other disabilities</i>	Males	Females
Hard of hearing .. .. .	1	1
Mentally subnormal .. .. .	1	—

### Causes of blindness

	Males	Females	Total
Cataract .. .. .	1	17	18
Glaucoma .. .. .	9	7	16
Diabetic retinitis .. .. .	2	7	9
Macular degeneration .. .. .	19	20	39
Myopia .. .. .	3	3	6
Keratitis .. .. .	1	2	3
Retinopathy .. .. .	1	3	4
Choroiditis .. .. .	1	2	3
Disciform degeneration .. .. .	3	4	7
Thrombosis .. .. .	1	—	1
Optic atrophy .. .. .	5	4	9
Corneal ulcers .. .. .	—	2	2
Uveitis .. .. .	—	1	1
Central amaurosis .. .. .	2	—	2
Aphakia .. .. .	1	—	1
Detachment of retina .. .. .	3	2	5
Other causes .. .. .	5	5	10
Totals	57	79	136

## Summary of statistics of blind persons for the last ten years

Year ended 31st December	Total on register	New cases	Cases re-certified	Deaths	Cases de-certified	Transfers into area	Transfers out of area
1963	1,204	154	—	141	2	21	50
1964	1,192	132	1	136	1	28	36
1965	1,189	144	1	137	—	17	28
1966	1,165	132	1	139	2	30	46
1967	1,162	125	1	101	2	21	47
1968	1,140	108	—	119	1	20	30
1969	1,134	92	—	99	—	21	20
1970	1,174	119	—	86	—	22	15
1971	1,195	96	—	68	—	22	29
1972	1,280	136	—	51	—	17	17

## Scabies and lice infestation

The problem of infestation amongst men of no fixed abode is an ever present one and calls for vigilance on the part of the local health authority.

Regular disinfection sessions were held in the three main hostels for men, but only in the municipal hostel was disinfection made a condition of residence. Most infested men resident in hostels accepted disinfection treatment on the hostel premises, but a few objected and some of these, together with others resident in the community, made their own way to the disinfection unit at Monsall where they requested treatment which was not refused. This unit was open *only* as required.

The numbers of adults disinfested for scabies and lice are as follows:—

	Scabies		Lice infestation	
	Males	Females	Males	Females
Total number of persons treated ..	41	57	336	47
Total number of treatments given ..	99	135	336	47
Number resident and treated in hostels	—	—	254	6
Number resident and treated in Social Services Homes .. ..	24	20	—	—
Number treated in own homes ..	3	—	3	3
Number treated in clinics .. ..	14	37	5	38
Number treated at Monsall at patients own request .. .. .	—	—	61	—
Number referred by police and treated at Monsall .. .. .	—	—	13	—

# SCHOOL HEALTH SERVICES

## Introduction

Changes in medical staff took place during the year and it is gratifying to report that several new members were appointed and the routine work of the department has been maintained at a satisfactory level. The national shortage of speech therapists and physiotherapists is reflected in the difficulty experienced in filling vacancies in these fields.

It is with regret that the death is recorded of Mr. Allen, superintendent physiotherapist at the Lancasterian school for physically handicapped pupils. Mr. Allen was appointed to the staff in 1949 and after many years at the Margaret Barclay residential school, he transferred to the Lancasterian school.

A school clinic was incorporated in the Beswick health centre which was opened in October.

## General statistics

School population January 1973—maintained schools — —	101,346
Number of maintained nursery, primary and secondary schools	300
Number of children on registers .. .. .	98,432
Number of maintained special schools .. .. .	31
Number of children on registers .. .. .	2,914
Number of children attending direct grant, non-maintained and independent schools.. .. .	3,104

## School Clinics

School clinics were open daily for the treatment by clinic sisters of minor ailments, skin diseases, eye and ear infections and vaccination against poliomyelitis.

Medical officers attended each clinic at regular weekly sessions to examine children, prescribe treatment and immunize against diphtheria and tetanus. Children going on holiday abroad with their schools were vaccinated against smallpox.

In accordance with local bye-laws, children who wished to work outside school hours were examined to determine their fitness for employment.

Special sessions were held at selected clinics to provide treatment in all areas of the city for children suffering from enuresis and for those requiring speech therapy, chiropody, physiotherapy and ultra-violet ray treatment.

At the Central clinic, facilities were provided for audiometry and haemoglobin estimation in addition to consultant advice for ear, nose and throat and ophthalmic defects.



Orthopaedic consultants examined children at the out-patients clinics attached to Lancasterian and Telford Schools for physically handicapped children.

The notification of the arrival of new immigrants was received from the Medical Officer of Health and Schools, in respect of 168 children and arrangements were made for them to be examined by a school medical officer at their local clinic.

A school clinic was opened in September in the new Beswick Health Centre, increasing the number of clinics to 22.

Dental treatment was provided at all but one school clinic.

Attendances at the clinics were as follows :

Dental clinics	.. .. .	64,697
Other clinics	.. .. .	205,929
Ultra Violet Ray Therapy—		
Number of children treated	.. .. .	205
Discharged—treatment completed	.. .. .	99
Ceased to attend before treatment completed	.. .. .	63
Number of children receiving treatment at 31.12.72	.. .. .	43
Total number of treatments given	.. .. .	2,700

## School clinics

### *Medical and dental clinics*

*Ancoats	Cannel Street, Ancoats, Manchester, M4 6HE Tel: 205 2920
*Baguley	Hall Lane, Baguley, Manchester, M23 8NA Tel: 998 4408
*Beswick Health Centre (opened 16.10.72)	Ranworth Close, Beswick, Manchester, M11 3SL Tel: 223 6551
*Brunswick Health Centre	Hartfield Close, Brunswick Street, Manchester, M13 9TP Tel: 273 4901
Central	Byrom Street, Deansgate, Manchester, M3 4PF Tel: 236 3377 Ext. 7443 or 228 2191
*Charlestown	Charlestown Road, Blackley, Manchester, M9 2DD Tel: 740 7955
Cheetham	Smedley Street, Cheetham Hill Road, Man- chester, M8 8UN Tel: 205 1622
Collyhurst Sub-Clinic	2 Overcombe Walk, Manchester, M10 7TH Tel: 205 6407
Gorton	Gorton Road, Manchester, M12 5BQ Tel: 223 1489
*Hulme Combined Clinic	217 Hulme Walk, Manchester 15 Tel: 226 5211
Levenshulme	963 Stockport Road, Manchester, M19 3NP Tel: 224 1663
Moston	16 Moston Lane, Manchester, M9 1AA Tel: 205 1007

Newton Heath	Pilling Street, Oldham Road, Newton Heath, Manchester, M10 6AW Tel: 205 2646
Northenden	Bazley Road, Northenden, Manchester, M22 4FL Tel: 998 2652
*Northern Moor	Moorcroft Road, Northern Moor, Manchester, M23 0AF Tel: 998 5522
Openshaw	1460 Ashton Old Road, Manchester, M11 1HL Tel: 370 1429
*Plant Hill	Plant Hill Road, Blackley, Manchester, M9 3LX Tel: 740 7909
Withington	535 Wilmslow Road, Manchester, M20 9BA Tel: 445 1555 and 434 3437
*Woodhouse Park	Simonsway, Manchester, M22 5JZ Tel: 437 4625

### *Dental clinics*

*Abbey Hey	Constable Street, Manchester, M18 8GD Tel: 223 7420
*Didsbury	Wilmslow Road, Didsbury, Manchester, M20 8RN Tel: 445 6743
Orthodontic	Brunswick Centre, Hartfield Close, Manchester, M13 9TP
Mobile Dental Clinics	Oswald Road School, Trees Street Welfare Centre.

\* Accommodation in these premises is shared with Family Health Services.

### *Special clinics*

Orthopaedic clinics	Lancasterian School, Barlow Moor Road, Manchester, M20 8XA Tel: 445 1259
	Telford School, Bank House Road, Blackley, Manchester, M9 3LT Tel: 740 1897
Child guidance clinics	54 Hathersage Road, Chorlton-on-Medlock, Manchester, M13 0EF Tel: 224 3686 and 4510
	Crossley Street, Gorton, Manchester, M18 8BA Tel: 223 3158
	Harpurhey Centre, Westmorland Street, Manchester, M9 1GN Tel: 205 2857
	Withington Centre, 551 Wilmslow Road, Manchester, M20 9BA Tel: 434 3437
	Wythenshawe Centre, Yew Tree Lane, Manchester, M23 0BA Tel: 998 4130 and 4897

Speech therapy clinics	56 Hathersage Road, Chorlton-on-Medlock, Manchester, M13 0EF Tel: 224 5117
	Baguley, Brunswick, Charlestown, Gorton, Hulme, Northern Moor, Plant Hill, Withington and Woodhouse Park.
School sessions	Bostock Hall, The Birches, Beech House, Margaret Barclay, Ewing, Great Moreton Hall, Lancasterian, Longsight, Mill House, Park, Shawgrove, Shawbrook, Riverside, Whitebrook and Whitworth.
Audiometric clinic Ophthalmic clinic Orthoptic clinic Oto-Laryngological	} Central Clinic, Byrom Street, Deansgate, Manchester, M3 4PF Tel: 236 3377 Ext. 7443
Enuresis clinics	Brunswick, Cheetham, Gorton, Hulme, Newton Heath, Northenden and Woodhouse Park.

## Special clinics

### Haemoglobin clinic

The total number of new cases seen in the clinic this year was 135, and the number of attendances for re-inspection was 88, giving a total of 223 attendances, from 448 notifications. There were thus 225 appointments which were not kept. Of these, 34 children did not attend despite a total of three appointments being sent, the last one delivered by hand by a school nurse. These defaulters were then discharged and the source of referral notified. Of the new cases referred 66 required treatment, nine were kept under observation and 60 had adequate haemoglobin levels and were therefore discharged.

Nine children did not respond adequately to oral iron therapy and were therefore referred to hospital for full investigation.

Children were also referred to our own E.N.T. Clinic speech therapy clinic, child guidance clinic, for audiography and for convalescence. The numbers referred were four in the case of the E.N.T. Clinic and one each for the other departments.

### Skin clinic

This year there has been a small epidemic of ringworm of the scalp, after having been fairly free for some years.

Fourteen cases were confirmed. All contacts were examined under the Woods' lamp, which entailed the examination of the whole of at least one primary school, several forms of one senior school and the infant department of one or two other schools.

Children of the affected families who were under school age were seen at the Central clinic, and affected children were referred to their general practitioners for treatment.

In this way the outbreak was brought under control.

## Enuresis clinics

Treatment of children suffering from enuresis was carried out at seven specialist clinics throughout the City.

Success in the treatment of enuresis depends on the full co-operation of a child and his parents; many children were discharged because of their failure to keep appointments and maintain regular treatment.

Number of children treated during the year		683
Number discharged:		
Symptom free .. .. .	84	
Improved .. .. .	75	
Referred to hospital .. .. .	12	
Unassessable due to failure to complete attendance .. .. .	223	394
Number remaining under treatment:		
Improved .. .. .	159	
Showing no improvement to date ..	130	289
Number awaiting treatment at 31.12.72 ..		84
Total clinic attendances during the year ..		1,555

## Ear, nose and throat clinic

*I am indebted to Mr. Maxwell J. Maxwell, consultant oto-laryngologist for the following report.*

"The work of the E.N.T. department at the Central clinic has proceeded smoothly during the year 1972, thanks to the unremitting hard work and efficiency of the nursing and clerical staffs. The patience and forbearance of the nursing staff in dealing with difficult and demanding parents, often quite unreasonable in their attitude, fills me with admiration. Whilst approximately the same numbers of children were offered appointments in 1972 as compared with 1971, (3,122 and 3,120 respectively), there was a distinct increase in the number of attendances, (1,967 as against 1,834), giving an attendance of 63 per cent as against 58 per cent approximately. However, the improvement in the waiting time for appointments at the clinics noted last year has been maintained and again new and old cases are seen with very little delay. An analysis of the attendance at the Central clinic is as follows:—

Attended	Suspected deafness		Otorrhoea		Other conditions		Total
	New	Old	New	Old	New	Old	
1971 .. .. .	287	722	33	87	322	383	1,834
1972 .. .. .	323	926	13	91	311	303	1,967
Did not attend							
1971 .. .. .	168	625	30	83	130	250	1,286
1972 .. .. .	206	521	12	61	159	196	1,155
Notified							
1971 .. .. .	455	1,347	63	170	452	633	3,120
1972 .. .. .	529	1,457	25	151	470	499	3,122
Average attendance:	1971—58·21 per cent 1972—63 per cent						

Again there has been a notable increase in the number of new cases of suspected deafness referred to this department during the past year, (521 in 1972 as compared with 455 in 1971), this again indicating the constant vigilance of the staffs at various centres and the special attention being paid to the hearing in school children. One need hardly stress the importance of this, especially having regard to the far-reaching effects of undiagnosed deafness in children.

Whilst we very much appreciate the continued co-operation of the Hearing Aid Centre at Hardman Street, both for special audiological investigations and impedance audiometry, we are now in the happy position of having our own impedance audiometer with trained staff so that we shall very shortly be able to relieve the pressure on the Hardman Street Clinic in this respect by carrying out our own tests. Having regard to the increasing number of children who are found to have exudative otitis media, this vital equipment and test will be of great help.

The increasing number of cases referred for audiometry is shown in the following table:—

1971	1,143
<b>1972</b>	<b>1,714</b>

Many of the children tested were subsequently referred to this Department for further investigation and treatment, following which check audiograms for comparison were again carried out in the Audiology clinic. We are indebted to the clinic for the invaluable work carried out, often under difficult circumstances, as sound-proof conditions are almost impossible to attain. In this connection it should be mentioned that where special investigations into deafness in infants and during the first few years of life are necessary, such cases are referred to the Department of Audiology at the Manchester University and we are grateful to Professor Taylor and his staff for their help and co-operation.

Numerous cases of exudative otitis media continue to be seen and in the milder cases auto-inflation by the use of carnival whistles continues to be a useful and simple way of dealing with this. In all, 78 cases were dealt with in this way, of which 30 showed marked improvement on repeat audiometry and clinical testing: a further 20 showed insufficient or no improvement, whilst the remainder, i.e.: 28, did not attend for further testing and it would be reasonable to assume that in a certain number of these, this was because the hearing had improved to such an extent that the parents were content and did not seek further advice.

There has been a slight increase in the number of hearing aids issued to children during the past year: 18, as compared with 12 in 1971. The type of aid now being issued to children is the ear-level (post aural) type which is more acceptable and less conspicuous than the body aid previously issued and there appears to be less reluctance on the part of the children to use these aids, not only because of the appearance but also because the ear-level type is less likely to interfere with freedom of movement as in playing, than the body aid with the long cord going up to the ear mould.

The co-operation and help of the X-ray department of Booth Hall Hospital is again very much appreciated. Fewer X-rays were required in 1972 than in 1971 as will be noted from the following table:—

	1971	1972
Sinus only .. .. .	242	172
Sinus and mastoid .. .. .	1	1
Sinus and chest .. .. .	5	4
Mastoids only .. .. .	—	2
	<hr/>	<hr/>
	248	179
	<hr/>	<hr/>

In view of the increasing waiting list at Booth Hall Hospital of cases referred directly to the Hospital by general practitioners, etc., some pressure was exerted to reduce this and it was decided to increase the numbers admitted to the Jewish Hospital and more cases were dealt with there as compared with previous years. An analysis of the operations at both Hospitals is as follows:—

#### Booth Hall

	1971	1972
Tonsils and adenoids .. .. .	398	173
Tonsils and adenoids and antral lavage .. .. .	50	62
Adenoids only .. .. .	31	14
Sinus operation $\pm$ adenoids .. .. .	81	56
Myringotomy, aspiration and grommets .. .. .	90	121
Examination of ear under microscope .. .. .	2	3
Nasal cautery or diathermy .. .. .	10	25
Sub-mucous resection .. .. .	2	1
Major ear operations including mastoidectomy, tympanoplasty, myringoplasty, tympanotomy	2	6
	<hr/>	<hr/>
	666	461

#### Jewish Hospital

	1971	1972
Tonsils and adenoids .. .. .	72	125
Grommets, antral lavage, adenoids, etc. .. .. .	20	34
	<hr/>	<hr/>
	92	159
	Total in	Total in
	1971=	1972=
	758	620
	<hr/>	<hr/>

There has therefore been a drop in the total number of operations carried out on children listed from this department at Booth Hall, in favour of the increased number of cases listed directly and this has inevitably resulted in an increase in our own waiting list as will be seen from the following figures:—

#### Operations waiting at the end of 1971 and 1972

	1971	1972
Tonsils and adenoids .. .. .	32	90
Adenoids only .. .. .	1	2
Sinus operation + adenoids .. .. .	8	14
Minor aural operation, including grommets ..	24	46
Examination of ear under microscope .. ..	1	4
Nasal cautery or diathermy .. .. .	2	—
Direct laryngoscopy .. .. .	1	—
Major aural operations .. .. .	2	7
	71	163

The end of the School Health Service in its present form and the changes pending in 1974 have prompted a general review of the work of the Central E.N.T. Clinic over the past twenty years. Strangely enough, whilst the numbers of children to whom appointments have been sent has varied throughout the years, the actual attendances have remained fairly constant at an average of about 2,000, though the number of operations carried out on cases listed from this department has steadily increased from a figure of approximately 400 in the late fifties to approximately 800 in the later sixties, the highest figure being 856 in 1969.

An attempt has been made in each report to focus on one particular aspect of the work. These have varied from organisation of the E.N.T. Clinics in 1953, through treatment of ear conditions at the School Clinics in 1954, chronic suppurative otitis media in 1955, indications for tonsils and adenoids in 1956, new techniques in surgery of the ear in 1957, the catarrhal child in 1958, incidence of tonsillectomy in different areas in 1959, chronic upper respiratory infections in 1960, early diagnosis of deafness and children "at risk" in 1963, exudative otitis media and grommets in 1966, sinusitis in 1967, evaluation of the deaf child in 1969 and pitfalls in carrying out tests for deafness in 1970, to speech defects in 1971.

It will be apparent that deafness, its diagnosis, evaluation, treatment and management have occupied a good deal of our attention during the years. Its importance cannot be overstressed, having regard to the catastrophic effects on a child's future if the condition remains undiagnosed or untreated and the increasing awareness of its importance by school medical officers, resulting in earlier referral of cases has been both gratifying and rewarding.

Finally, I would like once again to express my indebtedness to the staff of the Central Clinic for their dedicated help and co-operation which has contributed so much to the smooth running of this department."

## Ophthalmic clinic

Mr. P. L. Blaxter, consultant ophthalmologist, examined 424 children at this specialist clinic where he attended for one half-day session per week throughout the year. An analysis of the types of cases seen and treatment prescribed is given in the following table:

		Types of cases examined			
Squint	.. ..	360	Epicanthus	.. ..	3
Phoria	.. ..	3	Lid (ptosis)	.. ..	1
Myopia	.. ..	19	Miscellaneous	.. ..	5
Astigmatism	.. ..	3	Coloboma	.. ..	3
Nystagmus	.. ..	18	Anisometropia	.. ..	5
Cataract	.. ..	4			
Treatment prescribed					
Orthoptic	.. ..	.. ..	.. ..	.. ..	55
Operative	.. ..	.. ..	.. ..	.. ..	62
Observation	.. ..	.. ..	.. ..	.. ..	248
Discharged to local clinics	.. ..	.. ..	.. ..	.. ..	55
Discharged to Royal Eye Hospital	.. ..	.. ..	.. ..	.. ..	4

## Orthoptic service

The work of this service has followed the pattern of previous years but with greater emphasis on the screening of children under the age of five years. This has proved valuable from the point of view of finding children suffering from amblyopia, anisometropia, latent and manifest squints and occasionally such diseases as cataract. Co-operation from health visitors, school nurses, nursery school staff was excellent. Mr. Blaxter's assistance in maintaining liaison with the Manchester Royal Eye Hospital was especially appreciated. Nine nursery schools and classes and 24 day nurseries now have regular visits.

A further development of the service was the examination of children in special schools who were suspected of having a visual defect. These children were first examined by the orthoptist and then by one of Mr. Blaxter's assistants who visited the schools, thereby obviating the delay experienced in obtaining an appointment at the Manchester Royal Eye Hospital.

The orthoptist visited the Manchester Royal Eye Hospital regularly. The statistical details are as follows:

<i>Treatment</i>	No. of	
	<i>sessions</i>	<i>Attendances</i>
School clinics	98	515
Special schools:		
Physically handicapped	8	41
Assessment:		
Day special schools	31	137
Margaret Barclay residential school	2	7
Soss Moss	1	9
Nursery schools	17	306
Day nurseries	30	283



## Medical Inspections

Medical inspections in schools followed the same pattern as in previous years and children were examined shortly after entering school, and again before leaving. The intermediate age group for medical inspections consisted of those children in their first year of secondary education, and examinations were carried out on a selective basis after departmental medical officers had the opportunity to study questionnaires completed by the parents, and to discuss pupils requirements with headteachers.

Special examinations at the request of parents, headteachers, education welfare officers and nurses were carried out, and children previously noted to be suffering from minor defects not requiring treatment were re-inspected.

It is pleasing to report that for the greater part of the year the staffing position was satisfactory and 28,235 children were examined. This was an increase of 8,990 over the previous year and the general physical condition of the school children continued to be very satisfactory. Only 168 or 0.6 per cent of the pupils examined were considered to be "unsatisfactory". Two hundred and fifty-two school premises, including kitchen and sanitary facilities were inspected following the examination of pupils, and 30 recommendations were forwarded to the appropriate departments for action.

## The School Nursing Service

Whilst it would appear that most of the work done by school nurses is mainly of a routine nature, this is not so. Each year, almost without exception, they find themselves involved in the follow-up of infectious diseases of school children entailing surveillance of the infected child's family and also of his classmates. There is too the participation in surveys, sometimes local sometimes national, but one of the most important aspects of their work is the necessity of keeping a careful watch on the children from problem families. This requires close co-operation with health visitors and workers from other disciplines so that help and guidance are given at the appropriate times, especially in cases where handicapped children are concerned. The school nurse rarely sees the results of this aspect of her work because endeavouring to educate both the children and parents of this type of family is a long-term procedure.

### Cleanliness of school children

The frustration experienced by the nursing staff in the past by the persistence of lice infestation amongst school children has been reduced this year because of the introduction of yet another medicament for use in the treatment of this considerable hazard to child health. This preparation has the advantage over those used previously in that one application would seem to prevent further infestation for a period of approximately six weeks even in those children who readily become re-infested.

The prevalence of lice infestation in schools is not new and has caused anxiety to all caring parents for generations. There is, however, a hard core of parents who, for various reasons, do nothing to raise the standards of personal hygiene in their families and because of this neglect put other children, classmates and friends at risk to unnecessary infestation and possible ill-health.

While the school nursing staff are especially active in tracing and offering treatment, in the final analysis the responsibility for this falls squarely on the shoulders of the parents.

The figures below show the amount of work done in the schools and clinics so far as uncleanliness is concerned, by the school nursing staff.

Table I

	Primary, Secondary and Special Schools		Nursery Schools and Classes	
	1971	1972	1971	1972
Number of examinations for uncleanliness	250,611	241,217	90,444	87,287
Number of individual children found unclean	15,725	12,707	2,008	1,920
Number of medical defects found at general inspections	582	617	197	147
Number of children remaining unclean on 31.12.72	4,606	2,970	155	88

Table II

	1971	1972
Number of inspections for uncleanliness ..	336,767	328,504
Number of individual children found unclean ..	17,733	14,287
Number of cleansing notices issued .. ..	884	395
Number of cleansing orders issued .. ..	448	195
Number of children compulsorily cleansed ..	316	144
Number of children voluntarily cleansed ..	3,705	4,091
Number of children examined other than for uncleanliness .. .. .. ..	15,096	18,732
Number of home visits for uncleanliness ..	8,334	7,405
Number of home visits for other reasons ..	14,084	8,893
Number of medical defects found at general inspections .. .. .. ..	779	764

### Prosecutions

There were no prosecutions for uncleanliness in school children during the year.

### Audiometric screening tests of hearing

Screening tests of hearing were carried out on five year old school entrants and on some older children by request made by head teachers and parents.

Number of five year old children tested .. ..	8,321
Number of children with normal hearing .. ..	7,703
Number of children with hearing loss .. ..	618

Re-inspections of children who had a hearing loss at a previous inspection :

Number of children re-tested .. ..	861
Number of children with normal hearing .. ..	605
Number of children with hearing loss .. ..	256

Children with a hearing loss were referred to the medical officer at the local school clinic who, after clinical examination, arranged treatment or referral to the department's consultant otologist, dependent on the findings.

Selected children from older age groups referred by teachers and parents were also screened.

Number of children tested	..	..	..	..	1,393
Number with normal hearing	..	..	..	..	1,334
Number with hearing loss	..	..	..	..	59

### Urine survey

Throughout the year arrangements were made for samples of urine to be collected from children shortly after their first school medical examination. The samples were examined in the Public Health Laboratory at Withington Hospital to determine the incidence of urinary infection. The results were forwarded to the School Health Service and children who were found to have abnormalities in their urine were referred for treatment to school clinics or to hospital with their parents' and general practitioners' approval.

The number of children examined during the year was as follows:—

No. of specimens taken	No. referred to hospital	No. referred to school clinics
3,172	226	93

## School Dental Service

### Staff

Staff in post at the start of the year was the equivalent of 19½ full-time dental officers and four dental auxiliaries. The year ended with 33 full-time and part-time dentists, orthodontists and anaesthetists, giving the equivalent of 19 dental officers and four dental auxiliaries. The equivalent time of almost one full-time officer was given to the needs of the Maternity and Child Health Services. The staff at the Dental Laboratory was increased by the addition of an apprentice dental technician to four technicians and one apprentice technician.

### Development

Two new well equipped dental clinics in different parts of the City were brought into use. Hulme Combined Clinic with three dental surgeries was opened at the beginning of the year and Beswick Health Centre with two dental surgeries was opened at the end of the year. This freed the two dental caravans for much needed servicing before moving to other appropriate sites.

In six surgeries dental equipment was modernised. One surgery had complete replacement of all equipment whilst another had a major refit. The provision of reclining chairs, aspirators and operating stools was sufficient to bring the four remaining surgeries to modern four handed dentistry standards of the new clinics.

### Fluoridation of domestic water supplies

It is accepted at the present that the most effective way to control dental decay is to adjust the fluoride content of domestic water supplies to one part per million.

The City Council at their meeting on 5th April 1972, approved in principle the addition of fluoride in the recognised amount to the water supply of the City.

### Inspection and treatment

The dental officers and auxiliaries devoted 8,839 sessions to inspection, treatment and dental health education. Fifty-five thousand, nine hundred and thirty-eight pupils were inspected in schools and clinics; of these, 37,016 required treatment. Treatment was given to 19,056 children and a total of 21,079 courses of treatment were started, 18,409 being completed. Total attendances at the clinic for inspection and treatment were 64,697. Treatment consisted of 46,314 fillings, 25 inlays, 71 crowns in permanent teeth and 8,832 fillings in deciduous teeth. There were 7,698 permanent and 20,470 deciduous teeth extracted. Eight thousand, seven hundred and ninety-five general anaesthetics were administered. Sickledex tests for latent sickle cell anaemia were routinely given to children of West African and West Indian origin, who required a general anaesthetic. All positive cases, about 10 per cent, were referred to hospital haematology departments for further investigation. One hundred and eighty-eight pupils were provided with seven full dentures and 197 partial dentures. Orthodontic treatment was started for 362 children: 340 completed treatment. Five hundred and seven removable and 51 fixed appliances were used. There were 1,776 pupils X-rayed.

Children in attendance at Special Schools, the majority of whom, due to their physical and/or mental handicaps, are not amiable to dental treatment in the usual accepted manner, were provided with a functional dentition. Fillings and extractions were done under intra-venous or inhalation anaesthesia administered by a consultant anaesthetist.

Treatment given: One hundred and nine children had 340 fillings and 295 extractions.

One hundred and twenty-nine general anaesthetics were administered.

Dental Health Education occupied 144 sessions. Primary school children were given talks, demonstrations and films in school and in addition, 4,291 pupils had prophylaxis and chairside dental health instruction.

### Dental laboratory

The following table gives the work completed during the year by the dental laboratory for both the School Dental Service and the Maternity and Child Health Services:

Removable orthodontic appliances	..	510
Fixed orthodontic appliances	.. ..	37
Dentures	.. .. .	325
Crowns	.. .. .	76
Inlays, cast caps and splints	.. ..	70
Chrome—cobalt plates	.. ..	14
Orthodontic record models	.. ..	609

A series of 62 special orthodontic models were made for parent/patient for instruction purposes and to demonstrate the possible outcome of a completed course of orthodontic treatment. The models have also been used for demonstration purposes by the Manchester Dental Hospital on an advanced course in orthodontics.

### Maternity and child health services

The equivalent of almost one full-time officer was given to expecting and nursing mothers and pre-school children. A return of this work is given below:—

	Treated	Treat- ment com- pleted	Atten- dances	Fillings	Extrac- tions	General Anaes- thetics	Den- tures
Mothers .. ..	216	155	574	377	501	75	120
Pre-school children .. ..	434	371	789	576	538	171	—

### Speech Therapy Service

Although the speech therapy service was granted a temporary increase of two therapists during 1972 the new complement of 15 has never been reached. The year started encouragingly with the equivalent of 13 full time speech therapists and speech therapy/audiologists, but ended with 10.

Five experienced therapists—mainly working in North Manchester, resigned during the year, and this left four clinics and seven special schools without speech therapy coverage for between three and seven months during the year. Where possible children were seen at the nearest staffed clinic, but many had to have treatment suspended either because therapists were unable to cope with the increased case loads (1,510 in 1972 and 1322 in 1971) or, no one was able to bring the child further afield. The number suspended in 1972 (805) was almost double 1971 (424). Similarly the number waiting to be interviewed in December 1972 was 347 compared with 235 in 1971.

The decrease in the number of speech therapists, combined with an increase in the number of children referred (from 892 in 1971 to 1,059 in 1972) meant that speech therapists made less contact with colleagues in other disciplines, and fewer home visits (193 in 1972 compared with 289 in 1971). This is to be regretted as speech and language cannot be divorced from the child's total physical, emotional, social and intellectual development.

Another facet of less therapists seeing more children (2,381 treated in 1972 as against 1,927 in 1971) is that the quality of therapy suffers. Children are seen in large groups or given less frequent appointments. This is not satisfactory to therapist, child, parent or school, as the period under therapy is extended and slower improvement is shown, (both the number of failed appointments and those discharged having ceased attendance increased during the year).

The statistics for the speech therapy services of the department are:—

Number of children	School Clinics	Special+ School Assessment Units	1972	1971
Total referred (under 5) ..	820 (251)	239 (45)	1059 (296)	892 (225)
Source of referral:—				
School medical officer ..	404	42	446	366
Speech therapists .. ..	88	116	204	116
Teachers .. ..	88	70	158	221
M. & C.H. Clinics .. ..	122	1	123	98
G.P.'s/H.V.'s .. ..	38	2	40	23
Relatives .. ..	35	—	35	32
Department of Audiology	13	1	14	9
Child guidance .. ..	13	1	14	4
Others .. ..	19	6	25	23
Treated .. ..	1537	844	2381	1927
Case load .. ..	828	682	1510	1322
Discharged .. ..	540	113	653	605
Reason for discharge:—				
Treatment complete ..	198	65	263	288
Ceased attendance ..	114	—	114	94
Did not attend interviews ..	107	—	107	62
Left school at 15 .. ..	6	18	24	24
Left area .. ..	69	17	86	70
Refused therapy .. ..	25	—	25	19
Treatment not necessary ..	21	9	30	51
Deceased .. ..	—	4	4	—
Transfers in department (to other therapists) .. ..	169	49	218	—
Interviewed .. ..	574	218	792	633
Screened .. ..	198	141	339	449
Referred .. ..	119	78	197	131
Total attendances .. ..	8517	8197	16714	19408
Total failed appointments ..	3983	429	4412	4280
Waiting list .. ..	291	56	347	235
Suspended over one month ..	379	426	805	424
Parent guidance .. ..	59	180	239	152
Visitors .. ..	139	75	214	207
Student attendances .. ..	472	155	627	699
Visits .. ..	178	15	193	289
Parents evenings/talks ..	18	24	42	19
Joint assessments .. ..	2	58	60	20

### Audiological services

In addition to speech therapy services and student supervision, the department was also responsible for audiological coverage at Shawbrook Pre-School Centre, Whitebrook, Shawbrook and Ewing Schools. The equivalent

of 1:1 speech therapist/audiologists were involved in this work. During the year an impedance meter was purchased, therefore impedance testing is now carried out as part of routine assessment. Money has also been available for the purchase of individual commercial hearing aids. At Whitebrook 28 children, and at Shawbrook 17 children have been issued with suitable hearing aids.

The statistics for the audiological services of the department are:—

Total No. of referrals		480			
Shawbrook Pre-School Centre—Referrals		250			
Source of referral		Diagnosis	Action taken		
Maternity and Child Welfare and School Health	128	hearing loss	30	Supervision in Pre-School Centre referred for E.N.T. investigation referred for speech therapy referred for other investigation no action	33 30 19 6 40
		Speech and Language disorders	17		
		Hearing loss and Speech and Lang. disorders	2		
		other disorders	7		
		nothing abnormal detected	61		
		did not attend	11		
Special Schools	78	hearing loss	18	referred for E.N.T. investigation supervision no action	18 14 46
		nothing abnormal detected	60		
Speech Therapy Screening	35	hearing loss	3	for speech therapy	35
		nothing abnormal detected	32		
Day Nurseries	9	hearing loss	2	referred for E.N.T. investigation referred for Speech Therapy referred for further investigation no action	2 1 2 4
		speech and language disorders	1		
		others	6		
Whitebrook, Shawbrook, Ewing and others					
Total assessed	230	In school	215	For admission to schools	15
		{ Whitebrook 89 Shawbrook 100 Ewing 17 Other schools 9		{ Whitebrook 10 Shawbrook 5	
Visits to Specialists Clinics	18				
Case conferences	4				

## **Liaison between the Child Guidance Service and the Health Department**

Consultations between the staff of the Child Guidance Service and the Senior Medical Officer have continued and increased considerably during the past year. Arrangements were made for various medical examinations to be carried out by school medical officers, consultants, general practitioners or by the Senior Medical Officer. In some cases where it was difficult for a parent to attend at the school clinics, the Senior Medical Officer made a visit to the Child Guidance Clinic to coincide with the child's routine attendance. Opportunity has thereby been given for the parent to discuss medical problems which may have a contributory part to play in the child's behaviour pattern. Both parent and staff have appreciated this service.

During the year the Consultant Child Psychiatrist, Dr. Molloy, ceased to attend the Child Guidance Clinic but the Service was fortunate to retain his continued care for his patients at the hospital. Dr. Grant has increased the number of his consultative sessions at the Child Guidance Clinic and Dr. Chamarette continued as before. The fact that Dr. Grant is a consultant to the Health Department Family Guidance Service was of great value in maintaining continuity of treatment for children as they leave school.

There have been several changes in staff in the Psychiatric Social Work Department and at the end of the year two vacant posts were advertised.

Copies of reports of the educational psychologists were sent to the Senior Medical Officer so that medical problems could be detected and information passed on to the schools medical records. During the year there were 354 such reports.

Educational welfare officer's requests for help and advice were sent to the Senior Medical Officer particularly in cases of school refusal, truancing and behaviour problems. Many of these cases were passed on to the Child Guidance Service.

The Alice Briggs Hostel has been running since April 1971, but not at full capacity owing to lack of staff, until September 1972;—when for the first time there was a full complement. It is hoped that the hostel will be filled early in 1973. Monthly meetings were held at the hostel to discuss the progress of boys in residence and to discuss new admissions from the waiting list. It is good to be able to report that several boys have already benefitted sufficiently at the hostel to be able to return to their homes again.

## **Chiropody**

Demand for increased chiropody treatment was met by increasing the number of chiropodists made available to the School Health Service. Treatment was carried out at eleven school clinics and the total number of treatments given was 9,127.

A foot survey was commenced at the Wright Robinson school by a chiropodist visiting the school twice a week. Pupils were treated at midday which eliminated the absence from school caused by pupils attending school clinics. It was not possible with the present establishment to give this service to other schools.



A chiropodist visited the schools for physically handicapped children and any necessary treatments were carried out at the schools.

Chiropodists attended for three sessions per week at the appliance department, Withington Hospital. The statistics are as follows:—

Number of new cases	..	..	..	..	..	108
Number of re-inspections	..	..	..	..	..	729
Total number of treatments	..	..	..	..	..	837
Number of inlays supplied	..	..	..	..	..	206
Number of insoles supplied	..	..	..	..	..	16
Toe appliances	..	..	..	..	..	1

### Convalescent Treatment

Manchester Health Department has continued to provide convalescent treatment during 1972 for debilitated children, and for children who require this treatment after operations and after a specific illness.

This treatment has also been beneficial to underprivileged children living under unsatisfactory home conditions.

The children were admitted to the Dr. Garrett Memorial Home, Conway, which is owned and administered by the Manchester Health Department.

A few of the children from the Margaret Barclay School for the Physically Handicapped were admitted to the home during the school holiday periods together with a number of children from the Soss Moss School for Epileptic children.

During the year 1,777 children were recommended for convalescent treatment, the majority by the school medical officers, others by medical officers in child health centres and hospitals and by general practitioners. The number of children who received convalescence was 1,153. There were 258 children who did not attend for various reasons. At the end of the year 366 children were awaiting treatment.

The following details show the number of children placed in the Dr. Garrett Memorial Home, Conway.

Number of children in residence at 1st January, 1972	79
Number of children admitted during 1972	.. .. 1,153
Number of children discharged during 1972	.. .. 1,145
Number of children in residence at 31st December, 1972	87

The total number of children discharged includes 24 who were taken home by parents against the advice of the visiting medical officer.

Of the 1,153 children who received convalescent treatment 121 were under five years of age.

### Maternity and child health

Arrangements have continued for children under school age to be treated for certain defects at school clinics.

During the year 87 children attended, and the following table gives details of the defects by age group:—

Age in yrs.	Nos. treated	Minor ailments	Orthopaedic	Defective vision	Skin	Speech defects	Chiropody
0—	1	—	1	—	—	—	1
1—	9	3	—	3	3	—	—
2—	21	8	3	6	2	2	1
3—	25	5	3	5	4	7	—
4—	31	3	7	6	2	9	3
Total	87	19	14	20	11	18	5

In addition 12 treatments of ultra-violet light were given. Details of dental treatment given to expectant mothers and young children under the joint scheme for dental provision as required by the National Health Service Act, 1946, are given in the report on the school dental service.

### Immunization programmes

#### Vaccination against tuberculosis

B.C.G. vaccination was again offered to all children who had attained the age of 13 years at the beginning of the school year.

Seven thousand and forty-two children were skin tested, of whom 5,504 gave negative reactions. The positive reactors were X-rayed at the Chest Clinic under arrangements made with the Consultant Chest Physician.

B.C.G. vaccination was given to 5,496 children.

#### Immunization against diphtheria and tetanus

Immunization continued throughout the year and children whose parents had consented were immunized by medical officers either at school or clinics.

There were 4,284 children immunized, of whom, 1,218 completed a primary course and 3,066 received booster doses.

#### Vaccination against poliomyelitis

Oral vaccination was carried out during the year for children requiring protection against poliomyelitis. Parents of all children attending primary

schools were invited by letter to give consent to their children receiving vaccination for the first time or to receive a reinforcing dose of vaccine as necessary.

Arrangements were made for school nurses to visit the schools and administer the appropriate doses on sugar cubes. Children absent from school at the time of the nurses' visit, were given the opportunity to attend at school clinics.

Primary vaccination was given to 608 children and 2,896 received booster doses.

### **Vaccination against rubella**

In accordance with the recommendations issued in July 1970 by the Department of Health and Social Security, vaccination against german measles was offered to 6,157 school girls in the age groups 12-13½ years. Four thousand and ninety consents were received: 66 per cent, of parents consented to their daughters being protected against german measles.

The total number vaccinated was 3,902.

### **Miscellaneous medical examinations**

All staff newly appointed to the service of the Education Committee were required to satisfy the Principal Medical Officer, School Health Service as to their medical fitness. In most cases a full medical examination was not considered necessary. Where indicated a chest X-ray and physical examination were carried out. This procedure was also followed in the case of newly appointed non-teaching staff of the University of Manchester Institute of Science and Technology, a charge being made to the University for this service.

At the request of Manchester and Salford City Police, persons applying for employment as school crossing patrol wardens, were given hearing and vision tests in addition to completing a medical questionnaire.

In accordance with requirements laid down by the Department of Education and Science, arrangements were made for the medical examination of all Manchester students seeking admission to Colleges of Education in Manchester and elsewhere. Students in Manchester Colleges, who had completed a teacher-training course, were medically examined. Statistics and details of these including an X-ray report were sent to the Department of Education and Science. Teachers entering the profession for the first time from industry or commerce were also examined. Entrants to non-teachers training courses at Elizabeth Gaskell College, Hollings College and the College of Nursery Training also completed statements of medical history, on which suitability for their chosen course was judged.

Staff suffering from disability or prolonged ill health were medically examined, and where indicated, a recommendation was made for retirement on medical grounds.

Statistical details are as follows:—

### New appointments

#### Teachers

Total number questionnaires received .. .. .	636
Total number medical examinations .. .. .	87

#### Non-teaching staff

*Total number questionnaires .. .. .	1,310
*Total number medical examinations .. .. .	44
School Crossing Patrols hearing and vision tests .. .. .	75

#### Staff retiring through disability

Medical examinations .. .. .	35
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#### Students entering Colleges of Education

Medical examinations .. .. .	765
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#### Students leaving Colleges of Education

Medical examinations .. .. .	1,503
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#### Students entering other Colleges

Total number questionnaires received .. .. .	450
Total number medical examinations .. .. .	9

\*Includes University of Manchester Institute of Science and Technology personnel.

## Mass Radiography

The mass radiography service continued to carry out the X-ray examination of students entering colleges of education, students leaving the six Manchester colleges of education, newly appointed teachers and staff of the Education Committee. There were 4,290 X-ray examinations carried out.

## Employment of children

The City of Manchester Bye-Laws permit school pupils, aged 13 years and over, to undertake part-time employment during specified times out of school hours, provided they are found to be physically fit for such employment and have been issued with a licence by the Education Committee.

During the year 1972, 1,780 children were examined and of these 12 were declared unfit. A few of these children were employed in entertainment such as pantomime dancing troupes, but the majority intended to pursue part-time employment such as paper delivery rounds, assisting in shops or helping on milk rounds.

Children who were found to be suffering from minor ailments were granted provisional certificates for employment until treatment was completed.

## Infectious diseases

### School returns 1972

	Jan.	Feb.	Mar.	April	May	June	July	Sep.	Oct.	Nov.	Dec.	Total
Measles .. .. .	151	155	345	282	366	279	166	38	26	80	39	1,927
Whooping Cough ..	4	3	6	—	2	3	—	—	1	5	7	31
Scarlet Fever .. ..	11	6	11	9	10	13	11	10	18	17	7	123
Scarletina .. .. .	9	—	11	4	7	13	4	4	11	8	18	89
Chickenpox .. .. .	216	135	242	299	234	214	137	58	74	226	134	1,969
German measles .. ..	85	90	355	239	331	251	171	23	40	85	38	1,708
Mumps .. .. .	404	208	495	274	545	383	270	47	76	72	45	2,819
Diphtheria .. .. .												
Poliomyelitis .. ..												
Meningitis .. .. .	1	1	1	1	1	1	4	2	1	4	1	18
Dysentery .. .. .	1	—	1	1		2	1	2	—	2	—	10
Enteritis .. .. .	—	—	5	3	—	6	—	1	6	2	5	28
Food poisoning .. ..	1	1	—	1	—	1	—	2	2	—	—	8
Infectious jaundice ..	17	5	19	26	17	18	5	4	3	6	12	132
Glandular fever .. ..	2	4	6	1	7	1	4	1	4	3	2	35

### Infections of the Skin

Ringworm Scalp .. ..	2	2	12	1	—	—	—	4	1	2	—	24
Body .. .. .	—	—	—	—	—	—	—	1	—	2	—	3
Impetigo .. .. .	43	14	20	24	14	19	16	26	13	3	4	196
Scabies .. .. .	28	13	38	20	25	14	22	25	15	34	11	245

The accompanying tables give a monthly summary of the incidence of infectious diseases reported by headteachers on a weekly basis. In addition, information was received concerning children reported officially to the Medical Officer of Health. When necessary close liaison was maintained with headteachers and education welfare officers concerning the exclusion of infected children and their contacts from school.

School nurses continued to follow up school contacts of children suffering from impetigo and scabies.

At the beginning of the year a small outbreak of ringworm of the scalp occurred in one school. This involved repeated visits of a school medical officer to the school when the whole school population was examined under the Woods glass.

## Tuberculosis

The Chest Clinic continued to inform the School Health Service of school children who attended for examination because of suspected tuberculosis.

The consultant chest physician has supplied the following information.

Number of children aged 0–14 years examined ..	3,474
Number of children aged 0–14 years notified .. ..	20
Number with respiratory tuberculosis .. .. .	18
Number with non-respiratory tuberculosis .. .. .	2
Number of school children who received B.C.G. vaccination .. .. .	184

## Handicapped pupils

The following table gives the number of children newly ascertained during 1972:—

Category	Boys	Girls	Total
Blind .. .. .	2	2	4
Partially-sighted .. .. .	5	6	11
Deaf .. .. .	3	1	4
Partially-hearing .. .. .	8	5	13
Physically handicapped .. .. .	20	10	30
Delicate .. .. .	42	28	70
Maladjusted .. .. .	67	10	77
Educationally subnormal .. .. .	214	142	356
Epileptic .. .. .	3	1	4
Speech defect .. .. .	—	—	—
Totals .. .. .	364	205	569

### Orthopaedic treatment

Orthopaedic treatment has been provided at the clinics attached to the Lancasterian and Telford schools and at the Margaret Barclay residential school. Staff shortage and the change in type of physical handicap places a strain on this service.

This year has seen progress in the liaison with hospital orthopaedic surgeons and more young children were referred for treatment at the local school clinics in order to facilitate those parents who were required to travel long distances to hospital.

School children with minor defects requiring remedial exercises were treated by physiotherapists at several school clinics.

Children with more serious defects were referred to the orthopaedic surgeons who hold clinics at the two day special schools.

Severely handicapped children were referred for admission to the day or residential schools, each of which is visited by a consultant orthopaedic surgeon at fortnightly intervals. Operative treatment was carried out at Booth Hall, Withington and Wythenshawe hospitals by arrangement with the regional hospital board and post operative physiotherapy was continued at the special schools.

Mr. Evans, consultant surgeon, Lancasterian school reports:—

“The past year was marred by the sudden death of Mr. A. A. Allen, the superintendent physiotherapist to this department. Mr. Allen’s influence and knowledge are sadly missed at the school.

The work of the department has continued under its new superintendent Miss M. Hutchinson.

Our main work has again been in relation to the management of children with spina bifida.

The number of out-patient and in-patient treatments shows the amount of work being done in the department.

#### Lancasterian school

	Patients	
	In	Out
Number of children treated .. .. .	164	71
Total attendance .. .. .	—	623
Number examined by surgeon .. .. .	329	210
Number of children referred to hospital for orthopaedic treatment .. .. .	15	8
Number of treatments given:		
Individual exercises and stretching .. .. .	12,581	588
Group exercises .. .. .	1,359	—
Ultra violet ray .. .. .	145	—
Strapping and splints .. .. .	—	10
Plaster of paris .. .. .	6	—
Electrical treatment and infra red .. .. .	50	—
Postural drainage .. .. .	45	25
Moulding (included in stretching) .. .. .	—	—
Hydrotherapy .. .. .	471	—
Pre-school spina bifida (out-patients) .. .. .	—	55
Other treatments (home visits) .. .. .	213	—
X-rays (taken at Withington hospital) .. .. .	15	21
Remedial exercises:		
Individual .. .. .	2,109	—
Group .. .. .	1,803	—
Analysis of cases treated:		
Foot defects .. .. .	—	34
Deformity of toes .. .. .	—	2
Knees and ankles .. .. .	—	8
Spinal deformities .. .. .	—	2
Cerebral palsy .. .. .	79	6
Post-poliomyelitis .. .. .	7	1
Spina bifida .. .. .	38	4
Thalidomide .. .. .	1	—
Osteochondritis .. .. .	5	1
Miscellaneous .. .. .	34	13

Mr. Brown, consultant orthopaedic surgeon, Telford School reports:

"Clinics have been held on alternate Thursday afternoons at Telford school during the term, when in-patients and out-patient children are seen.

As will be seen from the statistical report there has been a continued increase in the number of spina bifida children attending the school.

It would be appreciated if a joint specialty clinic were to be organized, so that the overall long term management of spina bifida problems could be planned—the clinics to be held every two months or so.

We were delighted to welcome again for an afternoon in June, the current course in Developmental Pediatrics, run by the Manchester University Department of Child Health and Salford University, for a discussion on the spina bifida child in school.

My thanks are due once again to the orthopaedic consultants at Booth Hall hospital for the surgical management of cases referred there, and to the physiotherapy staff at Telford School, in particular, the super-intendent physiotherapist, Mrs. Downer, M.C.S.P."



Young children undergoing physiotherapy treatment at the Lancasterian School for Physically Handicapped Children.





## Telford school

						Patients	
						In	Out
Number of children treated .. .. .						129	175
Total number of attendances .. .. .						14,891	197
Number of examinations by surgeons .. .. .						99	142
Number of children referred to hospital .. .. .						17	14
Number of treatments given .. .. .						14,500	56
Postural drainage .. .. .						20	—
Hydrotherapy .. .. .						380	—
Plaster of Paris .. .. .						3	1
Electric treatment (including UVR and IRR) .. .. .						78	12
Stretchings .. .. .						8,044	—
Remedial exercises (individuals) .. .. .						4,577	43
Classes	{	Co-ordination .. .. .				301	—
		Back .. .. .				83	—
		Hand .. .. .				365	—
		Muscular dystrophy .. .. .				171	—
		Spina bifida .. .. .				369	—
Miscellaneous :							
Prince & Fletcher } Appliances .. .. .						376	15
T.O.    M. of H. }							
Diagnoses :							
Anterior poliomyelitis .. .. .						2	—
Asthma .. .. .						—	2
Cerebral palsy .. .. .						45	26
Congenital deformities (Thalidomide) .. .. .						3	—
Foot deformities .. .. .						—	30
Genu valgum .. .. .						—	26
Osteochondritis .. .. .						1	—
Perthes .. .. .						1	2
Scoliosis .. .. .						4	8
Spina bifida .. .. .						36	6
Arthrogryphosis .. .. .						2	1
Congenital heart disease .. .. .						6	—
Muscular dystrophy .. .. .						10	—
Haemophilia .. .. .						8	1
Werdnig-Hoffman's disease .. .. .						1	—
Osteo-genesis imperfecta .. .. .						1	—
Amputations .. .. .						1	—
Hydrocephalus .. .. .						4	—
Neurofibromatosis .. .. .						1	1
Klippel Feil syndrome .. .. .						2	—
Burns .. .. .						1	—
Flat feet .. .. .						—	48
Toe deformities (hallux valgus and over-riding toes) .. .. .						—	19
Torticollis .. .. .						—	5

## Margaret Barclay School

This residential school provides special educational treatment for those children who are so severely handicapped that they are unable to attend a day school.

The consultant orthopaedic surgeon visits the school once a fortnight to advise on the treatment which is carried out by physiotherapists appointed to the school. Close liaison is maintained with the hospitals when surgery is necessary.

General medical treatment is carried out by a local practitioner and a school medical officer visits the school at regular intervals.

The following table gives the types of defect from which the children in residence during 1972 suffered:

Cerebral palsy	..	..	..	..	..	24
Spina Bifida	..	..	..	..	..	15
Muscular Dystrophy	..	..	..	..	..	6
Arthrogryphosis	..	..	..	..	..	2
Cerebellar Tumour	..	..	..	..	..	1
Von Recklinghausen's Disease	..	..	..	..	..	1
Post Poliomyelitis	..	..	..	..	..	1
Still's Disease	..	..	..	..	..	1

The superintendent physiotherapist reports:—

“Last year our report indicated that we were following a co-ordinated approach to the care and development of the children by close co-operation between the several disciplines concerned with their future. The work of many experts in this field has been studied in co-operation with the remedial teacher and programmes of training have been developed for children who have been included in a special survey.

A physiotherapist is also in attendance at each of the four schools for severely subnormal children where concentrated treatment is given to the children in the special care units. Emphasis is on the multidisciplinary approach which involves the teacher speech therapist and teachers. A medical officer visits each school regularly and close liaison is maintained with the hospital consultants and general practitioners”.

### Disinfection of plimsolls

A service is provided yearly for the disinfection of plimsolls used for physical education in day schools. The plimsolls were collected during the summer holidays and taken to the disinfecting station operated by the Health Department at Monsall Hospital. After disinfection they were returned to the schools prior to the re-opening for the autumn term. Twenty schools availed themselves of this service and 3,170 pairs of plimsolls were treated.

### Co-operation with medical practitioners and hospitals

The practice of obtaining the family practitioner's permission to refer a child to hospital for treatment or for a consultant's opinion continued. During 1972, 691 children examined by school medical officers at routine medical inspections were referred for hospital treatment with the agreement of their family doctor. The responsibility for the treatment of a further 24 children was undertaken by the family practitioner himself. Close liaison existed with the hospital consultants, and the supervision of many of the children was a joint effort. Headteachers continued to co-operate in preparing reports when these were requested by the consultants when determining the treatment of the children. A copy of the subsequent hospital report was made available to the school medical officer.

**Department of Education and Science  
Annual Returns**

Year ended 31st December, 1972

**Part I—Medical inspection of pupils attending  
maintained primary and secondary schools  
(including nursery and special schools)**

Table A  
**Periodic Medical Inspections**

Age Groups Inspected (By year of birth) (1)	Number of pupils who have received a full medical examination (2)	Physical condition of pupils inspected		Number of pupils found not to warrant a medical examination (5)	Pupils found to require treatment (excluding dental diseases and infestation with vermin)		
		Satisfactory Number (3)	Unsatisfactory Number (4)		for defective vision (excluding squint) (6)	for any other condition recorded at Part II (7)	Total individual pupils (8)
1968 and later	2,019	2,008	11		48	431	427
1967	4,758	4,729	29		265	1,141	1,273
1966	4,937	4,897	40		236	1,465	1,561
1965	2,201	2,179	22		115	644	705
1964	946	939	7		75	291	336
1963	775	767	8		91	259	299
1962	503	495	8		65	203	225
1961	301	299	2		52	130	157
1960	2,385	2,361	24	2,066	274	657	802
1959	1,726	1,717	9	1,032	197	529	511
1958	2,631	2,628	3		322	364	625
1957 and earlier	5,053	5,048	5		680	760	1,235
	28,235	28,067	168	3,098	2,420	6,874	8,156

Table B  
**Other inspections**

Number of special inspections .. .. .	23,233
Number of re-inspections .. .. .	14,714
Total .. .. .	<u>37,947</u>

Table C  
**Infestation with vermin**

Total number of individual examinations of pupils in schools by school nurses or other authorised persons .. .. .	328,504
Total number of pupils found to be infested .. .. .	14,287
Number of individual pupils in respect of whom cleansing notices were issued (Section 54(2) Education Act 1944) .. .. .	395
Number of individual pupils in respect of whom cleansing orders were issued (Section 54(3) Education Act 1944) .. .. .	195

**Part II—Treatment of pupils attending  
maintained primary and secondary schools**

(including nursery and special schools)

Table A

**Eye diseases, defective vision and squint**

External and other, excluding errors of refraction and squint	..	..	..	1,346
Errors of refraction (including squint)	..	..	..	3,281
			<b>Total</b>	<b>4,627</b>
				<hr/>
Number of pupils for whom spectacles were prescribed	..	..	..	1,329

Table B

**Diseases and defects of ear, nose and throat**

Received operative treatment:				
(a) for diseases of the ear	..	..	..	160
(b) for adenoids and chronic tonsilitis	..	..	..	532
(c) for other nose and throat conditions	..	..	..	82
Received other forms of treatment	..	..	..	2,763
			<b>Total</b>	<b>3,537</b>
				<hr/>

Total number of pupils in schools who were known to have been provided with hearing aids:

(a) in 1972	..	..	..	27
(b) in previous years	..	..	..	137

Table C

**Orthopaedic and postural defects**

(a) Pupils treated at clinics or out-patients departments	..	..	..	815
(b) Pupils treated at school for postural defects	..	..	..	—
			<b>Total</b>	<b>815</b>
				<hr/>

Table D

**Diseases of the Skin**  
(Excluding uncleanliness, for which see Table C of Part I)

Ringworm :											
(a) Scalp .. .. .	..	..	..	..	..	..	..	..	..	..	12
(b) Body .. .. .	..	..	..	..	..	..	..	..	..	..	6
Scabies .. .. .	..	..	..	..	..	..	..	..	..	..	828
Impetigo .. .. .	..	..	..	..	..	..	..	..	..	..	284
Other skin diseases .. .. .	..	..	..	..	..	..	..	..	..	..	5,601
<b>Total .. .. .</b>										<b>6,731</b>	

Table E

**Child Guidance Treatment**

Pupils treated at child guidance clinics .. .. .	..	..	..	..	..	..	..	..	..	..	1,058
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Table F

**Speech Therapy**

Pupils treated by speech therapists .. .. .	..	..	..	..	..	..	..	..	..	..	2,381
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Table G

**Other Treatment Given**

Pupils with minor ailments.. .. .	..	..	..	..	..	..	..	..	..	..	12,570
Pupils who received convalescent treatment under school health service arrangements .. .. .	..	..	..	..	..	..	..	..	..	..	1,153
Pupils who received B.C.G. vaccination .. .. .	..	..	..	..	..	..	..	..	..	..	6,025
Others :											
Chiroprody .. .. .	..	..	..	..	..	..	..	..	..	..	9,127
Haemoglobin .. .. .	..	..	..	..	..	..	..	..	..	..	284
Ultra violet ray treatment .. .. .	..	..	..	..	..	..	..	..	..	..	205
Disinfestation .. .. .	..	..	..	..	..	..	..	..	..	..	4,091
Poliomyelitis vaccinations .. .. .	..	..	..	..	..	..	..	..	..	..	4,118
Measles vaccinations .. .. .	..	..	..	..	..	..	..	..	..	..	59
Rubella vaccinations .. .. .	..	..	..	..	..	..	..	..	..	..	3,902
Immunization—Triple Antigen .. .. .	..	..	..	..	..	..	..	..	..	..	199
Immunization—Diph/Tet. .. .. .	..	..	..	..	..	..	..	..	..	..	3,901
Immunization—Diphtheria .. .. .	..	..	..	..	..	..	..	..	..	..	15
Immunization—Tetanus .. .. .	..	..	..	..	..	..	..	..	..	..	26

**Part III—Dental Inspection and Treatment  
Carried out by the Authority**

**Attendances and Treatment**

	Ages 5 to 9	Ages 10 to 14	Ages 15 and over	Total
First visit .. .. .	9,263	7,986	1,807	19,056
Subsequent visits .. .. .	10,889	14,864	4,281	30,034
Total visits .. .. .	20,152	22,850	6,088	49,090
Additional courses of treatment commenced	931	940	252	2,023
Fillings in permanent teeth .. .. .	7,674	22,158	7,680	37,482
Fillings in deciduous teeth .. .. .	8,177	655	—	8,832
Permanent teeth filled .. .. .	5,824	19,242	5,757	30,823
Deciduous teeth filled .. .. .	6,646	550	—	7,196
Permanent teeth extracted .. .. .	1,540	4,931	1,227	7,698
Deciduous teeth extracted .. .. .	15,369	5,101	—	20,470
General anaesthetics .. .. .	5,411	3,032	352	8,795
Emergencies .. .. .	1,114	899	217	2,230
Number of pupils X-rayed .. .. .	—	—	—	1,776
Prophylaxis .. .. .	—	—	—	4,219
Teeth otherwise conserved .. .. .	—	—	—	2,553
Number of teeth root filled .. .. .	—	—	—	94
Inlays .. .. .	—	—	—	25
Crowns .. .. .	—	—	—	71
Courses of treatment completed .. .. .	—	—	—	18,409
<b>Orthodontics</b>				
New cases commenced during year .. .. .	—	—	—	362
Cases completed during year .. .. .	—	—	—	340
Cases discontinued during year .. .. .	—	—	—	90
No. of removable appliances fitted .. .. .	—	—	—	507
No. of fixed appliances fitted .. .. .	—	—	—	51
Pupils referred to Hospital Consultants .. .. .	—	—	—	3
<b>Prosthetics</b>				
Pupils supplied with F.U. or F.L. (first time)	—	—	7	7
Pupils supplied with other dentures (first time) .. .. .	8	85	98	191
No. of dentures supplied .. .. .	8	87	109	204
<b>Anaesthetics</b>				
General anaesthetics administered by dental officers .. .. .	—	—	—	4,510
<b>Inspections</b>				
First inspection at school: No. of pupils .. .. .	—	—	—	36,350
First inspection at clinic: No. of pupils .. .. .	—	—	—	15,607
No. found to require treatment .. .. .	—	—	—	33,668
No. offered treatment .. .. .	—	—	—	33,346
Pupils re-inspected at school or clinic .. .. .	—	—	—	3,981
No. found to require treatment .. .. .	—	—	—	3,348
<b>Sessions</b>				
Sessions devoted to treatment .. .. .	—	—	—	8,436
Sessions devoted to inspection .. .. .	—	—	—	259
Sessions devoted to Dental Health Education .. .. .	—	—	—	144

## Part IV—Staff of the School Health Service

Table A

	Number of Officers	Number in terms of full-time officers employed in the School Health Service
<b>Medical Officers (including the Principal School Medical Officer and Deputy) :</b>		
Whole-time school health service .. .. .	8	8·0
Part-time school health service and rest of time local health service .. .. .	4	0·8
Part-time School Health Service rest of time as General Practitioner .. .. .	10	3·6
Part-time School Health Service rest of time on other medical work .. .. .	10	4·1
Ophthalmic specialists .. .. .	5	1·0
Other consultants and specialists .. .. .	5	0·7
Senior speech therapist .. .. .	1	1·0
Speech therapists .. .. .	16	10·2
Chiropodists .. .. .	4	1·2
Orthoptist .. .. .	1	0·6
Physiotherapists .. .. .	18	14·6
Remedial gymnast .. .. .	1	1·0
Number of school clinics .. .. .	—	22



Table B

## School Dental Service

## Staff of the School Dental Service

	Number in terms of full-time officers employed in the school dental service			
	Number of Officers	Employed on admin. duties	Clinical duties School Service	M. & C.H. Service
(a) Officers employed on a salary basis :				
Principal school dental officer .. .. .	1	0.5	0.4	0.1
Dental officers .. .. .	13	0.3	11.9	0.5
(b) Officers employed on a sessional basis :				
Dental officers (including orthodontists) ..	19	—	5.4	0.2
Totals (a) and (b) .. .. .	33	0.8	17.7	0.8
(c) Dental auxiliaries and hygienists :	Full-time equivalent			
	Number	Treatment		
		School Service	M. & C.H. Service	
Dental auxiliaries .. .. .	4	3.6	0.4	
(d) Other staff :		Number	Full-time equivalent	
Dental technicians .. .. .		5*	5.0	
Dental surgery assistants .. .. .		33	31.5	

\*One is an apprentice technician

## School Dental Clinics

	Static Clinics				Mobile Clinics	
	Number with one surgery only	Number with two or more surgeries	Total number of surgeries		Total number of surgeries	
			Avail-able	In use	Avail-able	In use
Provided directly by Authority .. .. .	10	8	27	27	2	—

Treatment was given at five residential schools.

## Dental health education

Dental auxiliaries and health visitors visited schools with about 12,000 pupils and maternity and child welfare centres to give talks, demonstrations and films. Four thousand, two hundred and ninety-one pupils had prophylaxis treatment and dental health and chairside instruction.

Table C

### Type of examination and/or treatment provided at the school clinics

Examination and/or treatment	Number of school clinics (i.e. premises) where such treatment is provided	
	Directly by the Authority	Under arrangements made with hospital authorities
Minor ailment and other non-specialist examination or treatment .. .. .	18	—
Audiology .. .. .	2	—
Chiropody .. .. .	11	1
Ear, Nose and Throat .. .. .	1	—
Enuretic .. .. .	7	—
Ophthalmic .. .. .	11	—
Orthopaedic .. .. .	2	—
Orthoptic .. .. .	6	—
Physiotherapy and remedial exercises ..	7	—
Speech Therapy .. .. .	11	—
Sunray (U.V.R.) .. .. .	5	—
Vaccination and immunization .. .. .	18	—
Haemoglobin .. .. .	1	—

Table D

### Child Guidance Clinics and the School Psychological Service

Number of child guidance clinics provided by the Authority .. .. . 5

	Number employed		Aggregate in terms of the equivalent number of whole-time officers			
	by L.E.A.	under arrangements with hospital authorities	employed by L.E.A.		employed under arrangements with hospital authorities	
			in child guidance clinics	in school psychological service	in child guidance clinics	in school psychological service
Psychiatrists .. .. .	2	—	1.1	—	—	—
Educational psychologists ..	12	—	7.0	4.0	—	—
Social workers .. .. .	9	—	8.0	—	—	—
Remedial teachers .. .. .	28	—	—	25.5	—	—
Special teachers .. .. .	9	—	—	—	—	—

General health education and health education should be given to all children and adults and to the community and to the parents of the children. The health education should be given in a way which is suitable for the children and adults and to the community and to the parents of the children.

Table 1. General health education

Table 1

Types of health education given in the school clinics

Number of school clinics (No. of children)	Types of health education given in the school clinics	
	General health education	Health education for children and adults
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

Table 2. General health education

Table 2

Types of health education given in the school clinics

Number of school clinics (No. of children)	Types of health education given in the school clinics	
	General health education	Health education for children and adults
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

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