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THE
HEALTH OF BOLTON
1972

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH
ANNUAL REPORT OF PRINCIPAL SCHOOL MEDICAL OFFICER



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COUNTY BOROUGH OF BOLTON



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDED

31st December, 1972

A. I. ROSS, M.D., D.P.H.,
MEDICAL OFFICER OF HEALTH
HEALTH DEPARTMENT, CIVIC CENTRE, BOLTON
Telephone No. 22311

HEALTH COMMITTEE, 1972-1973

The Mayor (Alderman A. E. Clarke)

Chairman:	Councillor D. S. Clarke
Vice-Chairman:	Councillor J. Knight

Alderman E. G. Higson
Alderman A. Townend
Alderman Mrs. N. Vickers
Alderman W. Walsh
Councillor E. W. Bell
Councillor R. Hall
Councillor G. A. Hitchen
Councillor R. Johnson
Councillor N. R. Morlidge
Councillor N. A. Spencer

Co-opted Members:

Dr. B. Thornley
Mr. W. C. Moss
Mrs. M. J. Rothwell

INTRODUCTION

With the date of the reorganisation of the Health Service rapidly approaching plans are well in hand to merge those services which will be run by the new Bolton Area Health Authority. This will be responsible for the present hospital services, the personal services of the local health authority and its Family Practitioner Committee will take over the responsibilities of the Bolton Executive Council and the Lancashire Executive Council in respect of the part of the County which is coming into the new area. Health Department officers have been considerably involved in these rearrangements, being members of working parties to deal with detailed parts of the new service. The new Bolton will be a reasonably compact area and from what can be seen so far, it should be an effective health unit, there being a long tradition of co-operation in the area. The environmental services will remain with the Bolton District Council. Co-operation between the Health Authority and the District Council will be maintained by a Joint Consultative Committee of representatives of each, backed by a team of officers. Medical advice to the District Council will come from the Area Health Authority. One community physician will have special responsibility to advise the District Council on environmental health, another will deal with children and a third with social services. Teams, with membership from officers of the Health Authority and District Council, will plan development of such services as geriatrics, psychiatry, midwifery and paediatrics. Medical advice to the Health Authority will come from a local Medical Advisory Committee formed of consultants, general practitioners, community physicians and clinical public health doctors.

An important feature of the vital statistics during 1972 is the decline in the birth rate which is 200 down on the figure for 1971. This is in line with the fall in birth rate throughout the country and from present indications would seem likely to continue.

The reduction in the number of babies born at home continued and 97.5% of deliveries took place in hospital. The domiciliary midwives work closely with general practitioners, attending ante-natal sessions for mothers who are going to be delivered at home and in the maternity homes.

There were more cases of tuberculosis among immigrants. These patients do not present any danger to the native born Boltonians. The department has effective arrangements in conjunction with hospital consultants and general practitioners, for dealing with tuberculosis and it is possible that the peak of incidence may have been reached.

Close co-operation with other medical services in the town continues. Details are given in the body of the Report but co-ordination is particularly important and effective in the case of geriatrics, mental illness, paediatrics and obstetrics. The arrangement whereby a district nurse is seconded to the Bolton Royal Infirmary and the Bolton District General Hospital to facilitate the early discharge of patients is working well.

Plans for health centres are progressing. The building of the Tonge Moor Health Centre should start soon and be followed by others in the Brightmet Fold Lane, Chorley Old Road, Tonge Fold and Great Lever localities. With present financial restrictions it is not clear when these last four will be built.

Health education continues to be specially stressed. Effective co-operation is maintained with head teachers.

The clean air and slum clearance programmes have gone forward during the year. Because of progress in the last few years, Bolton is now a very much cleaner and pleasanter place. There have been very substantial reductions in both smoke and sulphur dioxide in the atmosphere.

The staff of the Health Department continue to receive great help from local authority officers and from those in other branches of the health service. The continued helpfulness of the Chairman and members of the Committee are very much appreciated.

A. Ross.

Medical Officer of Health.

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PRINCIPAL STAFF OF THE HEALTH DEPARTMENT

at 31st December, 1972

MEDICAL STAFF

Medical Officer of Health	A. I. Ross, M.D., D.P.H., M.F.C.M.
Deputy Medical Officer of Health ..	J. S. Farries, M.R.C.S., L.R.C.P., D.A., D.(Obst.) R.C.O.G., D.P.H., M.F.C.M.
Senior Medical Officer	Audrey Seddon, M.B., Ch.B., D.(Obst.) R.C.O.G. M.F.C.M.
Medical Officers and School Medical Officers	Mavis J. Allanson, M.B., Ch.B., D.(Obst.) R.C.O.G. Mira Parikh, M.B.S., D.(Obst.) R.C.O.G. Dorothy M. Paterson, M.B., Ch.B. B.A.O. (Cork) J. Tudor, L.M.S.S.A.
Chief Dental Officer and Principal School Dental Officer	S. J. Bray, L.D.S. (Resigned 8.9.72) S. M. Aalen, B.D.S., L.D.S. (Commenced 2.10.72)

COMMUNITY NURSING STAFF

Director of Nursing Services	Miss E. M. Richardson, S.R.N., S.C.M., H.V. and Q.N. Certs., D.N. (London), Nursing Admin. (Public Health) Cert.
Area Nursing Officer (North)	Mrs. E. Gallaher, S.R.N., S.C.M., H.V. and Q.N. Certs.
Area Nursing Officer (South)	Miss A. M. Fraser, S.R.N., S.C.M., H.V. Cert.

PUBLIC HEALTH INSPECTORS

Chief Public Health Inspector	T. Williams, F.R.S.H., M.R.Inst. P.H.H., M.A.P.H.I.
Deputy Chief Public Health Inspector	N. Ryce, M.R.S.H., M.A.P.H.I.

CLERICAL STAFF

Senior Administrator	W. Greenhalgh
Senior Administrative Assistant ..	H. Staley, D.M.A.

AMBULANCE SERVICE

Superintendent	J. Stroud, F.I.A.O.
------------------------	---------------------

ANALYST

Borough Analyst	P. Morries, B.Sc., F.R.I.C., F.I.F.Sc.T.
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BATHS

Manager	C. G. Duce, T.I.B.M.
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THE NATIONAL STATE OF THE UNITED STATES

IN SENATE

January 1, 1901

REPORT

OF THE

COMMISSIONER OF THE GENERAL LAND OFFICE

TO THE SECRETARY OF THE INTERIOR

IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE

ON MAY 1, 1899

AND

TO THE HOUSE OF REPRESENTATIVES

ON MAY 1, 1900

BY

JOHN W. COOPER, COMMISSIONER

WASHINGTON: GOVERNMENT PRINTING OFFICE: 1901

PART 1

STATISTICAL INFORMATION

Summary of Statistics

Vital Statistics

SUMMARY OF STATISTICS, 1972

COUNTY BOROUGH OF BOLTON

Position	Lat. 53° 35' N. Long. 2° 27' W
Elevation above sea level	230 ft. to 1,450 ft
Geological Formation	Boulder Clay and Sand over Coal Measures
Rainfall (Av. 1887-1972: 1,307.7 mm	1,023 mm
Area in Acres (Land and Inland Water)	15,279
Population (Census 1921)	178,683
„ (Census 1931)	177,250
„ (Census 1951)	167,162
„ (Census 1961)	160,740
„ (Census 1971)	153,977
Estimated mid-year population 1972	154,240
New permanent houses, including flats, certified	700
Existing buildings altered to provide dwelling accommodation	1
Estimated number of houses in the Borough	55,336
Rateable value at 1st April, 1972	£5,882,245
Rate at 1p in the £ estimated to produce (1972-73)	£56,520
Live births	2,474
Live births per 1,000 population (Corrected)	17.96
Stillbirths	41
Stillbirth rate per 1,000 live and stillbirths	16.30
Total live and stillbirths	2,515
Infant Deaths	57
Infant mortality rate per 1,000 live births total	23.04
Infant mortality rate per 1,000 live births—legitimate	23.04
Infant mortality rate per 1,000 live births—illegitimate	23.0
Neo-natal mortality rate per 1,000 live births	11.72
Early Neo-natal mortality rate (under one week)	9.70
Illegitimate live births per cent of total live births	12.29
Maternal deaths (including abortion)	3
Maternal mortality rate per 1,000 live and stillbirths	1.20
Deaths	2,277
*Death rate (Corrected)	14.20
*Average Death Rate (1963-1972)	14.30
*Heart and Circulation Death Rate	7.90
*Cancer Death Rate	2.69
*Death Rate from diseases of the Respiratory System	2.18
*Pulmonary Tuberculosis Death Rate	0.06
Diarrhoea Death Rate (Deaths under two years per 1,000 live births)	2.83

ENGLAND AND WALES:

*Birth Rate	14.8
Stillbirth Rate (per 1,000 total births)	12.0
*Death Rate	12.1
Infant Mortality (Deaths under one year per 1,000 live births)	17.0

*Per thousand of population

VITAL STATISTICS

Births:

There were 2,474 live births to Bolton residents, 1,269 males and 1,205 females. The live birth rate (corrected) per 1,000 of the population was 17·9.

The number of births and the birth rate decreased compared with the previous year, the number of live births being the lowest since 1959. The national birth rate is still well below that of Bolton, being 14·8. The percentage of illegitimate births was the highest ever recorded in the town.

The following table shows the pattern of the birth figures in the last ten years.

Year	Population	No. of Live Births	Live Birth Rate per 1,000 population (Corrected)
1963	159,780	2,701	18·25
1964	159,190	2,775	18·82
1965	157,990	2,785	19·04
1966	157,200	2,685	18·44
1967	156,400	2,800	19·34
1968	153,700	2,711	19·05
1969	152,500	2,701	19·13
1970	152,010	2,622	18·60
1971	154,360	2,675	18·70
1972	154,240	2,474	17·90

The following table shows the percentage of illegitimate births in Bolton for the last ten years and the figure for the rest of the country.

Year	Percentage of live births who are illegitimate	National percentage of illegitimate births
1963	7·70	6·92
1964	7·96	7·23
1965	8·22	7·68
1966	10·75	7·89
1967	9·60	8·40
1968	11·10	8·52
1969	11·03	8·40
1970	10·83	8·00
1971	12·18	8·00
1972	12·28	9·00

LIVE BIRTHS IN INSTITUTIONS	NUMBER	PERCENTAGE OF TOTAL LIVE BIRTHS
Bolton District General Hospital	1,636	
Haslam Maternity Home	292	
Havercroft Maternity Home	150	
Heaton Grange Maternity Home	285	
Institutions and Homes outside Bolton	30	
	<hr/> 2,393	97.5%
LIVE BIRTHS AT HOME	63	2.5%

The number of births at home and in hospital is dealt with more fully in the Midwifery part of the report. The figures given above (2,456) do not coincide exactly with that of the Registrar General's Office due to the difference in the notification of births (within 36 hours of birth) and registration of births (within 6 weeks of birth).

There were 201 premature live births.

The percentage of deliveries taking place in hospitals and maternity homes continues to rise, being 97.5% in 1972 compared with 96% in 1971.

Stillbirths:

The number of stillbirths was 41, giving a stillbirth rate of 16.3 per 1,000 live and stillbirths. Thirty nine stillbirths occurred in hospital and two at home.

The causes of the 41 stillbirths are given in the following table:

Cause of Stillbirth	Number
Intra-uterine anoxia	7
Intra-uterine death	10
Anencephaly	3
Prematurity	4
Hydrops Foetalis	4
Haemorrhage without mention of placental condition ..	3
Hydrocephalus	3
Asphyxia	2
Other ill-defined causes	5
<hr/> TOTAL ..	<hr/> 41

Total live and stillbirths:

The total number of live and stillbirths was 2,515.

Deaths:

There were 2,277 deaths (1,164 males and 1,113 females) giving a corrected death rate of 14.2 per 1,000 of the population.

There were 890 Bolton residents who died outside the Borough; of these 767 died in Bolton District General Hospital or Townleys Branch Hospital.

Non-residents who died in the area numbered 304.

Summary of the Principal Causes of Death, 1972

Causes of Death	No. of Deaths	Males	Fe- males	0-	1-	5-	15-	25-	35-	45-	55-	65-	75-
Tuberculosis, Respiratory	9	8	1	-	-	-	-	-	2	1	3	3	-
Other	1	-	1	-	1	-	-	-	-	-	-	-	-
Syphilitic disease	-	-	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal Infections	4	3	1	2	-	-	-	-	-	-	-	-	-
Acute Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-
Other infective and parasitic diseases	2	1	1	-	-	-	-	-	-	1	-	-	-
Malignant Neoplasms:													
Stomach	50	25	25	-	-	-	-	-	-	4	8	26	12
Lung and Bronchus	115	97	18	-	-	-	-	1	4	17	30	46	17
Breast	34	1	33	-	-	-	-	-	1	3	7	12	11
Uterus	11	-	11	-	-	-	-	-	1	3	4	-	3
Other malignant and lymphatic neoplasms	206	104	102	-	1	1	-	2	2	21	45	69	65
Leukaemia and Aleukaemia	13	6	7	-	1	1	-	-	-	2	2	5	2
Diabetes	10	6	4	-	-	-	-	-	1	-	1	5	3
Vascular lesions of nervous system	355	147	208	-	-	-	-	4	2	11	37	102	199
Coronary Artery disease and angina	541	320	221	-	-	-	-	-	5	34	104	196	202
Hypertension with heart disease	40	12	28	-	-	-	1	-	1	2	5	8	23
Other heart disease	282	123	159	-	-	-	-	-	4	8	22	57	191
Influenza	11	3	8	-	-	-	1	-	1	1	1	3	5
Pneumonia	183	88	95	9	2	-	1	-	1	8	13	41	108
Bronchitis	115	83	32	-	-	-	-	-	-	4	18	41	52
Other diseases of respiratory system	27	12	15	3	-	-	1	1	-	1	5	5	11
Ulcers of stomach and duodenum	16	12	4	-	-	-	1	-	-	-	2	4	9
Gastritis, enteritis and diarrhoea	7	6	1	7	1	-	-	-	1	2	1	4	3
Nephritis and Nephrosis	12	7	5	-	-	-	-	-	-	-	-	-	2
Hyperplasia of Prostate	4	4	-	-	-	-	-	-	-	-	-	-	-
Pregnancy, childbirth and abortion	3	-	3	-	-	-	1	1	1	-	-	-	-
Congenital malformations	10	4	6	10	-	-	-	-	-	-	-	-	-
Other defined and ill-defined diseases	143	64	79	24	3	-	2	3	11	11	10	23	56
Motor vehicle accidents	24	12	12	-	1	3	4	1	1	1	-	4	9
Suicide	9	4	5	-	-	-	-	1	1	4	2	1	-
All other accidents	40	12	28	2	2	1	2	2	-	2	2	2	25
Homicide and Operations of War	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS	2,277	1,164	1,113	57	14	6	14	16	40	141	321	660	1008

Deaths from Puerperal Causes:

There were 3 deaths from puerperal causes in 1972, giving a maternal mortality rate of 1.20 per 1,000 live and stillbirths.

Infant Mortality:

There were 57 deaths of infants under one year - an infant mortality rate of 23.04 per 1,000 live births.

Cause of Death	Age at Death					Total for each cause
	Under 4 weeks	4 weeks to 3 mths	3 to 6 months	6 to 9 months	9 to 12 months	
Prematurity	17	—	—	—	—	17
Congenital malformations	5	—	2	1	1	9
Pneumonia	—	—	2	—	—	2
Post-natal asphyxia and Atelectasis	5	—	—	—	—	5
Birth Injury	1	—	—	—	—	1
Other Causes	1	6	8	1	7	23
TOTALS	29	6	12	2	8	57

Deaths under Four Weeks:

There were 29 deaths of infants under four weeks giving a neo-natal mortality rate of 11.72 per 1,000 live births. The rate for England and Wales was 12.00.

The following table shows the ages at which death took place:

Cause of Death	0-7 days	8-14 days	15-21 days	22-28 days	Total
Prematurity	15	1	1	—	17
Congenital malformations	4	—	1	—	5
Post-natal asphyxia and Atelectasis	5	—	—	—	5
Birth Injury	1	—	—	—	1
Other Causes	—	—	—	1	1
TOTALS	25	1	2	1	29

Perinatal Mortality:

The perinatal mortality rate is the number of stillbirths added to the number of infant deaths during the first week of life, expressed as a rate per thousand of total births, both live and still. In 1972, the perinatal mortality rate in Bolton was 26.04.

The following table shows the infant mortality rate, neo-natal mortality rate, stillbirth rate, perinatal death rate and the death rate of infants aged one week, but under one year, for the last ten years.

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Infant Mortality Rate ..	32.6	19.1	20.5	24.6	23.9	28.04	23.7	22.12	26.54	23.04
Neo-natal Mortality Rate ..	19.6	10.8	14.0	12.7	15.7	18.44	14.8	12.20	16.45	11.72
Stillbirth Rate	16.4	15.3	17.3	16.1	15.1	17.05	14.2	20.91	13.64	16.30
Perinatal Death Rate .. .	32.4	24.8	29.5	27.1	28.1	33.12	23.0	31.74	27.76	26.04
Deaths of infants aged 1 week but under 1 year per 1,000 total live births .. .	16.0	9.2	8.1	13.2	10.7	11.5	14.8	11.02	11.58	9.70

General Discussion - (Infant Mortality and Stillbirths)

There was a fall in the infant mortality rate with 57 children dying in the first year of life compared with 71 dying in 1971. Seventeen of these children were born to immigrant mothers and this gave the following infant mortality rates:

Immigrants	42.50
Others	20.50

Although the rate was raised by the immigrant figures it will be seen that the rate is still above the national average even when they are excluded.

The improvement is largely due to a fall in the number of infants dying in the first month of life and the neo-natal mortality rate is the second lowest figure recorded in Bolton. Eight infants died between 9 months and a year old - many of them of potentially preventable causes such as gastro-enteritis and it is in this group where it is hoped that an improvement can take place in the future. The early neo-natal rate of 9.70 is the only figure which is the same as the national average but the higher stillbirth rate raises the perinatal mortality rate above the national figure.

The percentage of children born at home is as follows:

1963	19%
1964	18%
1965	18%
1966	13%
1967	11%
1968	8%
1969	7%
1970	6%
1971	4%
1972	2.5%

Deaths from Cancer

Localisation of Disease, Number of Deaths and Rate Per Cent of Total Deaths annually for the past ten years

Site	1963		1964		1965		1966		1967		1968		1969		1970		1971		1972	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Stomach	72	3.23	56	2.70	61	2.94	63	2.87	54	2.72	41	1.93	53	2.34	60	2.82	56	2.63	50	2.20
Lung & Bronchus	90	4.04	109	5.26	110	5.27	105	4.80	87	4.39	96	4.51	96	4.33	105	4.94	137	6.45	115	5.05
Breast	31	1.39	32	1.54	22	1.05	45	2.06	37	1.86	21	1.42	44	1.98	37	1.74	34	1.59	34	1.49
Uterus	6	0.27	20	0.97	22	1.05	15	0.69	16	0.81	6	0.28	22	0.99	14	0.65	18	0.85	11	0.48
Other Sites	167	7.50	178	8.59	167	8.0	194	8.86	176	8.88	193	9.08	93	4.19	162	7.63	104	4.88	206	9.04
TOTAL DEATHS FROM CANCER	366	16.43	395	19.06	382	18.30	422	19.27	370	18.66	367	17.27	308	13.89	378	17.84	349	16.39	416	18.27
TOTAL DEATHS: (All causes) ..	2,227		2,072		2,088		2,190		1,981		2,125		2,216		2,122		2,129		2,277	

Deaths from Lung Cancer:

The number of deaths from lung cancer was 115 which is the second highest figure recorded in Bolton, only exceeded by the 137 deaths in the previous year.

The following table shows the age and sex of the people who died from lung cancer in 1972:

Age Group	Males	Females	Total
25 - 34	1	-	1
35 - 44	4	-	4
45 - 54	13	4	17
55 - 64	24	6	30
65 - 74	43	3	46
75 and over	12	5	17
TOTALS	97	18	115

Thirty years ago in 1943 there were eighteen deaths from lung cancer. Since that time there has been a continuous rise in the deaths as seen by the total in each five year period in the following table.

Years	Deaths
1943 - 1947	129
1948 - 1952	232
1953 - 1957	354
1958 - 1962	402
1963 - 1967	501
1968 - 1972	549

The danger that smoking, particularly cigarette smoking, may give rise to lung cancer has been well known for many years. This is shown by a quotation from the annual report of 1959 and it is seen that the position is little changed thirteen years later:- "The risk from smoking is very great - one in eight heavy smokers dies of lung cancer. There is no doubt of the association between smoking and lung cancer. It is particularly desirable for children not to start smoking, but with a third to half boys already smoking, by the time they reach fifteen, to persuade children not to smoke is obviously a very difficult problem".

One difference that has occurred in the intervening period is a considerable reduction in the deaths of doctors from lung cancer, a section of the community in which the number of cigarette smokers has been halved. It is hoped that health education programmes will eventually extend this to the remainder of the population.

Deaths from Coronary Artery Disease:

The following table shows the deaths from coronary artery disease in the last ten years.

Year	Under 65	Total Deaths
1963	146	407
1964	135	396
1965	129	398
1966	138	388
1967	130	393
1968	141	477
1969	151	504
1970	143	496
1971	160	496
1972	143	541

Coronary artery disease is the most frequent cause of death in Bolton with approximately a quarter of deaths being due to this condition. The increase in the number over recent years is of as much concern as that of lung cancer, with even the latter condition now not increasing at such a rate. This will be seen if the figures for twenty years ago are compared.

Year	Deaths from Lung Cancer	Deaths from Coronary Artery Disease
1952	69	262
1972	115	541

The problems posed for public health by this position are even more complex than in previous years when much mortality was due to poor housing, poverty and malnutrition. Increased deaths from heart disease are associated with a high standard of living - an over-rich diet, cigarette smoking and lack of exercise and unless more healthy ways of living are adopted the mortality from this condition can only steadily increase. The outlook for people born in the last twenty years and who will experience this affluence for the whole of their lives must be cause for great concern unless it is balanced by advances in medicine allowing earlier detection and treatment of the condition.

Fatal Accidents in the Home:

There were 32 fatal accidents in the home during 1972 and though this is slightly above the average of recent years it is still below the figures recorded before 1965. It was in the latter year that the Bolton Home Safety Committee was formed and this must be a factor in the reduction in the number in spite of the growing number of old people. Home accidents are almost wholly confined to the elderly.

The number of fatal accidents since 1963 are given below:

1963	..	..	..	..	..	..	..	50
1964	..	..	..	..	..	..	..	37
1965	..	..	..	..	..	..	..	34
1966	..	..	..	..	..	..	..	29
1967	..	..	..	..	..	..	..	26
1968	..	..	..	..	..	..	..	28
1969	..	..	..	..	..	..	..	26
1970	..	..	..	..	..	..	..	31
1971	..	..	..	..	..	..	..	26
1972	..	..	..	..	..	..	..	32

The following table shows the distribution of accidental deaths in the home according to the age, sex and the nature of the accident.

Cause of Death	Age Group								Totals
	15 - 44		45 - 69		70 - 79		80 & over		
	M	F	M	F	M	F	M	F	
Falls – Fractured Femur ..	–	–	–	–	2	4	1	12	19
– Other	1	–	1	–	1	–	1	1	5
Burns	–	–	–	–	–	–	–	1	1
Asphyxia	–	2	–	–	–	–	–	–	2
Barbiturate Poisoning	–	1	–	1	–	–	–	–	2
Electrocution	–	–	1	–	–	–	–	–	1
Other Poisoning	1	–	–	1	–	–	–	–	2
TOTALS	2	3	2	2	3	4	2	14	32

Suicide:

There were 7 suicides in 1972, 5 fewer than in 1971 and the lowest figure recorded in Bolton since the war.

1963	..	..	..	..	..	..	13
1964	..	..	..	..	..	..	25
1965	..	..	..	..	..	..	20
1966	..	..	..	..	..	..	24
1967	..	..	..	..	..	..	15
1968	..	..	..	..	..	..	28
1969	..	..	..	..	..	..	13
1970	..	..	..	..	..	..	10
1971	..	..	..	..	..	..	12
1972	..	..	..	..	..	..	7

The following table shows the distribution of suicide according to age, sex and method of suicide:

Cause of Death	Age Group						Total
	15-44		45-64		65 and over		
	Male	Female	Male	Female	Male	Female	
Barbiturate Poisoning ..	-	1	3	1	-	1	6
Other causes	-	-	-	1	-	-	1
TOTALS	-	1	3	2	-	1	7

The very low incidence of suicide is not an index of the amount of depressive illness in the town for the number of suicide attempts is increasing every year at an alarming rate. The major part of the reduction in mortality must be put down to better resuscitative methods for attempted suicide.

PART II

LOCAL HEALTH SERVICES

**Co-ordination of the Health Department, Hospital and Family
Doctor Services**

Health Centres

Care of Mothers and Young Children

Community Nursing Services

Midwifery

Health Visiting

Home Nursing

Immunisation and Vaccination

Ambulance

Prevention of Illness, Care and After-Care

Mental Health

CO-OPERATION AND CO-ORDINATION BETWEEN THE HEALTH DEPARTMENT, HOSPITALS AND FAMILY DOCTOR SERVICES

In 1974 all three branches of the health services will be unified under one administration. It is hoped that this will produce better management, more efficiency, avoidance of duplication and the provision of adequate facilities for such groups as the elderly and mentally ill. To facilitate this change it is important to undertake full-co-operation before the appointed day.

Co-ordination with Family Doctor:

All of the health visitors are attached to general practices and help is given for those family doctors who hold child health clinics in their own surgeries. The district nurses are also attached to general practices and the midwives attend surgeries to assist with ante-natal clinics.

Co-ordination with Hospital Services:

GERIATRICS:

A health visitor and a state registered nurse work in a full-time capacity with the Consultant Geriatrician and they have the assistance of a part-time state registered nurse. The health visitor reviews the patients on the waiting list for the hospital and keeps the consultant informed about any significant change in the circumstances. Full assessment of their social circumstances enables local authority services to allow the early discharge of some patients and obviates the necessity for hospital admission with others. The health visitor sees patients in their homes shortly after discharge from hospital to ensure that adequate care is being given to them.

MENTAL ILLNESS:

The Consultant in Mental Subnormality at Brockhall Hospital attends the Civic Centre once monthly when he sees cases referred by general practitioners and local authority medical officers.

When a child is to be seen by the Consultant Child Psychiatrist at the Lady Tong Clinic at the Bolton District General Hospital, the school medical officer attends to take part in the discussion about assessment, treatment and suitable school placement for the child.

PAEDIATRICS:

The Consultant Paediatrician holds a weekly clinic at the Deansgate Health Centre and he is assisted by one of the medical officers and a health visitor. Medical officers and a health visitor attend at the Bolton District General Hospital. The health visitor takes part in the ward rounds and this enables her to advise about any social problems that may arise. This co-ordination allows full assessment of handicapped children so that their needs, such as appropriate education, can be met. Reports of the treatment of children by the hospital (such as copies of letters to general practitioners) are passed to the Health Department.

OBSTETRICS:

Many midwifery patients are discharged from hospital before the usual eight to ten days of the puerperium have elapsed, frequently forty-eight hours after delivery. Patients who are selected for early discharge have home conditions assessed by the midwives to make sure that they have suitable facilities.

SURGERY:

A district nurse is seconded to the Bolton Royal Infirmary and the Bolton District General Hospital to help in the assessment of surgical patients who are not in need of active treatment and yet still require some skilled nursing. These patients can often be discharged earlier than usual and free urgently required beds for other cases. The nurse passes information about the treatment and nursing still required to the other home nurses.

SCHOOL HEALTH SERVICE CLINICS:

An Ear, Nose and Throat Consultant, an Ophthalmic Consultant and a Consultant Child Psychiatrist undertake clinics for the School Health Service.

The Medical Officer of Health is a member of the Bolton and District Hospital Management Committee and its Medical Advisory Committee, the Bolton Executive Council, the Local Medical Committee, the Local Obstetric Committee, the Ambulance Liaison Committee, the Geriatric Group and the Maternity Liaison Committee.

HEALTH CENTRES

Three health centres, Halliwell, Astley Bridge and Cannon Street, were in use at the beginning of the year and provided accommodation for fifteen general practitioners (nine of these had branch surgeries) and local authority services.

Deansgate Health Centre:

This was first used in January, 1972, and provided accommodation for six general practitioners. All the clinical and school health services previously held at the Civic Centre and Robert Galloway Clinic were also transferred there.

Tonge Moor Health Centre:

This is to be erected at the junction of Ainsworth Lane and Thicketford Road. Surgery accommodation will be provided for five general practitioners and there will also be local authority services.

Other health centres may be opened eventually at: 1. Brightmet Fold Lane; 2. Tonge Fold; 3. Chorley Old Road; 4. Great Lever.

CARE OF MOTHERS AND YOUNG CHILDREN

Child Health Centres:

The new image of the Child Health Clinic as a place where mothers can obtain professional advice and counselling on the care and development of their children is gradually being accepted. The old idea of weekly weighing of obviously healthy babies is now discouraged and mothers are beginning to realise that weight is only one small factor in the total picture of a healthy child.

Clinical medical officers are carrying out developmental assessments at several health centres by appointment and it is anticipated that this service will extend even further in the coming year. One health visitor also carries out assessments at one of the child health sessions which is not staffed by a doctor.

With the opening of Deansgate Health Centre in January, 1972, the clinics formerly held at the Civic Centre were transferred to the new centre. An immunisation session is now held once a month on Mondays, whilst the two child health clinics which were held weekly at the Civic Centre have been combined into one session at the Deansgate Health Centre each Thursday afternoon.

The hoped for extension in the number of baby clinics held in general practitioners' surgeries has not yet come to fruition but the ones already functioning continue to be well attended. As new health centres come into use, general practitioners have more opportunity to organise well-baby clinics in their practices. Assistance from health visitors is readily available. Unfortunately, it is still necessary to conduct local authority child health clinics in unsuitable improvised premises in areas which are not yet served by purpose built premises, but work is already in progress to upgrade rooms at the Great Lever Library to house one such clinic on completion.

A summary of the work carried out is as follows:

				Number of Sessions				Total attendances			
1970	768	..	..	..	..	26,392	
1971	773	..	..	..	..	26,284	
1972	725	..	..	..	..	22,267	

Details of different ages are shown in the following table:

Attendances at Child Health Clinics

Age of Child	First Attendance	Subsequent Attendances	Seen by Doctor at Child Health Centre
Born 1972	2,091	9,733	5,180
Born 1971	707	7,669	5,405
Born 1967/70 ..	233	1,834	1,173
TOTALS ..	3,031	19,236	11,758

The fact that there was a reduction of 48 Child Health Clinic sessions held during the year explains partly the considerable decrease in attendances. Other contributory factors were a decrease of 214 in the number of live births during 1972, compared with 1971. The number of home visits paid by health visitors has increased during the year and has meant more counselling in their own home thereby decreasing the need to attend the child health clinic for advice.

The appointment system which is now in existence at health centres where developmental tests are carried out also limits the number of babies who can be seen at each session.

In spite of the decrease in actual attendances work at the child health clinic has taken on a much more positive approach. The paediatric developmental assessments which are carried out by doctors and health visiting staff allow mothers to take a more knowledgeable interest in the normal development of their child as an individual.

Children referred by doctors at Child Health Centres for further investigation have once again increased. Those referred to the ophthalmic surgeon, have in fact doubled in number.

Details of children under 5 years referred to consultants:

	1971	1972
Referred to Ophthalmic surgeon	16	32
„ „ Paediatrician	55	60
„ „ Orthopaedic surgeon	7	9
„ „ General surgeon ..	13	12
„ „ E.N.T. surgeon ..	2	4
„ „ Dermatologist	1	1
„ „ Psychiatrist	3	3
TOTAL	<u>97</u>	<u>121</u>

VOLUNTARY WORKERS:

Miss A. Miller, who was appointed to act as co-ordinator for the voluntary workers at the beginning of 1972, has had an extremely busy year. It has been no mean task getting around the various Child Health Clinics and centres to meet voluntary workers and to discuss with them their plans and problems. In centres where several voluntary helpers are available they have been able to work a rota system thereby making the job less tiring. In other centres where the number of voluntary workers is limited it has been a very difficult task for Miss Miller to arrange a substitute in cases of sickness, or when the voluntary worker is on holiday and on many occasions she has undertaken to help at the session herself rather than leave the clinic without a helper.

During the year, 54 voluntary workers have done an admirable job in regularly helping with duties at the child health clinics including the sale of food, reception and generally making mothers welcome. They have given generously of their time and energy to help in the smooth running of these clinics, but more are needed particularly at Halliwell Health Centre, if we are not to overstrain their service.

Paediatric Clinic:

The Clinic, is held regularly once a week by the consultant paediatrician, the departmental medical officer responsible for handicapped children and a health visitor in attendance.

Two visits were made to the Firwood School to see the mentally retarded children in their school environment, and many have been seen at the clinic where other medical problems exist.

Ten children are seen at each clinic which allows time for discussion with the parents about school placement, and any problems which may arise due to the child's medical condition. The parents seem to appreciate the opportunity for discussion in this way, away from the hospital atmosphere.

Of the 190 children attending the clinic, 84 were new cases and 106 were follow-ups.

No. of clinics held	..	..	..	..	..	..	38
No. of attendances	..	..	..	..	..	..	310
No. of children attending	..	..	..	..	..	..	190
No. discharged	..	..	..	..	..	..	70
No. transferred to B.D.G.H	..	..	..	..	..	..	4
Died	..	..	..	..	..	..	1

Categories of Children Attending Clinic:

Orthopaedic	..	..	..	..	..	..	17
Muscular dystrophy	..	..	..	..	..	..	9
Mentally retarded	..	..	..	..	..	..	23
Retarded development	..	..	..	..	..	..	15
Hypotonia	..	..	..	..	..	..	10
Speech	..	..	..	..	..	..	20
Epileptic	..	..	..	..	..	..	14
Vision	..	..	..	..	..	..	1
Renal disease	..	..	..	..	..	..	1
Hearing defects	..	..	..	..	..	..	11
Spina bifida	..	..	..	..	..	..	3
Cerebral palsy	..	..	..	..	..	..	8
Neurological	..	..	..	..	..	..	2
Cretin	..	..	..	..	..	..	2
Digestive	..	..	..	..	..	..	3
Hydrocephalic	..	..	..	..	..	..	6
Miscellaneous	..	..	..	..	..	..	45
TOTAL							190

HANDICAPPED REGISTER OF PRE-SCHOOL CHILDREN:

The handicapped register has been maintained in the same general form as in previous years but with some modifications and rationalisation. A record is kept of all pre-school children with a defect or handicap.

Cases on the combined Handicap and Defect Register:

	1969	1970	1971	1972
Children with one or more defect	219	366	457	581
Children with one or more handicap	236	257	295	269
TOTAL	455	623	752	850

Children with a Handicapping Condition

Year	Cases on the register at the beginning of the year	New Cases	Total	Cases deleted	Cases on the register at the end of the year
1969	142	94	236	73	163
1970	163	94	257	55	202
1971	202	82	284	47	237
1972	237	53	290	84	206

The reduction in the number of new cases on the register in 1972 is due to some changes of categories, for example, in the main the asthmas are now on the defect register. It is no longer found necessary to admit the majority of children with asthma to special schools, particularly since new treatments have been introduced. A new generic category of 'neurological' appears this year to incorporate cases of cerebral palsy and neurological conditions that previously appeared in the miscellaneous section. It has been found that these often require close supervision and special schooling.

An analysis of the 290 handicapped children is shown in the following table:

Category of Handicap	Cases on Handicapped Register during 1972			Action taken in 1972 on cases on Register of children who require special education or institutional cases			Cases deleted from Handicapped Pre-School Register during 1972						Cases remaining on Handicapped Register at 31.12.72
	Cases on Register at 31.12.71	New cases entered in Register during 1972	Total	Being Assessed	Assessed and on waiting list	Attending special school and under 5 yrs. of age	Reached school age not requiring special education	Reached school age attending special school	Under 5 yrs. of age Deleted or reclassified as defect	Removed from area	Died	Total	
Asthma	23	4	27	-	-	-	6	-	4	3	-	13	14
Blood Diseases	2	2	4	-	-	-	-	-	1	-	1	2	2
Cardiac	29	7	36	-	-	-	6	-	1	1	1	9	27
Cerebral Palsy	11	-	11	-	-	-	2	-	1	-	-	3	8
Cleft Palate	3	1	4	-	-	-	-	-	-	-	-	-	4
Cleft palate and hare-lip ..	8	3	11	-	-	-	1	-	-	-	-	1	10
Cretin and dwarf	-	1	1	-	-	-	-	-	-	-	-	-	1
Deafness	16	4	20	-	-	2	3	2	2	-	-	7	13
Epilepsy and Convulsions ..	14	6	20	1	1	1	3	-	-	3	-	6	14
Fibro-cystic disease of pancreas	2	-	2	-	-	-	-	-	-	-	-	-	2
Hydrocephalus and Spina Bifida	23	4	27	-	-	1	5	-	-	-	2	7	20
Miscellaneous	22	6	28	-	-	1	3	1	1	-	1	6	22
Mentally retarded	16	2	18	-	4	5	1	6	-	-	2	9	9
Mongols	15	1	16	-	2	2	-	2	-	-	1	3	13
Neurological	-	6	6	-	2	-	-	2	-	-	-	2	4
Orthopaedic	24	1	25	-	-	-	3	-	3	1	-	7	18
Speech defects	17	5	22	1	1	1	7	-	-	-	-	7	15
Vision	12	-	12	-	-	-	2	-	-	-	-	2	10
TOTALS	237	53	290	1	10	13	42	13	13	8	8	84	206

The second group of children with defects requiring observation entered on the register during the year included:

DEFECT:	1970	1971	1972
Talipes	9	3	3
Congenital dislocation of hip (requiring splints)	43	27	38
Gastric intestinal disorders (including coeliac disease, gastric allergy and malabsorption syndrome)	14	14	17
Miscellaneous group comprising:			
Renal rickets	—	1	—
Rickets	—	10	8
Rickets with active tuberculosis	—	1	—
Children with clinically bowed legs who sub- sequently were found not to have rickets . .	—	8	5
Allergy	—	—	21
Nephritis - nephrectomy	—	1	1
Atresia of ileum	—	1	—

CHILDREN AT RISK WHO DEVELOPED A HANDICAP:

Of the 53 new cases on the register in 1972, 22 were considered to be "at risk" at birth.

An analysis of the 22 "at risk" children is shown in the following table:

At Risk Factor	No.	Handicap	Additional Factors
1. Congenital defect noted at birth:	1	Imperforate anus (colostomy)	Also caesarian section
	1	Cleft palate and harelip	
	2	Cleft palate	
	1	Spina bifida and hydrocephalus	
	1	Mild hydrocephalus	
	1	Congenital heart disease (baby subsequently died)	Also caesarian section, mother had shingles during pregnancy
	2	Valvula septal defects	Both were also post-mature
2. Medical and Social History:			
a. Family History	1	Atypical phenylketonuria	Mother also had phenylketonuria
	1	Convulsion and hemiparesis	Mother had epilepsy
	1	Werdnig Hoffman's syndrome	Sibling died of same disease at 3 months in 1970
	1	Multiple dyslalia	Father had history of delayed speech and speech defect
b. Social Risk	1	Hydrocephalus	Poor home circumstances
	1	Deaf	Disadvantaged family - poor home background
	1	Idiopathic epilepsy	Poor home circumstances. Father dead.
	1	Asthma	Poor home circumstances
	1	Leukaemia	Deprived family background
	1	Epilepsy, Convulsions and retarded	Parents of low mentality. Poor housing
3. Obstetric History:			
a. Forceps delivery	1	Convulsions	
	1	Dyslalia	Very young mother from deprived background
b. Breech delivery	1	Convulsions and epilepsy	Also post mature

DEATHS OF CHILDREN WITH DEFECTS OR HANDICAPS:

There were 8 deaths during 1972 of handicapped pre-school children:

Handicap Category	No.	Cause of death	Age at death
Blood	1	Leukaemia	2 years 2 mths
Cardiac	1	Congenital heart disease	15 days.
Miscellaneous	1	Broncho pneumonia	
		Medullo-blastoma of 4th ventricle	2 years 2 mths.
Mongol	1	Asphyxia	
		Down's Syndrome	1 year 8 mths.
Mentally retarded	2	(a) broncho-pneumonia	
		Mental retardation	1 year 3 mths.
		(b) Respiratory exhaustion	
		Congenital abnormalities (microcephalus Cleft palate)	3 months.
Spina bifida and hydrocephalus	2	(a) Raised intracranial pressure Hydrocephalus	
		Myelomeningocele	10 months.
		(b) Renal failure - transposition of ureters	
		Myelomeningocele	2 years 1 mth.

There were 4 deaths during 1972 of children with defects:

Defect Category	No.	Cause of death	Age at death
Miscellaneous:	4		
(a) Atresia of ileum		Atresia of ileum	2 years 6 mths.
(b) Failure to thrive		Meningitis	3 years 6 mths.
(c) „ „		Cardiac failure	
		Gastro enteritis	2 months.
(d) „ „		Glycogen storage disease	10 months.

CHILDREN "AT RISK"

Babies that might not develop normally were placed on the "At Risk" special register and examined at the three selected ages of 6-8 weeks, 6-9 months and 12-18 months.

Year	Number of babies on the "At Risk" Register
1966	566
1967	644
1968	583
1969	463
1970	550
1971	552
1972	445

During 1972, reasons for which babies were placed on the register are as follows. Some babies had several reasons why they were placed on the register.

Reason	No. of babies on the "At Risk" Register
Premature	107
Forceps delivery	81
Caesarian Section	79
Breech delivery	39
Rh Negative	1
Multiple Pregnancy	18
Illness of Baby	15
Illness of Mother	2
Congenital abnormalities	65
Other reasons	38
TOTAL	445

Congenital Abnormalities:

During 1972, 22 congenital abnormalities were notified. This low figure is probably due to the fact that notifications are of those congenital abnormalities observed at birth. Eighteen abnormalities were notified by the hospital and 2 by a midwife. Two babies had two abnormalities. Nine babies were stillborn.

The figures received are as follows:

Hydrocephalus	4
Hare lip and cleft palate	1
Hare lip	1
Cleft palate	2
Hydrops foetalis	2
Anencephalus	3
Pilonidal sinus	1
Spina bifida	2
Imperforate anus	1
Hypospadias	1
Myelomeningocele	1
Talipes	2
Congenital dislocation of hip	1
TOTAL	22

Ascertainment of Deafness in Young Children - Screening Tests for Hearing:

The tests used to screen the hearing of infants and pre-school children are those devised by the staff of the Department of Audiology and Education of the Deaf of Manchester University. Members of the nursing staff are trained in the application of these tests and the number of trained staff in the department at the end of the year was as follows:

No. of health visitors trained for testing both infants and pre-school children (7 months to 5 years):

Full-time	14
Part-time	1

No. of nurses trained for testing infants (7 months to 18 months only):

Health visitors - full time	.. .. .	5
School and Clinic Nurses - full-time	.. ..	7
	part-time	2
Hygienists - part-time	.. ..	3

It has previously been the policy of the department to have visiting staff from the Department of Audiology to train the nurses, but this has proved increasingly difficult to arrange and in 1973 two of the more senior and experienced health visitors will be undertaking this task.

Children are selected to have their hearing tested at the age of 7 or 8 months as a routine, when there is any reason to suspect that they are "at risk" and therefore more liable to have a hearing loss. This means that rather more than one third of the babies born in any one year have their hearing screened before the age of one year. In 1972, 952 children were tested before their first birthday, compared with 1,190 in 1971.

A child may have normal hearing as an infant but still have a conductive deafness as a pre-school child because of catarrh, infection or "glue" ear. The children over the age of one year are usually tested because of a specific reason such as speech delay and not as a routine measure and therefore a higher percentage of them fail to pass three hearing tests. It is only when a child, of any age, has failed on three separate occasions to respond to the hearing test that further action is taken. The child is referred by the nurse for medical opinion and then if more specialised and expert testing is considered necessary the child is referred to the Department of Audiology in Manchester.

In 1972, 9 children failed three hearing tests, 0.8% of all those tested. Only one of these was under the age of one year and her parents moved to another area before any further action could be taken. Two children were between one and two years of age and both these were referred to the Department of Audiology in Manchester for more specialised assessment, but neither child had been seen before the end of the year. Six children were in the pre-school range of 2 to 5 years and they represented 26% of the children tested in this group; after further investigation two were considered to have no significant hearing loss, one child was referred to the Department of Audiology but had not been seen at the end of the year; the remaining three were found to have a significant hearing loss, one of them with a conductive loss was referred direct to the consultant E.N.T. surgeon, Mr. Mahindraker, for his advice regarding treatment, a second child was similarly seen by Mr. Mahindraker after investigation at the Department of Audiology and in the case of the third child the Department of Audiology found she had a severe hearing loss for which she was supplied with a hearing aid.

Seven children who had failed three hearing tests in 1971 were scheduled for further investigation in 1972. Two of these were retested after an interval and, having developed sufficiently with the lapse of time, passed this fourth test. Two children were seen at the Department of Audiology, one was found to have a conductive hearing loss and was referred to the consultant E.N.T. surgeon for treatment and the other was considered probably to have no significant hearing loss but because of difficulty in testing her, she is to be seen again in six months time.

Of the remaining three children, one left the country before any further investigations could be undertaken, one failed to keep the appointments at the Department of Audiology but he is now attending school and will be followed up there and the other child was treated by Mr. Mahindrakar, consultant E.N.T. surgeon for a congenital abnormality of the ear.

Results

	Under 1 year	%	1 to 2 years	%	2 to 5 years	%	Totals	%
Number of children tested	952	86.9	120	11.0	23	2.1	1095	
Passed—								
1st Test	927	97.4	111	92.5	16	69.6	1054	96.2
2nd Test	20	2.1	6	5.0	1	4.3	27	2.5
3rd Test	4	0.4	1	0.8	0	0	5	0.5
Failed 3 tests	1	0.1	2	1.7	6	26.1	9	0.8
Diagnosed—								
Deaf	0	0	0	0	3	13.0	3	0.3
Not deaf	0	0	0	0	2	8.7	2	0.2
Under consideration	1	0.1	2	1.7	1	4.3	4	0.4
Number of tests carried out—								
At home	873	88.9	124	93.9	28	77.8	1025	89.1
At clinic	107	10.9	8	6.1	7	19.4	122	10.6
At nursery	2	0.2	0	0	1	2.8	3	0.3
Total number of tests	982	85.4	132	11.5	36	3.1	1150	

Developmental Paediatrics:

With increasing medical knowledge, the earlier any possible handicapping condition is detected in a child, the greater the chance of being about to help that child. It is important therefore that any deviation from normal development in a child is noted and investigated at the earliest possible age. With this in mind, we have continued to screen the progress of children attending the Child Health Clinics at regular intervals. This is done by the medical officer routinely at six weeks, six months and 1 year of age, and thereafter on those children where further follow up is advisable.

For their part, the health visitors screen the children in the "At risk" categories when they do their domiciliary visits; they follow up their initial assessment at 6 to 9 months and again between 12 and 18 months where they consider it advisable and any child not progressing normally is referred for medical opinion.

We have been very conscious for some time that some children are neither in the "At Risk" category nor attend a Child Clinic and therefore may not be seen. We are hoping to integrate the work of the health visitors and medical officers so that every child has its development screened on at least one occasion, probably by the health visitors at the same time as they carry out a hearing test around nine months of age when most handicaps should be evident. The medical officers would then see any child about whom the health visitor felt concern as well as continuing with routine developmental examinations on children attending the Child Health Clinics.

At present the possibility of such a scheme being integrated with the "At risk" and "Handicap" registers and the computer being used, to record information about the children and for sending them appointments for their examination at the clinics, is being considered.

The Psychological Testing of Pre-School Children:

The detailed assessment of pre-school children who are not developing normally is mainly undertaken by the Senior Medical Officer. With the use of the extended Griffiths Mental Development Scales it is now possible to assess children who are functioning at a higher mental age than was possible with the babies scale which was restricted to children under two years of age. This is a time consuming procedure and a full assessment is therefore only undertaken in those cases where a developmental profile of a child is of particular value.

Twenty-five children were tested in 1972, seventeen of those at the request of the Consultant Paediatrician, Dr. W. Dickson. The age ranges of the children were under 1 year - 4; 1 to 2 years - 9; 2 to 3 years - 5; 3 to 4 years - 5; over 4 years - 2, and they were assessed for developmental delay in 12 cases, cerebral palsy in 4 cases, referred from the premature baby clinic in 4 cases, speech delay in 3 cases and phenylketonuria in 1 case.

Routine Testing of Babies for Phenylketonuria:

Phenylketonuria is an inherited disorder of metabolism in which the body is unable to deal with a substance, phenylalanine, which is found in certain foods. If untreated the excess of this substance in the blood causes damage to a child's brain resulting in severe mental subnormality. The damage can be prevented by feeding the child a diet which is low in phenylalanine but as the damage, once caused, is not reversible, early diagnosis is vital to the child's future.

All babies are therefore screened for raised phenylalanine in the blood by taking a small sample from their heel about the tenth day of life and sending it to the laboratory for a Scriver test which is a simple method of detecting excess phenylalanine in the blood. As an incidental finding, excess of certain other substances are on occasion found in the blood sample; the fact is noted and the child observed but so far none of these have proved to be significant.

The blood sample is usually taken by the health visitor on her first visit to the baby's home, but if for any reason a child is detained in hospital beyond the tenth day, the sample is taken there. The specimens are sent to the laboratories at the Royal Manchester Children's Hospital for testing.

In 1972, 2,308 babies had a Scriver test, 2,240 samples being collected by the health visitor and 68 by the hospital staff. In 132 cases it was necessary to repeat the test after an interval.

No new case of phenylketonuria was detected during the year. One child was found to have a slightly raised serum phenylalanine at the first test, but a repeat test was normal. Fourteen children had raised levels of other amino acids, chiefly tyrosine. This is a temporary phenomenon occurring mainly in premature and immature infants but it is possible for it to indicate a serious pathological situation called tyrosinosis. Because of this the laboratory have previously done a repeat test on all children with raised tyrosine levels, but, having examined 170,000 such infants without finding a case of tyrosinosis, they have abandoned routine repeat testing in cases with raised plasma tyrosine levels and only repeat the test if the child fails to thrive normally.

A boy who is a case of atypical phenylketonuria was born in September. He is brother to a child known to have phenylketonuria. For this reason the mother's diet had been supervised throughout the pregnancy, as it is possible for the brain of the developing foetus to be damaged by excess phenylalanine in the mother's blood. She had had a weekly Scriver test whilst pregnant and was hospitalised for the last month at the Royal Manchester Children's Hospital for strict dietary supervision. The baby's progress is so far satisfactory; he is having a low phenylalanine diet and has weekly Scriver tests.

Care of Unmarried Mothers:

The number of unmarried mothers in the County Borough of Bolton dealt with by the Bolton & District Family Care Association during 1972 was 116, of which 28 were aged 16 years or under.

The analysis was as follows:

	1968	1969	1970	1971	1972
Total number of girls aged 16 years and under who gave birth to live babies	12	24	20	17	28

Age of mothers at date of birth of their babies:

	1968	1969	1970	1971	1972
Age of mother at last birthday:					
16 years	7	10	8	12	14
15 years	3	9	6	5	10
14 years	2	4	6	1	4
13 years	-	1	-	-	-
12 years	-	-	-	1	-

Whilst the overall figures remain fairly stable with an increase of 4 over the 1971 figures, the 16 years and under age group has increased from 17 to 28. There was a significant increase in the 15 year group. Many of these girls, in their final year at school, have also been referred to the health visitor by the Education Welfare Officer for advice and counselling. The fact that the health visitor is now general practitioner attached, provides an opportunity to discuss the problems with both the girl and her general practitioner, thus encouraging the girl's confidence in the health visitor.

It is interesting to note that the majority of girls in this age group are now wanting to keep their babies.

The Battered Baby:

Following the general principles adopted at a meeting in 1970, steps were taken to investigate any children who may be considered to be in this category.

Family Planning:

The Bolton Branch of the Family Planning Association has provided family planning clinics for Bolton and District during 1972.

Two clinics weekly have been held at Deansgate Health Centre and one at Astley Bridge Health Centre in the evenings, and two daytime clinics were held at Halliwell Health Centre. Two new clinics were started during the year, one at Deane Clinic and the other at Cannon Street Health Centre.

The statistics for these clinics are as follows:

Clinic	New	Repeat	No. of Clinic Sessions	Doctor Sessions
Astley Bridge	83	824	48	48
Cannon Street	28	30	11	11
Deane	32	120	40	40
Deansgate	287	2268	90	180
Halliwell	147	918	92	96

During the year, 790 cervical smears were taken as part of the routine examination of the patients attending. There were two positive smears. All patients with gynaecological conditions were referred to their general practitioners for treatment. There were 280 intra-uterine devices fitted at the clinic held weekly for patients requesting this method.

The local authority continued to use the Family Planning Association on an Agency basis for cases requiring family planning advice on medical or social grounds and have been responsible for payment in these cases. Referrals to the clinics have been made by general practitioners, health visitors and the Probationary Service.

One of the doctors has attended seminars in psycho-sexual problems for two years. This was undertaken because it is found that patients find it easier to mention these problems within the clinic situation rather than make a special visit to their general practitioner. The amount of time these cases take can be considerable but it is hoped that the results will make this time spent worthwhile.

A Domiciliary Service was started towards the end of the year but this has been slow to develop and it may well be that more publicity is required.

The Abortion Act, 1967:

This Act came into operation on 27th April, 1968. It requires notification of each abortion to the Chief Medical Officer of the Department of Health & Social Security within 7 days of the operation. The following statistics are taken from the Registrar General's Statistical Review of England and Wales, Supplement on Abortion, for the year 1971.

Bolton C.B.

	Marital status			Age						Place of operation			
										Home region		Other region	
										NHS Hospital	Non NHS	NHS Hospital	Non NHS
Total	Single	Married	Other	Under 16	16-19	20-34	35-44	45 & over	Not stated				
234	90	113	26	5	44	130	52	2	1	190	2	—	42

Distribution of Welfare Foods:

Sales of Welfare Foods at the Civic Centre and Child Health Clinics during the past three years were as follows:

	1970	1971	1972
National Dried Milk	3,168	2,828	2,971 packets
Cod Liver Oil	2,374	1,098†	—
Vitamin A & D Tablets	3,004	2,271	109* packets
Vitamin A, D & C Tablets ..	—	—	1,304 packets
Vitamin A, D & C Drops ..	—	3,488**	6,402 bottles
Orange Juice	45,112	42,208	2,461*** bottles

† Discontinued 1971.

** From April, 1971.

* Replaced by Vitamin A, D & C Tablets.

*** Discontinued April, 1972.

Day Nurseries and Child Minders:

From 1st April, 1971, day nurseries and child minders became the responsibility of the new Social Services Department. The organisation and personal supervision was continued to be carried out by the Health Department until October, 1971, to allow the new Department to organise and delegate its duties.

At the end of December, 1972, the number of registered child minders was 80 and the number of registered play groups was 30. There were 9 registered handicapped children in the day nurseries.

A medical officer from the Health Department attends each nursery once a month to examine the children and to carry out immunisations.

DENTAL CARE AND TREATMENT

I am indebted to Mr. S. M. Aalen, the Chief Dental Officer, for the following information and comments regarding the dental work which was carried out in the Maternity and Child Welfare Section during the year:

"The arrangements for the examination and treatment of expectant and nursing mothers, and children under school age, have as in the previous years been limited due to staff shortage. For this reason no specific session or sessions per week was allocated for this work, but facilities remained available for examination and treatment during routine working sessions.

A considerable proportion of the patients seeking treatment or advice at the Clinics did so after having been referred by the Medical Officers and/or Health Visitors.

In some cases there was a reluctance to accept dental treatment at first, but when advice and individual dental health education had been given, it was usually followed by a favourable response.

Of the eight fully equipped surgeries at our disposal only two were in full-time use throughout the year, and four were used by part-time Dental Officers. Astley Bridge Dental Clinic was closed for some two months of the year, but was re-opened one day per week from October 26th. The Withins Dental Clinic remained closed throughout the year and the Deane Dental Clinic has not yet been in use."

Dental Arrangements:

Number of dental treatment centres in use at the end of the year
for services as shown below 3

Number of Dental Officer sessions (i.e., equivalent complete half-
days) devoted to maternity and child welfare patients during the
year 31

Analysis of Priority Dental Care:

	Examined	Needing Treatment	Commenced Treatment	Courses of treatment completed	Emergency visits
Expectant and Nursing Mothers	13	13	13	5	5
Children under five	131	119	116	102	69

Forms of Dental Treatment Provided:

	Prophyl- axis	Fillings	Teeth otherwise conserved	Extrac- tions	General anaes- thetics	Dentures		Radio- graphs
						Full	Part	
Expectant and Nursing Mothers	—	9	—	23	2	—	—	—
Children under five	5	71	1	97	52	—	—	—

Physiotherapy:

During the year most of the patients treated in the Physiotherapy Department were referred by the School Medical Officers and the health visitor with special responsibility for old people. Expectant mothers were referred to the ante-natal relaxation class by general practitioners and from ante-natal clinics.

Details of physiotherapy treatment relating to school children are given in the Principal School Medical Officer's report.

GERIATRIC PATIENTS:

Each patient recommended by the Geriatric Clinic received individual treatment which consisted of I.R. heat, massage and exercise. The number of patients referred has increased since the previous year.

The number of patients treated was 81. There were 12 new patients and 241 treatments were given.

VARIOUS PHYSIOTHERAPY CONDITIONS:

This group consisted of adults and children. Each patient was treated individually and received I.R. heat, massage and exercise. The number of patients treated was 174, including 36 children. There were 36 new patients and 392 treatments were given.

ANTE-NATAL RELAXATION CLASSES:

These classes were held three times per week on Tuesday, Thursday and Friday afternoons. Each class lasted 1 hour. There were 329 patients, including 117 new patients. The total number of attendances was 790 at 152 sessions.

COMMUNITY NURSING SERVICES

Reorganisation of the community nursing service as recommended in the Mayston Report has been in operation since June, 1971, and has resulted in a more efficient deployment of the overall staff but it was necessary to appoint an additional two district nurses and two health visitors in order to meet the ever expanding health and welfare needs of the community. As a result the nursing establishment was revised.

NURSING ESTABLISHMENT:

- Director of Nursing Services
- 2 Area Nursing Officers
- 5 Nursing Officers
- 41 Health Visitors
- 35 Home Nurses
- 9 Midwives

At the end of the year nursing staff in post comprised:

- Director of Nursing Services
- 2 Area Nursing Officers
- 5 Nursing Officers (2 health visiting, 2 home nursing, 1 midwifery)

41 Health visiting staff comprising:

- 1 health visitor group adviser
- 2 specialist health visitors (geriatric and tuberculosis)
- 3 health visitor fieldwork instructors
- 19.5 health visitors Whole time equivalent
- 9.5 school nurses (S.R.N.) Whole time equivalent
- 1 clinic nurse (S.R.N.) Whole time equivalent
- 1.5 clinic nurses (S.E.N.) Whole time equivalent
- 3.5 health assistants Whole time equivalent

There were no vacancies.

35 Home Nurses comprising:

- 2 senior district sisters
- 1 specialist district sister (hospital liaison)
- 16.5 district sisters (S.R.N.) Whole time equivalent
- 11.5 district nurses (S.E.N.) Whole time equivalent
- 4 auxiliary nurses Whole time equivalent

There were no vacancies.

8.5 midwives

There was a vacancy for a part-time midwife.

There was an improvement in staffing of the health visiting service mainly due to the sponsorship scheme for health visiting training. This enables vacant posts to be filled on a temporary basis by S.R.N.'s until sponsored students qualify in September. Whenever possible nurses recruited are those who are awaiting places on the health visitors course.

There has been a change in the age group of health visitors over recent years. Recently qualified, married, S.R.N.'s are now seeking training before they start their families. This causes a high turnover of staff - 15.8 in 1972, but makes for a more stable situation when they eventually return after their family is complete and less dependent.

The home nursing service was fully staffed throughout the year. An increasing number of applications for posts was received from S.R.N's and S.E.N's who had completed their families and wished to return to nursing. Nurses appear to be looking to the community nursing services for worthwhile career prospects now that the Mayston re-structuring is well established and the re-organised health service is to be implemented in the near future. Labour turnover was 15.8 per cent (15% in 1971). This level remains fairly constant but it emphasises the need for regular basic and induction training for newly appointed staff.

There was no change in the midwifery staff during 1972. The concept of an integrated maternity service is evolving as the number of domiciliary deliveries is further reduced. At present a high proportion of ante-natal care is being carried out at general practitioner surgeries and mothercraft teaching in clinics and centres. District midwives make a valuable contribution in both these areas. There has been progress in exchange visits by hospital and local authority midwives during the year in preparation for integration. It is hoped that district midwives as members of the primary health team will shortly start to deliver some patients selected for early discharge at general practitioner maternity homes and continue to nurse them on discharge home.

Department of Health and Social Security Circular 13/72:

"Aids to improve efficiency in the Local Health Services. Deployment of Nursing Team".

This circular was published in February, 1972. Its objective was to indicate some of the ways in which more economical and efficient use may be made of nursing staff and facilities and to set out pointers which may assist authorities in maintaining and strengthening their services. Its recommendations were based on studies carried out by the Department and some local authorities.

Domiciliary Staff Ratios:

Whilst pointing out that any general yardstick depends on local circumstances - geography, population structure, morbidity and mortality rates, etc., the circular suggests to authorities a yardstick that could usefully serve management as a basis for a more precise evaluation of standards of nursing care related to local needs.

Health Visiting:

The Jameson Report in 1956 recommended a national average of one health visitor to 4,300 population. In terms of health visiting only (i.e., excluding school nursing) this represents one health visitor to 4,600 population approximately. While subsequent experience confirms this estimate as reasonable for some areas, a ratio of one health visitor to 3,000 may be desirable in others, e.g., those with a highly developed system of attachments to general practice or with a high immigrant population. Such provision would be exclusive of supporting ancillary staff.

Home Nursing:

A sample survey conducted by the Department suggests that in some areas an average of one home nurse (including S.R.N's and S.E.N's) to 4,000 population may be desirable. In others with extensive attachment schemes or

with a high proportion of elderly and/or disabled people in the population, unless there is an adequate staff of competent ancillaries a ration of one home nurse (including all district trained supporting staff) to 2,500 population may be indicated.

The highest and lowest ratios suggested by D.H.S.S. applied throughout would give the following figures for Bolton:

Health Visitors:

Circular 13/72 suggested yardstick	Ratio of H.V.s to population	School nurses and supporting staff	Suggested No. of H.V.s	Present Bolton staff in post
A	1 - 4,600	not included	33.48	25.5 W.T.E.
B	1 - 3,000	not included	51.1	25.5 W.T.E.

Home Nurses:

Circular 13/72 suggested yardstick	Ratio of nurses to population	Auxiliary nurses	Suggested No. of nurses	Present Bolton staff in post
A	1 - 4,000	excluded	35.5	31 W.T.E.
B	1 - 2,500	included	61.6	35 W.T.E.

It will be seen that the nurse staffing levels in Bolton fall short of both suggested ratios although local conditions would seem to indicate that the higher level should apply.

Since the implementation of recommendations of the Work Study Report in 1968 optimum efficiency has been achieved in the health visiting and home nursing service. Serious limitations now exist to any progress in meeting emerging community needs such as screening of vulnerable groups, particularly the elderly, hospital liaison development in paediatrics, replacing medical officers at clinic immunisation sessions and more help for general practitioners in surgery treatment rooms. The morale of the nursing staff is high despite the pressure of inflated work loads. It would be a pity if the stringent limitation of the establishment be allowed to erode the willingness of staff to develop and provide a better service to the community.

PRACTICAL TRAINING OF STUDENTS AND OTHER VISITORS

Preparation for unification of the health service has caused a growing interest in local authority nursing services. Nursing officers are now spending an increasing proportion of their time in arranging programmes for a wide range of students. Health Visitors find that their normal pattern of work is slowed down when they are accompanied by a student on their visits to families. The obligation to meet the needs of students during their practical placement is accepted by nursing personnel but the effect is reflected in a reduction in the overall performance level of health visitors; an indication that target times are no longer completely relevant to the work situation.

Hospital Nurses:

The Medical Officer of Health and Deputy Medical Officer of Health gave lectures to student nurses at Bolton School of Nursing in accordance with requirements of the General Nursing Council's syllabus.

Practical experience of the community health services was provided as in previous years for student nurses training for the general and psychiatric register and pupil nurses training for enrolment. The meeting of hospital and local authority nursing staff following practical experience in community care continues to provide a stimulating exchange of views and lays the foundation for better understanding of each others role in total nursing care.

Student Health Visitors:

Five student health visitors were placed with Fieldwork Instructors for their practical training during the 1971/72 Health Visitor Training Course. In addition 10 student health visitors spent one week accompanying district health visitors on their visits to gain experience of health visitor attachment to general practice in Bolton as attachment schemes were not in operation in their placement areas. Four students completed their training and spent nine weeks in the Health Department during their final term for supervised health visitor practice before qualifying in September and joining the staff.

Day Nursery Students:

Forty-three student nursery nurses spent a half day visiting child health clinics during the year.

Other Visitors:

Other visitors to the Health Department included student medical secretaries, a student nurse tutor, six post graduate Social Administration students and seven students studying for the Certificate in Social Work. We were also pleased to welcome for the first time four medical students from Manchester University School of Medicine.

There has been a marked increase during the year of persons wishing to visit health centres. These have been mainly hospital personnel and included ten ward sisters from Manchester Children's Hospital, Pendlebury, who wished to see Deansgate Health Centre as part of their Health Service Re-organisation integration training.

Staff Training and Development:

The policy of employing ancillary staff during recent years as recommended in D. of H.S.S. Circular 12/65 has resulted in a mix of staff ranging from health visitors and district nursing sisters to unqualified auxiliary nurses and hygienists. It is essential that ancillary staff be given appropriate training before undertaking duties formerly performed by more highly qualified staff. During the year a review of training needs of the nursing staff was undertaken. As a result a training programme was prepared and put into operation towards the end of 1972. It has been necessary to withdraw a district nursing sister from general home nursing duties to act as a Practical Work Instructor until provision for this post is made within the staff establishment.

The policy of sending staff on refresher courses at approximately five year intervals has continued, but an alternative to the usual two week Summer Schools has been sought and whenever possible short courses of selected subjects have been used. We are indebted to the Local Authority Training Officer for his ready assistance in mounting two courses to meet the special needs of various grades of staff. These were a two week course on Management for First Line Nursing Officers and a two day course on Effective Teaching for School Nurses.

Health Visitors, district nursing sisters and midwives have enjoyed the privilege of attending selected lectures at the Medical Institute at the invitation of the Bolton Medical Society and Postgraduate Tutor.

Two health visitors attended a six weeks course for Field Work Instructors at Bolton Institute of Technology and obtained the Letter of Recognition of the Council for the Education and Training of Health Visitors. Each field-work instructor is responsible for the supervision of practical training of two student health visitors during their training course. Experienced health visitors are encouraged to qualify as field work instructors in order to provide supervision for the increasing number of applicants for sponsorship for health visitor training.

Study Days:

A series of demonstrations, lectures and study days have taken place during the year. Subjects have included:

Metabolic disorders in Children by a Consultant Paediatrician, Manchester Children's Hospital, Pendlebury.

Family Income Supplements, by the Manager of the local Social Security Department.

Demonstrations on lifting equipment and new dressing techniques for home nurses.

Four health visitor/school nurses attended a study day for health visitors at Manchester and the Director of Nursing Services attended the study day for Lancashire County Council health visitors at Preston.

Two school nurses attended a training session at St. Thomas Hospital, London, to prepare them for their part in the Child Nutrition Survey being carried out in Bolton.

Preparation for Reorganisation of the National Health Service:

During the year places became available on integration courses for most grades of staff. The Director of Nursing Services attended a four week pilot course organised by the Department of Health and Social Security at Nuffield Centre, Leeds. The two area nursing officers attended a study conference organised by the Royal College of Nursing, five nursing officers, three field-work instructors and ten senior members of the field staff attended a one week's course at Salford Institute of Technology.

From September one-week courses for field staff were organised at Bolton Institute of Technology and by the end of the year five members of the community nursing staff had attended. It is hoped that all the staff will have the

opportunity to attend integration courses before re-organisation takes place in 1974. Towards the end of the year arrangements were made for interchange visits of observation for hospital and local authority nurses. These have been very successful and have created a harmonious climate between staffs which will be invaluable when the nursing services are united. The organisation of a comprehensive training programme requires the services of a co-ordinating officer but at present there is no established post in Bolton. It is hoped that provision will be made to cover this aspect in the near future.

When several members of the staff are attending courses, pressure is placed on the remaining staff to cover essential duties but it has been found that an informed, up-to-date and enthusiastic staff compensates to some extent for this disadvantage.

MIDWIFERY

Distribution of Births:

There were 63 domiciliary live births, a reduction of 44 on the previous year. Ten of these births were non-booked cases who had received no ante-natal care. All these babies were born before the arrival of the midwife. Nine were live births and there was one stillbirth. All patients were transferred to hospital after delivery.

The following table shows the distribution of births and comparisons with previous years.

	1970	1971	1972
Total live births	2,627	2,686	2,472
Total stillbirths	57	36	41
Domiciliary births	145	107	63
Bolton District General Hospital	1,644	1,665	1,644
Maternity Homes	813	881	734

The number of babies born to Bolton Mothers in maternity establishments outside Bolton, excluding Bolton District General Hospital, totalled 30 live births and one stillbirth.

The above figures show a decrease of 214 births during 1972 in Bolton

The reason for fewer domiciliary births is the increasing percentage of births taking place in hospital. This may be due to more careful selection of patients for hospital confinement by the General Practitioner and improved standard of ante-natal care since the attachment of Midwives and Health Visitors to General Practitioners Ante Natal Clinics.

The 1971 figures of total births delivered in hospital in the Manchester Regional Hospital Board area show Bolton County Borough in a very favourable position. Only one other authority within this region has a higher ratio for hospital confinement.

Table Showing Percentage of Births in Hospital

Total Births		Primiparous Births		4 and over Births		Births to Mother Aged 35 and over	
BOLTON C.B. Ratio of Hospital Total	%	Ratio of Hospital Total	%	Ratio of Hospital Total	%	Ratio of Hospital Total	%
2,609	96.2	837	98.7	202	98.1	863	98.7
2,712		848		206		938	

The overall decrease in the birth rate may be due to several factors:-

1. Public pressure for improved contraceptive services has increased particularly since the Abortion Act came into force in 1968. In other words, women prefer contraceptive methods rather than risk unwanted pregnancies.
2. Family Planning Services have been extended in many areas, and in some places there is a free service. The Family Planning Association has now extended its services to the unmarried.
3. Most couples prefer to limit their families to two or three children. Many women are returning to work much earlier due to the economic situation and high cost of living.

Domiciliary Confinements:

Midwives were in attendance at 63 confinements. Visits were made as follows:-

	1971	1972
Ante-natal visits	620	376
Nursing visits during puerperium:		
1. Patients delivered at home	1,986	944
2. Patients discharged home early from hospital	2,087	2,665
Post-natal visits	82	38
Ineffective visits to households	635	562
Giving of iron therapy injections	214	105

Local Authority Ante-natal Clinics:

During 1972 the number of domiciliary births decreased in number, therefore attendances at the local authority clinic also diminished. In October it was decided that a clinic held forthrightly would meet the need of the domiciliary service. This clinic continues to be staffed by midwives and a health visitor. A medical officer attends at the request of the midwife mainly for examination of patients referred by the social worker of the Bolton and District Family Care Association, or any patient where the midwife has difficulty in obtaining a blood sample.

Twenty-five patients were referred from the clinic to the general practitioner to be considered for booking at the Bolton District General Hospital or the maternity homes. These patients were considered to be unsuitable for domiciliary confinements for the following reasons:-

Ante-partum Haemorrhage	1
Early rupture of membranes	2
Mal-presentations	3
Poor obstetric history	2
Premature labour	1
Postmaturity	4
Uterine inertia	1
Rhesus negative	4
Social Reasons	7

General Practitioner Ante-Natal Clinics:

Midwives and health visitors assist at these clinics. The attendances were as follows:-

Weekly sessions 9; Fortnightly sessions 2; Monthly sessions 1.

It is envisaged that, as group practices develop and Health Centres come into use, the obstetric work of a group practice is likely to be conducted by one or two of its members. The midwife and health visitor would prove valuable members of this team.

Team work aims at improving the standard of ante-natal care, and to ensure that all patients are aware of the amenities available to them during pregnancy, such as:-

1. Relaxation classes
2. Mothercraft classes
3. Father's role during pregnancy
4. Family benefits
5. Services available in the community

The Role of Ante-Natal Care:

The development of ante-natal care in the past forty years has seen a marked reduction in maternal mortality. This has been due to the combined effort of obstetrician, neonatal paediatrician and the midwife in the care of the expectant mother.

The Role and Functions of the Midwife in the Maternity Services:

A midwife is a person who is qualified to practise midwifery. She is trained to give the necessary care and advice to women during pregnancy, labour and the post-natal period, to conduct normal deliveries on her own responsibility, and to care for the newly-born infant. At all times she must recognise the warning signs of abnormal or potentially abnormal conditions which necessitate referral to a Doctor and to carry out emergency measures in the absence of medical help. She may practise in hospitals, health units or domiciliary services. In any one of these situations she has an important task in health education within the family and the community. The domiciliary midwife and health visitor continue to assist with general practitioner ante-natal clinics in Bolton.

The objective of maternity care is to ensure that every expectant and nursing mother maintains good health, learns the art of child care, has a normal delivery and bears healthy children. It is hoped that future reorganisation of the health service will see this service extended to all general practitioners undertaking obstetric care.

Ante-natal Sessions Attended by Midwives:

	1970	1971	1972
Local Authority Clinics	46	46	42
General Practitioner Clinics	409	423	486

Flying Squad:

The majority of calls on the flying squad are complications of the third stage of labour. The squad was called out on two occasions for retained placentas, a complication of the third stage of labour. Both patients were transferred to Bolton District General Hospital.

Medical Aid:

Medical aid was sought by midwives on 11 occasions during 1972.

Testing for Congenital Dislocation of Hip:

Midwives continue to test all babies born at home. No cases were detected during 1972.

The Oxyginaire Portable Incubator:

The incubator is stored at the Ambulance Depot where it is kept at a constant temperature. By connecting the incubator to the battery in the ambulance, the temperature can be maintained during transit, thus ensuring that babies are transported to hospital under the best possible conditions. The cot was used on five occasions during 1972.

Early Discharge of Patients from Hospital:

The scheme for nursing of selected early discharge patients at home forty-eight hours after delivery from Bolton District General Hospital and the maternity homes continues to operate successfully. Assessment of patients for early discharge is carried out by the domiciliary midwives. Difficulties are still encountered with patients who take their own discharge, mostly patients with inadequate domestic help.

There has been an increase of 20 selected early discharge patients nursed at home during 1972. Figures also show a decrease in the non-selected patients nursed at home after forty-eight hours.

Selected Patients for Early Discharge from Bolton District General Hospital:

	1971	1972
No. of investigations requested by B.D.G.H.	249	189
No. of investigations not suitable for early discharge ..	54	61
No. of selected early discharge patients nursed by domiciliary midwives	228	173
No. of non-selected patients discharged home after 48 hours from B.D.G.H.	214	106

Selected Patients for Early Discharge from the Three Maternity Homes:

	1971	1972
No. of investigations requested by the maternity homes	126	194
No. of investigations not suitable for early discharge	7	16
No. of selected early discharge patients nursed by midwives during 1972	28	103

The above tables show a slight increase in patients discharged from Bolton District General Hospital. The maternity homes figures for twelve months have increased.

	1971	1972
Total No. of selected early discharge patients from Bolton District General Hospital and the maternity homes nursed by domiciliary midwives	256	276
Total No. of non-selected patients discharged from B.D.G.H. and the maternity homes	214	190

Table showing some cases where assistance in the home was not adequate:

No help	Dependent on neighbour	Dependent on mother or mother in law	Husband off sick	Husband unemployed	Husband on holiday	Husband off work	Children kept off school
9	1-3 days 2-6 days 1-7 days 1-friend only (alone at night)	2 after-noon help only	4	12	6-7 days	1-3 days 2-2 days 2-10 days 4-7 days 1-4 days 1-husband worked at night	1 boy of 10 yrs. 1 girl of 14 yrs.

Sixty-six patients not selected for early discharge before admission were discharged home from Bolton District General Hospital. Thirty-four of these were discharged at the request of Bolton District General Hospital for various reasons.

Took own discharge	Still-birth	Baby died	Baby transferred to Pendlebury Children's Hospital	Baby kept in Prem. Unit	Doctor's request	Baby kept in hospital
32	11	6	1	4	11	1
GRAND TOTAL - 66						

Of the selected early discharge patients, the following were transferred back to Bolton District General Hospital for the reasons given below:-

1. Baby with difficult breathing problem.
2. Baby had septic spots developed on fourth day? Pemphigus.
3. This baby was jaundiced on discharge home, was readmitted with gastro-enteritis developed on the 9th day. This baby was one of many discharged from B.D.G.H., E ward where several babies had developed loose stools.

Central Midwives Board Section E - Liability to be a source of infection:

In accordance with the above rule, three patients were transferred to the District Nursing Service for continuation of patient care.

1. Mother delivered undiagnosed twins in B.D.G.H. Babies remained in Premature Baby Unit. Mother discharged home after 48 hours. Developed a breast abscess on 7th day. Transferred to District Nursing for nursing care.
2. Baby developed septic spots on lower part of trunk on 5th day. This baby was born in Bolton District General Hospital and discharged home after 48 hours.
3. Patient was delivered in Bolton District General Hospital and discharged home after 48 hours. Developed a temperature and offensive lochia. Transferred to District Nursing Service for continuation of nursing care, but eventually was readmitted to Bolton District General Hospital for removal of retained products.

Health Education:

MOTHERCRAFT CLASSES FOR EXPECTANT MOTHERS:

Three series of parentcraft classes were held at Firwood Junior Training Centre in 1973, when young couples expecting their first baby are sent a personal invitation. Each session consists of four evening classes commencing at 8.00 p.m.

The attendance at each class averaged eighty, proving the popularity and the need for this service for prospective parents.

Relaxation and mothercraft classes organised jointly by the midwives and health visitors are still very well attended. To meet the growing demand, an extra session was commenced in July, 1972.

There are now six weekly classes held at various health centres in Bolton. These classes run continuously throughout the year. Their value is three-fold:-

1. Relaxation relieves the fear and superstition surrounding child-birth.
2. Mothercraft enables the young mother to look forward to caring for her baby with confidence.
3. The contact with others in similar circumstances cannot be overlooked. Attendance at these classes is sometimes the beginning of a lasting friendship, which often occurs amongst women coming to live on new housing developments in Bolton.

Details of Ante-Natal and Relaxation and Mothercraft Classes conducted by Midwives and Health Visitors during 1972:

	No. of patients	No. of attendances
Civic Centre, 2.00 p.m.	140	690
Civic Centre, 7.30 p.m.	57	334
Deane Clinic, 7.30 p.m.	38	197
Halliwell Health Centre, 10.00 a.m.	44	230
Withins Clinic, 7.30 p.m.	43	290
	1969	1971
Total No. of patients	218	355
Total No. of attendances	1,018	1,619
	1970	1972
	339	322
	1,432	1,741

The physiotherapist held some classes for ante-natal relaxation exercises by appointment. Many of the expectant mothers attending these classes joined the mothercraft session taken by the health visitor.

Radio Telephone for Midwives:

All midwives continue to use the Bantam radio sets. The radio sets are a most useful part of their equipment which enables them to summon assistance when required. The use of the radio telephone also proved invaluable to the Nursing Officer when she required a midwife early for unbooked cases. During 1972 we were in attendance at ten of these cases.

District Midwifery Training:

Eight pupil midwives completed their Part II training. All were successful in their examinations to become fully qualified midwives.

The programme of community services arranged for student midwives is now a recognised part of their training. We are indebted to the many departments in the community who have devoted time in planning talks and visits to give the student a better understanding of the services in the community.

In January, 1972, the Central Midwives Board made alterations in the examination arrangements for candidates for Part II examination. Students no longer have to present the standard case book presenting six case histories. In place of this they are now required to compile three complete case studies of patients they have delivered at home or in hospital, with a follow up to the end of the neonatal period of 28 days.

These case histories should be compiled individually by the student, using as a basis the normal case records of the training school. Each case study should contain a summary of not more than 200 words illustrating how medical, social and environmental factors can affect mother and baby.

The records are taken by the pupil midwife to her final examination for presentation to her examiners.

Training of Student Nurses:

During 1972, fourteen hospital nurses undertaking the obstetric nurse training at Bolton District General Hospital spent one day each with the domiciliary midwives. This included a visit to a General Practitioner ante-natal clinic and visits in the home with a midwife.

HEALTH VISITING

Home Visits:

There has been a slight increase in the number of effective visits paid during the year due mainly to the higher proportion of health visitors in post. Visits to children aged 5 - 16 years and persons aged 17 - 64 years are recorded separately in accordance with requirements of D.H.S.S. In previous years they were included under the heading of Miscellaneous Visits. They indicate the growing number of referrals from general practitioners of persons in these age groups not usually visited by health visitors prior to attachment to general practitioners. The increase in visits to persons aged 65 years and over and to Asian immigrant families noted last year has continued. The number of ineffective visits paid during the year rose by 327 to 5,090. Whilst this represents a considerable percentage of the time available to health visitors to carry out visits and reduces their effective performance, it would appear to be the inevitable result of increasing mobility of the population and the effectiveness of slum clearance schemes.

ANALYSIS OF HOME VISITS:	1969	1970	1971	1972
First visits to babies born during the year	2,710	3,015	2,714	2,443
Subsequent visits	6,855	7,052	5,395	5,134
Visits to other children under 5 years	17,003	16,850	12,616	13,593
Total visits to children under 5 years	26,569	25,917	20,725	21,170
Visits to children aged 5 - 16 years				1,321
Visits to persons aged 17 - 64 years				1,563
Visits to persons aged 65 years and over	6,768	5,244	5,766	6,823
Visits re infectious diseases (including tuberculosis)	465	763	745	924
Visits in connection with priority re-housing on medico-social grounds	317	254	275	412
Miscellaneous visits	10,488	8,313	5,422	2,207
Total effective visits	44,920	41,420	33,568	34,420
Ineffective visits	5,911	4,661	3,763	5,090
<i>Note:</i>				
Included above are:				
Visits to mentally disordered persons	160	191	99	102
Visits to immigrant mothers and children	1,917	1,855	2,424	3,022

Tuberculosis Visiting:

One health visitor was seconded to carry out the duties of after-care of tuberculosis patients. She was assisted at Chest Clinic sessions by an S.R.N.

Home Visits by Specialist Tuberculosis Health Visitor:

	1970	1971	1972
Number of patients	545	577	683
Ineffective visits	104	118	114

Asian immigrant families continue to be the main concern of the specialist health visitor, particularly in persuading them to continue their treatment after the acute stage of the illness has passed. She accompanies the physician on his ward round at the Chest Hospital and is able to support relatives whilst the patient is in hospital and supervise convalescent patients when discharged until recovery is complete.

B.C.G. for Babies of Immigrant Parents:

Vaccination is offered to babies of Asian immigrant mothers and is normally given whilst they are in hospital or maternity home after delivery.

B.C.G. vaccinations carried out at Bolton District General Hospital and the General Practitioners' Maternity Homes totalled:

1970	1971	1972
253	292	276

Tuberculosis After-Care Committee:

The specialist tuberculosis health visitor also attends the monthly meeting when care and after-care of tuberculosis patients and their families is discussed. Special attention is paid to housing needs and a representative of the Housing Department attends the Committee to help with this aspect.

Geriatrics 1972:

The geriatric liaison health visitor continues to work closely with the Consultant Physician in Geriatrics. She attends the geriatric unit at Bolton District General Hospital each morning for liaison with medico-social workers and visits the geriatric wards for discussion with ward sisters and to introduce herself to patients before they are discharged home. She also visits in their own homes special cases at the request of the Geriatrician. These include patients needing supportive visits following consultation at the Out-Patient Department and reassessing cases on the hospital waiting list.

The Relations Relief Scheme continues at holiday periods and the health visitor visits and assesses these patients for admission. The number of these admissions is increasing each year. Since April, 1972, the Geriatric Physician at the hospital has taken the responsibility of admitting to his wards all medical emergency cases of patients aged 75 years and over. As a result this has added to the numbers of patients being discharged home after treatment. There has also been an increase in the number of requests from general practitioners for assessment and admission to the Geriatric Unit.

These factors have added to the work load of the health visitor and state registered nurse who works with her necessitating the employment of a further state registered nurse, who was seconded to work as one of the team on a part-time basis in August, 1972.

These two nurses visit patients on discharge from hospital giving them full support in an effort to decrease the possibility of the elderly person having to be readmitted to hospital and also to give them the confidence to continue to live in the community. The nurses report back to the specialist health visitor who then reports any findings to the Geriatrician thus keeping a close link between the community and the hospital.

The Geriatric Advisory Clinic:

The geriatric health visitor assists the local authority doctor at the geriatric advisory clinic held weekly at the Civic Centre. Attendances have reduced during the year - 179 people attended. This is possibly due to a lack of knowledge of the clinic on the part of the elderly population, rather than a lack of interest, as many people attended as a result of personal invitation by the health visitor when giving talks to members of Old Persons' Clubs. Interest has also been shown by members attending the pre-retirement classes organised by Bolton Institute of Technology.

At the clinic, in addition to the medical examination, the elderly person is given individual counselling by the health visitor on the problems of old age and the best means of enabling them to live a full and active life.

Paediatrics:

Liaison between hospital and health department is twofold. The paediatric clinic held weekly at Deansgate Health Centre is attended by the Consultant Paediatrician and a clinical medical officer from the local authority.

The role of the health visitor at this clinic is to provide information concerning the family background of children seen by the consultant or medical officer. In turn the health visitor is able to disseminate relevant medical information to her health visitor colleagues.

The health visitor attending Paediatric Out-Patient clinics acts as a link between hospital and home. She interviews the mothers of new cases and is able to elicit relevant social background information which is helpful to the consultant in his consideration of the case. She liaises between hospital staff and health visitors ensuring attendance of clinic defaulters and the mobilisation of appropriate community services. This close contact with the hospital enables the liaison health visitor to learn of recent developments in the paediatric field and discuss these with her colleagues.

A health visitor also attends the hospital weekly to accompany the Consultant Paediatrician on his ward round. On request, the health visitor is able to inform the Consultant of the social background of the patients and relevant medical information is passed back to the health visitor dealing with the family. This liaison is invaluable to the consultant and health visitors and of great benefit to the patients and their parents, but at present paediatric liaison tends to be fragmented involving the time of three health visitors. When staffing levels improve it is hoped to second a health visitor for full time liaison with the consultant paediatrician and working in closer co-operation with ward sisters and at clinics and in the home of patients. It is envisaged that she would need the assistance of a state registered nurse to help with home visiting. This could be the nucleus of the paediatric health care team in the reorganised Health Service and would ensure continuity of care of sick or handicapped children.

Liaison with General Practitioners:

Full attachment of health visitors to general practices is now well established. The allocation of a restricted number of health visitors to a high proportion of single doctor practices remains an administrative difficulty but as health centres come into use the concept of primary health care teams in the reorganised health service moves nearer to implementation.

At the end of the year 21 full time and 2 part time health visitors were working with 64 doctors in 42 practices, 26 of which were single-handed practices.

Health Visitors assist at three well baby clinics held in practice premises and at seven ante natal clinics held weekly and one held fortnightly. They would welcome the opportunity to assist general practitioners at more baby clinics.

The Prevention of Break-up of Families:

Stress and strain frequently arises in large families where there may be five or more children, several of whom will be under school age, and also in families where there is only one parent. It is often difficult to provide an adequate environment for children in these circumstances. As a result of attachment schemes to general practices health visitors are now coming in contact with a wider range of families than formerly and bringing to light many varied problems. Some families with long standing and deep seated problems require intensive case work if they are to be helped to help themselves. This is a function that demands more time than health visitors with their wide range of duties are able to give and is more properly the role of social workers. Where there is need for co-operation between different workers it is usual to refer such cases for consideration by the monthly Co-ordinating Committee, where the worker most able to support the family can be decided.

In some cases social workers and health visitors are able to work together with families who have the greatest need of help. It is a matter of concern to health visitors that the concept of the generic social worker has reduced the effective help that they formerly received from specialist social workers in child care.

Mothers Club:

There are four "Mothers Clubs" held in conjunction with the Child Health Clinics at the following centres:-

Deane Health Centre - 1st Tuesday each month.

Deansgate Health Centre - 2nd Tuesday each month.

Within's Clinic - 3rd Tuesday each month.

Astley Bridge Health Centre - 1st Wednesday each month.

Originally health visitors organised "Mothers Club" but now responsibility for running them is undertaken by the members themselves.

Each of the four clubs is run independently, members nominating their own committee, with a Health Visitor acting as chairman and guide.

They meet once a month in the evening, and their choice of subject alternates between educational and social topics. The choice of subjects during the year has been both stimulating and original ranging from a talk, plus slides, on "An Arctic Expedition" to Antiques, and First Aid in the home.

Social activities have included an Annual Dinner and a visit to Smithills Hall Museum.

Mothers Clubs serve a very useful purpose in helping young mothers to settle into new surroundings, often in an area far away from their families and friends. Here they meet other young mothers with mutual interests and problems, which often helps to minimise their own anxieties.

Health visitors associated with these clubs give freely of their time and enthusiasm, guiding and advising, and helping to assimilate new members into them.

HOME NURSING

The Home Nursing Service is organised in two areas of Bolton - north and south - each unit being under the supervision of a Nursing Officer (district nursing).

The nursing staff work in teams of S.R.N.'s and S.E.N.'s, alongside health visitors from the same area who are attached to the same groups of general practitioners. All nursing staff work with the patients of the general practitioner to whom they are attached. This inevitably means a considerable amount of travelling in some areas. Auxiliary nurses continue to work on a geographical basis as the cases they visit are supervised by the nursing sister attached to the patients' general practitioner.

The majority of new cases are received direct from the general practitioner and passed to the district nursing sister by the general practitioner either by telephone to the district nursing sister's own home or by daily contact at the general practitioners surgery. The latter enables discussion to take place regarding the treatment and progress of patient. Other cases and messages are received by the Nursing Officer who contacts each of her district nursing sisters twice daily at 8.30 a.m. and 1.30 p.m. respectively. From 5.30 p.m. until 8 a.m. messages are accepted by the ambulance station from where they are collected each morning by the Nursing Officers.

The district nursing staff work a five day week, the week-end duties being carried out on a rota system with six nurses on duty each week-end. The senior sister on duty is responsible for receiving messages and for relaying these to the individual nurses concerned.

Until the end of September, 1972, late visits between 6 p.m. and 10 p.m. were covered by one member of staff each evening on a rota basis. This has now been replaced by an evening nursing service (see page 65).

Early in the year the North area was decentralised for administrative purposes. The North Nursing Officers are now based at Halliwell Health Centre. It is here that messages for nursing staff working the North area are received and where the nursing personnel contact their Nursing Officer daily. This has been beneficial in both time and ease of contact. It enables nursing staff to call in personally to see their Nursing Officer to discuss any particular problem or to seek advice without the anxiety of the parking problem which existed when based at the Civic Centre.

At present the South area continues to work from the Civic Centre but it is anticipated that this will be based at the Cannon Street Health Centre in the coming year.

STATISTICS OF CASES AND VISITS:

				1970	1971	1972	
Patients on books at 1st January				1,083	1,223	1,203	
New patients attended during year ..				2,421	2,808	3,438	
				<u>3,504</u>	<u>4,031</u>	<u>4,641</u>	
Patients remaining on books at 31st December				<u>1,223</u>	<u>1,203</u>	<u>1,337</u>	
VISITS IN AGE GROUPS:				1970	1971	1972	
				Cases	Visits	Cases	Visits
Children under 5 years ..				75	542	95	566
5 - 64 years				1,379	29,280	1,642	28,432
65 years and over				2,147	70,030	2,294	79,728
				<u>3,605</u>	<u>99,852</u>	<u>4,031</u>	<u>108,726</u>
						<u>4,641</u>	<u>111,401</u>

SUMMARY OF NURSING TREATMENTS:

	1970	1971	1972
General Nursing	71,656	80,692	83,526
Injectons	30,507	30,069	29,005
	<u>102,163</u>	<u>110,761</u>	<u>112,531</u>

Various factors continue to increase the pressure of work within the Home Nursing Service. Further development of the early discharge scheme from hospitals, the anticipated increase in the number of young children who will be nursed in their own homes and the continued increase in the older population all contribute to work loads. Whilst it is accepted that home is the correct place to nurse these patients, it is becoming increasingly difficult to devote the desirable amount of time to each case within present resources of nursing staff.

The number of visits and length of time spent with each patient is having to be guided by the number of nursing staff available, rather than by the needs of the patient. During the year there was an increase of 630 new cases on the previous year, involving 2,675 visits more than in 1971. The majority of these were to patients 65 years of age and over.

Clinic Sessions:

DEANSGATE HEALTH CENTRE:

The former Civic Centre clinic is now held at the Deansgate Health Centre where a clinic sister is in attendance Monday to Friday inclusive, from 1.30 p.m. to 5.30 p.m. This clinic is for the benefit of patients who are ambulant and for those going out to work. The majority of treatments are injections for tuberculosis, anemia, vitamin deficiencies and various allergies, etc. An increasing number of dressings is also carried out at the clinic.

Patients who find it difficult to attend in the afternoon may attend the morning clinic when the School Clinic Nurse is in attendance from 9 a.m. to 12 noon.

	1971	1972
Number of patients attending ..	178	236

Halliwell Health Centre:

A clinic is held at Halliwell Health Centre Monday to Friday inclusive, from 10 a.m. to 11 a.m. The district nursing sister attached to the seven general practitioners who practice from this Centre is in attendance. The patients are mainly those referred from these seven general practitioners. Treatments, dressings and injections of various types are carried out at the request of the doctors concerned.

	1971	1972
Number of patients attending	236	238

Cannon Street Health Centre:

This clinic is held Monday to Friday inclusive, 10.30 a.m. to 11.30 a.m. The district nursing sister attached to the six general practitioners who practice from the Centre is in attendance. Treatments, injections and dressings are carried out at the request of the patient's doctor.

	1971	1972
Number of patients attending		
(from September, 1971)	47	238

Hospital and Local Authority Liaison Schemes:

(a) Early Discharge of Patients:

During the year there has been much progress in the expansion of hospital liaison and the early discharge scheme. One district nursing sister works full time as Hospital Liaison Officer in close relation with her counterpart general practitioners from the surrounding County area.

The "Early Days" discharge scheme, whereby selected patients are discharged home after surgery earlier than usual is the essential function of the scheme, but it has now been extended to incorporate a more general aspect. Discussion on the wards between medical staff, ward sisters, medical social workers and district nursing liaison sisters about other patients ready for discharge now operate in all wards at Bolton Royal Infirmary and Bolton District General Hospital, with the exception of the gynaecological wards at present. On the spot personal contact between hospital and community staff has contributed to the success of this scheme and has demonstrated the confidence of consultant surgeons in the home nursing service.

The early discharge of children following surgery has been particularly welcomed by parents and hospital staff alike. Previously parents were requested to return to the wards with their children for any further treatment, dressings or advice. The transfer of the care of these children to the Home Nursing teams has eliminated a great deal of parental anxiety and relieved pressure of work on the wards. During the year 145 children were discharged to Bolton Home Nursing Service as a result of this scheme.

Whilst it is not possible to expedite the early discharge of medical patients, the improved system of discharge by way of the liaison officer enables the planning of continuity of care to take place prior to the patient's discharge.

The following table gives details of the number of patients discharged early and the number of hospital bed days saved:

Period covered	No. of patients discharged early	No. of hospital bed days saved
1970 July - Dec., ..	124	431
1971	333	1,786
1972	546	3,002

(b) Liaison with the Diabetic Out-Patients' Clinic:

In November, 1972, it was decided to extend the hospital liaison scheme to include the diabetic clinic at Bolton Royal Infirmary. With the approval of the Consultant Physician it was arranged that a senior district nursing sister should be in attendance at the diabetic out-patients' clinic at Bolton Royal Infirmary each Tuesday morning. Her counterpart from the adjacent county area was to work alongside her for a trial period.

The nursing sister interviews new diabetic patients, advising them on their diet, on the technique of giving their own injections and on any other problem which they may wish to discuss.

On several occasions it has been necessary for the district nursing sister to visit the patients in their own home to give further advice and reassurance. Where necessary and where continued supervision is required, the patient is referred to the district nursing sister attached to the patient's own general practitioner.

(c) Liaison with the Accident and Emergency Department:

In October, the upgrading of the Accident and Emergency Department at Bolton Royal Infirmary presented the hospital with problems of accommodation in this department. After discussion between representatives of the hospital, health department and Local Medical Committee it was agreed that after initial treatment at the accident and emergency department suitable cases be referred to their general practitioner for follow-up treatment, who would either carry out treatment themselves, or direct the patient to the nearest Health Centre for attention in the treatment room by the district nursing sister. The majority of patients have found it more convenient to attend Deansgate Health Centre. By the end of the year seven patients had made 23 attendances.

District Nurse Training:

Two State Registered Nurses completed their district training for the National Certificate of District Nursing and will be taking their examination in January, 1973. Two State Enrolled Nurses undertook the ten week day release in-service training in conjunction with the Manchester Training Centre. They will take the examination for the National Certificate in January, 1973.

A Senior District Nursing Sister has been acting in the capacity of Practical Work Instructor during these training periods.

Loan of Nursing Equipment:

The demand for walking aids, commodes and wheel-chairs continues to increase as more elderly patients are cared for in their own homes. The increase in the number of paraplegic patients discharged into the community also requires more equipment such as special beds, mattresses etc.

With the emphasis on rehabilitation, nursing staff are encouraging patients to make full use of the various walking aids and equipment available on free loan. All articles are loaned on receipt of a note from the general practitioner, district nurse or health visitor. Requests are received at Deansgate Health Centre between 1.30 p.m. and 5.30 p.m., Monday to Friday inclusive.

Laundry Service:

Where it is not possible for relatives to cope with the laundering of draw sheets, a service is available at the request of the general practitioner or district nursing sister. The loan and laundering of draw sheets is provided by the Health Department. The delivery of clean draw sheets and collection of used ones is undertaken by the department driver. This is of necessity a limited service, the alternative being the provision of disposable incontinence sheets,

	1971	1972
Number of patients receiving the service during the year	106	98
Average per month	74	64

Supply of Incontinence Garments:

Incontinence pants with disposable absorbent linings are available free of charge at the request of the general practitioner, district nurse or health visitor. These are a valuable aid in reassuring ambulant, incontinent patients, many of whom are now able to live a much more active social life. The unhappiness and embarrassment caused by incontinence is greatly minimised and the users have become more self-assured since the provision of these garments. The garments are available at Deansgate Health Centre from 1.30 p.m. to 5.30 p.m., Monday to Friday inclusive.

	1971	1972
Number of patients in receipt of this service	116	126

Incontinence Pads:

The supply of incontinence pads continues to be a great asset to the nursing of the elderly incontinent patients in their own homes. Laundry is often a major problem for relatives and the elderly partner of the patient.

Two types of pads are supplied:

Type 1 - Large absorbent paper sheets with a waterproof backing.

Type 2 - Absorbent cellulose pads used mainly where a patient is doubly incontinent.

Number of Incontinence Pads supplied during the year:

	1970	1971	1972
Type 1	37,375	49,000	48,630
Type 2	29,832	32,376	43,296
Number of patients receiving the service ..	512	514	526

Dressing Service:

The pre-sterilised dressing service is now accepted as a necessity to enable nursing staff to carry out the more sophisticated and complicated dressing techniques which have envolved alongside the early discharge scheme. The present system involves a prescription for dressing materials for the individual patient, collection from the patient's home by the district nurse when the prescription has been filled and transport of the dressing material to Cotton Street adult training centre where the girls of the centre cut and pack the dressings, prior to transfer of the dressings to Bolton Royal Infirmary to be autoclaved and returned to the Health Department for re-distribution by the district nurse to the patient concerned. The advantages of a pre-packed service are beyond question and it is doubtful if the early discharge of surgical patients from hospital would ever have been contemplated had this not been available.

The girls at Cotton Street Adult Training Centre continue to do an admirable job in the packing of these dressings. It may be that the time has come for commercially prepared dressing packs to be prescribed for individual patients. It is envisaged that in the reorganised health service the matter of supply will be co-ordinated with the hospital services.

Evening Nursing Service:

As the number of very poorly patients being nursed in the community continued to increase, particularly in the older age group, it became apparent that an extension of the Home Nursing Service into late evening visits was desirable. Already a small survey had established that a complete night service was not considered necessary at this stage. The night sitters provided by the Home Help Service and the Marie Curie Nursing Service were considered adequate for the immediate need for an all night service.

In October, 1972, a pilot scheme for evening nursing duties commenced. Staff comprised part-time personnel-1 state registered nurse a former member of the staff who is a Queens trained nursing sister, 1 state enrolled nurse, also a former member of the district nursing staff and 2 nursing auxiliaries. They work in two teams, 1 qualified nurse and 1 nursing auxiliary on duty each evening from 7 p.m. - 11 p.m., usually working 3 evenings on duty and 3 evenings off alternately. The service is under the initial supervision of the State Registered Queen's Sister to whom they report any problems or seek advice. The Sister reports back to the Director of Nursing Services each month regarding the progress of the service. Daily contact with the day staff is by way of a message book installed at the ambulance station. The Nursing Officers (district nursing) leave messages requesting visits to patients being nursed by the day staff, each evening at 5 p.m. and any return messages are collected by the nursing officers next morning when they visit the ambulance station for overnight messages.

Requests for evening visits are usually only accepted from the day staff, except in exceptional cases such as patients being returned home from Casualty or requests for urgent care from general practitioners.

Already the benefit of this service has become apparent. The day staff are relieved of the anxiety of having to leave a very poorly patient for a long period without care and the relatives are given the help and support necessary

to enable them to continue to keep their loved ones at home. Even more important the patient is receiving the continuity of care so essential in the case of a severely ill patient.

The majority of cases requiring this service have been terminal cancer patients and those suffering from diseases affecting the elderly. In addition, patients requiring eye drops three or four times daily and observations of patients following diagnostic and minor operations at the out-patient clinics benefit.

A table giving the variety of cases dealt with in these first three months of the service is on page 67.

As the service develops, it is anticipated that the nursing staff will inevitably need to be increased as already the number of cases treated is limited by the number of staff available.

CASES TREATED BY DISTRICT NURSING EVENING SERVICE

NUMBER OF CASES

BY WHOM REFERRED

Diagnosis	Treatment	Oct	Nov.	Dec.	Total	District Nurse	Health Visitor	G.P.	Hospital
Carcinoma	General Care	6	2	1	9	8	-	1	-
"	Injections	2	1	-	3	3	-	-	-
Hemiplegia	General Care	2	1	-	3	3	-	-	-
Cardio vascular Accident	General Care	1	3	2	6	5	-	1	-
Arteriosclerosis	General Care	1	-	-	1	3	-	-	-
Parkinsons Disease	General Care	1	1	1	3	3	-	-	-
"	Observation	-	1	-	1	1	-	-	-
"	Injection	-	1	-	1	1	-	1	-
Hypertension	General Care	1	-	-	1	1	-	-	-
Chronic Bronchitis	General Care	-	-	1	1	-	-	1	-
Broncho-Pneumonia	General Care	-	-	1	1	1	-	-	-
Arthritis & Influenza	General Care	2	1	1	4	6	1	-	-
Senility	General Care	4	-	1	5	5	-	-	-
"	General and put to bed	-	-	1	1	1	-	1	-
Emergency/Collapse	General and put to bed	-	1	-	1	-	-	-	1
Uraemia	General Care	1	-	-	1	2	-	-	-
Febrile conditions	Injection	2	2	-	4	4	-	-	-
Glaucoma	Eye Drops	-	1	-	1	-	-	-	1
Post operative	Eye Drops	-	2	-	2	4	-	-	-
Cataracts	Eye Drops	-	1	-	1	-	-	-	1
Scleritis	Eye Drops	-	2	-	2	4	-	-	-
Post-op/Transplant of ureters	Eye Drops	-	1	-	1	1	-	-	-
Post-op Examination under anaesthetic	Dressing	-	1	-	1	1	-	-	-
Cystoscopy	Observation	-	-	1	1	-	-	-	1
Retention of Urine	Observation	-	1	2	3	-	-	-	3
Constipation	Catheterisation	-	-	2	2	1	-	1	-
Not stated	Enema	-	1	2	3	1	-	2	-
Not stated	Observation	1	-	-	1	1	-	-	-
Not stated	General care	1	-	5	6	6	-	-	-
Post enema	Injection	-	-	1	1	1	-	-	-
Uribags	Observation	-	1	-	1	1	-	-	-
TOTALS	..	25	23	28	76	60	1	8	6

Number of visits paid by the Evening Nursing Service: October 431; November 491; December 408

IMMUNISATION AND VACCINATION

In view of the facts outlined in the annual report of 1971, smallpox vaccination is not now recommended as a routine procedure in early childhood. Vaccination was continued for travellers to and from areas of the world where smallpox is endemic or countries where eradication programmes are in progress and also those health service staff who might in the course of their duties come into contact with a case of smallpox.

Rubella vaccination, which began in 1970, continued. Girls in the first year at secondary school were included in the scheme. The number of girls in this group immunised in school was 1,129 as against 1,911 in 1971. The clinical diagnosis of rubella is not always easy, especially in mild cases. Hence the immunisation is being given even where the individual is thought to have had rubella.

The Department of Health states that routine rubella vaccination of women of childbearing age is not recommended but that it should be offered to women who are seronegative and who are at special risk of contracting rubella, e.g., school teachers, nursery staff, nurses and female doctors in children's hospitals and obstetric and gynaecological units and the staff of antenatal clinics.

School teachers, nursery staff and nursing staff who are at special risk were invited to have a blood test to indicate whether they had natural immunity to rubella. One hundred and seventy nine women attended for blood tests. The specimens were sent to the Public Health Laboratory for investigations and the results showed that 29 of these were seronegative. The number subsequently vaccinated against rubella was 26. Women should not be pregnant at the time of vaccination and they should avoid pregnancy for 8 weeks after vaccination.

Second tetanus injections to patients who had had a first injection at a casualty department following treatment for an accident continued. One thousand two hundred and seventy five adults completed a course of tetanus immunisation.

The use of the Corporation's computer for record keeping and making appointments for immunisation which was started in January, 1969 continued.

The following table shows the percentage of children born during 1970 who have completed a course of primary vaccination by 31st December, 1972, according to the circular sent by the Department of Health and Social Security. All percentages are approximate and were calculated from returns submitted by the local health authorities. No allowance was made for movement of children between authorities.

Local Health Authority	Percentage of children born in 1970 and vaccinated by 31.12.72		
	Whooping Cough	Diphtheria	Poliomyelitis
England	79	81	80
Lancashire	71	74	72
BOLTON	75	76	76

Vaccination Against Smallpox:

	Under 5	5 - 15	Age in Years Over 16	Total
Primary vaccination	31	54	206	291
Revaccination	15	130	992	1,137
Total (1972)	46	184	1,198	1,428
Total (1971)	895	213	1,151	2,259

Hospital staff vaccinated in accordance with Ministry of Health Circular 618/55:

Primary vaccinations	33
Revaccinations	163
Health Department staff vaccinated	77

NUMBER OF PRIMARY VACCINATIONS UNDER 5 YEARS OF AGE:

1963	124
1964	560
1965	793
1966	902
1967	1,107
1968	1,121
1969	1,103
1970	1,310
1971	974
1972	31

Vaccination Against Poliomyelitis:

Age Group	Numbers who have received three doses during 1972	Numbers who have received reinforcing doses during 1972
Born 1972	—	—
Born 1971	1,713	—
Born 1970	283	—
Born 1969	31	2
Born 1965/68	284	2,018
Others under 16 years ..	28	18
Others over 16 years ..	13	17
TOTALS: ..	2,352	2,055

Total number who received 3 doses of poliomyelitis vaccine since
scheme began 81,450

Total number who received reinforcing doses since scheme
began 29,748

Vaccination against Measles:

The following table shows the number of children in each age group who were vaccinated during the year:

AGE GROUP										NO. VACCINATED	
Born 1971	..	..	..	..	..	..	..	..	..	1,256	
Born 1970	..	..	..	..	..	..	..	..	..	491	
Born 1969	..	..	..	..	..	..	..	..	..	36	
Born 1965-68	..	..	..	..	..	..	..	..	..	45	
Others under 15 years	..	..	..	..	..	..	..	..	..	2	
TOTAL										1,830	

Vaccination against Rubella:

AGE GROUP										NO. VACCINATED	
Born 1956	..	..	..	..	..	..	..	..	..	4	
Born 1957	..	..	..	..	..	..	..	..	..	17	
Born 1958	..	..	..	..	..	..	..	..	..	133	
Born 1959	..	..	..	..	..	..	..	..	..	332	
Born 1960	..	..	..	..	..	..	..	..	..	618	
Born 1961	..	..	..	..	..	..	..	..	..	25	
TOTAL										1,129	

Source of Immunisation

	Primary Courses				Reinforcing Injections	
	Diphtheria only	Diphtheria and Tetanus	Triple Antigen	Tetanus	Triple Antigen	Diphtheria/Tetanus and Tetanus only
No. of children immunised :-						
At Child Health Clinics	—	103	1,598	268	2	127
At G.P. Surgeries	—	6	398	56	4	4
In Schools	—	201	—	190	—	1,892
TOTAL	—	310	1,996	514	6	2,018
GRAND TOTAL		2,820			2,024	

IMMUNISATIONS FOR CHILDREN UNDER 16 YEARS OF AGE

	Primary Courses						Re-inforcing injections						Totals
	Born 1972	Born 1971	Born 1970	Born 1969	Born 1965/68	Others under age 16	Born 1972	Born 1971	Born 1970	Born 1969	Born 1965/68	Others under age 16	
Triple antigen	-	1,689	270	29	8	1	-	-	-	2	3	1	2,003
Diphtheria/Whooping Cough	-	-	-	-	-	-	-	-	-	-	-	-	-
Diphtheria/tetanus . .	-	22	10	2	256	20	-	-	-	-	2,006	12	2,328
Diphtheria only	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough only	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetanus only	-	1	5	-	236	272	-	-	-	-	-	5	519
	-	1,712	285	31	500	293	-	-	-	2	2,009	18	4,850

AMBULANCE SERVICE

The population and area covered by the Bolton Ambulance Service during the year 1971/72 remains the same as in previous years with an increase in population in the Turton Urban District which is covered on an agency basis. We continue to give accident/emergency service to John Booth & Sons, Steel-works, which is adjacent to the Bolton/Westhoughton boundary.

General Review:

This has been an eventful year in the life of the Bolton Ambulance Service in that despite industrial action being taken by staff on two occasions, a good standard of efficiency has been maintained. A number of new out-patient sessions have started in the area and two have moved from the Bolton Royal Infirmary to the new out-patients' department at Bolton District General Hospital and this has meant more mileage and time for the same number of patients. The rebuilding and upgrading of the Accident and Emergency Department at the Bolton Royal Infirmary is now well advanced. Little interference in the treatment and reception of patients has been experienced.

A very detailed survey of the number of occasions in which the Ambulance Service has, and is being asked, to attend to people taken ill at home is being carried out. Ordinarily, these patients should be seen by their general practitioner first. There has been a marked increase in the number of calls to the Turton Urban District in the past year.

The training of the ambulancemen continued to expand and many members have now attended refresher courses. In conjunction with the Lancashire County Ambulance Service, a course of training has been introduced at local hospitals, one member from each service training together. This is proving very beneficial in improving team work within the Service and we are very indebted to the hospital staff for giving the training.

The following tables show the total mileage and the total number of patients carried, together with the average miles per patient during the last fifteen years.

Year	Total Mileage	Total Number of Patients Carried	Average Mileage per Patient
1958	162,062	49,921	3.25
1959	162,542	49,626	3.27
1960	174,798	58,360	3.00
1961	173,571	56,316	3.08
1962	179,481	57,782	3.11
1963	165,590	54,207	3.05
1964	163,460	56,422	2.90
1965	166,946	60,070	2.78
1966	180,375	61,146	2.94
1967	180,372	59,861	3.02
1968	191,400	61,996	3.08
1969	204,742	63,650	3.21
1970	219,534	66,753	3.28
1971	229,750	72,567	3.17
1972	224,376	65,809	3.49

Year	Bolton		Turton U.D.C		Total	
	Patients	Miles	Patients	Miles	Patients	Miles
1968	58,024	160,161	3,972	31,239	61,996	191,400
1969	60,032	169,648	3,618	35,094	63,650	204,742
1970	63,448	189,467	3,305	27,717	66,753	219,534
1971	69,177	201,686	3,390	28,064	72,567	229,750
1972	61,566	191,134	4,243	33,242	65,809	224,376

Patients Carried by Rail

	Patients Carried			Ambulance Vehicle Mileage		
	Stretcher Cases	Sitting Cases	Total Patients	Stretcher Cases	Sitting Cases	Total Patients
Bolton Borough	2	44	46	260	1,555	1,815
Turton U.D.C. . .	—	—	—	—	—	—
TOTALS: . .	2	44	46	260	1,555	1,815

Yearly Analysis of Work done by the Ambulance Service:

The following table gives details of the Ambulance and Sitting Case mileage and the stretcher, two handed and sitting case patients carried:

Bolton Patients Carried

Accident and Emergency				Other Cases				Total Patients Per Year
Stretcher	2 Handed	Sitting	Total	Stretcher	2 Handed	Sitting	Total	
2420	1519	1464	5403	5103	14806	26254	56163	61566

Miles Travelled

Accident and Emergency				Other Cases				Total Miles Per Year
Stretcher	2 Handed	Sitting	Total	Stretcher	2 Handed	Sitting	Total	
11631	4952	6029	22612	16854	101112	50556	168552	191134

AGENCY SERVICE FOR LANCASHIRE COUNTY COUNCIL IN AREA OF TURTON URBAN DISTRICT:

Patients Carried

Accident and Emergency				Other Cases				Total Patients Per Year
Stretcher	2 Handed	Sitting	Total	Stretcher	2 Handed	Sitting	Total	
142	62	88	292	514	1405	2032	3951	4243

Miles Travelled

Accident and Emergency				Other Cases				Total Miles Per Year
Stretcher	2 Handed	Sitting	Total	Stretcher	2 Handed	Sitting	Total	
1168	498	670	2336	1931	13522	15453	30906	33242

Emergency Calls:

It is pleasing to report that once again there has been a slight reduction in the number of calls to road accidents during the year. The home or works accident total remains the same but an increase in the number of calls to schools has been noted. These calls are usually made during the lunch time period. The number of calls for people in a collapsed condition has increased and the bulk of these are in the evenings and at night. A good response to these calls has been made despite the re-routing and new one-way systems recently introduced.

Bolton C.B.

Turton Area

Type of Case	Yearly Total	Type of Case	Yearly Total
Road Accidents	724	Road Accidents	63
Home or Works Accidents	2753	Home or Works Accidents	144
Collapsed Conditions	1936	Collapsed Conditions	85
Discharges from Hospital	1676	Discharges from Hospital	104
Admissions to Hospital	3750	Admissions to Hospital	363
Foot Clinic	407	Foot Clinic	-
Geriatric Day Cases	13180	Geriatric Day Cases	1052
Transfer (Hospital to Hospital) ..	1484	Transfer (Hospital to Hospital) ..	17
Transfer (House to House)	28	Transfer (House to House)	6
Mental Cases	21	Mental Cases	-
Psychiatric Day Cases	5121	Psychiatric Day Cases	28
Maternity Cases	1672	Maternity Cases	131
Out Patients	28814	Out Patients	2250
	61566		4243

Vehicle Strength at 31st December, 1972:

The ambulance fleet consists of 12 vehicles:

3 All-purpose	} Accident and Emergency
2 Stretcher	
3 Dual Purpose	
3 Sitting Case	
1 Car (all purpose).	

The 5 accident/emergency vehicle equipment is constantly being upgraded to meet requirements and this year we have equipped these vehicles with Entonox-apparatus and the new "Scoop" stretcher is to be given a trial. Vehicle replacement is constantly under review and it is becoming increasingly necessary to increase the size of the fleet.

Ambulance Control Room:

This small but extremely busy office continues to give an efficient service with other emergency services within and out of working hours, e.g., rota doctor schemes for general practitioners, midwives, district nurses, emergency oxygen and radio links with midwives, district nurse and a group practice.

With the appointment of a Transport Officer at the Bolton District General Hospital we expect that the waiting time for patients in the new Out-Patients Department will be reduced. The new radio frequency has been allocated to the Bolton Ambulance Service and the F.M. multi-channel sets are to be installed early next year.

Ambulance Vehicle Workshop:

The fitters have maintained a very high standard of efficiency in the workshop, but difficulties have been experienced in obtaining skilled staff during the year. A programme of preventive maintenance is carried out on ambulances and any lowering of standards is reflected in the repairs required to keep maximum availability of vehicles. One vehicle was given a complete overhaul at the Lancashire County Central Vehicle Maintenance Unit.

Civil Defence:

In accordance with regulations in retaining Civil Defence instructors within local authorities, one member of the staff is qualified for this duty.

PREVENTION OF ILLNESS, CARE AND AFTER-CARE

Health Education:

INTRODUCTION:

There has been an enormous increase in interest generally in the value of health education not only for the prevention of illness but also for improving the quality of individual lives and securing emotional and physical health, particularly in relation to the development of young. This interest has no doubt been stimulated by the mass media and the public are now receiving much more information on topics related to health education from the press and television companies. To keep pace with national developments and the expectations of the local public it must be hoped that there will be a greater investment of resources for the service in the near future.

MOTHERCRAFT:

As previously the ante-natal mothercraft classes in clinics are held continuously throughout the year to prepare mothers-to-be for childbirth and encourage the principles of baby-care. It is encouraging that the classes are so popular and the health visitors and midwives taking these classes strive to ensure that modern teaching techniques are practised and that audio-visual aids are included where relevant even though this often entails extra preparation. It is still sadly true that these classes miss a certain needy proportion of the community and whilst mothercraft teaching in schools plays a very important part in bridging this gap, constant attention must be given to ways of reaching those mothers who do not attend.

PARENTCRAFT:

These talks which are held several times a year are aimed specifically at involving both expectant mothers and their husbands in preparing for the new baby. In addition to explanation of foetal development and labour some attempt has been made to illustrate simple child development because this is often where the father's interest lies and it is sometimes difficult for him to feel paternal towards the unborn child that his wife is carrying.

These classes have proved extremely successful with attendances of over 100 and some thought will have to be given to how we can expand this without putting undue pressure on very willing staff who are involved in this work. With more understanding of the important connection between early relationships, speech development, school achievement and health, it ought to be possible to encourage benefits in these areas by increasing awareness of the interaction of these factors. A small start has been made in this way by inviting an Educational Psychologist to attend the Parentcraft evenings, but obviously limits have to be put on the extent to which this can be developed and there is perhaps a need to look at other methods of promoting these ideas.

IMMIGRANT HEALTH EDUCATION:

The Foreign Language leaflets produced by the County Borough of Bolton have been much in demand by other authorities and we have also benefited by leaflets produced elsewhere.

The script used with the ante-natal labour slides has been translated so that it is understandable by the Urdu and Gujarati speaking population, and has been recorded on tape. The tape and slides have been used frequently at Halliwell Health Centre Ante-natal Clinic for immigrant women, in order to explain the process of childbirth. The success of these sessions is hard to judge because of the lack of feed-back and we suffer seriously in this area by the lack of a female interpreter.

The Community Relations Council have been furnished with a list of potential health hazards in immigrant homes, which was included in their training of voluntary workers, so that these workers who visit and befriend immigrant families will be aware of these factors and may be able to influence some change.

SCHOOLS:

(a) SPECIFIC - See Principal School Medical Officer's Report.

(b) General - Secondary education has been the major target for health education during the year due to the underlying principle of adolescent vulnerability. Many teachers whilst prepared to give simple factual health education talks, have felt anxious about dealing with more personal topics in the field of sex education relationships and the abuse of drugs. Teachers have been encouraged to participate in the Health Education Officers programme and much discussion has gone on in schools with a view to giving support to teaching these subjects.

The Health Education Officer taught 165 sessions in Secondary Schools during the year and the effort put into this is beginning to show dividends with more elaborate and extensive programmes being devised and carried out by the schools themselves.

IN-SERVICE TRAINING:

A 3 day course in teaching techniques for school nurses and district nurses was arranged by the Training Officer. Shortly after this 2 of the school nurses put into practice what they had learnt by giving hygiene talks to primary school children at Top of the Brow and Moorgate County Primary Schools.

On the third Thursday of every other month, new films have been shown to the health visitors and midwives in the nurses library. These have included appraisal prints that can be used in schools and films for information only.

A successful one day conference on Cancer Education was held at the Teachers' Centre in Bolton, the content and speakers arranged by the Cancer Education Project, Manchester Regional Hospital Board. This was well attended by secondary school teachers and health visitors.

The ambulance staff all received training in the use of the Entonox machine with slides and tape. Because of shift work, this had to be repeated several times in order to cover all staff.

The Health Education Officer attended 3 courses during the year on First Aid, Approaches to Sex Education, and Progress in Health Education in Secondary Schools.

A talk was given by Dr. Komrower of Pendlebury Children's Hospital, on Phenylketonuria to Health Visitors and Midwives from Bolton and surrounding areas.

AUDIO VISUAL AIDS:

It is important in developing a service that the methods used for lecturing or teaching are educationally sound and progressive. Constant expansion of

the material available (soft-ware) and equipment (hard-ware) is taking place, and it is encouraging to note that other staff are using more and more aids in their teaching. This is borne out by the fact that there has been over 200 requests for the use of various visual aids throughout the year.

VENEREAL DISEASE:

At the beginning of the year, the telephone answering machine giving a recorded message of the symptoms of venereal disease and location and time of the Diagnostic clinic was installed. The telephone number received wide publicity and the service has been well used.

Following this, articles written by Dr. Silver appeared in the Bolton Evening News and the Bolton Free Press.

DRUGS (INCLUDING ALCOHOL AND TOBACCO):

In May, a public meeting on the problems of drug abuse, was held in conjunction with the Association for the Prevention of Addiction, at the Octagon Theatre. Unfortunately, despite a lot of effort it was poorly attended.

The Health Education Officer gave talks to groups of parents, Church groups and to the voluntary workers in the advice service called "Concern" in addition to the drug education carried out in schools.

There is undoubtedly a growing mis-use of the so-called soft drugs amongst young people which as yet is not being dealt with by any of the available services.

EXHIBITIONS:

Slides on obesity and diet, with a script recorded on a pulsed tape to change the slides automatically, were exhibited at Deansgate Health Centre during clinic times. The effect of this venture was doubtful as very little interest was generated.

During the "MIND" week initiated by the National Association for Mental Health, an exhibition prepared by students from the Bolton College of Art with support from the Health Department, was mounted in the Arndale Shopping Centre, the theme being finding a job, finding a place to live and acceptance by the community.

Lancashire County Council firework safety trainer was placed in the precinct for one day prior to November 5th and also their "Bird Brayne" exhibition on Home Safety was hired for display in the Central Library foyer for one week before Christmas.

Conclusion:

Health Education covers such a diverse field, that it sometimes becomes difficult to draw all the threads together in a profitable way. Obviously a multi-disciplinary approach is needed, but it is growing too fast to enable one person to act as co-ordinator for any length of time. As well as numerous demands for talks to church groups, parent teacher associations, etc., on a variety of topics, plus the needs of schools and other health department staff, it is necessary to maintain a close liaison with other voluntary and statutory agencies, and to serve on several committees in related fields. The saving in cost of services and gain in personal happiness through health education over a number of years, has proved to repay the resources that are made available to this service.

Cervical Cytology and Cancer Screening:

The total number of tests diminished from 2,168 in 1971 to 955 in 1972. Only 1 positive smear was found. The total number of patients referred to general practitioners for conditions other than cancer was 50. *Trichomonas vaginalis* was the most common cause. Fifteen women attended for breast examinations only as against 11 in 1971 of whom two were found to have suspicious lumps as against 8 in 1971. The following table gives conditions discovered during the examination:-

No. of positive/suspicious smears	..	..	..	1
Trichomonas infection	..	..	..	31
Monilial infection	..	..	..	14
Polyp	..	..	..	2
Threadworm	..	..	..	1
Breast lumps	..	..	..	2

In accordance with the national scheme of periodic recalls for routine cervical cytology (Circular LHAL 33/71) women were recalled for re-examination after 5 years. Tests were repeated earlier if requested either by patients or the patient's general practitioner.

The total number of women who attended for a routine repeat smear in 1972 was 633 as against 1,337 in 1971.

Summary of Age and Parity of Bolton Women who had smears taken

Age Group	No. Examined	No. of Positive/ suspicious smears	Percentage of Positive Smears
Under 25 yrs.	71	—	—
25 - 34 yrs.	227	1	0.44
35 - 44 yrs.	301	—	—
45 - 54 yrs.	220	—	—
55 - 64 yrs.	104	—	—
65 yrs and over ..	32	—	—
TOTAL	955	1	0.10
No. of Pregnancies:			
0	71	—	—
1	208	1	0.48
2	354	—	—
3	169	—	—
4	93	—	—
5	20	—	—
6 and over ..	40	—	—
TOTAL	955	1	0.10

In addition to the smears taken at the local authority clinics, 2,466 Bolton women had smears taken at hospital clinics or by their general practitioners.

The follow up of positive or suspicious smears revealed that one patient was referred for surgical treatment and is being kept under observation.

Of the two breast lumps, 1 had a cyst removed and was being followed up. The other one did not need any treatment or follow up.

Geriatric Advisory Clinic:

This clinic for patients over 60 years of age continued to be held at Deansgate Health Centre. A total of 187 patients was seen at the clinic. Patients are met on arrival by the nursing staff with special geriatric experience. They have their urine, sight, weight and height tested and details of recent illnesses and accidents are taken. One of the difficulties of conducting a geriatric clinic is in obtaining an adequate history from elderly people but they seem to be often more forthcoming with the nursing staff and this is a valuable aid in obtaining an account of their past illnesses and present difficulties. An accurate history is often more important in elderly patients than in the rest of the community - their symptoms are the problems which are causing them the trouble and these rather than the chronic physical conditions need to be resolved.

The patients had been recommended to attend by general practitioners, health visitors, old peoples clubs, Chiropody Clinic or previous attenders at the clinic.

In most cases patients usually just require reassurance and a suitable diet. A written report is sent to their general practitioner.

The most common disorders found were obesity, hypertension and mild anxiety states.

The source of referral to the clinic in 1972 were as follows:-

Source of referral	1970	1971	1972
Chiropody clinic	86	108	18
Previous patients	22	18	81
Health visitors and district nurses	6	6	30
Talks at Over 60 Clubs	2	2	48
Press Publicity	-	36	-
General Practitioners	1	1	10
TOTAL	117	216	187

The age and sex distribution of these patients was:

Age	1970		1971		1972	
	Men	Women	Men	Women	Men	Women
Under 65	2	20	11	54	2	20
66-75	16	57	35	100	38	79
Over 75	4	18	8	28	20	28

Chiropody:

In January, the Chiropody Clinic, along with all other clinic services, was transferred from the Civic Centre to new accommodation at Deansgate Health Centre.

The number of new patients attending the clinics in 1972 was 762, compared with 629 in 1971, and the number of new patients treated at home was 442, compared with 297 in 1971. In September, one additional session was held at Halliwell Health Centre. Clinics are held daily at Deansgate Health Centre, once weekly at Cannon Street Health Centre and Deane Clinic, and twice weekly at Halliwell Health Centre. The total number of sessions held weekly was 26.

Details of the service are given in the tables below.

	1968	1969	1970	1971	1972
New Clinic Patients	636	624	633	629	762
New Domiciliary patients ..	358	324	252	297	442
Clinic Patients on Register at Year End	2,104	2,211	2,380	2,717	2,888
Domiciliary Patients on Register at Year End ..	580	734	720	734	968
Recall period	11 - 12 weeks	9 - 10 weeks	9 - 10 weeks	9 - 10 weeks	9 - 10 weeks

**Table of Treatments given at the Foot Clinics over the
Past 10 Years**

Year	Number of treatments given at clinic				Total	No. of treatments given at home	Total clinic and home treatments
	Free			Paying			
	Aged	Handi- capped	Expectant Mothers	Aged			
1963	4,372	343	—	4,112	8,827	1,592	10,419
1964	4,485	356	—	3,857	8,700	1,762	10,462
1965	4,018	353	—	3,306	7,677	1,748	9,727
1966	4,609	339	—	3,573	8,521	2,206	10,727
1967	4,493	460	—	3,561	8,514	2,825	11,339
1968	4,786	464	1	3,699	8,950	3,211	12,161
1969	5,263	453	—	4,039	9,755	3,820	13,575
1970	5,561	430	1	4,122	10,114	3,981	14,095
1971	6,176	459	2	4,203	10,840	4,588	15,428
1972	6,108	409	—	4,625	11,142	5,104	16,246

MENTAL HEALTH

The Social Services Department are now responsible for the work previously undertaken by the mental welfare officers and Firwood Special School for severely sub-normal pupils is the responsibility of the Education Department. Medical liaison, particularly for the mentally sub-normal, has been maintained with both these departments in this respect by the Senior Medical Officer.

Mental subnormality in a pre-school child is usually a medical matter, whilst the Education Psychologists are more concerned with the older child. An admissions panel, for severely sub-normal children who may require to attend Firwood School, is held consisting of the Headmistress, an Educational Psychologist and the Senior Medical Officer and the names of the children are also passed to the Social Services Department so that they are aware of the mentally sub-normal members of the community who might require their help.

The clinics held by Dr. M. J. Sweeney, Consultant Psychiatrist from Brockhall Hospital, have continued under the auspices of the Health Department. The clinics serve the surrounding parts of Lancashire County as well as Bolton. Patients are referred from a variety of sources including the Consultant Paediatrician, Psychiatric Department of the Bolton hospitals, local authority medical officers and social workers and occasionally general practitioners. In 1972, six such clinics were held at Deansgate Health Centre when 34 patients were seen, 12 of these being new cases.

A departmental medical officer has continued as appointed factory doctor to the Cotton Street Centre and he has attended the centre monthly to advise staff and do medical examinations as necessary.

PART III

CONTROL OF INFECTIOUS DISEASES

Notifiable Infectious Diseases

Tuberculosis

Venereal Disease

NOTIFIABLE INFECTIOUS DISEASES

Incidence:

The following table gives the number of cases of notifiable infectious diseases other than tuberculosis.

Disease	Total Cases Notified
Anthrax	—
Diphtheria	—
Dysentery	11
Acute Encephalitis	1
Typhoid Fever	1
Paratyphoid Fever	1
Malaria	3
Measles	1,050
Acute Meningitis	39
Ophthalmia Neonatorum	—
Acute Poliomyelitis:	
Paralytic	—
Non-paralytic	—
Scarlet Fever	66
Smallpox	—
Whooping Cough	3
Food Poisoning	45
Infective Jaundice	21
Tetanus	—

Other notifiable diseases are Cholera, Leprosy, Leptospirosis, Plague, Relapsing Fever, Typhus Fever and Yellow Fever. No cases of these diseases were notified in the year.

The following table gives the number of notifications of notifiable diseases after correction during each of the last ten years.

Disease	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Anthrax	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	1	2	—	—	—
Dysentery	97	94	125	136	53	168	50	35	11	11
Acute Encephalitis	—	—	—	—	—	—	—	—	—	1
Enteric Fever	1	—	—	—	—	—	—	2	3	2
Malaria	—	—	—	—	—	—	—	—	1	3
Measles	2193	973	1591	1419	666	559	320	1276	48	1050
Acute Meningitis	—	—	2	1	1	—	—	1	44	39
Ophthalmia Neonatorum	1	—	—	1	—	—	—	—	1	—
Acute Poliomyelitis:										
Paralytic	1	2	—	—	—	—	—	—	1	—
Non-Paralytic	1	—	—	—	—	—	—	—	—	—
Scarlet Fever	66	58	156	242	63	38	60	82	86	66
Smallpox	—	—	—	—	—	—	—	—	—	—
Whooping Cough	55	142	26	95	96	27	12	73	37	3
Food Poisoning	62	41	38	31	64	61	40	57	30	45
Infective Jaundice	notifiable	from	June, 1968)			21	56	193	20	21
Tetanus	notifiable	from	October, 1968)			—	—	—	1	—

Deaths from Infectious Diseases, 1963-1972 inclusive:

Disease	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Diarrhoea and Enteritis under 2 years of age ..	3	2	-	2	3	7	6	4	4	6
Meniagococcal Infection ..	-	1	1	1	2	1	-	-	4	1
Pneumonia	146	90	115	134	102	141	170	185	167	187
Whooping Cough .. .	-	-	-	-	-	-	-	1	-	-

All the deaths from infectious disease have been in these four groups during the past ten years.

Diphtheria:

There were no notifications of diphtheria in Bolton during the year, the last case in the town being in 1969. The present level of immunisation cannot guarantee that the disease will not re-appear for nearly a third of Bolton children have not been immunised against the condition. These children are concentrated in particular areas of the town and the presence of a carrier of the disease in these communities would constitute a potentially serious situation.

It was hoped that the level of immunisation would improve, as has happened in other local authority areas, with appointments being sent to parents by computer. Unfortunately there has been no marked improvement so far in the immunisation rate as is shown in the following table.

Year of Birth	No. of Children Born in Year	Number Immunised against Diphtheria in Year of Birth and subsequent two years	Percentage Immunised
1965	2,785	1,885	67.7%
1966	2,685	1,879	69.9%
1967	2,800	2,010	71.8%
1968	2,711	1,791	66.0%
Computerisation started January 1st 1969			
1969	2,701	1,807	67.0%
1970	2,622	1,977	75.4%
1971	2,675	1,712*	64.0%

* 1971 figures are for children immunisation in 1971 and 1972.

Dysentery:

Eleven cases of dysentery were notified during the year, exactly the same number as in the previous year. These cases were of a sporadic nature and did not constitute part of any outbreak.

Notifications in Bolton reflect the national incidence of the condition with an initial fall after the last war after which they rose to considerable numbers about 1960 (over 500 cases notified in Bolton in that year) with a subsequent downward trend. It seems uncertain whether there is an actual major reduction in the cases of dysentery or if there is serious under-notification. If the former reason is the explanation then the organism must have lost much of its infectivity. Part of the explanation might lie in the improvement in hygiene in school.

Gastro-enteritis of Infancy:

Six deaths occurred in children under the age of two years and this continues the increased mortality of the last five years. This is probably due to changes in the virulence of the responsible organisms, especially of *Escherichia Coli* which used to be regarded as a harmless normal inhabitant of the intestine.

Meningitis:

The outbreak of meningitis in the Bolton area which started at the beginning of 1971 continued into the early part of 1972. Eighty-three cases had been notified in these years compared with 13 cases in the previous twenty years. As in 1971 there were also cases in the part of Lancashire County Council surrounding Bolton.

Investigation of each case was undertaken in collaboration with the Manchester Public Health Laboratory Service and, as in the previous year, it was found that nearly all the cases were due to meningococcus group B. Periodic meetings were held between hospital doctors, general practitioners and local authority medical officers to review progress. A high carrier rate was found in family contacts and it was decided to continue giving sulphonamides to other members of the families of affected children.

The outbreak in the Bolton area was not seen on the same scale in any other part of the country. It was still mainly affecting children under three years of age but only one child died compared with four deaths in 1971. In the latter part of the year the number of cases decreased greatly but, unfortunately, the balance between the level of immunity in the population and the virulence of the organism, showed that conditions existed for further cases to occur in the future.

Brucellosis:

The true incidence of this condition is not known for the disease is not notifiable but at least one Bolton resident had hospital treatment for the illness during the year. The disease resembles severe influenza, but the course of the illness is of a more protracted and chronic nature. It is transmitted by contact with infected animals or by the ingestion of milk from these cows which has not been pasteurised.

A voluntary scheme for the prevention of the disease was put into operation in October, 1966. When the condition is discovered in a cow the animal is removed for slaughter and pasteurisation of the milk takes place until tests for brucellosis (by milk agglutination test) are negative.

The number of cows slaughtered was:

1966 (for 3 months)	..	..	..	..	..	4
1967	..	..	..	..	..	10
1968	..	..	..	..	..	25
1969	..	..	..	..	..	18
1970	..	..	..	..	..	26
1971	..	..	..	..	..	22
1972	..	..	..	..	..	21

In 1967 under the Voluntary Brucellosis (Accredited Herds) Scheme, farmers are encouraged to have their herds tested and, with positive reactors slaughtered, are enabled to register as prospective sources of brucellosis-free cattle for other herds. This scheme was replaced in 1970 by the Brucellosis Incentive under which herds were required to pass three blood tests at suitable intervals and farmers were paid an increased price for milk from these cows.

In November, 1971, in three areas of Great Britain, compulsory eradication was started for animals giving a positive reaction to official tests. These areas were extended in November, 1972.

In the year, 780 samples of milk (from bulk and individual samples) were taken from roundsmen and farms and examined for *brucella abortus*. Positive reactions from farms outside Bolton were referred to the County Medical Officer of Health.

Measles:

In 1972 there were 1,050 cases of measles notified, compared with 48 in the previous year when the lowest figure in Bolton was recorded since notification began. Although the combined total for the two years was again lower than any other period of two years it is extremely disappointing that a potentially preventable condition could appear in such numbers in the community.

The vast majority of the children affected were older than the age at which immunisation against the disease is given. This may represent an attitude by the parents that measles is a relatively harmless disease and an almost inevitable accompaniment of childhood. Unfortunately a proportion of children with the condition are left with a permanent residual disability such as deafness.

Whooping Cough:

With only three notifications of the disease during the year, this represents the lowest total since notification of the illness began. Whilst some of the credit may be due to immunisation this cannot be the only reason for only two-thirds of the children in the town have been protected in this way. Either a change in the virulence of the organism must have occurred or the mild manifestation of the disease must make diagnosis difficult.

Poliomyelitis:

After the case of poliomyelitis in the previous year no further illness occurred in 1972. Unfortunately the level of immunisation in Bolton cannot guarantee that this state of affairs will continue.

Scarlet Fever:

There were 66 cases notified in 1972 and this represents about the average number of cases which have occurred in recent years. The disease is now a comparatively mild illness.

Pneumonia:

One hundred and eighty-three people died from pneumonia during the year, eleven of these were under the age of 5 years and one hundred and forty-nine over the age of 65 years. Very few of these cases occurred in previously healthy people, most representing a complication of a serious disease.

Enteric Fever:

One case of typhoid fever was notified. This occurred in a man who had been on holiday in Pakistan and developed symptoms of the disease shortly after returning to this country. He made a full recovery after treatment and investigation of contacts showed that no further infection had taken place in the community.

At the beginning of the year a young child was admitted to hospital with paratyphoid. She was the daughter of a man and woman who had had hospital treatment for the condition at the end of 1971 after returning from a holiday in Bahrain. The girl had only mild symptoms and she made a rapid recovery in a short time.

Infective Jaundice:

Twenty-one cases of the disease were notified during the year compared with twenty in the previous year. The majority of cases were children of primary school age who appeared to have less immunity to the condition than adults.

Food Poisoning:

With only one exception, all the cases of food poisoning notified were isolated incidents with only the person with symptoms having an identifiable organism isolated. The one family outbreak occurred in the owners and family of a fish and chip shop and it was necessary for another person to take over the running of the business until the family were declared to be free from infection.

General Administration of the Control of Infectious Diseases:

Public Health Inspectors carried out 208 visits and health visitors 219 visits to make enquiries concerning infectious diseases.

The number of specimens sent for examination to the Department of Pathology at the Bolton Royal Infirmary was 633. The types of specimens examined and the results obtained are shown in the following table:

Type of Specimen	Pathogenic Organism Found	No. of Specimens
Faeces	Shigella sonnei	15
	Escherichia Coli	5
	Salmonella typhimurium	17
	Salmonella agona	2
	Salmonella saint-paul	8
	Salmonella heidleburg	10
	Salmonella meleagridis	3
	Staphylococcal infections	1
	Negative results	516
Urine	Negative results	43
Nose Swabs	Staphylococcal aureus	2
	Staphylococcal albus	6
	Monilia	1
	Negative results	4
	TOTAL	633

Notices under the Public Health (Infectious Diseases) Regulations, 1953, were served upon 2 persons who were food handlers. They were required to do no further work in the premises until negative results were obtained and compensation was paid to them.

The following table shows the number of persons to whom special attention was directed in view of the fact that their occupation involved a higher risk of infection to others.

Category	Examinations for		
	Sonne Dysentery	Salmonella Infections	Other Intestinal Infections
FOOD HANDLERS			
Positive	-	5	-
Negative	2	10	19
NURSERY STAFF			
Positive	1	-	-
Negative	-	2	4
NURSING AND HOSPITAL STAFF			
Positive	-	2	-
Negative	-	2	2
SCHOOL STAFF			
Positive	-	-	-
Negative	-	3	1
HOME HELP			
Positive	-	-	-
Negative	-	-	8
TOTALS ..	3	24	34

I wish to thank the staff of the Pathological Laboratory at the Bolton Royal Infirmary for their help in examining specimens and in the interpretation of the findings. Much work was also done by the Public Health Laboratory in Manchester.

TUBERCULOSIS

Notifications:

AGE AND SEX DISTRIBUTION OF NOTIFIED CASES:

Respiratory Tuberculosis

Age Periods	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Males (European)	-	-	-	1	-	-	-	-	1	4	6	5	-	17
Females (European)	-	-	-	-	-	1	1	1	2	-	1	-	1	7
Males (Asian)	-	-	-	4	1	4	8	8	1	5	-	1	1	31
Females (Asian)	-	-	-	-	3	3	5	3	4	3*	-	-	-	21
TOTALS	-	-	-	5	4	8	14	10	8	12	7	6	2	76

Non-Respiratory Tuberculosis

Age Periods	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Males (European)	-	-	-	-	-	-	-	1	-	1	-	-	-	2
Females (European)	-	-	-	-	-	1	1	-	-	-	-	-	-	2
Males (Asian)	-	-	-	1	1	4	1	9	2	1	-	-	-	18
Females (Asian)	-	1	2	-	2	-	4	5	8	1	-	-	-	23
TOTALS	-	1	2	-	3	5	6	15	10	3	-	-	-	45

*Two females (Asian) notified also as non-respiratory tuberculosis.

The number of cases on the Tuberculosis Register at the end of the year was 266.

	MEN	WOMEN	CHILDREN	TOTAL
Respiratory Tuberculosis	84	46	30	160
Non-Respiratory Tuberculosis	47	46	13	106
	131	92	43	266

Deaths:**Respiratory Tuberculosis**

Age Periods	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Males (European)	-	-	-	-	-	-	-	-	1	-	1	2	-	4
Females (European)	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Males (Asian)	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Females (Asian)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS	-	-	-	-	-	-	-	-	1	-	2	3	-	6

Non-Respiratory Tuberculosis

One female (Asian)

Summary of Work at Chest Clinic:

	1971	1972
Number of new cases notified	112	121
Number of deaths	5	7
Number of attendances of new cases	441	438
Number of cases referred from Mass Miniature Radiography Units	149	134
B.C.G. Vaccinations	290	387
Total attendances at clinic	1681	1710
Number of contacts examined	421	358

General Comment:

There were 121 new cases of tuberculosis notified during 1972, 9 more than last year.

Seven patients died of tuberculosis during the year.

There are no patients with persistently positive sputa.

During the year, 387 B.C.G. vaccinations were carried out at the Chest Clinic.

I should like to thank Dr. John Mitchell, Consultant Physician, for providing the above information.

The following table shows tuberculosis notifications over a number of years.

Year	Number of Tuberculosis notifications		Total	% Immigrants
	Boltonians	Immigrants		
1920	—	—	219	—
1925	—	—	210	—
1930	—	—	211	—
1935	—	—	170	—
1940	—	—	141	—
1945	—	—	116	—
1950	—	—	105	—
1955	—	—	87	—
1960	—	—	60	—
1965	—	—	49	—
1966	—	—	46	—
1967	26	20	46	43%
1968	40	45	85	52%
1969	26	63	89	71%
1970	20	85	105	81%
1971	24	88	112	79%
1972	28	93	121	77%

The above table shows that there was a steady fall in the incidence of tuberculosis in Bolton until 1966. In 1967, because of infection among immigrants, the number of cases began to increase. Last year there were 121 new cases of tuberculosis notified - 9 more than the previous year.

The effect of immigration on tuberculosis is discussed in the report, "Tuberculosis: Epidemiology and Control" prepared by the Standing Medical Advisory Committee for the Central Health Services Council. The Report states:

"A survey of notifications of tuberculosis carried out by the British Tuberculosis Association in 1965 showed that Indian born persons had 12 times and Pakistan born 26 times the rate of British born. It was observed that in these Asian people, non-respiratory forms of tuberculosis constitute a much larger proportion of the total cases of the disease (at least one-third) than in the native born (about one-tenth). There is a good deal of later evidence, although much of it is indirect, that Asian immigrants now provide a substantial number of cases, especially: (a) in the young adult age-group, and (b) of non-pulmonary disease. These findings go far to explain the high rates of both forms of the disease recorded in certain County Boroughs which have received large numbers of Asian immigrants in recent years. In 1970, for example, Blackburn C.B. had a respiratory tuberculosis notification rate per 100,000 population of 96, Huddersfield C.B. 69 and Bradford C.B. 68, as compared with the national average of 19, and the non-pulmonary tuberculosis notification rates of Dewsbury C.B. (44), Blackburn C.B. (42) and Bradford C.B. (39) compare strikingly with the national average of 5 per 100,000 population. Although exact figures are not available, it is known that Asian immigrants provide the majority of new tuberculosis cases in these County Boroughs and others in the same position. These infections do not, by and large, represent importation of open cases, but rather reflect the higher rate of development of clinical disease in an ethnic group with a less favourable past history and often living in compact groups in this country, not always well housed."

In Bolton in 1972 the respiratory tuberculosis rate per 100,000 population was 43 and the non-respiratory rate 29.

The health of all immigrants coming to this country is checked on arrival. Many have their chests X-rayed and port medical officers inform M.O's of Health of new arrivals to their areas. In Bolton, a health visitor goes to see all new immigrants to inform them of the medical arrangements in this country, the need to go on a general practitioner's list and to have their chests X-rayed if this has not recently been done. All new babies born to immigrants are offered B.C.G. vaccination. The Mass Miniature Radiography Unit attends the Civic Centre weekly for patients referred by doctors so that a chest X-ray is very easily available.

Care and After-Care of Patients Suffering from Tuberculosis:

Close co-operation between the Health Department and the Chest Clinic staff has continued as in previous years. The increase in the number of notified cases from 112 to 121 has meant increased work for the department. A health visitor and two nurses attended sessions at the Chest Clinic.

After-Care Panel:

The After-Care Panel consists of a medical officer from the Health Department, a representative of the Housing Department, the health visitor who works in the Chest Clinic and the Area Nursing Officers. Meetings are held as and when necessary, usually every three months. The social problems, particularly the housing conditions of all patients discharged from hospitals and all patients notified between meetings, were reviewed by the Panel and where necessary rehousing was initiated.

Other After-Care Activities:

In 1972, district nurses cared for 47 respiratory and 21 non-respiratory tuberculosis patients and gave 3,631 treatments, mainly injections of streptomycin. The health visitor paid 797 visits to tuberculosis patients. She advised on treatment and in general contributed to the health education of the patient and his family during the visit. It was also an opportunity for contact tracing and for tuberculin testing of small children found in the household.

Contact Clinic:

Special evening clinics were held approximately once a month at which contacts of known cases of tuberculosis were X-rayed. If the films indicated further investigation was necessary, the patients were seen at the Chest Clinic by a consultant. The number of patients attending the Contact Clinic in 1972 was 358, compared with 421 in 1971 and 399 in 1970.

B.C.G. Vaccination:

Contacts or recently discovered cases of tuberculosis, mainly children under school age, were Heaf tested. Those with negative reactions and also all new born babies who were contacts, received B.C.G. vaccine. One hundred and fourteen children received B.C.G. at the Chest Clinic and 276 babies born to immigrant mothers received their vaccination in the maternity homes and maternity wards of Bolton District General Hospital.

B.C.G. Vaccination of School Children:

School children in their thirteenth year and immigrant children entering school for the first time in this country were offered B.C.G. vaccination if their parents consented. Tuberculin tests were done first and the negative

reactors and those with grade 1 positive reaction received B.C.G. vaccination. The result of this work is summarised below:-

Total number of consents received ..	2,560	
No. of children skin tested	2,459	
No. absent for skin tests	101	
No. absent for reading	146	
No. found positive	257	
Positive reaction —	201	
Strongly positive —	56	
No. found negative	2,056	
No. given B.C.G.	2,072	(this includes 16 grade 1 positive reactions)

Year	Total No. of Children	No. Positive	% Positive
1968	1,950	322	16.5
1969	1,815	166	9.2
1970	1,772	149	8.4
1971	1,726	150	8.7
1972	2,313	241*	10.4

* excludes Grade 1 positive

School Children with Positive Tuberculin Tests:

In accordance with the Second Report of the Medical Research Council's Tuberculosis Vaccines Clinical Trials Committee, recommending the follow up of school children found to have strong positive reactions to tuberculin tests, 56 appointments were made to X-ray such children as against 41 in 1971. No new cases were found.

Mass Miniature Radiography Service in Bolton:

The number of mobile units in the Manchester Regional Hospital Board's area, in accordance with national policy, has been reduced from 6 to 4 during the last five years. The Board have consequently sought to use its Mobile Chest X-Ray Service to the best advantage by X-raying those people most at risk. These include patients referred for X-ray by their family doctors and groups of people known to have had close contact with cases of active tuberculosis.

In view of the above, no "open" general public sessions were held in Bolton during 1972. However, the Unit visited the town for one day at approximately fortnightly intervals for medical referral sessions. During the year 23 of these sessions were held. The following table gives details of attendances and cases found, together with figures for Industrial/Special surveys.

Type of Session	No. X-rayed		No. of Cases		Rate/1,000	
	1971	1972	1971	1972	1971	1972
General Practitioner/ M.O.H. Referral Session	4,260	4,129	26 (18 immigrants)	25 (14 immigrants)	6.10	6.06
Industrial and Special Session	5,724	3,126	2 (immigrants)	8 (immigrants)	0.34	2.56

VENEREAL DISEASE

Dr. Philip S. Silver has supplied the following information which relates to Bolton residents only in attendance at his clinic.

Four cases were referred from the Moral Welfare and Ante-natal Clinic. There were four sent from the Children's Department and one patient from the Family Planning Clinic. The Clinic staff carried out 52 visits for the purpose of ascertaining the cause of non-attendance.

Gonorrhoea:

The number of insensitive strains to Penicillin and Tetracycline has now been further reduced, and the total number of cases of gonorrhoea came down by 85, which is a highly satisfactory result. There have been no further cases of gonoroccal ophthalmia.

The Answerphone, which started full coverage in April, 1972, had, by the end of the year, handled 21,800 calls. There seems to be little doubt that this is fulfilling a much needed service in the town, and it may well be responsible for the large number of patients attending the clinic. It is to be hoped that the male/female ratio will be approaching 1 to 1 by the end of 1973, and in this case we shall have established control of the epidemic of gonorrhoea.

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Syphilis	14	16	10	7	20	4	4	7	1	7	5	6
Gonorrhoea ..	123	72	46	64	93	157	182	235	205	212	293	207
Non-Venereal Diseases ..	348	349	352	335	407	310	413	401	470	438	569	663
TOTALS ..	485	437	408	406	510	471	599	643	676	657	867	876

PART IV

ENVIRONMENTAL HYGIENE

Work of the Chief Public Health Inspector

Slum Clearance

Clean Air

Inspection and Supervision of Food

General Sanitation

Disinfection and Disinfestation

Report of the Borough Analyst

WORK OF THE CHIEF PUBLIC HEALTH INSPECTOR

New Extension of Abattoir:

A further extension of the abattoir is nearing completion. The alterations are primarily to comply with regulations covering meat export licences.

Bacteriological Examination of Glasses and Crockery and Hair-dressing Equipment:

A comprehensive survey of food premises, including public houses, was in progress at the close of the year, and the results of bacteriological examination of crockery, glasses, utensils and also of combs and other equipment in hairdressing establishments is summarised on page 120.

Staff:

The staff of the public health inspectors' section is as follows:

- Chief Public Health Inspector
- Deputy Chief Public Health Inspector
- 5 Senior Public Health Inspectors
- 7 Public Health Inspectors
- 2 Inspectors of Meat and other Foods
- 2 Authorised Meat Inspectors
- 2 Technical Assistants
- 1 Pest Control Officer
- 4 Pupil Public Health Inspectors

SLUM CLEARANCE

Clearance Areas and Compulsory Purchase Orders:

Since the start of the Council's Slum Clearance Programme (November, 1955), 7,582 houses have been demolished by way of compulsory purchase order or individual unfit house procedure.

There have been 5,763 families rehoused from these premises.

During the year 1972, there were 322 houses demolished and 456 families rehoused under the provisions of the Housing Act, 1936 to 1969.

The areas dealt with were as follows:-

- Derby Ward Nos. 28 and 29 (Washington Street area)
- Bradford Ward Nos. 23 to 27 (Venture Street area)
- Bradford Ward Nos. 28 to 30 (Grecian Street area)
- East Ward Nos. 21 and 22 (Kay Street area)

Confirmed Clearance Areas:

The Secretary of State for the Environment confirmed with modification the Bolton (Bradford Ward Nos. 28 to 30 Clearance Areas) Compulsory Purchase Order 1971 (Grecian Street area: public inquiry held on the 17th August, 1971) on the 12th January, 1972.

Two houses were classified as fit houses. Payments for good maintenance under section 60 of the Housing Act as extended by section 67 of the Housing Act 1969, were made for 36 houses; of these 32 were made for houses wholly well maintained and 4 were made for partially well maintained houses.

The Bolton (East Ward Nos. 21 and 22 Clearance Areas) Compulsory Purchase Order, 1971 (Kay Street area; public inquiry held 2nd November, 1971) was confirmed with modification on the 8th March, 1972, one house was re-classified as a fit house. There were no well maintained payments made.

The Bolton (Derby Ward No. 30 Clearance Area) Compulsory Purchase Order 1971 (part Gibbon Street area; public inquiry held 2nd November, 1971) was confirmed without modification on the 28th March, 1972. Payments were approved for 6 partially well maintained houses.

A public inquiry in connection with the Bolton (East Ward No. 23 Clearance Area) Compulsory Purchase Order, 1971 (Craddock Street area) held on the 25th January, 1972, was confirmed with modification on the 6th June, 1972. A property comprising garage, workshop and premises was excluded from the order. Payments were approved for 8 partially well maintained houses.

A public inquiry in connection with the Bolton (East Ward Nos. 24 and 25 Clearance Areas) Compulsory Purchase Order, 1972 (Bury Road area) held on the 9th May, 1972, was confirmed on the 8th September, 1972, with modification. Five houses were re-classified to become fit houses. Payments were approved for 21 houses wholly well maintained and for 4 partially well maintained.

A public inquiry in connection with the Bolton (West Ward No. 28 Clearance Area) Compulsory Purchase Order, 1972 (Leicester Street North area) held on the 9th May, 1972, was confirmed with modification on the 15th November, 1972. Four houses were re-classified to become fit houses. Payments were approved for 17 houses wholly well maintained and for 2 partially well maintained houses.

A public inquiry in connection with the Bolton (West Ward No. 29 Clearance Area) Compulsory Purchase Order, 1972 (Bayley Street) held on the 12th September, 1972, was confirmed without modification on the 22nd November, 1972. Payments were approved for 2 partially well maintained houses.

The Housing (Payments for Well Maintained Houses) Order, 1972, increased the amounts paid for houses which have been well maintained for partially well maintained. The Order applies to houses which are unfit for human habitation dealt with in unfitness orders.

Other Clearance Areas:

A public inquiry in connection with the Bolton (West Ward No. 30 Clearance Area) Compulsory Purchase Order, 1972 (Haworth Street area) was held on the 12th September, 1972, and confirmation is awaited.

The date of a public inquiry was fixed for 16th January, 1973, in connection with the following compulsory purchase orders which were represented to the Housing Committee on the 6th December, 1971, for which see details in the 1971 report:-

Bolton (Derby Ward No. 31 Clearance Area) Compulsory Purchase Order, 1972.

Bolton (Rumworth Ward Nos. 6 and 7 Clearance Areas) Compulsory Purchase Order, 1972.

Bolton (Great Lever Ward Nos. 2 to 4 Clearance Areas) Compulsory Purchase Order, 1972.

Bolton (Bradford Ward Nos. 31 to 35 Clearance Areas) Compulsory Purchase Order, 1972.

No date fixed for the Bolton (North Ward Nos. 5 to 7 Clearance Areas) Compulsory Purchase Order, 1972, represented to the Housing Committee on the 10th April, 1972.

The following clearance areas have been represented to the Housing Committee during the year. The table indicates the Compulsory Purchase Orders which have been or which will be submitted to the Secretary of State for the Environment:-

Name of Clearance Area	Compulsory Purchase Orders to be made	Date represented	No. of properties		Persons to be rehoused
			Unfit (Pink)	Others (Grey)	
Egerton Street	Bolton (North Ward Nos. 5-7 Clearance Areas) Compulsory Purchase Order, 1972	10.4.72	31	1	75
George Street/ Whittaker Street	Bolton (Bradford Ward Nos. 31-35 Clearance Areas) Compulsory Purchase Order, 1972	10.4.72	218	11	583
Birkdale Street	Bolton (Derby Ward Nos. 32-35 Clearance Areas) Compulsory Purchase Order, 1972	10.7.72	137	25	420
Kent Street	Bolton (West Ward Nos. 31-33 Clearance Areas) Compulsory Purchase Order, 1973	11.9.72	156	19	510
Waterloo Street	Bolton (North Ward Nos. 8-10 Clearance Areas) Compulsory Purchase Order, 1973	6.11.72	216	13	588

The dates of the public inquiries are awaited.

In accordance with the Council's clearance programme inspections were commenced in the proposed Grasmere Street Clearance Area.

General:

Inspections of houses were carried out during the year in connection with general improvement areas, improvement grants, house purchase loans and future additions proposed for the clearance programme.

Plans and reports were prepared in co-operation with other departments of the Corporation in respect of redevelopment and other matters concerning slum clearance.

A considerable amount of work is involved in the Public Health Inspectors Housing Section preparing working maps, preparation of papers for representations and evidence for public inquiries in connection with clearance areas.

Clearance Programme 1973 to 1976:

During the year, extensions to the Slum Clearance Rolling Programme were considered, and with the exception of the proposals relating to Darcy Lever, the proposals have been resolved by the December meeting of the Housing Committee. Certain proposals relating to Darcy Lever were deferred on various occasions.

Details of the slum clearance programme as finally agreed, are set out below:

Year of Representation	Area	No. of Properties
1973	GRASMERE STREET AREA: Latham Street (51-83; 2-44) Clifford Street (1-45; 6-46; land, etc. adj. No. 6) Durham Street (13-57; 2-46) Percy Street (1-45) Chalfont Street (4, 6, 11) Grasmere Street (1-67; 2-72) Keswick Street (1-67) Ulleswater Street (4) Draycott Street (37)	262
1973	GREGSON FIELD AREA: Bridgeman Street (land - Builder's Yard adj. 316; 316-404) High Street (93-109/111) Heap Street (2-28) Moore Street (1a; 1-27; 2-30) Glynn Street (1-29; 6, 2) Gregson Field (1-19; 23-41; 2-30) Clarendon Street (43-109)	184

Year of Representation	Area	No. of Properties
1973	CRUMPSALL STREET AREA: Crumpsall Street (1-33) Raby Street (2a; 2-32; 1-31) Rix Street (2, 4) Astley Street (2-28; 5/7-15) Cardwell Street (2-34; 1-19; 27 and 29) Canning Street (2)	102
1973	VICTORY STREET AREA: Beckett Street (1/3-75; 2-70) Bashall Street (2-66) Chorley Old Road (157-173) St. Luke's Street (1; land (including sites of Nos. 10-20); garage colony) Victory Street (2-28; 36-62; 9-21; Reform Club; 37-61) Milo Street (2-26; 1-25) Newsome Street (17, 19, Works, etc. both sides) Hugo Street (Works) Turk Street (10-24; Works; 32-60; 1; 5-27) Regent Street (2-40; 7-41/43) Horatio Street (2-40) France Street (1-21; 2-22) Marsh Fold Lane (2)	311
1974	BURY OLD ROAD AREA: Kestor Street (72-106; 114-124) Spencer Street (1) Morton Street (1; 1a; 19; 21) Scarborough Street (1-5; 2-16; 20) Minerva Street (1-17) Higson Street (2-14; 3-15) Short Street (1) Mule Street (4-22) Leamington Street (1-15; 2-6) Radcliffe Road (1-39; 10-16; Vehicle Repair Depot adj. No. 10) Phethean Street (Printing Works) Bury New Road (19-49; 53-89a) Bury Old Road (5-15; Land, sites of 17-31; 51-61; land, etc. 71/73-93; 68-110) Eagle Street (3; Works adj. No. 3; 6-20) Broom Street (1a; 1-13; 2-6) Elton Street (5-15) Thornton Street (1)	215
1974	DIVISION STREET AREA: Division Street (7-87/89)	41

Year of Representation	Area	No. of Properties
1974	ROWLAND STREET AREA: Haynes Street (2-22) Rowland Street (1-21; 2-22) St. Helens Road (313-317) Georgina Street (1-35) Sloane Street (40/74)	71
1974	PERTH STREET AREA: Perth Street (3-33) Bk. St. Helens Road South (2)	17
1974	DELAMERE STREET AREA: Harvey Street (31-37; 2-10; Garage) Handel Street (3-15; 42-74) Newry Street (2-40) Saturn Street (2/4-20; 1-21) Delamere Street (2-24; 3-25; land adjl. No. 3)	98
1974	CELLINI STREET AREA: Raphael Street (1-41) Hennon Street (2-38; 5-41) Cellini Street (4-82; 5-83) Darley Street (50-140) Eskrick Street (32-54 and Public House 56/58; 47-77)	210
1974	LATHAM STREET AREA: Latham Street (3-29; Premises adj. No. 39; 39-49; Works adj. No. 49) Blackbank Street (1-37) Egerton Street (2-36; 1-35) Hibbert Street (Co-op.; 2-36; 1-31/35) Charles Rupert Street (2-36) Durham Street (11)	131
1975	DARCY LEVER AREA (WEST): Belper Street (2-12) Hacken Lane (1/3-7; land site of 9; 19-25) Alicia Street (2-14; land sites of 1-13 and land at rear) Maze Street (30-36; land sites of 38-40) Crossen Street (3-13; 17-25; land site of 1) Banker Street (land site of 3; 5-13 and land adj. 13) Radcliffe Road (288-290; 297-305; 325; 327; former Club "Green Hill House")	49

Year of Representation	Area	No. of Properties
1975	RISHTON LANE AREA (NORTH): Lever Street (275-317; 317a) Channing Street Stafford Street (6-28; yard and premises adj. No. 6) Rupert Street (1; 3-17; 4) Crowther Street (2-22) Rishton Lane (1-75; 2-38) Rigby Street (2-34; land sites of 36-48; 50-82; land site of 84)	179
1975	ROBERT STANLEY STREET AREA: Birkdale Street (1-31; 35-41) Can Row (10) Unsworth Street Peace Street (28; 30; 34) Thomas Rostron Street (1; 27-41; 2-46) Robert Stanley Street (1-47; 2-20; 24-28) Gibbon Street (69-113)	147
1975	GURTH STREET AREA: Smethurst Street Gurth Street (including land site of 55) Hypatia Street (1; 3)	91
1975	BOLTON STREET AREA: Bolton Street (21-33/35; 8-38)	23
1975	ACTON STREET AREA: Acton Street Weymouth Street (2-36)	54
1975	LEVER STREET AREA: Lever Street (349-359)	6
1975	PHILIP STREET AREA: Philip Street (6-54; building adj. 54) High Street (11-59)	50
1976	EUXTON STREET AREA: Adelaid Street (89-109) Euxton Street	33
1976	DRUMMOND STREET AREA: Maxwell Street (8-44) Baber Street (1-25) Drummond Street (13-43; 49-73; 30-56) Warwick Street (20-50) Major Street (1-31)	107

Year of Representation	Area	No. of Properties
1976	YARROW PLACE AREA: Yarrow Place (3; 3a-21a; 23-33; 37-43 premises 45) Mount Street (premises 139/141 with yard at rear)	22
1976	DARCY LEVER AREA (EAST): Long Lane (1-9 and vacant land at rear) Pleasant View (1-17) Ormond Street (1-11) Radcliffe Road (387-401; Store (former Mission Church); 411-423 with land at rear; 447-451; building adj. 451; 459-489 with land at rear; 402-418)	63
1975	RISHTON LANE AREA (SOUTH): Rupert Street (41-49) Crowther Street (1-23) Norman Street (1-33; 2-34) Flitcroft Street (1-29; 2-40; yard and premises adj.) Teal Street (44-86) Sandham Street (3-25; 14; 16) Rishton Lane (40-60)	133
1976	GILBERT STREET AREA: Gibbon Street (15-49; 52 Gibbon Street/60 Parliament Street) Parliament Street Gilbert Street Walter Street Isobel Street	202

(All properties are affected in the streets where numbers are not shown).

Inquiries from Purchasers of Houses:

Numerous inquiries at the Health Department continue to be made by persons interested in house purchase. The Inspectors gave information on the existing slum clearance programme to 551 inquiries during the year. The number of inquiries regarding land charges received from potential purchasers of properties within the Borough was 4,554.

Advances for House Purchase

In connection with advances for house purchase, the Borough Treasurer requests the advice of the Health Department as to whether or not the houses have a life of less than ten years. This information is based on the Corporation's approved programme and the opinion of the Chief Public Health Inspector.

Improvement and Standard Grants:

The following information has been supplied by the Borough Planning Officer in respect of the year 1972:-

Number of applications received	.. .. .	1,251
Number of applications approved	.. .. .	648
Number of applications refused..	.. .. .	32
Number of applications cancelled	.. .. .	51

The Borough Planning Officer requests the advice of the Health Department in all cases as to whether or not the houses concerned are likely to have the necessary life to qualify for payment of an improvement or standard grant; such information is, of course, merely in the nature of a provisional estimate based on the Chief Public Health Inspector's appreciation of the situation, as the Corporation's approved programme of slum clearance did not, at the end of 1972, extend beyond the year 1974.

Certificates of Disrepair - Rent Act, 1957:

During the year two applications for certificates of disrepair were received. In one case the landlord completed the necessary repairs during the period permitted. In the other case the condition of the house warranted individual unfit house procedure, and this has been commenced. In neither case was a certificate of disrepair issued.

Ugandan Asians - Overcrowding:

During November and December, 24 cases of alleged overcrowding were referred to the Health Department by the Borough Solicitor. Overcrowding was found to exist at 13 houses, including 1 corporation house; 9 houses were not overcrowded, while at 2 houses overcrowding had previously existed but had been abated prior to the public health inspector's visit. Warning letters were sent regarding overcrowding by the Chief Public Health Inspector in 9 cases and, in the case of the corporation house, by the Chief Housing Officer. At the end of the year, overcrowding had been abated at 6 of the 13 houses found to be overcrowded.

Housing Statistics:

HOUSES NOT INCLUDED IN CLEARANCE AREAS:

Action was taken under the appropriate enactments as follows:

NEW ACTION:

Houses represented under Section 16 of the Housing Act, 1957	..	37
Demolition Orders made	.. .. .	56
Closing Orders made	.. .. .	11
Closing Orders converted to Demolition Orders	.. .. .	20

COMPLETED ACTION:

Houses demolished	.. .. .	68
Persons rehoused	.. .. .	117
Houses closed	.. .. .	9
Persons rehoused	.. .. .	31
Cases outstanding at close of year	.. .. .	2
Closing Orders rescinded	.. .. .	1
Houses incorporated into slum clearance areas before Order made	.. .. .	1
Houses subject to Closing Orders demolished in Compulsory Purchase Orders	.. .. .	13

Housing Inspections:

INSPECTION OF DWELLING-HOUSES

1. Dwelling-houses inspected for housing defects (under Public Health Act or Housing Acts) 2,955
Inspections made for the purpose 9,504
2. Dwelling-houses (included under sub-head (1) above) which were inspected under the Housing Consolidated Regulations, 1925, as amended by the Housing Consolidated Amendment Regulations, 1932 1,294
Inspections made for the purpose 1,294

REPAIRS - INFORMATION ACTION

Unfit or defective houses rendered fit as a result of informal action by the Local Authority under the Public Health or Housing Acts 314

ACTION UNDER STATUTORY POWERS

PUBLIC HEALTH ACT, 1936:

Houses in which defects were remedied after service of formal notices:

By owners	.. .. .	39
By Local Authority in default of owners	.. .. .	14

HOUSING ACT, 1957:

No action was taken under sections 9 or 10.

CLEAN AIR

Measurement and Investigation of Atmospheric Pollution:

The measurements and study of air pollution was continued during the year. There was no change in the location of the eight volumetric air sampling instruments which are situated in a definite geographical pattern throughout the Borough.

The value of the practical steps taken to reduce air pollution from industrial and domestic sources is demonstrated by the results of these measurements over a number of years. Smoke control in Bolton began with the operation of the Town Centre Smokeless Zone in 1954. The first Smoke Control Order under the Clean Air Act, 1956, was made in 1958. The following table shows the daily average of all sites for smoke and sulphur dioxide (in micrograms per cubic metre of air) for 1954 and the years 1958 onwards.

Year					Smoke					Sulphur Dioxide
1954	..	..	..	..	251	..	..	..	..	256
1958	..	..	..	..	289	..	..	..	..	262
1959	..	..	..	..	282	..	..	..	..	288
1960	..	..	..	..	281	..	..	..	..	219
1961	..	..	..	..	243	..	..	..	..	218
1962	..	..	..	..	196	..	..	..	..	219
1963	..	..	..	..	187	..	..	..	..	236
1964	..	..	..	..	143	..	..	..	..	203
1965	..	..	..	..	161	..	..	..	..	179
1966	..	..	..	..	164	..	..	..	..	163
1967	..	..	..	..	162	..	..	..	..	147
1968	..	..	..	..	153	..	..	..	..	153
1969	..	..	..	..	156	..	..	..	..	148
1970	..	..	..	..	118	..	..	..	..	147
1971	..	..	..	..	125	..	..	..	..	131
1972	..	..	..	..	90	..	..	..	..	107

From the above table it may be estimated that since smoke control started in Bolton smoke pollution has been reduced by two-thirds and sulphur dioxide pollution has been more than halved.

Installation of Furnaces:

Fifteen notifications relating to the installation of furnaces were received in accordance with Section 3 of the Clean Air Act, 1956.

Approval of Chimney Heights:

Eight applications were received in accordance with Section 6 of the Clean Air Act, 1968, all of which were approved.

Although the Clean Air Act, 1968, has given local authorities improved control over chimney heights there are still some weaknesses, for example, if a chimney which was erected before the commencement of the 1968 Act is reduced in height for safety reasons it cannot be required to be rebuilt. Also, certain new boiler installations are not covered by Section 6; where a "packaged" boiler replaces a Lancashire boiler control over the chimney height would not apply as generally there is no increase in the combustion space - in fact the combustion space of modern packaged boiler is much smaller, although the emission of sulphur dioxide may be greater. Similarly, the powers would not prevent a change in the type of fuel oil to one having a higher sulphur content.

Clean Air Act, 1956 - Section 16; Clean Air Act, 1968 - Section 1:

Verbal and written notices under Section 30 were given in respect of 4 instances of burning materials in the open air.

Legal proceedings were taken in connection with two of the offences. Both offences occurred as a result of the burning of waste wood. The defendants pleaded guilty and in one case a fine of £25 with £10 costs was imposed, in the other case there was a fine of £10 with £5 costs.

Alkali, etc., Works Regulation Act, 1906:

Two premises are registered under the Act, i.e., the electricity generating station, and a steel works in Bark Street, Bolton. The latter premises is equipped mainly with electric arc furnaces with an electrostatic precipitator. Demolition of the gas works, commenced during 1970, has now been completed.

It is again pleasing to record the continued close co-operation with the local Alkali Inspectors whose advice and assistance has readily been given on many occasions in the past, often on matters outside their own province.

Smoke Control Areas:

The position at the end of 1971 was as follows:

(a) Smokeless Zone Order (1) and Smoke Control	
Orders in operation	39 Orders
(b) Total acreage	
	3,074 acres
(c) Number of premises:-	
Dwellings	22,203
Commercial premises	900
Industrial premises	218
Other premises	472
	<hr/>
	23,793
	<hr/>

During the year, the Bradford and Derby Ward smoke control order (52.4 acres, 415 premises) and the Rumworth No. 2 smoke control order (86.6 acres, 1,466 premises), made during 1971, were confirmed, and both came into operation during 1972.

Also, the East and West Wards smoke control order (32.18 acres, 178 premises) was made, confirmed, and became operative.

The Bradford Ward smoke control order (13.42 acres, 178 premises) and the West Ward No. 5 smoke control order (8.76 acres, 105 premises) were made and confirmed. These orders will come into operation on the 1st October, 1973.

At the end of 1972 the position was as follows:-

(1) Operative smoke control orders	
(a) Smokeless Zone Order (1) and Smoke Control	
Orders made	42 Orders
(b) Total acreage	
	3,246 acres
(c) Number of premises:-	
Dwellings	24,900
Commercial premises	987
Industrial premises	264
Other premises	511
	<hr/>
	25,852
	<hr/>

(2) Position including smoke control orders not yet operative	
(a) Smokeless Zone Order (1) and Smoke Control	
Orders made	44 Orders
(b) Total acreage	3,268 acres
(c) Number of premises:-	
Dwellings	24,370
Commercial premises	988
Industrial premises	264
Other premises	513
	<hr/>
	26,135
	<hr/>

The "designation" in respect of improved open inset coke grates in the Bradford and Derby smoke control area was revoked.

Considerable confusion was caused during the year by the reversal of the Council's previous policy of imposing "designations" in respect of improved open inset coke grates. When this policy was reversed, at the instance of the Department of Environment, on the grounds that adequate supplies of open fire fuels are now available, it was assumed that grants would no longer be payable in respect of the replacement of improved open inset coke grates, both on general principles, and also because circular 51/65 (June, 1965) appeared specifically to forbid this. On this basis, many householders who had already fitted improved open inset coke grates were allowed grants only towards the cost of wide-spaced firebars and/or smokeless ignition, and this caused some friction. The Department of Environment later intimated that in view of a letter issued in September, 1965, grant was payable in such cases, although they had not seen fit to amend Circular 51/65 or the Memorandum on smoke control areas. Appropriate supplementary grants were paid to all householders affected by this decision.

The confirmation of the Rumworth No. 2 smoke control order coincided with the conversion to North Sea Gas in this area, and close liaison was maintained with the North Western Gas Board (both field conversion staff and sales staff) to ensure that inconvenience to householders was minimised.

In the latter part of the year, survey work was begun on the next major smoke control area, i.e., the Astley Bridge, Halliwell and West Ward smoke control area.

Fourteen contraventions of smoke control orders were noted during the year; these were reported to the Health Committee, who authorised the sending of appropriate warning letters by the Borough Solicitor.

SMOKE CONTROL PROGRAMME, 1.1.72 TO 31.12.72

Applications

No. of houses in respect of which applications for approval of proposed works were submitted	715
Estimated expenditure allowable for grant	£40,816.81
Estimated amount of grant payable by Corporation (seven tenths)	£28,571.73

Claims:

No. of houses in respect of which claims for payment of grants were received	571
Total amount paid by way of grant	£20,244.01
No. of 100% grants paid	103
Amount paid in 100% grants	£6,217.29
Additional cost of 100% grants	£1,865.11

INSPECTION AND SUPERVISION OF FOOD

Milk:

MILK AND DAIRIES (GENERAL) REGULATIONS, 1959:

No. of Dairies	11
No. of milk Distributors (including retail shops and dairy roundsmen)	498
No. of Dairy vehicles	150

MILK (SPECIAL DESIGNATION) REGULATIONS, 1963, AND MILK (SPECIAL DESIGNATION) (AMENDMENT) REGULATIONS, 1965 - 1972:

During the year 1972, the following licences were granted:

Dealers' (Pre-packed Milk) Licences valid to 31.12.75 42

DAIRIES AND DAIRY VEHICLES:

	Dairies	Dairy Vehicles
No. of inspections	68	43
No. of notices served	5	30

Most of the dairy vehicles were of a good standard, but opportunity was taken wherever possible to remind roundsmen of their obligation to display their names and addresses on their vehicles.

SAMPLING OF MILK FOR BACTERIOLOGICAL EXAMINATION:

Samples of milk were taken regularly from dairies, roundsmen, shops and vending machines. Details of examinations carried out are given on page 119. Eleven samples of untreated milk were reported as unsatisfactory; 10 failed to comply with the Methylene Blue test for the keeping quality of milk, and 1 failed to comply with the Phosphatase test for efficiency of pasteurisation. The Divisional Dairy Husbandry Advisory Officer of the Ministry of Agriculture, Fisheries and Food was notified, and the farmers/vendors were advised about correct storage and handling of untreated milk during the summer months. The sample which failed the Phosphatase test was from a dairy outside the Borough, and the local authority and the dairy concerned were notified.

BIOLOGICAL SAMPLING OF MILK:

Seven hundred and eighty samples of raw milk taken at farms and from roundsmen were examined for *Brucella abortus* organisms. Twenty-one samples were reported positive, and the infected animals were sold for slaughter by the farmers concerned.

One case of Undulant Fever was reported during 1972 (1969 - 3 cases, 1970 - 3 cases, 1971 - 2 cases). The patient, a man aged 25 years, drank raw milk regularly, the milk being supplied by a local farmer; 5 of his cows were found to be infected, and all were slaughtered.

BRUCELLOSIS ERADICATION:

To keep brucellosis under control, samples of raw milk are taken regularly from the roundsmen and at the farms in the Borough. In 1966 a voluntary joint scheme was initiated between the National Farmers Union and the Health Department. Under this scheme each herd was sampled, and any positive reactors were immediately isolated and their milk sent for pasteurisation. If the animal was subsequently found to be infected, it was sold for slaughter.

This arrangement has continued and is successful within its scope, but by itself it is not sufficient wholly to eradicate brucellosis. The *Brucella abortus* organism is excreted intermittently in milk, this means that even though an animal might be infected, the organisms might not necessarily be present in its milk at the time of sampling, but could be present at a later stage. Blood sampling is more reliable, but is expensive and is carried out by the veterinary surgeon. Not all farmers are prepared to undertake voluntary blood-testing of the whole herd. However, nearly half of the farmers in the Borough retailing milk have been encouraged to join the Government's voluntary accreditation under the Brucellosis Incentives Scheme. Under this scheme, the farmer earns bonuses for his brucella-free herd. Some of the farmers are contemplating joining this scheme, and are actively encouraged to do so, but others choose to wait, and will not join any scheme unless they are forced to. Until eradication of brucellosis is made compulsory, brucellosis will continue to be a problem.

Sampling of Milk for Chemical Analysis:

Four hundred and forty-four samples were obtained, 16 of which were reported as unsatisfactory, as they contained small amounts of extraneous water; this matter was taken up with the Milk Marketing Board and the dairies and the various Local Authorities concerned, and a series of repeat samples from the unsatisfactory sources were found to be genuine.

Meat Inspection:

The following table shows the number of animals slaughtered:

	Cattle ex- cluding Cows and Bulls	Cows and Bulls	Calves	Sheep and Lambs	Pigs
Number of animals killed and inspected . .	5,624	24,350	46	39,127	30,326
ALL DISEASES EXCEPT TUBERCULOSIS AND CYSTICERCOSIS:					
Whole carcasses rejected	3	110	4	63	178
Carcasses of which some part or organ was rejected	643	21,554	Nil	23,114	17,832
TUBERCULOSIS ONLY:					
Whole carcasses rejected	Nil	Nil	Nil	Nil	Nil
Carcasses of which some part or organ was rejected	Nil	Nil	Nil	Nil	Nil
CYSTICERCOSIS:					
Carcasses of which some part or organ was rejected	3	38	—	—	—
Carcasses submitted to treatment by refrigeration	3	38	—	—	—
TOTALLY CONDEMNED	Nil	Nil	Nil	Nil	Nil

The total weight of meat and offal condemned at the two slaughterhouses in Bolton was as follows:-

	Tons	Cwts.	Qrs.	Lbs.
Carcases (meat)	46	18	2	—
Offal	242	16	3	21
	289	15	1	21

Meat Inspection Regulation, 1963 (as amended):

Carcases and offal of animals slaughtered in the Borough were inspected in accordance with either the Meat Inspection Regulations, 1963 (as amended) or the E.E.C. Directives, 1966 (as amended), and stamped with the inspectors' marks. The hours of slaughter, agreed to under the 1966 Amendment Regulations, still prove satisfactory in operation. Exceptions are made in the event of machinery break-downs, or excessive throughput at certain times, to facilitate the trade.

Analysis of Parts of Carcases of Animals Condemned:

The following table gives the various diseases and conditions found as percentages of the total number of animals affected; it was found that some of the animals were affected by two or more conditions or diseases.

NATURE OF DISEASE OR CONDITION	Percentage
Telangiectasis	72.5
Tuberculosis	Nil
Cysticercus bovis .. .. .	.02
Distomatosis	58.8
Septicaemia and Pyaemia	3.4
Mastitis	17.5
Actinomycosis .. .. .	.001
Pneumonia, Pleurisy, Peritonitis	31.8
Others	16.6

The incidence of *Cysticercus bovis* still remains low considering the numbers of cattle slaughtered; the following table shows the incidence in the past five years:-

1968	1969	1970	1971	1972
61	44	55	19	41

Inspection of Meat and Other Foods:

Regular weekly visits are paid to wholesale grocers and provision warehouses for the purpose of inspecting and disposing of unsound foods. Visits are also made on request to retail shops and the wholesale fruit and fish markets for the purpose of inspecting and advising on suspected foodstuffs. The table below gives the weights of food-stuffs surrendered by provision, fruit and vegetable merchants and retail traders:-

Foodstuffs Condemned						Tons	Cwts.	Qrs.
Meat (Fresh)						60	12	—
Meat (Tinned)						1	14	2
Tongue (Tinned)						—	2	—
Poultry						—	9	1
Fish (Fresh)						1	7	—
Fish (Tinned)						—	2	2
Vegetables (Fresh)						1	15	2
Vegetables (Tinned)						3	17	2
Fruit (Fresh)						4	4	1
Fruit (Tinned)						4	—	3
Provisions (Miscellaneous)						6	2	2
						84	7	3

Meat (Sterilization) Regulations, 1969:

All meat which has been rejected as unfit for human consumption is placed in a locked room at the abattoir or slaughterhouse and is subsequently collected in accordance with Regulations and converted into fertilizers or animal feeding stuffs. A new system of handling condemned meat has been introduced; large containers on wheels with close-fitting covers have been provided in the abattoir which can be mechanically lifted by the vehicle and emptied directly into the waggon. This obviates handling the condemned meat any more than is necessary. Unsold meat is collected every day by a processing firm under the supervision of an inspector under Regulation 6. Collection of certain glands and offal is made for pharmaceutical purposes.

Disposal of Condemned Foodstuffs Other than Fresh Meat:

All such foodstuffs were collected and taken to the incinerator at Raikes Lane to be destroyed.

Slaughterhouses:

Two private slaughterhouses exist in the Borough, one at Lever Street for the slaughter of cattle, sheep and pigs and one at Back Scholey Street for the slaughter of pigs only. The slaughterhouses received regular visits from veterinary officers of the Ministry of Agriculture, Fisheries and Foods. The new meat-processing factory within the curtilage of the abattoir is now in full operation.

All porcelain wash-basins have been replaced by foot-operated, stainless steel basins; also, more wash-basins have been conveniently placed in the Abattoir to assist the slaughtermen. Alongside each wash-basin new sterilizers have been placed for sterilizing knives, etc.

The refrigerator walls have been lined with plastic sheets to afford easier cleansing and a washing bay has been installed for the purpose of washing larger equipment such as bins, lamb and offal hangers, etc.

Export Slaughter:

During the year, 922 tons of beef were exported to France, and 8 tons of pork were sent for processing in tins before being exported to Australia. The inspections were carried out according to the E.E.C. Regulations, and a veterinary officer of the Ministry of Agriculture, Fisheries and Food was present for the purpose of ante- and post-mortem examination, and to supervise the loading and sealing of the containers. All the local authority meat inspectors are medically examined each year in accordance with the E.E.C. Regulations.

Slaughter of Animals Acts, 1933 - 1958:

During the year 30 licences were issued to slaughtermen. No contraventions of the Acts or Regulations were reported.

Diseases of Animals Act, 1950:

ANTHRAX:

Three cases of suspected anthrax were notified (all pigs) but after veterinary investigation, the disease was not confirmed in any case.

FOWL PEST:

No outbreaks were reported in the Borough during the year.

SWINE VESICULAR DISEASE:

This newly recognised disease has to be treated in the same way as Foot and Mouth Disease, regarding restrictions of movement on pigs. At present the Borough of Bolton is outside the restriction area as the demarcation line is drawn from the Mersey to the Humber.

SWINE FEVER:

No cases occurred during the year.

FOOT AND MOUTH DISEASE:

No cases of foot and mouth were reported during the year.

LEGAL PROCEEDINGS:

Legal proceedings were taken against the person in charge of a delivery vehicle for obstructing an inspector of the local authority in the execution of his duty, and for failing to comply with Article 1(I) of the Transit of Animals (Amendment) Order of 1931. The defendant pleaded not guilty on both charges, and was found not guilty on each charge.

Imported Food Regulations, 1968:

The Food Inspectors dealt with 127 containers of food during the year, all of which were notified by telephone from the port of landing and confirmed later by letter by the authorities controlling the ports of landing.

Details of the contents were as follows:-

Beef	11,523 Quarters
Beef	978 Boxes
Lambs	221
Onions	4,000 Bags
Oranges	2,460 Cases
Potatoes	1,260 Bags
Honey	11,628 Cases

All containers were inspected upon arrival at their destination.

There were occasions on which pleurisy, peritonitis and bruising were found on carcasses coming from Southern Ireland; the occasions were noted and referred to the Ministry of Agriculture, Fisheries and Food who in turn approached the Ministry of Agriculture in Ireland to have the matter corrected.

Damaged food in other containers was surrendered to the inspectors who had it destroyed by incineration.

Poultry Inspection:

There are no poultry slaughterhouses within the Borough but there are three poultry-dressing stations.

During 1972, 312 visits were paid to these premises. The number of birds handled during the year was as follows:-

Turkeys	4,100
Chickens	296,600

The percentage of birds rejected as unfit for human consumption was 0.001 per cent. Rejection was due mainly to decomposition, and the total weight of birds condemned was 9 cwts.

Food and Drugs Sampling for Chemical Examination:

The following samples of food and drugs were obtained by the public health inspectors for chemical analysis.

FOOD SAMPLES:	Genuine	Unsatisfactory	Total
Formal	12	4	16
Informal	335	36	371
DRUG SAMPLES:			
Formal	9	3	12
Informal	58	3	61
MILK SAMPLES:			
Formal	5	4	9
Informal	412	23	435
	<u>831</u>	<u>73</u>	<u>904</u>

Food Hygiene:

The number of premises subject to the Food Hygiene (General) Regulations 1970 are included in Table 2 on page 133. Details of the visits made, etc., in connection with the enforcement of the Food Hygiene (General) Regulations, 1970, are given in Table 3 on page 134. As a result of this work the following improvements were effected in the town's food premises.

STRUCTURAL IMPROVEMENTS:

Floors	350
Walls and ceilings	356
Doors, windows	191
Decorations	426
Lighting	35
Ventilation	33
Drainage	46

FITTINGS, EQUIPMENT, ETC.:

Sinks, etc.	93
Wash-hand basins, etc.	80
Water supplies - cold	15
Water supplies - hot	33
Shop fittings, equipment, etc.	508
Miscellaneous improvements	1,101

As in previous years, special inspections were made of all kitchens (school meals services, colleges, hostels, etc.) operated by the Education Department and also all N.H.S. hospital kitchens and detailed reports and recommendations were subsequently sent to the Chief Education Officer and Bolton and District Hospital Management Committee respectively. Where necessary, night visits or weekend visits have been paid to premises, mainly in connection with licensed premises. Details of legal proceedings are given on page 123.

Bacteriological Examination of Ice Cream:

Eighty samples of ice cream were obtained from ice cream vendors and manufacturers.

Thirty-two samples were reported as unsatisfactory; 10 of these samples, though satisfactory on the Methylene Blue Grading Test (Grade 1) were, however, classified as unsatisfactory due to the presence of coliform organisms.

A number of tests were carried out at a local factory (14 unsatisfactory samples) until a series of satisfactory results was obtained.

Unsatisfactory results are largely due to indifferent handling of ice cream and utensils or equipment after manufacture, and it is a major problem to educate the driver/salesman in the need for adequate sterilisation of his equipment.

Bacteriological Examination of Other Foodstuffs:

Sixteen samples of various foods, including fresh cream, were submitted to the Department of Pathology, Bolton Royal Infirmary, for bacteriological examination for the presence of food poisoning organisms.

Following an outbreak of food poisoning at a College outside the Borough, samples of cream, together with swabs from equipment and utensils, were taken from a local bakery which had supplied confectionery at a function held in the College. One sample of cream and two of the swabs were found to contain organisms (*Staph. aureus*) which could have caused food poisoning, but there was insufficient evidence to definitely incriminate the bakery as the source of the food poisoning outbreak, since samples of the confectionery supplied to the function were not available, and also because some of the food supplied from sources outside the Borough also contained the same organism.

The Public Health Laboratory at Withington Hospital commenced a survey towards the end of the year to trace the incidence in this area of *Vibrio parahaemolyticus*, a food poisoning organism commonly found in fish and other sea foods in the Far East, but now being encountered in Europe. Bolton is assisting by providing samples of fish and shell fish from the local catchment areas. The results so far have been negative.

Bacteriological Examination of Beer Glasses, Etc.:

PUBLIC HOUSES. Beer glasses were examined bacteriologically at 21 licensed premises, involving a total of 42 visits; the beer glasses were satisfactory in 13 cases, and unsatisfactory in 8 cases; appropriate advice was given to the licensees and breweries concerned.

RESTAURANT PREMISES. Sets of plates, cups and forks were bacteriologically examined at 6 premises; the plates were satisfactory at all 6 premises; forks were satisfactory at 5 premises, but cups at only 2 of the 6 premises; this suggests that cups frequently receive only the most perfunctory swilling, as opposed to proper cleansing. Appropriate advice was given to the occupiers of the premises from which unsatisfactory results were obtained.

Food Complaints:

One hundred and sixty-nine complaints were made to the Department; the complaints ranging from mould to foreign matter or causing illness, in a wide range and interesting variety of foods.

The mould complaints related mainly to cheese and cheese products, the reasons being incorrect storage and/or faulty packaging.

The insect complaints included fruit fly in canned grapefruit, caterpillar in a can of peas, beetles in onion and mushroom stuffing mix, moth in bread, and a fly in a restaurant meal.

None of the four complaints made alleging that a particular food had caused food poisoning were substantiated by either bacteriological examination or chemical analysis.

In spite of the claims made by food manufacturers and bakeries that stringent precautions are taken to prevent foreign matter getting into food it is surprising to note the variety of articles that escape the net and manage to find their way into the finished product. Articles such as 5½-in. long welding rod in a can of rhubarb, a piece of iron wire in a can of oranges, a 6-in. long metal rod in a bottle of sterilised milk, a piece of candle in a bottle of coco cola, a drawing pin in a meat and potato pie, a part of a mouse in a sliced loaf, and glass in a meat and potato pie, a bottle of orangeade, and a bottle of brandy.

A particularly dangerous complaint was that of a strong detergent solution in a bottle of ginger ale; a drop of this detergent poured into whisky turned the whisky a dirty brown colour. Fortunately the complainant did not drink this or the consequences could have been serious. The bottle top was of a screw type and by the time the investigations were completed to ascertain the responsibility as between the manufacture, the distributor or the vendor, the complainant had obtained a job abroad and left this country, and hence no legal action could be taken.

All food complaints are investigated thoroughly and the investigation can last from hours to weeks. Final action taken varies from advice or warning, to condemnation of stocks or prosecution.

Date Coding:

The Food Standards Committee investigated the date-marking of food and recommended a system of "open date marking", i.e., "sell by" and "open by", of short-life foods and long-life foods.

The Government has accepted that there should be Regulations on open date-marking of food, to come into effect in 1975.

The proposed Regulations should result in considerably reducing the number of complaints relating to staleness and mould in perishable foods by placing the onus on the retailers for stock rotation.

Type of Food	Nature of Complaint				Total
	Mouldy	Foreign Matter	Unsatisfactory Appearance Taste or Smell	Suspected of Causing Food Poisoning	
Bread	5	13	1	—	19
Cooked meats, Pies and other prepared meat products	1	7	21	2	31
Canned meat	2	3	2	1	8
Canned Fruit/Veg.	2	8	2	—	12
Confectionery	1	9	4	—	14
Milk and milk products . .	6	9	7	1	23
Fish	—	2	1	—	3
Other foods	13	26	20	—	59
	21	83	58	4	169

Infestation in Food:

Forty-five samples of cereals, dried fruits and other similar foods were submitted for examination for mites, insects and rodent excreta. All samples were free from infestation.

Pesticide Residues:

During 1972, 55 samples of fruit and vegetables were examined for pesticide residues. Three of these were examined for residues of the fungicides diphenyl, and orthophenyl phenol, and were reported satisfactory. The remaining 52 samples were examined for residues of the dithiocarbamate group of fungicides. Four samples of lettuce out of a total of 23, were reported unsatisfactory in that they contained dithiocarbamate residues which were considered excessive by the Borough Analyst; the levels found were 49, 54, 7 and 31 parts per million dithiocarbamate (calculated as Thiram). No official limit exists at present in the country for residues of this group of compounds, but these levels are in excess of the limits applied in other countries (e.g., Belgium, Switzerland - 3 ppm).

The market gardeners, and the local authorities in whose area the lettuces were grown, were notified of the excess amounts of fungicide.

Labelling of Fish; The Labelling of Food Regulations, 1970:

These Regulations, which become operative from 1st January, 1973, make it mandatory for fish to be clearly labelled according to the "appropriate designation" set down in the Regulations.

These Regulations should prevent fish being labelled with misnomers such as 'Mock Halibut' (Greenland Halibut), 'Scotch Halibut' (Rock Fish) and 'Rock Salmon' (Angel or Monk Fish). During the summer all the fish stalls in the Market were visited by the Public Health Inspector and the occupiers informed of the requirements of the Regulations, particularly in relation to the above named fishes.

Legal Proceedings - Food Standards:

A local butcher was fined £35 and £10 costs for selling sausages deficient in meat and for failing to comply with the Preservatives in Food Regulations, 1962.

Legal Proceedings - Food Complaints:

Legal proceedings were taken under section 2, Food and Drugs Act, 1955, in connection with the following complaints:-

- (a) A sliced loaf of bread contained part of a mouse - bakery fined £50 and £10 costs.
- (b) A loaf of bread - mouldy - vendor fined £50 plus £10 costs.
- (c) Fresh cream dessert - mouldy - vendor fined £10 plus £15 costs.
- (d) Bottle of sterilised milk contained a wire - dairy fined £50 plus £20 costs.
- (e) Bottle of coco cola contained part of a candle - company fined £25 plus £10 costs.
- (f) Bap-buns contained metal slivers - Bakery fined £40 plus £10 costs.

Legal Proceedings - Food Hygiene:

The occupier of a milk storage dairy was fined £20 for failing to maintain the interior of the premises in a thorough state of cleanliness.

Two barmaids were fined £5 each, and 2 greengrocers on the Ashburner Street Market were fined £5 and £12 respectively, the latter being a second offence, for smoking on food premises.

Miscellaneous Samples:

Sixteen samples of polluted water from various sources (domestic, industrial and farms) were examined bacteriologically and chemically to assist in tracing sources of pollution.

GENERAL SANITATION

Conversion of Waste Water Closets:

At the end of 1972, it is estimated there were approximately 600 "tipplers" remaining, many of which are thought to be in prospective clearance areas. The grant at present is a maximum sum of £15, the grant having been raised to this figure during 1963; during the year 20 grants were paid. The average cost of a conversion at the present time is £67.

Public Water Supplies:

All employees of the Waterworks Undertaking who are directly concerned with the water supply are required to submit one specimen of faeces for bacteriological examination; new employees are required to submit faeces specimens on three successive days, and a specimen of blood is also taken for Widal Test.

Mr. J. Adams, Waterworks Engineer and Manager, supplied the following information regarding the water supply to the Borough, although the Undertaking's area of direct supply includes adjoining authorities:-

1. The water supplied to the County Borough of Bolton by this Undertaking was satisfactory both as regards quality and quantity.
2. Normally, samples of both raw and filtered water are regularly subjected to full bacteriological examination and chemical analysis. Special examinations and analyses are made as circumstances require.

During 1972, 689 samples of raw water were taken from various supply sources and subjected to bacteriological examination and part chemical analysis and 24 to full chemical analysis in the statutory area of supply. In addition, 1,242 samples of filtered and treated water received bacteriological examination and partial chemical analysis and 32 full chemical analysis. Results showed that the filtered and treated water was of satisfactory quality, B.Coli being absent in 97.91% of the potable water samples tested. All water is treated before passing into supply.

3. No special action was required to be taken in respect of any form of contamination. From tests made the water was shown to have no significant plumbo-solvent action. Since 1971, the method of testing for lead content has been changed to incorporate a greater degree of accuracy. The average natural fluoride content of the water supplied to Bolton is approximately 0.20 p.p.m.
4. The public water mains afforded a direct supply to a population of approximately 154,240 people living in 56,395 dwelling houses, maisonnettes or flats within the Borough. No supply was afforded to dwelling houses by standpipe.
5. The following extensions and renewals of water mains were carried out during 1972.

Size	Existing Property	New Property	Other Development	Renewals
50 m.m.	68 metres	5097 metres	106 metres	—
75 "	8 "	1473 metres	—	—
100 "	68 "	682 "	—	24 metres
150 "	—	3330 "	436 metres	260 "

Private Water Supplies:

The spring water supplies to the various farms and cottages in the Smithills Estate were sampled regularly in collaboration with the Estates Department, for the bacteriological and chemical quality of the water. Since the end of 1969, when systematic sampling was commenced, the bacteriological and chemical quality has continued to improve due to renewal and maintenance work carried out by the Estates Department. The lead pipes have been replaced by copper or alkathene pipes in most of the properties, and it is expected that the lead pipes in the remaining few properties will be renewed by the end of 1973. Where the bacteriological quality had been unsatisfactory due to the condition of the tanks and/or the pipes, these have been repaired or renewed and a marked improvement noted, but periodically unsatisfactory bacteriological results were obtained from springs which normally were a satisfactory source of supply; the unsatisfactory bacteriological quality was due in these cases to adverse weather conditions and the quality improved as the weather changed.

Sewerage and Sewage Disposal:

The following information has been supplied by Mr. Geoffrey Read, the Borough Engineer and Surveyor:

"The policy of providing separate foul and surface water sewers in redevelopment areas has been continued, the construction of new sewers being completed in Vernon Street and Avenue Street, Halliwell, and in the Cannon Street area.

A small scheme at Hardman Terrace, Salford Road has enabled 7 houses to be connected to the main sewerage system and the owners have been able to install modern facilities.

A sewer has been laid to the new Caravan Site at Hall Lane, thus enabling flush toilets to be installed.

The construction of new sewers at Blackburn Road and Sharples Avenue for the relief of flooding in the area has been completed, and a new surface water sewer between Bentinck Street and Avondale Street now diverts flow from existing reservoirs and relieves the overloaded system in the Musgrave Road area.

Design work has been carried out during the year on schemes for the abolition of several storm sewage overflows, and when this work is completed during the forthcoming year, a further improvement in the condition of local watercourses will occur."

The following information has been supplied by Mr. I. Withnell, General Manager of the Bolton and District Joint Sewerage Board:-

"The sewage treatment authority for Bolton is the Bolton and District Joint Sewerage Board which serves, in addition to the County Borough, adjacent Authorities of Farnworth, Radcliffe, Kearsley, Little Lever, Turton and parts of Whitefield and Worsley. Polluted waste waters from both domestic premises and industrial establishments in the area are conveyed by local sewers to the Board's trunk sewerage system thence to its Ringley Fold Treatment Works situated in Kearsley. During 1972 the volume of sewage receiving full treatment amounted to 36.51 million cubic metres (8,031.3 million gallons) averaging 100,000 cubic metres (22.0 million gallons) per day.

The main purification processes in use are sedimentation and activated sludge treatment utilising surface aeration producing an effluent fully stabilised and well within standards laid down by the Mersey and Weaver River Authority. Sludge produced in those processes is reduced in quantity and rendered inoffensive by heated digestion which process has yielded in the year 2.92 million cubic metres (103.2 million cubic feet) - averaging 8,010 cubic metres (282,800 cubic feet) per day - of sludge gas, containing some 70% methane, for use in the works power station. To meet the ever-increasing sludge load construction of additional sludge consolidation tanks has commenced and since February part of the sludge produced has been conveyed by tanker to ship for sea disposal. During 1972 approval has been given for nine new connections to the sewerage system from industrial processes in Bolton, but over the same period five trade effluent discharges ceased.

A small section of the County Borough, in the South West, outside the Board's specified area, is served by the Corporation's Salford Road plant, which is operated, by arrangement, by the Board. This plant, a modern Ring Ditch aeration unit continues to produce a fully stabilised and satisfactory effluent."

Factories Act, 1961:

There are 867 factories within the Borough which were the subject of 488 inspections, resulting in 35 cases in the service of written notices on the occupiers. Full details of the work carried out under the Factories Act, 1961, are contained in Tables 7 to 10 on pages 137 to 139.

Offices, Shops and Railway Premises Act, 1963:

Up to the end of 1972, 2,419 premises have been registered with the local authority in accordance with the Act; in 56 cases applications forwarded to the local authority in error have been re-directed to the Factory Inspectorate.

Details of registrations, inspections, action taken, etc., are given in Table 11.

Routine "general inspections" of all registered premises in the Borough are now proceeding steadily, and it is estimated that premises will be inspected at least once every 12 months.

Legal proceedings were taken in two cases:-

(a) Failure to keep clean a space containing personal washing facilities, at a warehouse in a multiple-occupied building, the necessary work was completed before the date of the hearing and the summons was withdrawn.

(b) A prosecution was taken in respect of the condition of a lift in a supermarket, in which an accident to an employee had occurred. The circumstances were that the lift engineers attended the lift to repair an electrical fault; when it was noted that the car gate of the lift was badly damaged; the lift engineers advised the store management that a new car gate was required, and that until this was done the lift could not be operated safely; the lift engineers consequently switched off the power. In order that the lift could continue to operate, however, the car gate safety switch had been tied back with string, although it was impossible

to find out by whom this had been done. The lift was brought back into use, but as the car safety switch was ineffective, it was possible for the lift to travel with the car gate open. On the occasion of the accident a youth operated the lift with the car gate open and his foot was trapped between the car gate and the lift shaft; fortunately, his injuries were not serious, although clearly they could have been very serious or even fatal. Despite the fact that this accident had occurred, the lift continued in use after the accident until later in the day, when the lift engineers removed the car gate for repair. The company pleaded guilty at the hearing and were fined £100 and £10 costs, the higher penalty being involved because the bench were satisfied that the contravention was likely to cause the death of, or serious bodily injury, to a person.

An interesting complaint was made during the year in connection with the use of ultra-violet lamps in discotheques, which it was alleged were causing headaches, etc. The matter was fully investigated, and assistance given by the Electricity Council and the Lighting Industry Federation Ltd. The advice given by these two bodies has been made available to the Department of Employment in the official annual report to them under the Act. Any risk from the use of these lamps was reduced by suitable positioning of the lamps in relation to members of the public, and the provision of suitable screening.

Houses in Multiple Occupation:

During the year 327 visits and inspections were made of houses in multiple occupation, and 16 notices (section 15, Housing Act, 1961) were served, in addition to notices for repairs under the Public Health Act, 1936.

Pressure of work has again prevented any sustained attempt being made on the problem of multiple occupation, but it is hoped to give consideration to the setting up of a scheme of registration and control of such premises, which might considerably ease the public health inspectors' burden in what is admittedly time-consuming work.

Caravan Sites and Control of Development Act, 1960:

At the end of 1972 there were 6 licensed sites, the maximum number of caravans licensed at any one time being 4; the total number of caravans on the occupied site was 12.

Fire protection requirements at all licensed sites were reviewed during the year, in accordance with circular 75/71 (issued in December, 1971), and all brought up to a satisfactory standard.

Caravan Sites Act, 1968:

Towards the end of 1971 the decision had been reached to set up a caravan site in accordance with this Act at Hall Lane on the site of the former sewage works, at an estimated cost of £16,000.

Planning permission for this development was granted in February, 1972, with a planning condition "that no materials shall be stored, sorted or broken down within the curtilage of the site". The sanitary facilities available at that time were of a communal nature which led to nuisance, and considerable difficulty was also experienced due to unauthorised occupation of the site; to avoid these difficulties, special authority was granted for the provision of steel fencing and a boom-type barrier at the entrance. The difficulties experienced

eventually led to the production of revised plans, which made provision for each pitch to have its own sanitary and washing facilities, i.e., bath, wash-hand basin, and sink, with hot and cold water, and w.c., the accommodation being provided in 4 blocks of 4 units each, so making provision for 16 pitches. The revised cost of the work was £38,450 and approval for this expenditure was granted by the Town Council.

While the permanent site was under construction, special arrangements were made for the occupants of the temporary site at Hall Lane to be accommodated on Queen's Park, Spa Road. Work was commenced in the latter quarter of the year, and it was hoped that the permanent site would become available for occupation early in 1973.

The temporary sites, both at Hall Lane and later at Queen's Park were under the day-to-day supervision of an officer of the Estates Department, who had, in effect, been seconded to the Borough Solicitor's Department for the purpose; this officer was also responsible for any action required in connection with the clearance of caravans from unauthorised sites within the Borough. Regular inspections of the temporary sites and of other unauthorised caravan sites was maintained by the public health inspectors, and close liaison effected with the officer of the Estates Department.

Responsibility for general supervision of the Hall Lane Caravan site has been assigned to the Housing Department, and a special officer has been appointed for this work; public health inspectors will continue their observations, and will liaise with this officer as necessary.

Common Lodging Houses:

There are now no common lodging houses within the Borough, the last remaining one, that operated by the Salvation Army at St. George's Road, having closed down in July, 1968.

Offensive Trades:

There were four offensive trades within the Borough, i.e.:

- 1 fellmonger and gut-scraper
- 2 gut-scrapers

There are no local bye-laws affecting these trades, but the comparatively small number of premises involved, and the satisfactory standards of operation, do not justify the making of such bye-laws.

Hairdressing Establishments:

There are 304 hairdressing premises registered in accordance with the Bolton Corporation Act, 1949, section 48. One-hundred and twenty-one inspections were made.

Pharmacy and Poisons Act, 1933; Poisons List Order, 1970, Poisons Rules, 1972:

The names of 69 persons are included in the local authority's list of persons entitled to sell poisons under Part II of the Poisons List. The attention of shopkeepers was drawn, verbally or in writing, to any infringement of the Act or Rules.

Pet Animals Act, 1951:**Animal Boarding Establishments Act, 1963:****Riding Establishments Acts, 1964 and 1970:**

The following premises were licensed in respect of the year 1972:

	Premises	Inspections
Pet Animals Act, 1951	10	24
Animal Boarding Establishments Act, 1963	4	48
Riding Establishments Acts, 1964 and 1970	2	5

All proprietors of animal boarding establishments are warned in advance of each major holiday, against permitting overcrowding to occur.

Rag Flock and Other Filling Materials Act, 1951:

This legislation prescribes standards of cleanliness for filling materials used in upholstered articles, stuffed toys, etc., and the local authority are required to register or licence premises where the relevant operations are carried out. There are at the present time 22 premises in the Borough registered under the Act; there are no licensed premises within the Borough.

Noise Abatement Act, 1970:

During the year, 56 complaints were received and were classified as follows:

COMPLAINTS OF NOISE FROM NON-DOMESTIC PREMISES:

Machinery	14
Fans	10
Launderettes	3
Licensed Premises - Music	3
Road Works	2
Demolition	1
Vehicles	1
Miscellaneous	2
—	36

COMPLAINTS OF NOISE FROM DOMESTIC PREMISES:

Animals	4
Music	9
Miscellaneous	7
—	20

The one complaint of noise from vehicles was referred to the Police; in 23 cases complaints of nuisance were not substantiated; in 27 cases the nuisance was abated informally; 5 cases are still under investigation, no formal action was required in any case.

Two of the complaints of noise from licensed club premises caused by the excessive amplification of music and singing were remedied without the need for statutory action. In one complaint of noise from a social club, investigations confirmed the existence of a noise nuisance but the complainant preferred to take private legal action and subsequently obtained an injunction requiring a reduction in the amount of noise.

Noise Survey:

A noise survey of two sites zoned for housing development was undertaken at the request of the Housing Committee. The land is situated near to a factory which had previously been the subject of complaints. The survey showed that at one site it is unlikely that any justifiable complaints of noise nuisance would arise. At the second site, it was felt that the possibility of complaints of nuisance from noise could not be ruled out. It was pointed out that should a noise nuisance arise it would be necessary for the Department to take action to secure its abatement but that this could be a difficult and lengthy process. It was recommended that should the development of the site be proceeded with, the houses should be so orientated that there would be no windows facing the factory. It was also suggested that it would be advantageous to interpose a bank of trees between the houses and the factory - while this would have comparatively little effect in reducing the noise, it might be of some psychological value.

Fertilisers and Feeding Stuffs Act, 1926:

Twenty-six samples of fertilisers and animal feeding stuffs were taken under the Act, and 14 samples were reported as unsatisfactory.

Three of these contained ingredients which were in excess of the declared amount, although the excess was not to the prejudice of the purchaser.

In the case of unsatisfactory samples either a follow-up sample was taken, or the matter was brought to the attention of the manufacturers.

Civic Amenities Act, 1967:

One prosecution was taken under Section 19, in connection with the dumping of mouse-damaged sweets on a railway embankment near to dwelling houses. The defendant pleaded guilty and was fined £20.

Poisonous Beads - *Abrus precatorius*:

At the end of May and early June, as a result of press publicity that necklaces made from precatory seeds grown in tropical climates could be poisonous, thirteen bead necklaces were received from members of the public via the police.

Five of the necklaces were from persons living outside the Borough and were sent to the local authorities concerned.

Six necklaces contained the red and black beads made from the *Abrus precatorius* seeds which also have a variety of other names such as Indian Liquorice, Wild Liquorice, Jequirity Bean, Jumble Beads, Prayer Beads, and Ladybird Beads. These seeds contain two toxic albumins and if chewed could be fatal to children. The other two necklaces did not contain *Abrus* seeds but seeds from another poisonous tropical plant, *Erythrina suberosa*.

All these necklaces were obtained between one and fifty years ago either abroad or purchased from shops in Southern England. These necklaces with the consent of the owners were destroyed by incineration.

The problem of *Abrus* beads arose again in November when they were being sold at a stall at a local exhibition. Fortunately, due to prompt action by the police and the Health Department, and with the co-operation of the local press, the beads were withdrawn from sale, and the four necklaces already sold were returned to the stall and to the Health Department.

DISINFECTION AND DISINFESTATION

Disinfection:

Routine terminal disinfection of premises after cases of illness is carried out in special cases only. No charge is made where such work is carried out in the interest of Public Health.

A special stock of equipment, together with a supply of formaldehyde, white cyllin and other disinfectants is retained at School Hill for immediate use in the event of smallpox occurring. Facilities exist for the disinfection of vehicles and special containers are available for enclosing infected mattresses and bed linen.

Disinfestation:

Occupiers of food or other business premises subject to special infestation risks continue to enter into annual agreements with the Corporation for regular treatments of their premises for the prevention of rodent or insect infestation. There are now 243 agreements in force; the annual income from pest destruction is now over £8,000. Tables 12 and 13 on page 135 summarise the work carried out.

Regular treatments to control the rat population in the sewers is carried out by the Borough Engineer's Department in collaboration with the Health Department. Warfarin is the poison in general use, but Zinc Phosphide is used on occasions, Paranitrophenol being incorporated to inhibit mould growth. In selected areas, fluoracetamide is used under strict supervision.

Block surveys of premises continue in selected areas and this has proved effective in removing infestations particularly in blocks of properties in the town centre.

The number of wasps nests and swarms was lower than last year. Some particularly large nests, which the operators were able to recover fairly intact were presented to various schools for educational purposes.

The schools and school meals kitchens in the Borough are surveyed regularly to detect any rodent insect infestation. Any necessary treatment is carried out immediately.

Control of rodent population on the Corporation controlled tipping sites is maintained by regular surveys and treatments. River banks are also subject to regular surveys and appropriate treatment.

Experiments with flashing lights proved successful in moving the large flocks of roosting starlings on the Town Hall buildings and the surrounding decorative trees.

Mortuary:

The mortuary forms part of the premises at School Hill used as a Disinfection and Disinfestation Depot. Refrigeration facilities are provided for the storage of bodies. An attendant is employed in combined mortuary and disinfestation duties.

Thirty-three bodies were received at the mortuary during the year (31 of these in April, when the facilities at the Royal Infirmary were out of use while maintenance work was completed). Twenty-seven post mortem examinations were carried out.

Municipal Medical Baths:

The medical baths are situated in an annexe to the School Hill Depot. The cleansing of verminous men is carried out by an attendant at the Depot. The Cleansing of verminous women and children is carried out by nursing staff at the Deansgate Health Centre.

A summary of the cases dealt with at the Depot is given below:-

Head Infestation	.. .. .	—
Scabies	.. .. .	20
Body Lice	.. .. .	19
		—
		39
		—

TABLE 1

Complaints:

The following complaints were received and investigated:

Housing defects	.. .. .	457
Choked and defective drains	.. .. .	144
Accumulations of offensive matter	.. .. .	303
Unsatisfactory foodstuffs	.. .. .	169

VERMINOUS PREMISES:

(a) Bed bugs	.. .. .	42
(b) Rat and mouse infestations	.. .. .	3,306
(c) Cockroaches and other insect pests	.. .. .	697
Keeping of animals and poultry	.. .. .	20
Smoke	.. .. .	45
Noise	.. .. .	56
Offensive odours	.. .. .	99
Miscellaneous	.. .. .	440
		—
		5,778
		—

TABLE 2

Standing Commitments

Premises subject to Routine Inspection

TYPE OF ESTABLISHMENT:	NO. OF PREMISES
Common Lodging houses	—
Houses in multiple occupation	247
Moveable dwellings	12
Food Premises:	
Bakehouses	99
Basement bakehouses	1
Fish Friers	104
Registered premises, Sec. 16, Food and Drugs Act, 1955..	272
Other catering establishments	174
Miscellaneous food preparing premises	134
Ice-cream premises - manufacture	5
Ice-cream premises - sale only	321
Meat shops	121
Slaughterhouses	2
Dairies	11
Milk distributors	498
Food shops	833
Licensed premises (On)	222
Licensed premises (Off)	109
Food stalls	144
Vehicles - Meat	33
Vehicles - Milk	150
Factories (Mechanical)	778
Factories (Non-mechanical)	89
Workplaces	242
Offices	622
Retail shops	1,112
Wholesale shops, Warehouses	125
Catering establishments open to the public, canteens ..	261
Fuel storage depots	8
Outworkers' premises	28
Factory chimneys	102
Hairdressers' premises	340
Places of entertainment	35
Clubs	53
Offensive Trades	3
Registered premises, Rag Flock and Other Filling Materials	
Regulations, 1951 and 1954	22
Pet Shops (Pet Animals Act, 1951)	10
Animal boarding establishments	4
Riding establishments	2

TABLE 3

Detection of Sanitary Defects:**Summary of Visits and Inspections**

NATURE OF VISITS:	NO. OF VISITS
Dwelling-houses for housing defects under Public Health Act:	
After complaint	1,588
Subsequent visits	2,997
Dwelling-houses under Housing Acts:	
Detailed inspections	1,367
Re-inspections, re-visits	3,552
Certificate of disrepair	4
Infected dwelling-houses:	
After notified infectious disease (other than tuberculosis) ..	121
Contacts	87
Schools and church halls	28
Swimming baths	13
Water sampling:	
Swimming baths	6
Dwelling houses	17
Others	132
Business premises	319
Cinemas, dance halls, billiard halls	42
Offensive trade premises	314
Stables, piggeries, keeping of animals	95
Houses in multiple occupation	327
Factories Act, 1961:	
Factories with mechanical power	474
Factories without mechanical power	14
Outworkers' premises	—
Underground rooms	1
Hairdressing premises	121
Tents, vans, sheds	392
Smoke Abatement:	
re Prior Approval applications	—
re Smokeless Zone and Smoke Control Areas	3,004
Delivery of pamphlets	333
Smoke observations	232
Smoke investigations	102
Re-visits	16
Volumetric stations	2,946
Noise abatement	261
Fairgrounds	50

Drainage:

Conversion from waste water to water carriage system.. ..	60
Miscellaneous tests and inspections	526
Public sewers	34
Water courses and ditches	67
Septic tanks and cesspools	11
Land and tips	579
Sanitary conveniences - including public houses	130
Miscellaneous visits	5,010
Visits not inspections	1,387

Verminous premises:

Rats and mice: After complaint or from survey	4,295
Subsequent and survey visits	27,412
Bug infestations: No. of premises visited	61
No. of premises where definite infestation existed	42
Cockroaches	552
Other vermin	267

Inspections for supervision of food:

Unfit foodstuffs other than meat	705
Slaughterhouses and cold stores	2,864
Butchers' Shops (Food Hygiene (General) Regulations, 1970)	443
Freight containers	224

Food Hygiene (General) Regulations, 1970:

Bakehouses	271
Fish shops, grocers and greengrocers	1,843
Factory canteens	143
Restaurant kitchens, fish friers, etc.	735
Food vehicles	193
Chemists	17

Hotel and Beerhouse bars and cellars:

Day inspections	699
Night inspections	7

Food and Drugs Act, 1955 - Section 16:

Ice-cream premises (Heat Treatment Regs. 1959-1963) ..	79
Sausage manufacturers	129
Preserved meat preparation premises	204
Preserved fish preparation premises	31

Milk and Dairies Regulations, 1959, Food and Drugs Act, 1955: Section 91

Milk sampling for bacteriological examination	32
Contravention of Milk and Dairies Regulations	6
Dairies	68
National Assistance Act, 1948, Section 47	-
Disease of Animals Acts and Orders	184
Farms (Brucellosis, sampling, etc.)	236

Offices, Shops and Railway Premises Act, 1963:

General Inspections	1,256
Other visits	1,462

TABLE 4**Notices served:**

Action to secure abatement of nuisances and to enforce the appropriate statutory enactments was taken as follows:

Nature of Notice	Public Health Act 1936	Food Hygiene (General) Regulations 1970	Factories Act 1961	Offices, Shops and Railway Premises Act 1963	Byelaws: Hairdressers and Miscellaneous Premises
No. of informal notices served	289	883	35	442	33
No. of statutory notices served	68	—	—	—	—
No. of premises concerned	61	—	—	—	—
No. of cautionary letters sent by Borough Solicitor ..	16	—	—	—	—

TABLE 5**Housing Defects and Legal Proceedings**

A summary of general housing defects or disrepair of property where it was necessary to take legal proceedings, and the results of such proceedings is given below:

CASE NO.	STATUTE	DETAILS OF CONTRAVENTION	RESULT
1	Public Health Act, 1936, Sections 39, 93	Failure to comply with statutory and abatement notices in respect of drainage and general defects.	Fine of £5 imposed, and Nuisance Order made against the owner.
2	Public Health Act, 1936, Section 93	Failure to comply with abatement notice in respect of general defects.	Nuisance Order made against owner.
3	Public Health Act, 1936, Sections 39, 93	Failure to comply with statutory and abatement notices in respect of drainage and general defects.	Fine of £3 imposed, and Nuisance Order made against the owner.
4	Public Health Act, 1936, Section 39	Failure to carry out drainage repairs, to prevent dampness at adjoining house.	Fine of £3 imposed on the owner/occupier.

Six cases in which summonses had been served were withdrawn, the necessary works having been carried out.

TABLE 6**Sanitary Improvements Effected:**

Action was taken under either the Public Health Act or the Housing Acts.

NATURE OF IMPROVEMENT	No. OF IMPROVEMENTS
Floors repairs	26
Internal walls repaired	154
Ceilings repaired	37
Doors and windows repaired	115
Stairs repaired	11
Roofs repaired	47
Chimneys and flues repaired	49
Eavesgutters repaired	66
Rainwater pipes repaired	23
Soil and waste pipes repaired	10
External walls repaired	33
Yards, paths, etc., repaired	21
Sanitary conveniences repaired	59
"Tippler" closet conversions	2
Refuse accommodation	14
Drains repaired	166
Fireranges repaired	24
Sinks, water supplies, wash boilers, etc., repaired ..	82
Miscellaneous	568

TABLE 7

**Factories Act, 1961
Places of Employment
Defects Found**

Particulars	Number of cases in which defects were found				No. of cases in which prosecutions were instituted
	Found	Remedied	Referred		
			to H.M. Inspector	by H.M. Inspector	
Want of Cleanliness (S.1)	97	97	—	—	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3) ..	1	1	—	—	—
Inadequate ventilation (S.4)	5	5	—	—	—
Ineffective drainage of floors (S.6) ..	—	—	—	—	—
Sanitary Conveniences (S.7):-					
(a) Insufficient	5	5	—	4	—
(b) Unsuitable or defective	156	137	—	4	—
(c) Not separate for sexes	—	—	—	—	—
Other offences against the Act (not including offences relating to Out-work)	140	140	—	—	—
TOTALS	404	385	—	8	—

TABLE 8

Factories Act, 1961

Outwork (Sections 133 and 134)

Nature of Work	Section 133			Section 134		
	No. of Outworkers in Aug. list required by Sec. 133 (1) (c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Making or repairing umbrellas, etc.	10	—	—	—	—	—
Brush making . .	1	—	—	—	—	—
Making wearing apparel	16	—	—	—	—	—
Making household linen	1	—	—	—	—	—
TOTALS . .	28	—	—	—	—	—

TABLE 9

Factories Act, 1961

Places of Employment - Improvements Secured

Cleanliness improved	97
Temperature improved	1
Sanitary Accommodation:	
Additional accommodation provided	5
Accommodation improved	137
Accommodation reconstructed	—
Ventilation improvements	5
Drainage improvements	7
Miscellaneous improvements	133

TABLE 10
Factories Act, 1961
Places of Employment
Inspection for Purposes of Provisions as to Health

Premises	Number on Register	Number of		Occupiers Prosecuted
		Inspections	Written Notices	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authority	89	14	—	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	778	474	33	—
(iii) Other premises in which Section 7 is enforced by the Local Authority* (excluding outworkers' premises) ..	36	16	2	—
TOTALS	903	504	35	—

*Electrical Stations, Institutions, Building Operations and Works of Engineering Construction.

TABLE 11
Offices, Shops and Railway Premises Act, 1963

Table A - Registrations and General Inspections

Class of Premises	Number of Premises newly Registered during the Year	Total Number of Registered Premises at End of Year	Number of Registered Premises Receiving a General Inspection During the Year
Offices	73	622	296
Retail Shops	87	1,112	713
Wholesale Shops, Warehouses	5	125	74
Catering Establishments Open to the Public, Canteens	16	261	170
Fuel Storage Depots	—	8	3

Table B

No. of Visits of all kinds by Inspectors to Registered Premises 2,718

Table C - Analysis of Persons Employed in Registered Premises by Workplace

Class of Workplace	Number of Persons Employed
Offices	9440
Retail Shops	5525
Wholesale Departments, Warehouses	2126
Catering Establishments Open to the Public	2203
Canteens	236
Fuel Storage Depots	14
TOTAL	19544
TOTAL MALES	7077
TOTAL FEMALES	12467

TABLE D - Exemptions "Nil".**TABLE E - Prosecutions instituted of which the hearing was completed in the year:—"Nil"**

No. of complaints (or summary applications) made under Section 22	Nil
No. of interim orders granted	Nil

TABLE F - Inspectors

No. of inspectors appointed under Section 52(1) or (5) of the Act	14
No. of other staff employed for most of their time on work in connection with the Act	1

REPORT OF THE BOROUGH ANALYST

The reorganisation of local government will be an accomplished fact by the time the next occasion for an annual report would have been due, and this report is in all probability the last of its line. From April, 1974, the Metropolitan County of Greater Manchester will be the authority appointing public analysts.

A wide variety of technical disciplines are now displayed in local government and in a broad sense all of these can be regarded as branches of applied science. But if one were looking for someone fulfilling the role of scientist in local government, this role has always been that of the Public Analyst. Many local authorities recognise this in giving their public analyst the title of Scientific Advisor. The public analyst has always been regarded as the independent expert witness even when a salaried local government officer. He enjoys a privileged legal position in so far as his certificate of analysis, if not challenged, must be accepted by the courts as evidence of the facts stated in it. Both for this more traditional role and the more modern one of scientific advisor the public analyst needs to be independent of other departments of local government. At present most full-time public analysts are part of the Medical Officer of Health's Department, but this office will disappear in April, 1974, and it is to be hoped that the new administration will maintain the role of the public analyst as the independent scientific expert. Unfortunately there are indications that other views may prevail.

Laboratory Equipment

The main item of equipment purchased in 1972 was an atomic absorption spectrophotometer. This instrument is used primarily for trace metal analysis and has already proved its worth in enabling more tests to be undertaken for the toxic metals, lead, cadmium, chromium and mercury.

Staff

Mr. C. Graveson, Trainee Chemist, left us in June, 1972, to take up an appointment with a local pharmaceutical company. This vacancy was filled by the appointment of Mrs. J. Ryan.

I am pleased to report that Mrs. K. M. Taylor, Assistant Analyst, was successful in the Part I examination for the Graduate Membership of the Royal Institute of Chemistry and that Mr. G. W. Hulton, Senior Assistant Analyst, was awarded the Diploma in the Chemistry of Water Pollution.

In presenting this Annual Report to the Health Committee, I would like to express my appreciation of the loyal support I have received from the laboratory staff. My thanks are due to the clerical staff of the Health Department, the Public Health Inspectors, and the Manager and Staff of the Waterworks Department for their kind co-operation and assistance. I thank the Medical Officer of Health for his encouragement, advice and interest in the work of the laboratory.

New and Proposed Legislation

New regulation in 1972 affecting the sale of foods included regulations dealing with the heat treatment of milk, additives in bread and flour and amendments to the Labelling Regulations. The Food Standards Committee issued reports on vinegar, offals in meat products, liquid freezants, preservatives, emulsifiers and stabilisers, and the date marking of food. Proposals were issued for amendments to the permitted list of food colours designed to bring U.K. legislation into line with the E.E.C.

Milk (Special Designation) (Amendment) Regulations 1972

These regulations allow the use of the direct steam injection method for the production of "Ultra Heat Treated" (U.H.T.) milk, subject to the conditions that the composition of the milk must not be changed during the heat treatment process, and that only specified boiler feed water treatment compounds may be used in boilers generating steam which is to be used for this method of heat treatment of milk.

The Bread and Flour (Amendment) Regulations 1972

These regulations follow the recommendations of the Food Additives and Contaminants Committee made in 1971 that Azodicarbonamide and L-Cysteine hydrochloride be added to the list of permitted bleaching and improving agents for all flours other than wholemeal flour. Ferrous sulphate is now permitted as an alternative source of iron in flour and iron in the form of reduced iron is replaced by iron powder. The specified forms of other additives (chalk, iron, vitamin B₁, nicotinic acid and nicotinamide) are brought into line with descriptions in the British Pharmacopoeia and the British Pharmaceutical Codex.

The Labelling of Food (Amendment) Regulations 1972

The Labelling of Food Regulations 1970 are amended in several respects by these new regulations. The definition of flour confectionery is modified so as to exclude products containing textured vegetable protein and thereby require such products to list their ingredients on the label when pre-packed and declare the presence of certain additives when not pre-packed.

The 1970 regulations required any ingredients mentioned in the name of a food to be listed in order of descending quantity, but these amending regulations have the effect of limiting this requirement to those instances where the names of ingredients are not used adjectively (e.g., "Sage and Onion Stuffing" now appears to be acceptable). The regulations dealing with dry mixes are amended so as to cover the case of food mixes for which the use of substances other than water in their preparation for consumption is optional. The section on vitamin and mineral claims makes the necessary amendment which relaxes the requirements of the regulations where the only mention of the vitamins or minerals is in a list of ingredients required by other parts of the 1970 regulations or in a statement of total nutrient composition.

Protein claims on food labels were referred to in last year's Annual Report and, as indicated there, the regulations dealing with protein claims in the 1970 Labelling of Food Regulations are now amended. Except as regards lists of ingredients, no claim may be made that a food is a source of protein unless 12 per cent of the calorie value is contributed by protein.

The Lead in Food (Amendment) Regulations 1972

The finding of appreciable traces of lead in canned baby foods (up to 1.0 part per million) prompted this amendment to the Lead in Food Regulations 1962. Formerly baby foods were subject to a general limit of 2 part per million but this amendment reduces the maximum limit to 0.5 part per million. This limit is regarded by some authorities as too high, and even less satisfactory is the fact that the new limit applies to the reconstituted food in the case of dried, dehydrated or concentrated foods in containers bearing clear instructions for reconstitution. In the case of products based on dried milk the effect of the amendment could be to allow **more** lead than before. The limit should apply to the food as sold not as reconstituted.

The Medicines Act 1968 (Commencement No. 1) Order 1972

This order brings into operation Section 65 of the Medicines Act which requires that, where applicable, drugs and medicines must comply with the standards laid down in the British Pharmacopoeia or British Pharmaceutical Codex.

The Medicines Act 1968 (Commencement No. 2) Order 1972

This order brings into effect those provisions of the Medicines Act which deal with false or misleading labels, leaflets or advertising material.

The Therapeutic Substances (Supply of Antibiotics and Chemotherapeutic Substances for Agricultural Purposes) (Amendment) Regulations 1972

By virtue of these amending regulations, animal feeding stuffs for pork pigs containing virginiamycin and for calves containing flavomycin may be sold or supplied without prescription and the amount of virginiamycin in feed supplements which may be sold without prescription is increased.

Deposit of Poisonous Wastes Act 1972

As a result of the passing of this Act, it is an offence to deposit any poisonous, noxious or polluting waste in such a way as to cause danger to persons or animals or pollution of any water supply. The Act also requires anyone depositing certain wastes to inform the appropriate local authority and the river authority. Some substances are exempt from the notification requirements by the Deposit of Poisonous Waste (Notification of Removal of Deposit) Regulations 1972.

Food Standards Committee Reports

1. REPORT ON VINEGARS

This report confirms a standard for vinegar of not less than 4 per cent acetic acid, recommended by the then Local Government Board in 1911 and adopted by public analysts since then. It further recommends that the name vinegar should always be qualified so as to indicate its origin, e.g., "malt vinegar" or "spirit vinegar" and that these names should be defined.

2. OFFALS IN MEAT PRODUCTS

The Offals in Meat Products Order 1953 prohibits the use of certain offals in uncooked meat products and this report does not recommend any major change in this legislation. It does, however, make some recommendations about the declaration of offals in lists of ingredients. The report divides offals into two categories, List A offals which may be used in both cooked and uncooked products and List B offals which may not be used in uncooked products. Two offals, pancreas and thymus, at present prohibited offals are included in List A.

List A offals could be declared as "permitted offals" in sausages, meat pies, meat puddings, sausage roll, vol-au-vent, faggot, hamburger, rissole, croquette, haggis or meat ball, but in other products should be listed specifically. A new generic term "offal" is recommended for offals in List B.

The report recommends that the use of skin in excess of that usually associated with the meat be permitted in uncooked meat products provided it has been subjected to a heating process at least equivalent to normal cooking and the presence of excess skin is declared.

3. FOOD ADDITIVES AND CONTAMINANTS COMMITTEE REPORT ON LIQUID FREEZANTS OF FOOD

Liquid freezants are low boiling-point liquids or liquefiable gases which can be used to convert foods into a frozen state by direct contact. The committee considered three substances, carbon dioxide, nitrogen, and dichlorodifluoromethane. On the grounds that appreciable residues of this last substance may remain in the frozen food and that the re-cycling of this freezant could lead to the build up of pesticide residues, the report therefore recommends that dichlorodifluoromethane should not be used as a freezant until further information about possible health hazards is available.

4. DATE MARKING OF FOOD

This report expresses the view that present legislation is not effective in preventing the sale of stale food or food which has deteriorated in other ways. It recommends that "short-life" foods, i.e., foods with a shelf-life of up to 3 months, should be marked with a "sell by" date. Other foods should be marked with the month and year of manufacture or packaging or removal from cold storage.

5. FOOD ADDITIVES AND CONTAMINANTS COMMITTEE REVIEW OF THE PRESERVATIVES IN FOOD REGULATIONS 1962

This review recommends that certain uses of preservatives in food be discontinued, but at the same time numerous extensions of the use of currently-permitted preservatives are recommended.

Permission to use sulphur dioxide in minced meat in Scotland during the summer, the use of tetracyclines in ice and of nystatin on bananas should be withdrawn. Application for the use of pimaricin, octyl gallate, formic acid, hexamethylenetetramine, nordihydroguaiaretic acid, meta-tartaric acid, mixtures of fumaric acid and sodium benzoate, benzoyl peroxide and diethyl pyrocarbonate are rejected.

The extensions recommended in the use of currently permitted preservatives can be summarised as follows - (proposed maximum limits as parts per million in parenthesis)

Sorbic Acid:	sweetened nut pastes (1000), prunes (1000), wines (200), mead (200).
Sulphur Dioxide:	cider vinegar and wine vinegar (200), concentrated grape juice for home winemaking (2000), dehydrated Brussels sprouts (2500), horseradish sauce (200), Dijon French Mustard (200), garlic powder (200), fruit yoghurt (60), wine and beer finings for sale by retail (12,000 and 50,000 respectively), grapes (15), canned cauliflower (200), dried hops sold by retail (2000).
Benzoic Acid:	Fruit Yoghurt (120), sauces (250), diabetic jams and preserves (500), low carbohydrate or slimming products (500), tomato pulp, paste or puree (800), glace or crystallised fruit (600), Beer (70).
Para-hydroxy benzoates:	Cooked beetroot (250).
Propionic acid:	Christmas pudding (1000).
Thiabendazole:	Citrus fruit and bananas (6).

With advances in refrigeration technology and new methods of heat treatment, the need for such widespread extensions in the use of chemical preservatives might be questioned and the reasons advanced in the review to justify some of these uses seem unusual.

The "carry-over" clause is used in support of the contention that fruit yoghurt should be allowed to contain sulphur dioxide and/or benzoic acid even though fruit containing no preservative has been used. This clause in the 1962 regulations, if applied generally in this way, could lead to a considerable increase in the amount of preservatives in foods. In spite of the statement in the review that the "carry-over" clause of the 1962 regulations permits the presence of sulphur dioxide and/or benzoic acid in fruit yoghurt made with preserved fruit pulp, there is considerable doubt as to whether this is in fact the case. The fruit pulp used for the manufacture of yoghurt could reasonably be held to fall within the definition - "fruit and fruit pulp intended for manufacturing purposes", and, if this is accepted, is specifically excluded from the operation of the "carry-over" clause, and therefore fruit yoghurt is not permitted by the 1962 regulations to contain preservative.

A new type of prune containing more moisture is cited as the reason for allowing up to 1000 part per million of sorbic acid in prunes, but it is not irrelevant to ask whether the purpose of the sorbic acid is only to enable water to be sold as prunes.

6. FOOD ADDITIVES AND CONTAMINANTS COMMITTEE SUPPLEMENTARY REVIEW ON EMULSIFIERS AND STABILISERS IN FOOD

The committee recommend that sorbitan and polyoxyethylene sorbitan esters of fatty acids, dioctyl sodium sulphosuccinate, and the natural gums, furcelleran and xanthan gum, be added to the list of permitted emulsifiers and stabilisers. Polyglycerol esters of dimerised fatty acids of soya bean oil should be allowed in tin-greasing emulsions subject to a maximum limit of 20 part per million in baked goods.

COLOURING MATTER IN FOOD REGULATIONS 1966 - PROPOSED AMENDMENTS

These amendments are designed to bring U.K. legislation on food colours into line with the E.E.C. The amendments would have the effect of removing seven colours from the current permitted list and adding nine new ones.

Colours to be removed from the permitted list:- Red 10B, Red 6B, Fast Red E, Oil Yellow XP, Oil Yellow GG, Red FB, Violet BNP.

New colours to be added to the permitted list:- Indanthrene Blue, Patent Blue V, Quinoline Yellow, Acid Yellow, Brilliant Blue FCF, Violet 6B, Pigment Rubine, Burnt Umber (for certain cheese rinds only) and Methyl Violet (only for marking skins of citrus fruit and raw meat).

Cooking Utensils (Safety) Regulations 1972

These regulations, made under the Consumer Protection Act 1961, provide a maximum limit of 0.2 per cent lead in the tin used on tinned steel cooking utensils.

Total Number of Samples Examined

In 1972, a total of 8,280 samples were examined, slightly lower than the total for 1971, though higher than in previous years.

The number of samples examined in each year for the past seven years are as follows:-

1966	..	..	..	..	..	..	..	7,284
1967	..	..	..	..	..	..	..	7,060
1968	..	..	..	..	..	..	..	6,450
1969	..	..	..	..	..	..	..	7,162
1970	..	..	..	..	..	..	..	7,744
1971	..	..	..	..	..	..	..	8,403
1972	..	..	..	..	..	..	..	8,280

For the Health Committee:

Food and Drugs	..	..	..	..	..	..	905
Ice-Cream (Bacteriological examination)	..	..	..	..	..	..	880
Water from domestic premises	..	..	..	..	..	..	..
(Bolton only)	..	..	..	..	..	..	205
Swimming Bath Waters	..	..	..	..	..	..	120
Fertilisers and Feeding Stuffs	..	..	..	..	..	..	26
Complaint Samples	..	..	..	..	..	..	95
Miscellaneous Samples	..	..	..	..	..	..	296
Air Pollution - Smoke and Sulphur Dioxide measurements	..	..	..	..	..	..	2,646

For the Waterworks Committee 3,699

For other departments, other local authorities and private samples 208

Total 8,280

Food and Drug Samples

905 samples of foods and drugs were submitted by sampling officers and details of these samples can be seen in Table A. 73 samples, representing 7.9 per cent of the total, were reported as unsatisfactory, a somewhat smaller proportion than the 10 per cent of unsatisfactory samples in 1971. Tables B to F give details of all unsatisfactory food and drug samples.

UNSATISFACTORY SAMPLES OF FOOD AND DRUGS

Unsatisfactory Milk Samples

Details of all unsatisfactory samples of milk are given in Table C and a summary of the position regarding unsatisfactory milk samples with a comparison with previous years can be seen in Table B.

The percentage of milk samples reported as unsatisfactory, 6.1 per cent, is somewhat lower than the corresponding figure for 1971 (8.0 per cent). 10 of the 27 samples reported unsatisfactory were unsatisfactory only because they failed to comply with the Methylene Blue Test and these were all untreated milks. 16 samples were found to contain extraneous water, the amounts being small, the highest 3 per cent and in the rest about 1 per cent or less was reported. With the exception of the sample reported to contain 3 per cent added water, all the other samples reported as containing added water complied with the presumptive minimum limits for fat and non-fatty solids of 3.0 and 8.5 per cent respectively. In these samples the Freezing-Point Test indicated the presence of added water.

Unsatisfactory Food and Drug Samples (other than milk samples)

46 samples of foods and drugs other than milk samples were reported as unsatisfactory and details of these can be seen in Tables D and E.

As in previous years, a substantial proportion of the samples found to be unsatisfactory are due to infringements of the Labelling regulations and this pattern continued in 1972 when 16 of the 46 unsatisfactory samples were accounted for in this way.

Preservatives were involved in the reason for 15 samples being reported as unsatisfactory, either because of the presence of excess preservative, the presence of preservative in non-specified foods (i.e., foods not permitted to contain preservatives) or failure to declare the presence of preservative. Heading liquids and fining liquids for wine and beer are not permitted to contain preservative, but 4 samples of this type were found to contain sulphur dioxide. Failure to declare the presence of sulphur dioxide preservative was the reason for unsatisfactory reports on 6 samples of sausages and 3 samples of beefburgers.

4 samples of lettuce out of a total of 23 samples examined during the early part of 1972 contained excessive amounts of thiocarbamate residues, probably the result of indiscriminate and uncontrolled use of fungicide preparations on glasshouse crops of lettuce. This is the only occasion in recent years when excessive amounts of pesticide residues have been found in foods sampled in Bolton.

One of the samples reported as unsatisfactory illustrates a more general problem facing food and drug authorities and which is a consequence of modern developments in the manufacture and marketing of foods. The sample listed as "low-fat spread" is similar in consistency and appearance to margarine and is marketed in such a way as to suggest to the average person that it is in fact a special kind of margarine. The water content was well over 50 per cent and the fat content just under 40 per cent compared with the Margarine Regulations 1967 requirements of a maximum of 16 per cent water and a minimum of 80 per cent fat. It could be regarded as a low-calorie margarine and indeed the labelling puts much emphasis on its lower calorie value compared with normal margarine. It might, however, be more accurate to regard it as a high water-content margarine. Nowhere on the label of this product is it referred to as margarine and the manufacturers insist that it is not margarine and therefore the standards laid down by the Margarine Regulations 1967 should not apply. Nevertheless the ingredients as declared on the label are the same as those in margarine and the essential difference is that this "low-fat spread" contains more water.

The Margarine Regulations 1967 define margarine as follows: "Margarine means the food usually known as margarine, being a plasticised emulsion of edible oils and fats with water or skimmed milk, with or without the addition of Vitamins A and D, sodium chloride, and other minor ingredients and permitted additives."

This "low fat spread" certainly appears to fall within this definition but if this is not so, the question arises that, if the water content of margarine is progressively increased above 16 per cent, at what point does it cease to be margarine? If the manufacturers' view in this case is accepted it appears possible to evade the requirements of any food regulation by inventing a new name for a product and avoiding the use of the name or names mentioned in the regulation.

Last year's report referred to the indiscriminate use of the word "Spam" to describe other canned meat products and this year another instance was found of luncheon meat being sold as "Spam." - in this case a "Spam and Tomato Sandwich" which was shown to contain luncheon meat and not "Spam".

TABLE A

Samples Examined Under The Food & Drugs Act

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Milk	9	435	444	4	23	27
Anise seeds	-	1	1	-	-	-
Apples in Syrup, baked	-	1	1	-	-	-
Apple turnovers, canned	-	1	1	-	-	-
Apricots	-	1	1	-	-	-
Baby food, canned	4	3	7	-	-	-
Barley, pearl	-	1	1	-	-	-
Basil, sweet	-	1	1	-	-	-
Bay leaves	-	2	2	-	-	-
Beefburgers	-	14	14	-	3	3
Beef, corned	-	2	2	-	-	-
Beef pies	-	1	1	-	1	1
Beer	-	7	7	-	-	-
Biscuits	-	16	16	-	-	-
Brandy	2	1	3	-	-	-
Breakfast cereal	-	2	2	-	-	-
Cabbage	-	1	1	-	-	-
Cauliflower	-	3	3	-	-	-
Celery	-	2	2	-	-	-
Celery salt	-	2	2	-	-	-
Cereals and pulses	-	1	1	-	-	-
Cheese	-	12	12	-	1	1
Cheese, cottage	-	1	1	-	-	-
Cheese, cream	-	1	1	-	-	-
Cheese, processed with cucum- bers and peppers	-	1	1	-	1	1
Cheese, processed with garlic ..	-	1	1	-	1	1
Cheese, smoked	-	1	1	-	-	-
Cheese spread	-	3	3	-	2	2
Cherries	-	2	2	-	-	-
Cherry juice drink	-	1	1	-	-	-
Chicken roll	-	1	1	-	-	-
Chow mein with shrimps, canned	-	1	1	-	-	-
Colouring	-	1	1	-	-	-
Cooking fat	-	2	2	-	-	-
Corn, canned	-	1	1	-	-	-
Crab, dressed	-	1	1	-	-	-
Cranberry sauce	-	1	1	-	-	-
Cream and half cream	-	5	5	-	-	-
Cream, canned	-	1	1	-	-	-
Cream, frozen	-	2	2	-	-	-
Dessert, canned	-	2	2	-	-	-
Faggots in sauce	-	1	1	-	-	-
Fish Cakes	-	1	1	-	-	-
Fish, fresh	-	7	7	-	-	-
Fish fingers	-	6	6	-	-	-
Fritter, beef	-	1	1	-	-	-
Frogs' legs, canned	-	1	1	-	-	-
Fruit cocktail in syrup, canned	-	1	1	-	-	-
Fruit juice	-	5	5	-	-	-
Fruit juice, frozen	-	2	2	-	-	-
Fruit scones, canned	-	1	1	-	-	-
Gin	2	-	2	-	-	-
Gooseberries	-	7	7	-	-	-

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Gram flour	-	1	1	-	-	-
Grapefruit	-	1	1	-	-	-
Grapes	-	1	1	-	-	-
Gravy browning	-	2	2	-	-	-
Gravy mix	-	1	1	-	-	-
Haddock	-	2	2	-	-	-
Hazelnut flavour topping ..	-	1	1	-	-	-
Herbs, mixed, dried	-	2	2	-	-	-
Home winemaking and brewing materials						
Bentonite Powder	-	1	1	-	-	-
Caramel	-	1	1	-	1	1
Colouring, brewers for beer	-	1	1	-	-	-
Compound Hop Extract ..	-	1	1	-	-	-
Finings	-	2	2	-	2	2
Flavourings	-	2	2	-	-	-
Heading liquid	-	2	2	-	2	2
Pectin Enzyme	-	1	1	-	-	-
Wine Tannin Solution ..	-	1	1	-	-	-
Yeast, dried	-	1	1	-	-	-
Yeast Compound	-	1	1	-	-	-
Yeast energiser	-	1	1	-	1	1
Yeast nutrient	-	1	1	-	-	-
Honey	-	1	1	-	-	-
Ice-cream Mix	-	1	1	-	-	-
Jam	-	2	2	-	-	-
Kipper Fillets with butter ..	-	2	2	-	-	-
Lard	-	2	2	-	-	-
Lemons	-	1	1	-	-	-
Lemon Cheese	-	2	2	-	1	1
Lemon slices	-	1	1	-	-	-
Lemon slices in lemon juice ..	-	1	1	-	1	1
Lentils	-	2	2	-	-	-
Lettuce	-	23	23	-	4	4
Low-fat spread	-	2	2	-	2	2
Lumpfish caviar	-	1	1	-	-	-
Margarine	-	8	8	-	-	-
Marjoram	-	1	1	-	-	-
Meat and Potato Pie	-	1	1	-	1	1
Meat Tenderiser	-	1	1	-	-	-
Meat Products (canned or frozen)						
Corned Beef	-	1	1	-	-	-
Chopped Beef	-	1	1	-	-	-
Chopped Ham & Pork ..	-	2	2	-	-	-
Chicken in jelly	-	1	1	-	-	-
Corned beef loaf	-	1	1	-	-	-
Curried Beef	-	1	1	-	-	-
Cottage Pie	-	1	1	-	-	-
Ham	-	3	3	-	-	-
Boeuf bourguignon	-	1	1	-	-	-
Duckling a l'Orange	-	1	1	-	-	-
Italian baked chicken	-	1	1	-	-	-
Minced Beef with onions & gravy	-	1	1	-	1	1
Savoury minced beef with vegetables	-	1	1	-	-	-

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Shepherds Pie	-	1	1	-	-	-
Steak with gravy	-	1	1	-	-	-
Steak with onion & gravy ..	-	1	1	-	-	-
Lamb chops with gravy ..	-	1	1	-	-	-
Sausages	-	2	2	-	-	-
Pork	-	1	1	-	-	-
Ox tongue	-	2	2	-	-	-
Lambs tongues in jelly..	-	2	2	-	-	-
Luncheon meat	-	6	6	-	-	-
Ham & chicken roll	-	1	1	-	-	-
Lamb Hot Pot	-	1	1	-	-	-
Steak & Kidney Pudding ..	-	1	1	-	-	-
Fried Rice with chicken ..	-	1	1	-	-	-
Chopped Pork	-	1	1	-	-	-
Braised Kidneys in Gravy ..	-	1	1	-	-	-
Pork Goulash	-	1	1	-	-	-
Cured Pork	-	1	1	-	-	-
Meat Spread	-	2	2	-	-	-
Mincemeat	-	8	8	-	-	-
Milk Shake Syrup	-	1	1	-	-	-
Mint	-	1	1	-	-	-
Muesli	-	1	1	-	-	-
Mushrooms	-	4	4	-	-	-
Oatmeal	-	1	1	-	-	-
Octopus, smoked in oil, canned	-	1	1	-	-	-
Oranges	-	1	1	-	-	-
Parsley	-	3	3	-	-	-
Pasta	-	2	2	-	-	-
Pastries, Danish, canned ..	-	1	1	-	-	-
Pate	-	5	5	-	1	1
Pears	-	2	2	-	-	-
Peas, dried	-	2	2	-	-	-
Peas, split	-	1	1	-	-	-
Pickles	-	2	2	-	-	-
Porkburgers	-	1	1	-	-	-
Prunes in Syrup	-	2	2	-	-	-
Rice, ground	-	1	1	-	-	-
Rice, long grain.. .. .	-	1	1	-	-	-
Rosemary	-	2	2	-	-	-
Rum	1	-	1	-	-	-
Sage	-	3	3	-	-	-
Sago	-	1	1	-	-	-
Salad dressing	-	1	1	-	-	-
Salmon, smoked, frozen ..	-	1	1	-	-	-
Salt	-	1	1	-	-	-
Sauce	-	9	9	-	-	-
Sauerkraut	-	1	1	-	-	-
Sausages	4	3	7	3	3	6
Sausages with herbs	-	1	1	-	-	-
Seasoning, Italian	-	1	1	-	-	-
Sherry	1	-	1	-	-	-
Shrimps, potted, frozen ..	-	1	1	-	1	1
Soft Drinks	1	16	17	1	5	6
Soup, canned	-	4	4	-	-	-
Spam & tomato sandwich ..	-	1	1	-	1	1
Steakets	-	1	1	-	-	-
Strawberries	-	5	5	-	-	-
Syrups, topping	-	4	4	-	-	-
Tapioca, seed pearl	-	1	1	-	-	-

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Tarragon	-	3	3	-	-	-
Thyme	-	3	3	-	-	-
Tonge & Beef Paste	-	1	1	-	-	-
Tomatoes	-	1	1	-	-	-
Tomato Ketchup with onions	-	1	1	-	-	-
Turmeric	-	1	1	-	-	-
Urid flour	-	1	1	-	-	-
Water cress	-	1	1	-	-	-
Whisky	1	1	2	-	-	-
Yoghourt	-	1	1	-	-	-

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Adrenaline Cream	-	1	1	-	-	-
Aluminium Hydroxide Gel B.P.C.	-	1	1	-	-	-
Aluminium Compound Paste B.P.C.	-	1	1	-	-	-
Amitriptyline Tablets	1	-	1	-	-	-
Ammoniated Mercury and Coal Tar Ointment B.P.C.	-	1	1	-	-	-
Amylobarbitone Tablets	1	-	1	-	-	-
Antacid - absorbent	-	1	1	-	-	-
Aspirin Tablets, soluble	-	2	2	-	-	-
Aspirin Tablets, Children's	-	3	3	-	-	-
Aspirin Tablets, Children's Soluble	-	3	3	-	1	1
Calamine Ointment B.P.C.	-	1	1	-	-	-
Calamine and Coal Tar Ointment B.P.C.	-	1	1	-	-	-
Capriton Tablets	-	1	1	-	-	-
Carbimazole Tablets	1	-	1	-	-	-
Carmil	-	1	1	-	-	-
Cetrimide Cream B.P.C.	1	-	1	-	-	-
Chlorpheniramine Tablets	-	1	1	-	-	-
Coal Tar Paste B.P.C.	-	1	1	-	-	-
Coal Tar and Salicylic Acid Ointment B.P.C.	1	-	1	1	-	1
Codeine Linctus, diabetic, B.P.C.	1	-	1	-	-	-
Cough Mixtures	-	3	3	-	-	-
Cough Syrups	-	2	2	-	-	-
Crystal Violet Paint B.P.C.	-	1	1	-	-	-
Cyclobarbitone Tablets	1	-	1	-	-	-
Dequadin lozenges	-	1	1	-	-	-
Diocalm	-	1	1	-	-	-
Diuromil	-	1	1	-	-	-
Ear Drops	-	1	1	-	-	-
Enema	-	1	1	-	1	1
Ephedrine Hydrochloride Tablets	1	-	1	-	-	-
Eye Lotion	-	1	1	-	-	-
Eye Lotion Tablets	-	1	1	-	-	-
Hydrogen Peroxide Ear Drops B.P.C.	-	1	1	-	-	-
Kaolin Powder	-	1	1	-	-	-
Laxative Tablets	-	3	3	-	-	-
Limb-Ease Tablets	-	1	1	-	-	-
Nasal Compound	-	1	1	-	-	-
Nasal Remedy	-	1	1	-	-	-
Natex S	-	1	1	-	-	-
Orceprenaline Tablets	-	1	1	-	-	-
Phenol Ear Drops B.P.C.	-	1	1	-	-	-
Phenylbutazone Tablets	1	-	1	-	-	-
Prothiadin Capsules	1	-	1	-	-	-
Shampoo, medicated	-	2	2	-	-	-
Slimming Aid Preparation	-	1	1	-	-	-
Slimming Aid Tablets	-	2	2	-	-	-
Sodium Bicarbonate Ear Drops B.P.C.	-	1	1	-	-	-
Surgical Spirit B.P.C.	-	1	1	-	-	-
Talc Dusting Powder B.P.C.	-	1	1	-	-	-
Tonic Tablets	2	1	3	2	1	3

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Vitamin Capsules	—	1	1	—	—	—
Vitamin Liquid	—	2	2	—	—	—
Vitamin Tablets	—	4	4	—	—	—
Zinc and Ichthammol Cream B.P.C.	1	—	1	—	—	—
Zinc Undecenoate Dusting Powder	—	2	2	—	—	—
TOTAL	38	867	905	11	62	73

Total Number of Samples analysed during the year, 905

Total Number of samples adulterated, 73 — 7·9%

TABLE B
Unsatisfactory Milks, 1964 - 1972

Year	Total No. of milk samples	No. Unsatis- factory	No. Sub- standard	Type of adulteration or reason for unsatisfactory report	% Unsatis- factory	% Adulter- ated	% Sub- standard
1972	444	27	1	16 contained added water 10 failed Methylene Blue test 1 failed pasteurisation test (phosphatase enzyme pre- sent)	6.1	5.9	0.2
1971	429	35	0	11 contained added water 10 deficient in fat 2 contained antibiotic 13 failed Methylene Blue test	8.0	8.0	0
1970	465	49	7	24 contained added water 5 deficient in fat 4 contained antibiotic 13 failed Methylene Blue test 1 failed pasteurisation test (phosphatase present)	10.5	9.0	1.5
1969	440	16	2	2 contained added water 2 deficient in fat 10 failed Methylene Blue test	3.6	3.2	0.4
1968	402	18	7	7 deficient in fat 3 failed Methylene Blue test 1 contained added water	4.5	2.8	1.7
1967	545	14	10	3 contained antibiotic 1 deficient in fat	2.6	0.6	2.0
1966	572	42	36	5 contained antibiotic 1 contained added water	7.3	1.0	6.3
1965	666	37	34	2 deficient in fat 1 failed pasteurisation test (phosphatase present)	5.6	0.5	5.1
1964	662	8	8	No adulterated samples	1.2	0	1.2

TABLE C
UNSATISFACTORY MILK SAMPLES

Sample No.	Formal or Informal	Type	Nature of Adulteration or Irregularity
8370	Informal	Sterilised	Fat 3.6 per cent, Solids-not-fat 8.4 per cent, Freezing-Point Depression (Hortvet) 0.530°C. Solids-not-fat is below the presumptive minimum limit of 8.5 per cent, but the Freezing-Point Depression indicates that the deficiency is not due to the presence of extraneous water.
8401	Informal	Pasteurised (Channel Islands)	Fat 4.1 per cent, Solids-not-fat 9.0 per cent. Freezing-Point Depression (Hortvet) 0.526°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
866	Formal	Pasteurised (Channel Islands)	Fat 4.5 per cent, Solids-not-fat 9.05 per cent. Freezing-Point Depression (Hortvet) 0.526°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
8434	Informal	Untreated	Failed Methylene Blue Test.
8448	Informal	Untreated	Failed Methylene Blue Test.
8454	Informal	Pasteurised	Fat 3.4 per cent., Solids-not-fat 8.4 per cent. Freezing-Point Depression (Hortvet) 0.508°C. Solids-not fat is below the presumptive minimum limit of 8.5 per cent. and the Freezing-Point Depression (Hortvet) indicates the presence of at least 3 per cent. extraneous water.
922	Formal	Pasteurised	Fat 3.65 per cent., Solids-not-fat 8.65 per cent. Freezing-Point Depression (Hortvet) 0.527°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
8471	Informal	Untreated	Failed Methylene Blue Test.
8483	Informal	Untreated	Failed Methylene Blue Test.
8490	Informal	Pasteurised	Failed to comply with Phosphatase Enzyme Test.
8605	Informal	Untreated (Channel Islands)	Fat 4.85 per cent, Solids-not-fat 9.1 per cent, Freezing-Point Depression (Hortvet) 0.522°C. Freezing-Point Depression indicates the presence of at least 1 per cent of extraneous water.
8620	Informal	Untreated	Failed Methylene Blue Test.
8637	Informal	Untreated	Fat 3.45 per cent, Solids-not-fat 8.9 per cent, Freezing-Point Depression (Hortvet) 0.528°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
8644	Informal	Sterilised	Fat 3.25 per cent, Solids-not-fat 8.7 per cent, Freezing-Point Depression (Hortvet) 0.526°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.

Sample No.	Formal or Informal	Type	Nature of Adulteration or Irregularity
8645	Informal	Sterilised	Fat 3.45 per cent, Solids-not-fat 8.65 per cent, Freezing-Point Depression (Hortvet) 0.526°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
8681	Informal	Pasteurised	Fat 3.35 per cent, Solids-not-fat 8.75 per cent, Freezing-Point Depression (Hortvet) 0.526°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
8733	Informal	Untreated	Failed Methylene Blue Test.
8735	Informal	Untreated	Failed Methylene Blue Test.
8736	Informal	Untreated (Channel Islands)	Failed Methylene Blue Test.
8737	Informal	Untreated	Failed Methylene Blue Test.
8780	Informal	Pasteurised	Fat 3.7 per cent, Solids-not-fat 8.65 per cent, Freezing-Point Depression (Hortvet) 0.520°C. Freezing-Point Depression indicates the presence of at least 1 per cent extraneous water.
1287	Formal	Pasteurised	Fat 3.6 per cent, Solids-not-fat 8.55 per cent, Freezing-Point Depression (Hortvet) 0.524°C. Freezing-Point Depression indicates the presence of at least 1 per cent extraneous water.
1288	Formal	Pasteurised	Fat 3.7 per cent, Solids-not-fat 8.6 per cent, Freezing-Point Depression (Hortvet) 0.528°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
8788	Informal	Pasteurised	Fat 3.65 per cent, Solids-not-fat 8.65 per cent, Freezing-Point Depression (Hortvet) 0.527°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
8790	Informal	Pasteurised	Fat 3.7 per cent, Solids-not-fat 8.75 per cent, Freezing-Point Depression (Hortvet) 0.528°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.
8798	Informal	Untreated	Failed Methylene Blue Test.
8805	Informal	Sterilised	Fat 3.65 per cent, Solids-not-fat 8.6 per cent, Freezing-Point Depression (Hortvet) 0.525°C. Freezing-Point Depression indicates the presence of a small amount of extraneous water.

TABLE D
UNSATISFACTORY FOOD SAMPLES

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
843	Informal	Lemon Slices in lemon juice	Sample contained 654 part per million of sulphur dioxide preservative.	The amount of sulphur dioxide preservative is above the maximum limit of 350 part per million permitted by the Preservatives in Food Regulations 1962.
871	Informal	Heading Liquid	Sample contained 250 part per million of sulphur dioxide preservative and the label on the container carried no list of ingredients.	The Preservatives in Food Regulations 1962 do not permit the use of sulphur dioxide in heading liquid and the Labelling of Food Order 1953 requires a list of ingredients on the label.
872	Informal	Brewers' Caramel	Sample contained 160 part per million of sulphur dioxide preservative and was not labelled in accordance with the Colouring Matter in Food Regulations.	The Preservatives in Food Regulations 1962 do not permit the use of sulphur dioxide in Brewers' caramel.
874	Informal	Liquid beer finings	Sample contained 560 part per million of sulphur dioxide preservative.	The Preservatives in Food Regulations do not permit the use of sulphur dioxide in liquid beer finings.
875	Informal	Liquid Wine finings	Sample contained 656 part per million of sulphur dioxide preservative.	The Preservatives in Food Regulations do not permit the use of sulphur dioxide in liquid wine finings.
892	Informal	Potted Shrimps (frozen)	Sample contained 20 per cent butter fat.	The opinion was stated that this sample should be labelled "Potted Shrimps with Butter".
895	Informal	Creamy Cherry Syrup	Sample contained less than 2 per cent of fruit juice. The label bore the wording, "To make fresh juice drinks mix....." but had no name or address of the manufacturer or labeller.	The label must be amended so that the word "flavour" follows the word "Cherry". Reference to fresh juicy drinks must be deleted and a name and address or registered trade mark with the words "Registered Trade Mark" must be inserted.
899	Informal	Heading Liquid	Sample contained 670 part per million of sulphur dioxide preservative. The label on the container bore no list of ingredients.	Sulphur dioxide is not permitted as a preservative in heading liquid and the label must have a list of ingredients.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
900	Informal	Yeast Energiser	Label had no name and address or list of ingredients and described the sample as "Vitamin Yeast Energiser" with no vitamin declaration.	Container not labelled in accordance with the Labelling of Food Order 1953.
912	Informal	Blackcurrant flavoured drink	The height of the letters on the label statement "contains sugar and saccharin" was less than 1/12th inch.	The container was not labelled in accordance with the Soft Drinks Regulations 1964.
913	Informal	Orangeade	The height of the letters of the label statement "contains sugar and saccharin" was less than 1/12th inch.	The container was not labelled in accordance with the Soft Drinks Regulations 1964.
932	Formal	Tropical Fruit Drink	The label on the container bore the following description:- "A delicious blend of pineapple and apple juice with passion fruit, guava, peach, lime and mandarin flavours". An illustration showed pineapple, apple, lime, peach, passion fruit, mandarin and/or guava.	The opinion was given that the illustrations should be restricted to pineapple and apple and that the name given to the product is not sufficiently specific and should be "Pineapple and Apple Drink."
969	Informal	Lettuce	Sample contained 49 part per million of thiocarbamate residues calculated as Thiram.	Sample contained an excessive amount of thiocarbamate residues.
972	Informal	Lettuce	Sample contained 54 part per million of thiocarbamate residues, calculated as Thiram.	Sample contained an excessive amount of thiocarbamate residues.
988	Informal	Lettuce	Sample contained 7 part per million of thiocarbamate residues, calculated as Thiram.	Samples contained an excessive amount of thiocarbamate residues.
991	Informal	Lettuce	Sample contained 31 part per million of thiocarbamate residues, calculated as Thiram.	Sample contained an excessive amount of thiocarbamate residues.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
1031	Informal	Beef Sausages	The declaration "These sausages contain preservative" on the label was printed in letters less than the minimum of $\frac{1}{16}$ inch required by the Preservatives in Food Regulations 1962 and the declaration was not printed within a surrounding line.	Wrapper was not labelled in accordance with the Preservatives in Food Regulations 1962.
1041	Informal	Lemon Cheese	The label bore the statement "with shell eggs, fresh lemons (including grated peel) and best butter".	The opinion was stated that if particular ingredients are mentioned on the label, then a full list of ingredients must appear.
1045	Informal	Cream of Liver Pate	The label bore the statement "made from pork-liver, onions and selected spices". Lean Meat, 51.4 per cent. Fat, 42.7 per cent. Butter Fat, less than 0.2 per cent.	The opinion was given that if certain ingredients are mentioned, the label must carry a full list of ingredients and that the correct name of this sample is "Liver Pate" not "Cream of Liver Pate".
1053	Informal	Pork Sausages	Sample contained 260 part per million of sulphur dioxide preservative, the presence of which was not declared.	The presence of preservative in these sausages was not declared in accordance with the Preservatives in Food Regulations 1962.
1104	Formal	Sausages	Meat Content 43 per cent. Sulphur Dioxide Preservative 150 part per million, the presence of which was not declared.	Meat Content is below the minimum limit of 50 per cent required by the Sausage and other Meat Product Regulations 1967 and the presence of preservative was not declared in accordance with the Preservatives in Food Regulations 1962.
1105	Formal	Sausages	Sulphur Dioxide Preservative, 90 part per million, the presence of which was not declared.	The presence of preservative was not declared in accordance with the Preservatives in Food Regulations 1962.
1112	Informal	Beef Pies (Three)	Average weight of each of three pies 4.3 ounces. Average meat content of each of three pies, 0.9 ounces.	The meat content of these pies is below the minimum limit of 1 ounce required by the Meat Pie and Sausage Roll Regulations 1967.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
1113	Informal	Meat and Potato Pies	Meat Content 7.1 per cent.	The meat content is below the minimum limit of 12.5 per cent required by the Meat Pie and Sausage Roll Regulations 1967.
1119	Informal	Low-fat Spread	Water, 56.3 per cent, Fat, 39.5 per cent. Salt, 2.15 per cent.	The opinion was given that this product falls within the definition of margarine, but the water is above the maximum limit of 16 per cent and the fat is below the minimum limit of 80 per cent required by the Margarine Regulations 1967.
1129	Informal	Minced Beef with Onion and Gravy (canned)	On the label of the can, the words "with onion and gravy" were printed in much smaller type than the words "Minced Beef" and were not conspicuous.	The opinion was given that the can was not labelled in accordance with Section 11 of the Canned Meat Product Regulations 1967.
1173	Informal	Spam and Tomato Sandwich	The meat filling of this sandwich contained starch and 82.5 per cent of meat.	This sample is a Luncheon Meat and Tomato sandwich. It does not contain Spam which is the proprietary name of a brand of chopped pork and ham.
1192	Informal	Freeze Drink	Sample contained artificial colouring matter, but this was not included in the list of ingredients.	The list of ingredients is incomplete.
1200	Informal	Edam Cheese	A ticket displayed with this cheese bore the words "Rich in protein - low in calories".	The opinion was stated that there is no justification for the description of Edam Cheese as low in calories.
1220	Informal	Beefburgers	Meat Content, 89 per cent. Sulphur Dioxide Preservative, 240 part per million. The presence of preservative was not declared.	Not labelled in accordance with the requirements of the Preservatives in Food Regulations, 1962.
1227	Informal	Beefburgers	Apparent fat-free meat content 82.2 per cent. Fat, 22.7 per cent. Sulphur Dioxide Preservative 150 part per million. The presence of preservative was not declared.	Not labelled in accordance with the requirements of the Preservatives in Food Regulations, 1962.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
1228	Informal	Beefburgers	Meat Content 83 per cent. Sulphur Dioxide Preservative 80 part per million. The presence of preservative was not declared.	Not labelled in accordance with the requirements of the Preservatives in Food Regulations 1962.
1235	Informal	Orange Drink	Described on the label as "Instant Orange Drink". The label carried an illustration showing orange fruit, but the list of ingredients did not include either orange fruit or orange juice.	The opinion was stated that the label on this sample should not carry an illustration showing orange fruit and that "Instant Orange Drink" is not a correct description.
1239	Informal	Beef Sausage	Meat Content 78 per cent. Sulphur Dioxide Preservative, 200 part per million. The presence of preservative was not declared.	Not marked in accordance with the Preservatives in Food Regulations 1962.
1240	Informal	Pork Sausage	Lean Meat, 40.4 per cent. Fatty Tissue, 43.7 per cent. Total meat calculated in accordance with the Sausage and other Meat Product Regulations 1967: 80.8 per cent. Sulphur Dioxide Preservative 165 part per million. The presence of preservative was not declared.	Not marked in accordance with the Preservatives in Food Regulations 1962.
1246	Informal	Low-fat Spread	Water, 59.0 per cent. Fat, 38.2 per cent. Salt, 2.2 per cent.	The opinion was stated that this sample complies with the definition of margarine in the Margarine Regulations 1967. The composition of the sample is not in accordance with the regulations. The water is above the maximum limit of 16 per cent and the fat is below the minimum limit of 80 per cent.
1261	Informal	Cheese Spread with Chive	On the label of this sample the word "Chive" appeared much more prominently than the words "Cheese Spread".	The wording on the label gives undue prominence to a minor ingredient, i.e., chives.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
1265	Informal	Processed Cheese with cucumbers and peppers	An illustration on the label shows tomatoes but there is no mention of tomatoes in the name or in the list of ingredients. The list of ingredients was printed in a poor colour contrast and was not clearly legible.	Not labelled in accordance with the Labelling of Food Order 1953.
1266	Informal	Processed Cheese with Garlic and Dill	On the label of this sample the word "Garlic" appeared much more prominently than the rest of the name.	The wording on the label gives undue prominence to a minor ingredient, i.e., garlic.
1270	Informal	Cheese Spread	The words "Cheese Spread" were not printed clearly and conspicuously on the label in relation to other wording.	Not labelled in accordance with the Labelling of Food Order 1953.

TABLE E

UNSATISFACTORY DRUG SAMPLES

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
921	Informal	Tonic tablets	The label lists the following active ingredients:- Cinchonidine Sulphate 0.15 mg. Quinine Sulphate 0.7 mg. Phosphoric Acid 21.0 mg. Glycerophosphoric acid 0.03 mg. Glycerine 20 mg. The label carried a recommendation that these tablets are of value for sleeplessness.	None of the listed ingredients has any hypnotic effect and the claim that these tablets are of value for sleeplessness is questioned.
954	Formal	Coal Tar and Salicylic Acid Ointment B.P.C.	Total acidity calculated as salicylic acid 3.2 per cent Appearance: granular	The acidity figure is above the B.P.C. limit and the sample may have deteriorated in storage.
957	Informal	Enema	Label Declaration:- Contents 100 ml. Formula: Each 100 ml. contains Sodium Dihydrogen Phosphate B.P. 18 grammes. Disodium Hydrogen Phosphate 8 grammes. Contents of container found to be 50 ml. Sodium Dihydrogen Phosphate 40.4% w/v. Disodium Hydrogen Phosphate 19.6% w/v.	The amounts of phosphates are correct, but the sample contains insufficient water.
1079	Formal	Tonic tablets	List of active ingredients: Cinchonidine Sulphate 0.15 mg. Quinine Sulphate 0.7 mg. Phosphoric Acid 21.0 mg. Glycerophosphoric acid 0.03 mg. Glycerin 20 mg. The label on the container of these tablets carried a recommendation that the tablets are of value for sleeplessness.	None of the listed ingredients has any hypnotic effect and the claim that these tablets are of value for sleeplessness is questioned.
1149	Formal	Tonic tablets		
1273	Informal	Children's Soluble Aspirin Tablets	Labelled "Soluble Aspirin" Aspirin Content 154 mg. per tablet.	Aspirin content is half that of Soluble Aspirin Tablets B.P. and twice that of Paediatric Soluble Aspirin Tablets B.P.C.

TABLE F

FOOD COMPLAINTS

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
Insect Contamination		
M66/72/19	Apple pie and cream	Contained a dead earwig, on which a test for phosphatase enzyme was negative, indicating that the earwig had been subjected to some form of heat treatment.
M102/72/42	Chips and peas	Contained a dead insect larva, probably of the Order Lepidoptera (moths and butterflies), attached to part of a potato chip.
M109/72/40	Canned Ham	A dead fly had been revealed after cutting a few slices from this canned ham. A phosphatase enzyme test proved negative, indicating that the fly had been subjected to some form of heat treatment.
M200/72/86	Fruit Cocktail (canned)	This can of fruit cocktail contained the rather mutilated and somewhat pale bleached remains of an insect, probably a cockroach.
M293/72/139	Sliced Green Beans (canned)	Contained an earwig, on which a test for phosphatase enzyme was negative, indicating that the earwig had been subjected to some form of heat treatment.
M325/72/159	Part of a small sliced brown loaf of bread.	One slice of this brown bread had part of a fly embedded in it and another slice contained a piece of string 4 cm. long and other miscellaneous dirt.
M356/72/179	Mysteclin Syrup	Contained a dead centipede (probably a species of Lithobius, a common and widely distributed kind of centipede).
M486/72/253	Oatmeal	This oatmeal contained insect "webbing" although no live or dead insects themselves were found.
Foreign Matter		
M1/72/2	Potato Pasty	This pasty contained foreign matter of vegetable origin, probably a shrivelled potato sprout.
M48/72/15	Frozen Peas	The foreign matter in these frozen peas, of roughly cylindrical shape about 2 cm. long consisted mainly of pea stem and leaf tissue and was probably debris from a pea-vining machine.
M87/72/26	Brown Bread	A dark brown, almost black, deposit, about 2 cm. across in this bread consisted mainly of oily residues together with miscellaneous dirt particles.
M89/72/32	Part of sliced loaf of white bread	A black deposit, about 2 to 3 cm. across, in one of the slices of this loaf consisted mainly of dirty oil and/or grease.
M90/72/34	Biscuits	These sweetmeal biscuits contained two pieces of a cereal husk (probably wheat) each about 10 mm. by 0.5 mm.

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
M164/72/59	Orangeade	An almost empty 25 oz. bottle labelled orangeade contained a small amount of orange-coloured liquid and a piece of glass, 18 mm. by 10 mm. by 4 mm. of flattened ovate/rectangular shape. This piece of glass fitted exactly into a sharp-edged depression on the inside surface of the bottle and had very probably resulted from a weakness in the glass at this point. Several small cracks could be seen around this depression and this fault in glass bottles is sometimes referred to as "shelling".
M176/72/77	Bread	A greyish-brown substance found in this loaf of bread was shown to consist mainly of vegetable matter and in spite of its superficial resemblance to rodent excreta pellets, no evidence could be found to confirm this.
M186/72/81	Milk	This full one-pint bottle of milk had grit particles adhering to the inside surface of the shoulder of the bottle.
M187/72/78	Potato Crisps	This opened packet of potato crisps contained a flattened piece, more or less circular, of a brown substance, about 3 cm. across and 3-4 mm. thick. This substance consisted mainly of oily and fatty matter with vegetable tissue probably derived from potato and is probably a residue of the crisp manufacturing process.
M199/72/85	Shandy	A flocculent deposit on the bottom of this bottle of shandy consisted of yeast cells.
M201/72/87	Porridge Oats	Several dark particles in these oats were shown to be somewhat charred oats, possibly the result of over-heating during the steaming process.
M219/72/91	Sandwiches	These sandwiches had a salad filling which included tomatoes and cress and in one of them was a piece of the soil/peat material from the carton in which the cress was grown.
M212/72/88	Coca-cola	A bottle of Coca-cola contained part of a wax candle, about $\frac{1}{2}$ in. long and $\frac{3}{4}$ in. diameter.
M238/72/55	Minced Steak	Contained a piece of skin-tissue which would not normally be present in steak.
M255/72/119	Fruit Pastille	This partly-chewed fruit pastille contained a piece of a tooth filling.
M275/72/131	Milk	Two full one-pint bottles of milk contained visible deposits on the bottoms of the bottles. These deposits appeared to consist of finely divided silicious matter similar to the "fly-ash" from industrial furnaces.
M292/72/136	Milk	A one-pint milk bottle contained about $\frac{1}{4}$ pint of milk and sufficient sand, cement and small stones to cover the bottom of the bottle.

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
M327/72/161	Bread	Part of a loaf of brown bread and several slices cut from this loaf contained miscellaneous dirt and oily residues associated with the dough.
M307/72/148	Cheese	A slice of cheese, roughly circular, about 6-7 cm. across and 1-2 mm. thick had miscellaneous dirt particles (sand, grit and unburnt carbonaceous particles) adhering to the surface.
M435/72/220	Chorley Cakes	One of these Chorley cakes contained a piece of dark grey paper 5 cm. by 2 cm. such as might have been used to pack dried fruit
M437/72/222	Meat and Potato Pie	This meat and potato pie contained a piece of glass, 1.3 cm. in largest dimension and weighing 0.23g.
M467/72/239	Rhubarb (canned)	A metal rod, about 4 ins. long was found in this can of rhubarb.
M439/72/219	Meat and Potato Pie	A piece of iron wire 3 cm. long was found in this meat and potato pie.
M473/72/248	Baps Buns	One of these buns contained a sliver of aluminium about 3 mm. by 0.1 mm.
Mouldy Foods and Foods Unsatisfactory owing to Decomposition M6/72/4	Chicken in Jelly (canned)	The contents of this flat-oval can were extensively decomposed owing to leakage through a faulty seam. At one end of the can the seam was missing over a distance of about 1 cm., giving the impression that the lid of the can had been stamped from a sheet of metal which was not quite large enough with the result that over a short distance there was not sufficient to form a seam.
M9/72/5	Baby Food (canned)	A brownish-black growth of mould on the upper surface of the contents of this can was the result of damage to the can by a sharp instrument, which had pierced the can body just below the upper seam.
M95/72/37	Potato Crisps	The crisps in this opened packet were of a soggy texture and one had a growth of mould covering most of one side. The moisture content was 23.2 per cent compared with 3.3 per cent in an unopened packet of the same brand of crisps.
M209/72/84	Liver and Ham Paste	A dark, almost black growth of mould covered an area about 0.5 cm. across near the surface of this liver and ham paste, packed in a sausage-shaped transparent wrapper.
M250/72/115	Cheese	An area of mould growth 1 cm. across was present on this cheese, which was wrapped in transparent plastic film.
M235/72/101	Cheese	This cheese wrapped in metal foil contained a growth of mould about 2 cm. across.
M236/72/102	Cheese	Three packets of plastic film wrapped cheese all showed evidence of mould growth (<i>Penicillium</i> type).

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory												
M237/72/103	Cheese	This packet of Crumbly Lancashire Cheese had an mould growth about 1 cm. across.												
M251/72/116	Processed Cheddar Cheese	This plastic film wrapped processed cheese had an area of mould growth associated with some damage to the plastic film wrapper.												
M329/72/163A	Bread	This flat-bottomed loaf had about 20 mould colonies on its surface.												
M330/72/163B	2 Barm Cakes	Both of these barm cakes had mould growth on the surface.												
M331/72/163C	Sliced Loaf	Mould colonies were found on the outer crust and on the inside surface of some of the slices of this loaf.												
M332/72/163D	Un sliced Loaf	Mould colonies were present on one side of this loaf of bread.												
M333-4/72/163 E-F	Milk Loaf	Two loaves of milk bread had mould colonies on the outer surface.												
M341/72/166	Cheddar Cheese	This cheese in a transparent plastic film wrapper was mouldy and was alleged to have caused illness. Examination for Lead and Arsenic gave the following results:- Lead, Pb, 0.27 p.p.m. Arsenic, As, less than 0.1 p.p.m.												
M464/72/234	Sausages	Several areas of mould growth, 2-3 mm. across were present on the surface of these sausages.												
Other Miscellaneous Complaints M92/72/33	Grapefruit Segments in Syrup (canned)	An opened can of grapefruit segments and an unopened can of the same brand were submitted as a result of a complaint of staining of the inside surface of the can. Both cans were unlacquered and showed fairly heavy etching. Examination for metals gave the following results:- <table> <tr> <td></td><td>Opened Can</td><td>Unopened Can</td></tr> <tr> <td>Iron, Fe,</td><td>0.45 ppm</td><td>0.26 ppm</td></tr> <tr> <td>Lead, Pb,</td><td>0.54 ppm</td><td>0.08 ppm</td></tr> <tr> <td>Tin, Sn,</td><td>102 ppm</td><td>78 ppm</td></tr> </table> <p>The difference in lead content is noteworthy.</p>		Opened Can	Unopened Can	Iron, Fe,	0.45 ppm	0.26 ppm	Lead, Pb,	0.54 ppm	0.08 ppm	Tin, Sn,	102 ppm	78 ppm
	Opened Can	Unopened Can												
Iron, Fe,	0.45 ppm	0.26 ppm												
Lead, Pb,	0.54 ppm	0.08 ppm												
Tin, Sn,	102 ppm	78 ppm												
M168/72/70	Lemonade	This bottle, labelled lemonade, contained only carbonated water, the flavouring syrup having been omitted during manufacture.												
M243/72/109	Shredded Suet	The inner liner of this packet of suet had been damaged, apparently by rodents, but no evidence of rodent contamination could be found in the suet itself.												
M266/72/130	Chicken (Frozen)	On cooking, the flesh of these frozen chickens assumed a dirty yellow-brown colour in patches. This discolouration appeared to be associated with relatively high iron content (up to 155 ppm) compared with flesh of natural appearance. It was suggested that this discolouration may have been due to the effect of unsatisfactory frozen storage conditions on the haem pigments of chickens, but the problem requires further investigation.												

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
M299/72/301	Tripe	This tripe had a marked unpleasant "off" odour when received in the laboratory and examination for total Volatile Bases (as Nitrogen, N) gave a figure of 16.7 mg/100g compared with 5.7 and 6.4 on samples of tripe in a fresh condition.
M305/72/146	Ham and Egg Croquette	Three areas of mould growth on surface.
M306/72/147	Scotch Egg	Not in a fresh condition.
M428/72/216	Lemonade	This bottle, labelled Lemonade, contained only carbonated water, apparently a result of failure to add the flavouring syrup during manufacture.
M436/72/221	Ginger Ale	This bottle, labelled Ginger Ale, contained a strongly alkaline detergent, of a similar composition to that used in industrial bottle-washing machines.
Complaints samples found to be satisfactory		
M5/72/3	Chicken Curry	It was alleged that the meat in this curry was not chicken, but examination of the fat by gas-liquid chromatography gave a fatty-acid composition similar to that of chicken fat.
M91/72/31	Meat and Potato Pie	A complaint that this meat and potato pie had a peculiar taste could not be confirmed by tasting in the laboratory.
M183/72/79	Steak Pudding	A complaint of a peculiar taste in this steak pudding could not be confirmed either in the pudding complained of or another steak pudding purchased from the same source.
M349/72/171	Pea and Ham Soup Mix	A complaint that this soup mix had caused soreness of the mouth could not be substantiated and the composition appeared to be normal.
M360/72/186	Cheese Spread	A complaint that this cheese spread had an odour of paraffin could not be confirmed in the laboratory.
M422/72/211	Cooked Chicken	A complaint that this cooked chicken had a strong smell and tasted of disinfectant was not confirmed.
M427/72/215	Chicken	The complainant alleged that the meat in this product was not chicken, but examination indicated that it was chicken and that there were no grounds for complaint.
M468/72/240	Pasteurised Milk	It was alleged that this milk had a "watery" taste, but the following analytical results showed the milk to be of normal composition:- Fat, 3.85 per cent Solids-not-fat, 8.55 per cent Freezing- Point Depression (Hortvet)..... 0.530°C

Food Complaints

Complaints by members of the public to public health inspectors result in many samples of foods being submitted to the laboratory. Details of these complaints and the samples examined in 1972 are set out in Table F. Not all complaints are found to be justified, but those complaint samples reported as satisfactory are also included in the table.

There were rather more instances of insect contamination dealt with in 1972 than in the previous year and one sample, that of a drug rather than a food, contained a dead centipede, a species not usually regarded as a pest of foods and drugs.

One complaint sample, involving a considerable risk to the consumer, was a bottle labelled "Ginger Ale", but containing a strongly alkaline detergent similar to the type used in industrial bottle-washing machines. A similar complaint was investigated in 1971 and it is not easy to see how the detergent can get into the bottle in the ordinary course of events.

The Coca-cola bottle containing a candle was presumably an aftermath of the power cuts in February, 1972.

Milk Samples

During 1972, 444 samples of milk were examined of which 9 were formal and the remaining 435 were informal. The total includes 32 samples of Channel Islands Milk.

Details of unsatisfactory milk samples are set out in Tables B and C.

	No. of samples	Fat %	Solids-not-fat %	Water %
1st Quarter 1972	121	3.72	8.74	87.54
2nd Quarter 1972	90	3.71	8.77	87.52
3rd Quarter 1972	70	3.64	8.77	87.59
4th Quarter 1972	131	3.78	8.75	87.47
For the year 1972	412	3.72	8.75	87.53
" " " 1971	378	3.64	8.71	87.65
" " " 1970	438	3.66	8.68	87.66
" " " 1969	440	3.67	8.64	87.69
" " " 1968	402	3.62	8.69	87.69
" " " 1967	545	3.69	8.72	87.59
" " " 1966	571	3.69	8.66	87.65

The above table shows the average composition of milk samples examined in each quarter and the yearly averages over the last seven years. Channel Islands milks with the higher minimum fat content (4 per cent) are not included in these averages.

Designated Milks

In addition to the chemical analysis for fat, non-fatty solids and Freezing-Point, milk samples are also examined by the tests specified in the Milk (Special Designation) Regulations which include the Methylene Blue Test for keeping quality in Untreated and Pasteurised Milk, the Phosphatase enzyme test for efficiency of pasteurisation, and the Turbidity Test as a check on the sterilisation process.

Examination of Designated Milks

Designation	Number Examined	Satisfactory	Failed Meth. Blue Test	Failed Phos. Test	Failed Turbidity Test	Test Void
Untreated	144	130	10	—	—	4
Pasteurised	141	140	—	1	—	—
Sterilised	142	142	—	—	—	—
TOTALS ..	427	412	10	1	—	4

Ice-Cream Samples

Samples of ice-cream are taken with suitable precautions against extraneous bacterial contaminations and each sample is examined by a Methylene Blue Test similar to that used to assess the keeping quality of milk. The results of the test give an indication of the extent of the growth of any bacteria in the ice-cream and hence provide a measure of its keeping quality. The Methylene Blue Grading system is as follows:

Grade 1	Decolourisation Time	over 4 hours
Grade 2	„ „	2½ to 4 hours
Grade 3	„ „	½ to 2 hours
Grade 4	„ „	nil

Grades 1 and 2 are reported as satisfactory and Grades 3 and 4 as unsatisfactory.

In addition to the Methylene Blue Test, all ice-cream samples are examined bacteriologically for the presence of coliform bacteria. The presence of large numbers of coliform bacteria and particularly the presence of any bacteria of the type *E. coli* Type I, which is typical of human and animal faecal matter, is an indication of unsatisfactory and potentially dangerous conditions of manufacture and handling.

Methylene Blue Tests on Ice-Cream

No. of Samples	Satisfactory	Unsatisfactory	Methylene Blue Grading			
			1	2	3	4
80	59	21	59	—	5	16

80 samples of ice-cream were submitted during the year 1972, of which 59 were of a satisfactory grade according to the Methylene Blue Test. Of the 59 samples giving a satisfactory Methylene Blue Grade, 15 samples were reported as unsatisfactory owing to the presence of coliform organisms. 19 samples were found to contain *E. coli* Type I. In general the hygienic quality of the samples submitted in 1972 was rather less satisfactory than in the previous year.

Domestic Water Supplies

Two hundred and five samples of water from domestic premises in the Bolton area were examined bacteriologically, for pH value and lead content. The results show that a generally satisfactory bacteriological quality was maintained throughout the year. Methods of sampling for lead in water and the results of the lead tests are dealt with in the section on the Waterworks Department.

A similar sampling scheme operated throughout the supply area of the Bolton Waterworks Department and the results of all tests are reported to the Waterworks Engineer and Manager. Monthly summaries of these tests are sent to the Medical Officers of Health for all local authorities within the Waterworks Department supply area.

Swimming Bath Waters

Chemical and bacteriological examinations are made on samples of water from public swimming baths and from swimming baths in local schools. Recommendations are made to ensure the water treatment is satisfactory and the water safe for bathing.

171 samples were examined in 1972, of which 120 were taken from the Corporation's public swimming baths and 51 samples from swimming baths in local schools. As well as the swimming bath samples, 14 samples of the softened boiler feed water from Bridgeman Street baths were examined. 5 samples from a children's paddling pool were examined for the Parks Department.

Fertilisers and Feeding Stuffs

In 1972, 13 samples of feeding stuffs and the same number of fertilisers were examined, and half of this total of 26 samples showed discrepancies between the analysis and the declared composition. The accompanying tables give details of the unsatisfactory samples.

In three samples of feeding stuffs the deficiencies of oil (one sample) and protein (two samples) were reported as being to the prejudice of the purchaser. Similarly a deficiency of nitrogen in hoof and horn meal and of soluble phosphoric acid in two samples of autumn and winter dressing were reported as being to the prejudice of the purchaser. These latter samples contained substantial amounts of iron, more than seems likely to be unavoidably present in the constituents. The requirement of the Fertilisers and Feeding Stuffs Regulations to declare the presence of added iron and other trace elements seems to be overlooked by some compounders of fertilisers.

Trade Descriptions Act

Set out below is a list of samples and other articles submitted for the purposes of the Trade Descriptions Act. In each case reports have been issued to the Chief Inspector of the Trading Standards Department.

- 1 Sugar bowl
- 1 Sample of wool
- 1 Sample of paraffin
- 11 Samples of petrol

The sugar bowl was made of stainless steel and was the subject of a complaint that the bowl showed signs of rust. The rust was in the form of concentric rings on the base of the bowl and enquiries of the Stainless Steel Development Association indicated that the pick-up of particles of non-stainless steel from tools used in the manufacture of the bowl was the most probable cause of the rust. These non-stainless steel particles should be removed during subsequent finishing processes, but the general finish of the base of the bowl was poor and this part of the process appeared to have been neglected.

Consumer Protection Act

11 samples of toys were submitted for the purpose of the Consumer Protection Act and have been examined for the presence of toxic metals. Reports have been issued to the Chief Inspector of the Trading Standards Department. One sample (a box of crayons) was found to have lead in the paint of certain crayons above the maximum limit of 5000 part per million.

Atmospheric Pollution

Measurements of the amounts of smoke and sulphur dioxide in the atmosphere have continued at eight sites within the Borough of Bolton and the monthly averages for each site are shown in Tables G and H. The block diagrams (histograms) show the summer, winter and overall yearly averages for all sites for the 10-year period 1963 - 1972.

The average figures for both smoke and sulphur dioxide for 1972 are appreciably less than the corresponding figures for 1971. All sites show the trend and it is to be hoped that this welcome fall in atmospheric pollution levels is not merely the result of two consecutive mild winters. It might be noted that the figures for the summer months (April to September) show the same trend as the winter months (January to March and October to December).

UNSATISFACTORY FERTILISERS

Sample No.	Article Sampled	Nitrogen		Phosphoric Acid						Potash		Other Constituents		Remarks
				Soluble		Insoluble		Total						
		D %	F %	D %	F %	D %	F %	D %	F %	D %	F %	D	F	
F2/72	Rose "Plus" Fertiliser	10.5	10.47	4.5	5.39	3.0	4.17			10.5	10.3	2.7%	2.7%	High phosphoric acid (soluble and insoluble)
F6/72	Plantoids	9.0	9.06	1.0	1.17	11.0	12.7			9.0	10.0			High insoluble phosphoric acid
F18/72	Hoof and Horn Meal	13.0	12.2											Low nitrogen
F19/72	Autumn and Winter Dressing	2.48	2.9	3.78	2.7	3.24	5.5			6.15	6.4	1.20%	1.20%	Low soluble and high insoluble phosphoric acid
F20/72	Autumn and Winter Dressing	1.61	1.9	2.31	0.9	3.62	5.7			4.69	5.0		1.8%	Low soluble and high insoluble phosphoric acid

F—Found

D—Declared

UNSATISFACTORY FEEDING STUFFS

Sample No.	Article Sampled	Oil		Protein		Fibre		Other Constituents		Remarks
		D %	F %	D %	F %	D %	F %	D	F	
F3/72	Battery Mash	4.0	2.4	16.0	16.1	4.0	4.0			Low oil
F9/72	Dairy Nuts	3.0	3.75	16.0	13.7	6.5	5.2			Low protein
F10/72	Sow & Weaner No. 1	2.5	3.1	15.0	16.9	4.0	3.9			High protein
F11/72	Hybrid Mash No. 2	3.0	3.8	15.0	15.15	4.0	2.7			High oil
F21/72	Broiler Starter Crumbs	2.5	4.4	22.0	21.0	3.5	2.7			High oil
F23/72	Turkey Grower	3.0	4.4	24.0	22.3	3.5	3.1			High oil
F25/72	No. 1 Dairy Cubes	3.5	2.8	16.5	12.4	7.0	6.3			Low protein
F26/72	Cereal Cubes	1.5	2.8	10.0	13.4	6.0	5.9			High oil and high protein

D—Declared

F—Found

Waterworks Committee

3,699 samples were examined for the Waterworks Department, a slight increase over 1971 when 3,542 samples were examined.

Samples are taken at least once a week from each source of supply and the larger sources are sampled twice weekly. As well as the routine bacteriological tests, these samples are examined for pH value, colour (Hazen scale), residual chlorine, iron, aluminium, and, in some cases, manganese. These tests are designed to assess the hygienic quality of the water entering the distribution system and the efficiency of the operation of the treatment plant at the filter stations. Samples of both raw and treated (i.e., filtered) water are taken at each filter station. In 1972, 689 samples of raw water and 1,549 samples of treated water were examined.

A more extensive chemical analysis (i.e., full chemical analysis) was carried out on fifty-six samples of raw and treated waters.

149 samples of water were examined as part of the investigations of complaints from consumers and a further 227 samples were examined for other reasons, some of which are mentioned below.

A sharp increase in the manganese content of the raw water from the Wayoh Reservoir occurred in September and persisted for several weeks. Normally the manganese content of this supply is less than 0.05 part per million, but during this period it rose as high as 0.4 part per million and measures had to be introduced at the filter station to remove it. There is some evidence that a similar but smaller increase took place about the same time in 1971, but prior to this the records do not reveal any previous instance. It is suggested that the manganese is a result of de-oxygenation of the water in the lower layer (hypolimnion) of the reservoir and the consequent dissolving of manganese from the mud on the bottom of the reservoir. The lower draw-off point is usually in use at this time of the year in order to avoid the algae and diatoms in the upper part of the water. If this theory is correct the increase in manganese may reflect a biological enrichment of the reservoir, which would increase the possibility of de-oxygenation of the lower layer of the water during the late summer months.

Manganese at these levels has no health significance, but, if not removed, will cause discolouration and the formation of black deposits in the distribution system.

The quality of the water as received by the consumer is assessed by regular sampling from the distribution system. During 1972, 1,071 samples, mainly from domestic premises, were taken for this purpose. These samples are examined for pH value, colour (Hazen scale), residual chlorine and lead, as well as the tests for bacteriological quality. The overall quality of the water has been satisfactory. The figure for the total number of distribution samples includes 205 samples taken from domestic premises within the Borough of Bolton and examined for the Medical Officer of Health.

The method of taking samples for the examination for lead was changed early in 1972. The amount of lead in water entering the distribution system is very small and the main source of lead in water supplies is that derived from lead pipes through which the water passes on its way from the main to the tap at the sink. Lead is no longer used for new plumbing installations, but many

older houses still have lead plumbing and service pipes. Hard waters, particularly those with much temporary hardness, are not likely to present any risk, but the soft acid waters typical of reservoirs on the peaty moorlands of Western and Northern Britain are liable to be plumbo-solvent, i.e., to take up lead from lead pipes, unless this plumbo-solvent action is checked by the addition of lime after filtration. The amount of lead which may be found in water depends on the time it has been in contact with the lead pipe and the method of sampling the water is clearly important. Formerly the lead test was carried out on the sample used for the bacteriological tests, but early in 1972 the procedure was changed and a special sample, taken without running any water to waste, is now used for the lead test. This sample is not necessarily a true first draw-off sample, though it may be so, but the taking of samples in this way is much less time-consuming than taking true first draw-off samples and is more likely to show any sign of lead contamination than the former method of sampling. This is confirmed by the results for 1972 when 16 samples (1.5% of total distribution samples) showed lead figures above the World Health Organisation's maximum limit of 0.10 ppm (it may be argued whether this limit, or the higher limit of 0.30 ppm for samples taken after 16 hours contact with lead pipes, should apply).

It should be noted that examination of the bacteriological sample for lead when the corresponding "lead test" sample had shown a high figure invariably gave a negative result or one well below 0.10 ppm.

The geographical distribution of special "lead test" samples showing high figures clearly indicated one particular source of supply as having a more aggressive or plumbo-solvent character than the water from other sources of supply. Additional automatic chemical dosing equipment is now being installed at the treatment works for this source.

As an estimate of the intake of lead from drinking water the figures on the special "lead test" samples are almost certainly higher than the true figure, but the figures derived from the bacteriological samples taken after running water to waste are likely to be below the true figure. The former would seem to provide a better basis for the protection of public health.

In addition to these routine examinations for lead in water 85 first draw-off samples were taken from older properties with the assistance of public health inspectors from the local authorities served by the Bolton water undertaking. 2 of these samples showed figures above the maximum limit of 0.30 ppm, recommended by the World Health Organisation and both were supplied largely from the source referred to above.

Advice and assistance was given to the Waterworks Department on the removal of infestation of water mains by the freshwater louse *Asellus aquaticus*. Small numbers of these animals are often present in water mains, but sometimes their numbers increase to a level which requires action on the part of the water undertaking to remove them. In one area the mains supply was treated with a naturally occurring insecticide, pyrethrin, at a level of 0.01 part per million, after which the *Asellus* were flushed from the mains via hydrants. To ensure proper control of the dosing with pyrethrin 110 samples were taken for a determination of pyrethrin content and 58 samples of deposits collected during the subsequent flushing operation were examined for the presence of *Asellus* and other animals which may have found their way into the distribution system.

TABLE G
Atmospheric Pollution
Smoke—Daily Averages
(Micrograms per cubic metre of air)

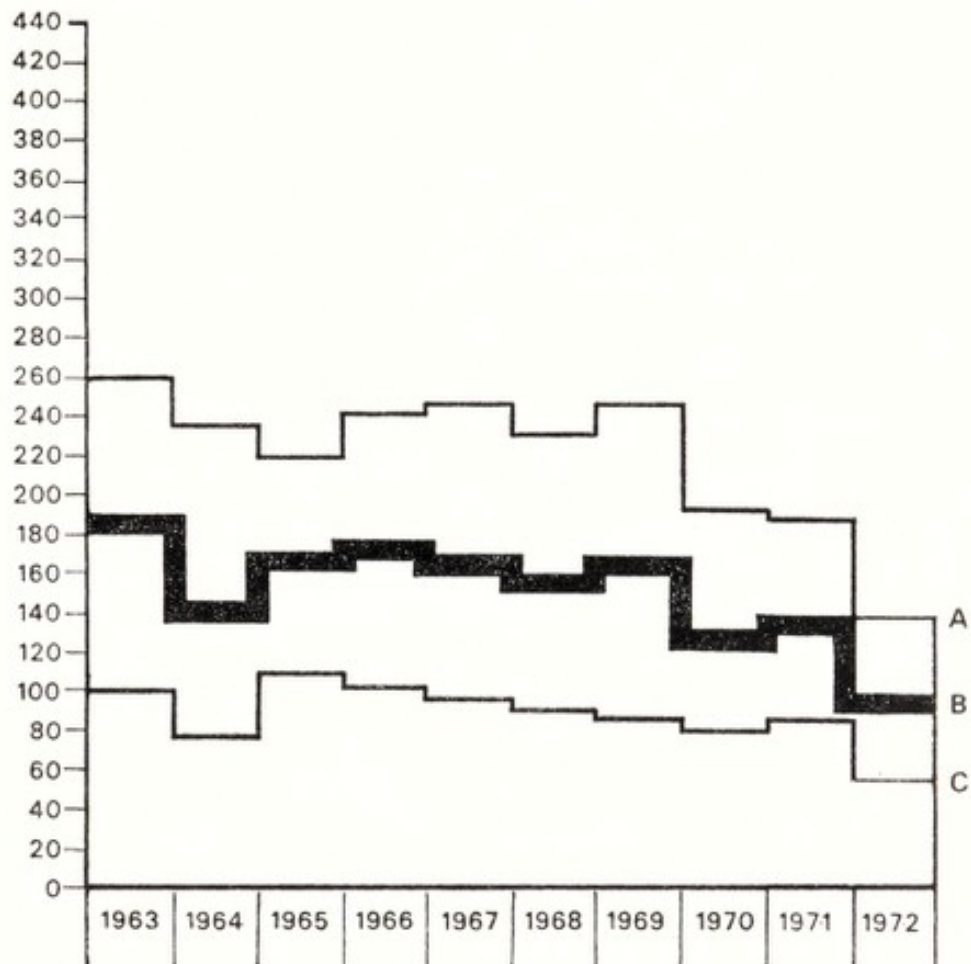
Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Daily averages of each site for			
													1972	1971	1970	1969
1 Johnson Fold ..	167	127	105	62	62	57	38	27	66	92	106	139	87	118	107	141
2 Astley Bridge Clinic	171	143	124	62	49	55	40	39	90	101	122	182	98	133	133	224
3 Tonge Moor.. ..	167	147	127	77	72	73	64	60	108	125	229	246	125	156	156	188
4 Lostock Open Air School	97	83	72	24	31	24	23	21	44	64	85	89	56	76	69	91
5 Central Police Station	121	87	95	39	43	35	33	32	64	80	111	104	70	103	105	128
6 Withins Clinic ..	148	124	108	61	55	57	40	39	78	90	155	147	92	130	117	152
7 Lock Lane	144	125	107	49	46	41	39	33	69	102	129	160	87	117	114	158
8 Grecian Mill ..	195	161	142	63	57	53	45	45	91	121	173	169	110	168	148	198
Daily Average (each month) of all sites, 1972	151	124	110	55	52	49	40	37	76	97	139	154	90			
„ 1971	224	188	151	129	77	57	38	56	89	171	153	169		125		
„ 1970	250	153	144	83	58	50	39	62	82	131	165	205			118	
„ 1969	268	240	221	135	95	59	41	55	84	150	213	315				156

TABLE H
Atmospheric Pollution
Sulphur Dioxide—Daily Averages
(Micrograms per cubic metre of air)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Daily averages at each site for			
												1972	1971	1970	1969
1 Johnson Fold ..	143	144	121	61	69	39	65	41	70	105	86	154	119	128	122
2 Astley Bridge Clinic	152	155	125	68	66	39	72	67	90	110	102	200	137	158	188
3 Tonge Moor ..	136	137	116	67	76	63	63	75	108	133	188	288	142	154	142
4 Lostock Open Air School	118	102	108	39	53	29	52	48	63	76	81	129	90	108	97
5 Central Police Station	145	127	132	70	84	72	88	76	120	155	124	116	126	164	179
6 Withins Clinic ..	153	141	134	70	84	70	85	70	124	125	152	199	148	151	147
7 Lock Lane ..	140	141	132	64	70	55	84	68	103	129	124	178	130	139	137
8 Grecian Mill ..	168	141	153	90	94	77	103	90	144	162	163	163	150	173	165
Daily Average (each month) of all sites, 1972	144	136	128	66	75	55	77	67	103	124	127	178	107		
" 1971	217	172	148	138	117	73	76	76	119	159	137	144	131		
" 1970	256	187	164	112	96	252	48	99	106	135	143	163		147	
" 1969	218	184	198	130	121	98	79	76	108	148	160	251			147

ATMOSPHERIC SMOKE

Micrograms per cubic metre of air



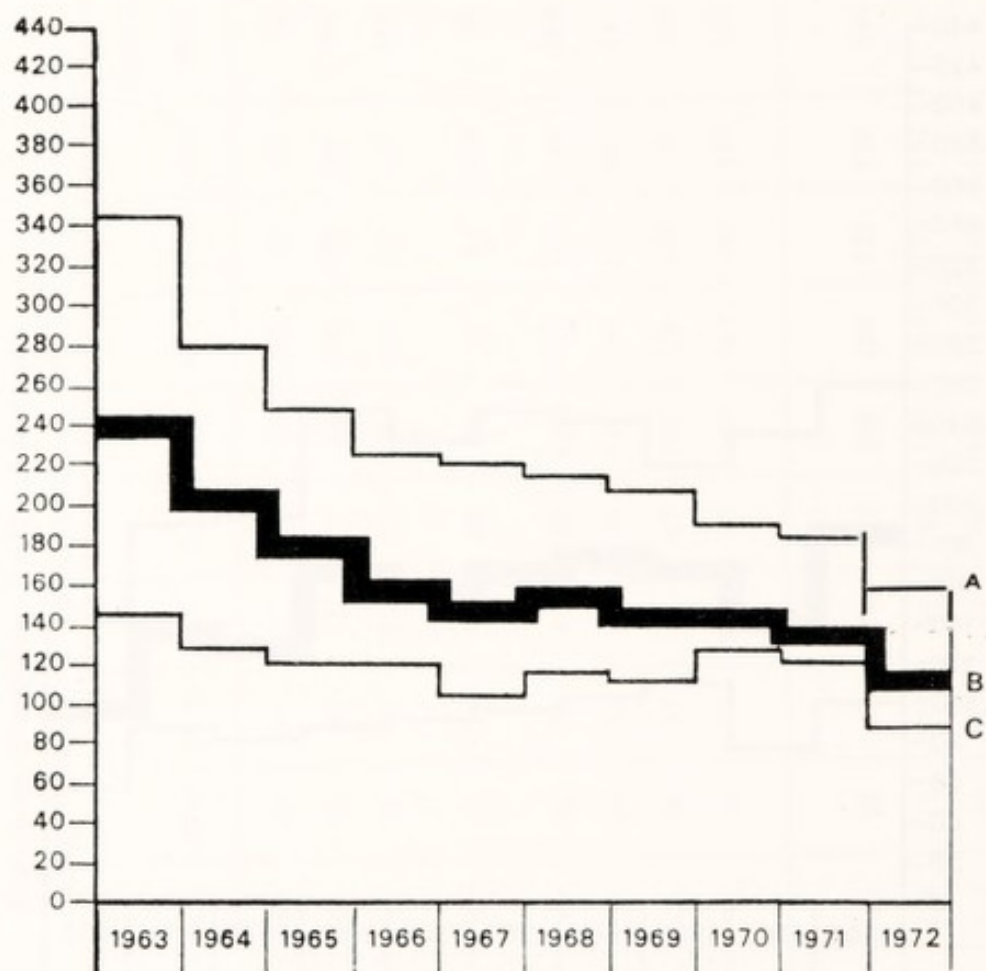
A Jan. to Mar. and Oct. to Dec.

B Whole Year

C April to September

ATMOSPHERIC SULPHUR DIOXIDE

Micrograms per cubic metre of air



A Jan to Mar. and Oct. to Dec.

B Whole Year

C April to September

PART V

ADDITIONAL INFORMATION

Fluoridation of Water Supplies

Medical Examination of Corporation Employees

National Assistance Act, 1948 - Section 47

Persons in need of Care and Attention

The Incidence of Blindness, Epilepsy and Cerebral Palsy

Work done on behalf of the Social Services Department

Co-ordinating Committee - Problem Families

Nursing Homes

Cremation

Rehousing on General Medical Grounds

Baths

Meteorological Summary

FLUORIDATION OF WATER SUPPLIES

At the meeting of the Health Committee in July, a letter was read from the Town Clerk of Manchester indicating that the City Council had recently approved in principle the addition of fluoride to the public water supplies and asked for the views of those local authorities and water boards which receive supplies of water from the Manchester Waterworks Undertaking about the proposal. A proportion of the water for Bolton is obtained from the Manchester supply.

Although the Health Committee strongly supported the proposal, an amendment was passed by Bolton Council on 2nd August which read "that, the decision of the Health Committee in favour of fluoride being added to the public water supplies be not approved and that the Manchester City Council be advised of the result of a public referendum which rejected the addition of fluoride to the public water supply and by which this Council stands."

Fluoride is already naturally present in the Bolton water in the proportion of between 0.1 and 0.2 parts per million. Unfortunately, this is too low to make any difference to the incidence of dental caries and a level of one part per million is needed to produce a reduction in the latter condition. There is no evidence of any ill-effects to health in those areas (such as West Hartlepool) where the natural fluoride content of the water is almost twice this amount. Dental health education has had little influence with many parents in the town and the number of children with poor teeth is very high. The position is made worse by the continued shortage of dentists in the town. It would appear that fluoridation of the water supplies is the only answer.

If part of the town eventually receives fluoride in the water it will be extremely interesting to compare the health, both dental and physical, with other areas and it will be hoped that there will be firm evidence of the advantages of fluoride in the water and reveal no contra-indications.

MEDICAL EXAMINATION OF CORPORATION EMPLOYEES

The number of medical examinations carried out during the year was 1,040, involving 1,003 persons. Four hundred and thirteen employees were considered fit to enter the Superannuation and Sickness Payment Schemes without medical examination.

A summary of the medical examinations is shown in the following table:-

Examination for—	No. of persons examined		No. of persons found unfit	
	Males	Females	Males	Females
Entry into Superannuation Scheme	165	72	—	2
Entry into Sickness Payment Scheme	30	230	3	8
Independent medicals re fitness to resume/continue employment, etc.	37	22	—	—
Retirement on Medical grounds	10	—	—	—
Fitness to be employed as a teacher	46	55	1	—
Fitness for admission to a Training College	66	160	—	—
Issue of H.G.V. Licence	31	—	—	—
Medical examinations carried out at the request of other authorities	14	8	—	—
Re-examinations	23	20	—	—
Fitness to teach after leaving Bolton College of Education	24	27	—	—
TOTALS	446	594	4	10

In 18 cases a decision was deferred pending the result of further investigations and the employee was asked to attend for further examination at a later date. Four of these were incomplete at the end of the year.

CHEST X-RAYS:

Four hundred and seventeen persons were sent to Mass Radiography Units for chest X-ray. Of these, 55 were students leaving the Bolton College of Education. Two hundred and two persons were sent because their employment involved work with children; 18 of these were appointed to posts on the nursing staff.

All students examined in connection with their fitness for admission to training colleges were advised to have a chest X-ray, and information regarding facilities available at the Mass Radiography Unit was supplied.

Twenty-two persons were examined at the request of other local authorities.

In 348 cases of persons under 45 years of age who were candidates for entry to the Corporation's Superannuation and Sickness Payment Schemes, a medical examination was not considered necessary. Sixty-five candidates for teaching posts did not require a medical examination although the majority of these were required to have a chest X-ray.

Medical examinations were carried out on all persons over 45 years of age, and on employees whose work involved driving duties, home helps, all new entrants to the teaching profession, and students seeking admission to training colleges.

Three hundred and twenty five persons under 45 years of age (126 males, 199 females) were examined at the request of the medical officers.

Three men and two women were examined at the request of the Motor Taxation Department concerning their fitness to drive a motor vehicle.

An analysis of the conditions which caused persons examined for entry to the Superannuation and Sickness Payment Schemes to be found unfit is shown in the following table:

	Superannuation Scheme		Sickness Payment Scheme	
	Males	Females	Males	Females
Cardiovascular disease (including hypertension) ..	—	—	2	4
Respiratory system	—	—	—	2
Nervous system	—	2	—	1
Other conditions	—	—	1	1
TOTALS	—	2	3	8

The principal case of failure to pass the medical examination was cardiovascular disease and this was due to hypertension in the majority of cases.

The number of people failing to pass medical examinations in the last ten years is as follows:

1963	19
1964	34
1965	44
1966	51
1967	46
1968	65
1969	20
1970	22
1971	18
1972	14

NATIONAL ASSISTANCE ACT, 1948 - SECTION 47 PERSONS IN NEED OF CARE AND ATTENTION

Powers exist under Section 47 of the National Assistance Act, 1948 (as amended) for the compulsory removal of persons in need of care and attention to a hospital or to accommodation provided under Part III of the National Assistance Act. Such action is only taken as a last resort when a person is in an advanced state of neglect or suffering from grave chronic disease and is in great need of institutional care, but unwilling to go voluntarily.

Elderly people are often very reluctant to leave their homes even when conditions are very unsatisfactory, but it is usually possible to help them without using statutory powers. In 1972, one elderly woman was taken to hospital under Section 47 of the National Assistance Act. She was living in extremely poor conditions and declining any form of assistance.

THE INCIDENCE OF BLINDNESS, EPILEPSY AND CEREBRAL PALSY

Blindness:

The Register of Blind Persons contained the names of 199 men and 238 women at the end of the year.

Forty nine men and 113 women were registered as partially sighted.

Epilepsy:

The Director of Social Services states that the Register of Handicapped Persons contained the names of 38 men and 26 women suffering from epilepsy. Of these, 30 men and 22 women were in their own homes; 6 men and 3 women were in colonies for epileptics, 1 man was in a home provided by Bolton Corporation and 1 man and 1 woman were in homes provided by other local authorities.

Cerebral Palsy:

Nineteen males and 23 females were on the Register of Handicapped Persons maintained by the Director of Social Services suffering from cerebral palsy.

The Local Authority was aware of 26 children with this handicap. Ten were attending Birtenshaw Hall Special School and 2 were attending other special schools; twelve children were attending ordinary schools and two were pre-school children.

Facilities provided for Handicapped Persons:

The following facilities were provided during 1972:-

- 16 downstairs toilets
- 5 showers
- 1 low level bath
- 1 electronically operated garage door
- provision for installation of Possum Unit.

There were also many other items which it is not possible to list in full. These amounted to 315 Disabled Person's aids of various descriptions.

WORK DONE ON BEHALF OF THE SOCIAL SERVICES COMMITTEE

The Social Services Committee has been responsible for the supervision of children coming into care. All the children coming into care have been examined by a medical officer of the Health Department. This has been done at regular intervals as laid down by the Home Office regulations. These examinations were carried out at the larger group homes, Braxmere, Crompton House, the Poplars and the family group homes. In May, 1972, a new children's home was opened in Deepdale Road which has potential accommodation for nine children.

Every month a medical officer has visited the Elizabeth Ashmore Nursery to examine the children and to carry out routine vaccinations and immunisations. All children for admission to, or discharge from, a home or nursery have been examined. They have also been examined when transferred from one home to another.

Medical Examinations:

No. of routine examinations:	0 - 1 year	19
	1 - 5 years	97
	Over 5 years	143
	Total	<hr/> 259 <hr/>

Nutritional Status:

The nutritional status of all children examined at routine medical examinations was satisfactory.

CO-ORDINATING COMMITTEE - PROBLEM FAMILIES

I am grateful to Mr. G. Taylor, Director of Social Services, for supplying the following information.

"During the year a total of 27 families involving 113 children were the subject of consideration. Of these, a total of 13 families (46 children) were newly reported cases.

At the end of the year a total of 11 families (44 children) remained under active consideration. All these families were receiving casework help and supervision and were families with long-standing problems who would need guidance over a lengthy period.

During the year a total of 16 families (69 children) were deleted from the register. They were deleted from the register either because their circumstances were considered to have improved, or because their needs had been met, or because the families were no longer justifying active concern.

NURSING HOMES

The two registered nursing homes in the Borough were inspected and some modifications were carried out at one of the homes following the Fire Officer's report.

CREMATION

Details of cremations at the Overdale Crematorium over the past five years are given below:

Year	Number of Bolton Residents cremated	Cremations of persons from other areas	Total Cremations	Approx. percentage of deceased Bolton residents who were cremated
1968	1,373	2,136	3,509	65%
1969	1,466	2,316	3,782	66%
1970	1,409	2,443	3,852	66%
1971	1,440	2,470	3,910	67%
1972	1,532	2,533	4,065	67%

REHOUSING ON GENERAL MEDICAL GROUNDS

The very important assessment of medical reasons for recommending individuals for rehousing continues to take up a considerable amount of Health Department staff time.

All cases where a medical reason is given as requiring rehousing are referred to the Medical Officer of Health. Patients may approach the department direct; the Housing Department refer individuals to the department; social workers, general practitioners, consultants and Health Department staff themselves may initiate referral.

The Medical Officer of Health deals with each case. Ordinarily, details of the case are sent to the health visitor who seeks the views of the patient's general practitioner. If he feels the medical reasons are justifiable, the health visitor will visit the patient at home and she completes a proforma giving details of type of house, number of occupants, whether or not there is room for a bed downstairs and whether there is a downstairs toilet. This form is then sent to the Medical Officer of Health who may arrange to get further information from a hospital consultant or the Social Services Department. Where the poor condition of the house is given as a reason for referring, a public health inspector's report will be obtained. Before a decision is reached there may be a discussion with the patient's general practitioner or the health visitor. In doubtful cases the Medical Officer of Health visits the house. A letter is then sent to the Chief Housing Officer with a copy to whoever referred the case and usually to the person requiring rehousing.

The usual type of case that is recommended is where the patient cannot get up and downstairs and there is no room for a bed downstairs. Because of the large waiting list of recommended cases it is unrealistic to refer those who can manage a bed downstairs unless there is some special consideration such as distance from relatives or steepness of the approach road to the house.

A special panel with a representative from the Housing Department investigate all cases where tuberculosis is a possible reason for rehousing.

During the year 582 new applications were received. Five hundred and forty one cases were investigated and dealt with and a breakdown of these cases is shown below. Included in this breakdown are cases carried forward from 1971.

(i) Housing Department Referrals (275):

Recommended		Not Recommended	Social Cases or Referred to Housing Dept.	No further action	Repairs being carried out	Part III Accommodation
Applicants	Transfers					
31	59	140	14	26	3	2

(ii) General Practitioner or Hospital Referrals (182)

Recommended		Not Recommended	Social Cases or Referred to Housing Dept.	I.U.H.	Repairs being carried out	No further action
Applicants	Transfers					
18	55	68	10	1	3	27

(iii) Direct Application or Other Referrals (84):

Recommended		Not Recommended	Social Cases or Referred to Housing Dept.	No further action	Part III Accommodation
Applicants	Transfers				
12	15	39	7	10	1

No. recommended for rehousing .. 61
 No. recommended for transfer .. 129

Total No. of recommendations 190

BATHS

The improvement and modification programme continued throughout 1972 and further reaction to the changes is beginning to show favourably in the attendance figures.

Due to a housing development surrounding Moss Street Baths, Moss Street has disappeared. A new name had to be found for the baths establishment and the name Halliwell Baths was approved by Council.

The introduction of "Guard all" basket systems at Halliwell Baths and High Street Baths has proved very successful. The systems increase the throughput of baths and improve bather comfort. In addition pilfering is reduced to a minimum and it is pleasing to note that the Halliwell Baths where pilfering was most prevalent, did not receive one complaint during the 1972 season.

In order that better efficiency and economy be introduced into the laundry service the establishment laundry at Bridgeman Street Baths was closed and the facilities at Halliwell Baths are being modified to cater for the total laundry requirement of the department. This work is at present in hand and will be completed during 1973.

The new slipper bath and shower suite which has been installed at High Street Baths to replace the facilities at Rothwell is now working successfully.

Teaching and training facilities at Halliwell Baths small plunge were improved by replacing and modifying the changing cubicles, showers and toilets. Further improvements are programmed for 1973 in order that this service may be improved and expanded.

The research and design of the new swimming pool complex at Spa Road continued throughout 1972. The sketch plan design has been approved by the Recreation Committee and the Architect is now proceeding with the working drawings. Diving facilities have been the subject of further investigation and the Recreation Committee have now decided that these facilities are to be provided.

The various establishments offered the following facilities:-

High Street	1 plunge 9 slipper baths (Male) 5 slipper baths (Female) 5 showers
Bridgeman Street	2 plunges 20 slipper baths (Male) 5 slipper baths (Female)
Halliwell Baths	2 plunges 10 slipper baths (Male) 2 showers (Male) 6 slipper baths (Female) 1 Establishment Laundry
Great Moor Street	Turkish Baths

Attendances:

A comparison of attendances during the past three years is given below:-

Establishment	Plunges			Slippers			Turkish		
	1970	1971	1972	1970	1971	1972	1970	1971	1972
High St.	67,446	65,771	64,844	24,861	21,478	14,678	—	—	—
Bridgeman	70,500	81,127	76,659	33,553	31,313	31,537	—	—	—
Halliwel	111,204	108,027	98,273	34,142	29,457	24,063	—	—	—
Rothwell	—	—	—	14,531	12,920	—	—	—	—
Gt. Moor Street . .	—	—	—	—	—	—	8,072	7,208	7,291
TOTAL	249,150	245,925	239,776	107,087	95,168	70,278	8,072	7,208	7,291

SCHOOL CHILDREN ATTENDANCES:

1970	.. .. .	56,446
1971	.. .. .	74,572
1972	.. .. .	72,918

With the exception of the Turkish Bath all attendance figures again show decreases. However, these figures do not give a true indication of current trends as all establishments had additional closed periods during the season to allow modification and improvements to be carried out. The value of the work undertaken will reflect in the attendances returns for 1973.

The pattern over the past few years has shown a consistent annual decrease in the number of persons using the turkish bath service. The 1972 attendances show that the efforts to arrest the decline have been successful and future promotion should encourage more people to take advantage of the facilities.

METEOROLOGICAL SUMMARY, 1972

1972 Month	Humidity %	Average of Maximum and Minimum °C	Absolute Extremes of Temperature			Sunshine		Monthly Rainfall Milli- metres	Wet Days	Fog Days at 9 a.m.	Wind Total on Anemo- meter
			Max.	Date	Min.	Date	Total Hours	Monthly Most in One Day			
January	86	2.8	10.5	11	*10.2	31	35.9	6.0	14	1	4482
February	86	3.6	9.1	27	8.2	1	29.4	7.2	14	2	3905
March	80	5.7	17.8	17	*3.5	22	119.6	10.3	24	-	4963
April	75	7.1	13.8	17	*1.0	21	135.5	12.8	25	-	5928
May	75	9.5	17.1	20	1.5	11 - 18	134.8	12.8	16	-	5719
June	76	11.0	17.6	14 - 30	2.0	2	117.7	11.2	28	-	4515
July	74	14.3	27.5	20	3.9	12	178.6	14.9	17	-	2860
August	77	13.7	22.1	13	3.8	11	157.1	13.1	21	-	3730
September	76	11.1	22.3	1	3.0	10	117.2	11.1	1	1	2300
October	80	10.0	17.8	4	0.0	21 - 29	89.7	9.4	5	1	3345
November	86	5.7	15.9	6	*3.4	21	55.9	7.0	23	6	4586
December	89	5.1	12.4	13	*4.5	24	28.6	5.6	19	3	4207
TOTAL	..						1200.0			14	
Monthly Average	80%	8.3			*Denotes Minus °C.		100.0				

COUNTY BOROUGH OF BOLTON
EDUCATION COMMITTEE



ANNUAL REPORT

OF THE

Principal School
Medical Officer

FOR THE YEAR 1972

A. I. ROSS, M.D., M.F.C.M., D.P.H.
Principal School Medical Officer

SCHOOLS SUB-COMMITTEE

Municipal Year 1972-73

THE MAYOR, ALDERMAN A. E. CLARKE, J.P.
COUNCILLOR R. L. HOWARTH (Chairman)
ALDERMAN C. H. LUCAS, C.B.E. (Vice-Chairman)
ALDERMAN MRS. E. M. RYLEY, D.L.
COUNCILLOR D. GODBERT, J.P.
COUNCILLOR D. GRIME
COUNCILLOR T. W. HALL
COUNCILLOR MRS. E. O. HAMER
COUNCILLOR MRS. P. HOWARTH
COUNCILLOR MRS. B. A. HURST
COUNCILLOR J. PARKINSON
COUNCILLOR F. A. RUSHTON

REV. P. V. BREEN (*Co-opted Member*)
REV. C. R. BUTLIN ” ”
REV. J. W. PACKER ” ”
REV. D. H. SWANSBURY ” ”
MR. D. PYE ” ”
MR. A. WHITE ” ”

Health Department,
Civic Centre,
Bolton.

*To the Chairman and Members of the Schools Sub-Committee
of the Bolton Education Committee*

On the 31st March, 1974, the present school health service provided by Bolton Council will cease. Bolton Area Health Authority will provide a service at least to begin with, very much like the present one and with largely the same clerical personnel for the new Bolton District Council. One doctor, one dentist and one nurse on the staff of the Area Authority will have special responsibility for administering the new service. In future the medical dental and nursing staff will not be members of a separate organisation as at present. The advantage of the new arrangements with regard to dentists are clearly set out in the White Paper - National Health Service Reorganisation - England, of August, 1972, para. 21 stating -

"With the fusion of the organisation and management of all the present dental services within the new health authorities, hospital dentists, general dental practitioners and dentists providing services for school-children, children below school age, and expectant and nursing mothers will be able to work together more closely."

Similar consideration will apply to the other aspects of the new Health Service.

It is to be hoped that the excellent facilities for school health in Bolton will continue.

The administrative headquarters of the new Area Health Authority will be in the new office block at 43 Churchgate, where the senior staff will work.

There are differences in the service between Bolton and Lancashire County Council and these will have to be reconciled. For example, in Bolton there is a centrally based system on which the administration is housed in the Health Department in the Civic Centre. The medical officers and school nurses work from there and the school medical records are kept in the Centre. In the part of Lancashire which will join with Bolton the staff and the records are based on six school clinics. There are also differences in the methods of medical inspection.

In Bolton and the surrounding part of Lancashire there has always been very effective co-operation between the different branches of the medical profession - consultants, general practitioners and local authority doctors - and the educational staff. I am sure that this will continue in the future.

The health of school children remained good apart from an unnecessary large number of cases of measles. This disease is now largely preventable by immunisation, but in Bolton too few parents availed themselves of the facilities.

Unfortunately, Bolton's water contains only a small amount of fluoride and at present school children are not benefiting by the addition of fluoride to the water. Particularly with the small number of school dentists that can be recruited, children are suffering much unnecessary pain and decayed teeth with resultant early extractions.

Dirty heads remained a problem but with new and better methods of treatment there has been a reduction in the number of Cleansing Orders issued.

I should like to thank the staff of the department for their good work during the year, the Chief Education Officer and his staff for their co-operation and support, and the members of the Schools Sub-Committee for their interest and enthusiasm for the work of the department.

a. Ross.

Principal School Medical Officer.

STAFF OF THE SCHOOL HEALTH SERVICE

Principal School Medical Officer ..	Dr. A. I. Ross	
Deputy Principal School Medical Officer	Dr. J. S. Farries	
Senior School Medical Officer	Dr. Audrey Seddon	
School Medical Officers	Dr. Mavis J. Allanson Dr. Dorothy M. Paterson Dr. J. Tudor Dr. Mira Parikh	(Part-time)

School Medical Officers worked part-time in both the Maternity and Child Health Service and School Health Service and were appointed as Medical Officers and School Medical Officers.

Ophthalmic Surgeons	Mr. T. Chadderton Mr. T. E. Shannon	(Part-time) (Part-time)
Orthoptist	Mrs. P. Jennison	(Part-time)
Ear, Nose and Throat Surgeon ..	Mr. N. H. Mahindraker	(Part-time)
Principal School Dental Officer ..	Mr. S. J. Bray Mr. S. M. Aalen	(Resigned 8.9.72) (Appointed 2.10.72)
Senior School Dental Officer	Mr. W. J. Abbott	
School Dental Officers	Mr. J. G. Whittle Mr. M. R. Annis Mr. I. G. Black Mrs. M. J. Howarth Mrs. M. R. McKenna Mr. R. A. Heywood Miss W. Booth	(Part-time) (Resigned 25.8.72) (Part-time) (Part-time) (Resigned 11.8.72) (Part-time) (Commenced 16.8.72) (Part-time) (Part-time) (Part-time) (Commenced 29.8.72)
Dental Anaesthetist	Dr. E. McKenzie-Newton Dr. S. Chatterjee	(Part-time) (Part-time) (Commenced 21.1.72)
Consultant Child Psychiatrist	Dr. M. P. Jonas	(Part-time)
Educational Psychologists	Mr. J. N. Partington Mr. H. W. Marsh	
Speech Therapist.....	Mrs. P. A. Oliver	
Chiropodist	Mr. S. Astley	(Part-time)
Director of Nursing Services	Miss E. M. Richardson	
Area Nursing Officers	Mrs. E. Gallaher Miss A. M. Fraser	

NURSING STAFF

On the 31st December there were 28 Health Visitors, 11 School Nurses, 2 Clinic Nurses and 9 Hygienists/Health Assistants working part-time in the School Health Service.

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GENERAL INFORMATION

No. of pupils on register of maintained schools	29,146 + 515 Part-time
Children attending:	
Nursery Schools	112 + 130 Part-time
Primary Schools	18,248 + 385 Part-time
Secondary Modern Schools (High Schools)	7,017
Secondary Grammar Schools	3,281
Special Schools	488
No. of three and four-year old children on the registers of primary schools	1,383 + 385 Part-time
No. of official nursery classes	29 (in Primary Schools only)
No. of schools maintained by the Authority ..	87
Nursery Schools	2
Primary Schools	59
Secondary Schools	21
Special Schools	5

ARRANGEMENTS FOR TREATMENT AND SPECIAL EXAMINATIONS

Minor Ailments:

Consultation and Treatment Sessions - Doctor in Attendance

SCHOOL CLINIC	DAY AND TIME OF COMMENCEMENT	NO. OF SESSIONS WEEKLY
Deansgate Health Centre, Queen Street	Tuesday and Friday, 9.15 a.m.	2
The Withins School Clinic, Withins Lane, Brightmet	Wednesday, 9.15 a.m.	1
Astley Bridge School Clinic, Moss Bank Way	Monday, 9.15 a.m.	1
Halliwell Health Centre	Friday, 2.00 p.m.	1

Minor Ailment Treatment Sessions - Nures only in Attendance

SCHOOL CLINIC	DAY AND TIME OF COMMENCEMENT	NO. OF SESSIONS WEEKLY
Deansgate Health Centre, Queen Street	Monday to Friday, 9.15 a.m.	5
The Withins School Clinic, Withins Lane, Brightmet	Monday, Wednesday and Friday, 9.15 a.m.	3
Astley Bridge School Clinic, Moss Bank Way	Monday, 9.15 a.m.	1
Sessions finish at 10.30 a.m.		
Halliwell Health Centre, Moss Street	Monday to Friday, 10.30 - 11.30 a.m.	5

Treatment Centres with only a school nurse in attendance were conducted at the following school:-

Hayward	Monday, Wednesday and Friday morning, 11.00 a.m. - 12.30 p.m.
-----------------	---

Dental Surgeries:

Five dental surgeries were in operation as follows:

DEANSGATE HEALTH CENTRE	.. .. .	2 Surgeries
Monday to Friday, 9.30 a.m. and 2.0 p.m.		
HALLIWELL HEALTH CENTRE:		
Monday - Friday, 9.30 a.m. and 2.00 p.m.	.. .. .	1 Surgery
Monday and Friday, 9.30 a.m. and 2.00 p.m.	}	1 Surgery
Tuesday, Wednesday, Thursday, 9.30 a.m.		
ASTLEY BRIDGE HEALTH CENTRE		
Monday to Friday, 9.30 a.m. and 2.00 p.m.	.. .. .	1 Surgery

Aural Clinics:

The Consultant Aural Surgeon attended weekly at the Deansgate Health Centre to see by appointment school children who were referred by the school medical officers.

Ophthalmic Clinics:

The Consultant Ophthalmic Surgeons attended at the Deansgate Health Centre to examine by appointment children referred by school medical officers.

The clinics were held as follows:

Monday afternoon	.. .. .	}	3 sessions weekly
Wednesday afternoon	.. .. .	
Thursday afternoon	.. .. .	
Friday afternoon	.. .. .		1 session weekly

Morning sessions commenced at 9.00 a.m. and afternoon sessions at 2.00 p.m.

Speech Therapy:

At the beginning of 1972 one part-time speech therapist was employed.

Audiometry:

Routine audiometric testing continued to be carried out in schools. Routine testing is carried out as soon as possible after school entry, and in the last year at primary school. In addition to the routine testing, full examination is carried out on children who have speech defects, or may be backward, or who are specially referred for any reason.

Enuresis Clinics:

This clinic continues to be well attended. Most of the cases seen are long standing. The nocturnal enuretic is a child who is not dry at night by the age of 3 years. We have alarm units to lend out for six weeks. We find this unit not capable of home use before a child is 6 years old. Therefore by the time the child is first seen at the clinic the nocturnal enuresis has become chronic - and the child accepts a wet bed as routine. Drugs have been tried by their general practitioner. If these are successful the child is not seen by our unit. We only see the failures. Parents then are disheartened and tend to view the alarm unit as unreliable. The child with nocturnal enuresis is usually immature, which makes for lack of self-confidence and for slow thinking. Even when the child becomes dry at night the parents wish to retain the apparatus for long periods. As we have a waiting list of nine months for these machines, we always insist on the prompt return of units when their further use is not necessary.

A summary of the work of the enuresis clinic during the past four years is given below:-

	1969	1970	1971	1972
No. of children seen	160	153	127	153
No. of new patients	98	97	85	108
No. cured	50	68	45	57
No. under treatment at end of year	36	42	45	40

Ultra Violet Light Treatment:

Ultra violet light therapy was available at Deansgate Health Centre on the same basis as in previous years. Children may receive this treatment on the recommendation of school medical officers.

Breathing Exercises:

The physiotherapist continued to give instruction in breathing exercises for children recommended by school medical officers, chest physicians and the aural surgeon. She also attended Lostock Open Air School to give instruction in breathing exercises to children at the school.

MEDICAL INSPECTION OF SCHOOL CHILDREN

A greater percentage of parents were present at school medical examinations than at any other time in the past ten years. Part of this improvement is due to the extension of selective medical examinations; by this means special attention can be given to those children with known health problems.

Year	No. of pupils inspected	No. with parents present	Percentage of children with parent present
1963	6,658	3,342	50.2
1964	7,256	3,773	51.9
1965	6,425	3,497	54.5
1966	7,792	4,684	60.1
1967	4,779	2,029	42.5
1968	5,914	2,224	37.6
1969	5,526	2,983	54.0
1970	6,499	3,022	46.5
1971	4,237	2,606	61.5
1972	4,059	2,519	62.1

Primary School Leavers:

Number of children selected and examined	825
Number of children with eye defects	110
Number of children with hearing loss	20
Number of children not selected for examination	1,544
Number of children with eye defects	219
Number of children with hearing loss	61
Number of children selected but absent at examination	52

Periodic Medical Inspections

The total number of periodic medical inspections carried out in 1972 was 4,059 a decrease on the number carried out in 1971, namely 4,237.

Number of children inspected:

Entrants	2,530
Primary School Leavers (Selective examinations)	825
Senior Leavers	316
Total	3,671
Additional periodic inspections (including Special Schools)	388
GRAND TOTAL	4,059

Other Examinations

Special examinations	2,537
Re-inspections	1,183
TOTAL	3,720

RESULT OF INSPECTIONS

Periodic Inspections

The number of defects requiring treatment found at periodic inspections was 1,518 compared with 1,476 in 1971. The number of cases requiring observation was 2,617 in 1972 and 1,996 in 1971.

Defect or Disease	Periodic Inspections						TOTAL	
	Entrants		Leavers		Others—			
					Primary School Leavers	Additional periodic inspections and Special Schools		
Re- quiring treat- ment	Re- quiring obser- vation	Re- quiring treat- ment	Re- quiring obser- vation	Re- quiring treat- ment	Re- quiring obser- vation		Re- quiring treat- ment	Re- quiring obser- vation
Skin	66	37	3	2	42	16	111	55
Eyes:								
a. Vision	270	354	50	4	168	51	488	409
b. Squint	71	13	3	—	25	5	99	18
c. Other	7	3	—	18	8	3	15	24
Ears:								
a. Hearing	23	143	2	7	46	111	71	261
b. Otitis Media	23	72	2	1	15	28	40	101
c. Other	32	51	2	6	11	9	45	66
Nose and Throat	129	308	9	4	34	92	172	404
Speech	33	95	1	4	30	42	64	141
Lymphatic Glands	17	159	—	3	2	39	19	201
Heart	5	17	—	8	3	13	8	38
Lungs	45	65	2	5	34	31	81	101
Developmental:								
a. Hernia	6	7	—	—	1	2	7	9
b. Other	21	67	1	9	23	28	45	104
Orthopaedic:								
a. Posture	9	10	—	—	2	14	11	24
b. Feet	26	32	3	1	24	17	53	50
c. Other	14	35	3	7	12	14	29	56
Nervous System:								
a. Epilepsy	5	4	2	2	9	6	16	12
b. Other	6	21	2	2	9	25	17	48
Psychological:								
a. Development	3	57	—	4	6	179	9	240
b. Stability	7	67	—	8	10	55	17	130
Abdomen	13	25	2	8	7	14	22	44
Other	48	53	6	5	25	23	79	81
TOTALS	879	1695	93	105	546	817	1518	2617

Summary of Pupils found to require Treatment

Age Group Inspected (By year of birth)	For defective vision (excluding squint)	For any of the other conditions recorded in previous table	Total individual pupils
1968 and later	34	63	85
1967	107	176	250
1966	122	241	317
1965	12	27	33
1964	5	13	17
1963	8	10	15
1962	80	155	208
1961	36	82	108
1950	6	14	17
1959	5	17	18
1958	7	7	11
1957 and earlier	58	54	102
TOTALS	480	859	1,181

Special Inspections

The following table shows the number of defects found at special inspections

Defect or Disease	Special Inspections	
	Requiring Treatment	Requiring to be kept under observation
Skin	198	16
Eyes:		
(a) Vision	17	5
(b) Squint	—	—
(c) Other	5	1
Ears:		
(a) Hearing	161	54
(b) Otitis Media	8	2
(c) Other	11	1
Nose and Throat	38	9
Speech	27	5
Lymphatic Glands	1	1
Heart	2	2
Lungs	15	8
Developmental:		
(a) Hernia	—	—
(b) Other	12	3
Orthopaedic:		
(a) Posture	—	2
(b) Feet	7	4
(c) Other	25	9
Nervous System:		
(a) Epilepsy	2	2
(b) Other	8	2
Psychological:		
(a) Development	18	17
(b) Stability	32	14
Abdomen	5	3
Other	71	29
TOTALS	663	189

Presence of Parents at Periodic Medical Inspections:

Age Group Inspected	No. of pupils inspected	No. with parent present
Entrants	2,530	1,951
Primary School Leavers (Selective examination)	825	409
Senior Leavers	316	17
Additional periodic inspections (including Special Schools)	388	142
TOTALS	4,059	2,519

Visits to homes of children by school nurses:

The number of home visits paid by school nurses was 370 compared with 149 in 1971. These visits continued to be made for the same reasons as in the past; some were in connection with the cleansing of children who were found to be infested with vermin and some were made in connection with failure to attend clinics held either by the local authority or at the hospital.

MINOR AILMENTS

Over the years there has been a considerable decrease in attendances at the minor ailment clinics, 4,177 children attending in 1972, compared with 9,498 in 1963. This reflects the general improvement in health and nutritional standards of children and better utilisation of the health services.

There is still a need for this type of clinic for those children who would not normally be taken to their general practitioner by parents for such conditions as impetigo. Early emotional and behaviour difficulties can sometimes be identified at these clinics in the early stages.

Clinic or Centre	No. of individual children who attended	Children seen by medical officer on first visit	No. of subsequent visits to medical officer	Children seen by nurse on first visit	No. of subsequent visits to nurse	Total No. of Attendances
Deansgate Health Centre	1,128	524	239	609	805	2,177
The Withins . .	286	95	92	191	484	862
Astley Bridge . .	355	183	7	173	33	396
Halliwell Health Centre	146	50	7	96	85	238
Treatment Centre	400	—	—	400	104	504
TOTALS . .	2,315	852	345	1,469	1,511	4,177

NOTES ON SPECIFIC DEFECTS

Diseases of the Skin:

There was a considerable fall in the number of cases of scabies with fewer children being treated for the condition since 1964.

Year	Number of cases treated							
1960	4
1961	15
1962	26
1963	46
1964	112
1965	115
1966	179
1967	154
1968	181
1969	146
1970	243
1971	95
1972	75

The improvement is due to more effective treatment with the traditional remedy, benzyl benzoate, being replaced by gamma benzene hexachloride.

Three cases of ringworm of the scalp were discovered during the year.

Disease	Number of cases treated or under treatment by the Authority
Ringworm:	
(i) Scalp	3
(ii) Body	6
Scabies	75
Impetigo	71
Other skin diseases	188
TOTAL	343

Impetigo treated in School Clinics:

The number of cases of impetigo treated in school was 71 in 1972, compared with 34 in 1971. The table below gives the figures for the past ten years. The condition is not usually the cause of exclusion from school unless the site is liable to allow spread to other pupils or if the lesions are very extensive.

Year	No. of Cases	Year	No. of Cases
1963	16	1968	154
1964	17	1969	55
1965	27	1970	51
1966	19	1971	34
1967	26	1972	71

Defects of the Ear, Nose and Throat:

A total of 284 children had their tonsils and adenoids removed during the year, 17 had operations for diseases of the ear, 10 for other nose and throat conditions and 121 received other forms of aural treatment. Two hundred and eleven of these children were seen by the Aural Surgeon and referred to hospital for treatment, and 221 were referred direct to the hospital.

Treatment

	Number of cases known to have been dealt with
Received operative treatment—	
for diseases of the ear	17
for adenoids and chronic tonsillitis . .	284
for other nose and throat conditions . .	10
Received other forms of treatment	121
TOTAL	432

Mr. N. H. Mahindraker, the Consultant Aural Surgeon, reports:

"The Otolaryngology Clinics at the Deansgate Health Centre have been running quite smoothly.

The majority of children seen here are those who have failed hearing tests.

The conservative approach to the problem of tonsils and adenoids and middle ear effusions has been continued.

I am thankful to the staff of Deansgate Health Centre for helping to organise the Clinics in an efficient manner. I also wish to convey my thanks to Dr. Ross for his help."

Ear, Nose and Throat Clinics

No. of visits by patients	486
No. of patients attending	382
No. of new patients	262
No. of children referred from periodic inspection	206
No. of children referred from school clinics . .	168

Children attending the clinics for the first time were seen for the following conditions, which may have been multiple in any particular child:

Disease or Defect	Referred from—			TOTAL
	Periodic Inspection	School Clinics	Other Sources	
Deafness	84	109	5	198
Otitis Media	12	8	2	22
Tonsil and adenoid abnormalities	90	42	1	133
Catarrhal conditions	7	3	—	10
Other conditions	13	6	—	19
TOTALS	206	168	8	382

The aural surgeon completed prescriptions for hearing aids in respect of 6 children.

Pure Tone Audiometric Testing:

The early ascertainment of deafness in children is extremely important and the health visitors carry out screening tests for the ascertainment of deafness in pre-school children or as part of the work undertaken by the Health Department.

The following table shows the number of children in various age groups tested at schools and tested at clinics.

Sweep Testing in Schools

Sources of Children tested	Tested			Failed Test		
	Boys	Girls	Total	Boys	Girls	Total
Primary Schools:						
Entrants	858	738	1,596	129	109	238
Leavers	1,172	1,118	2,290	103	111	214
TOTALS	2,030	1,856	3,886	232	220	452

Full Testing at the Clinics

Source of Reference	No. of children referred for test	App't not kept for test	Result of Audiogram		Unsatisfactory Audiograms and Recommendations				
			Satisfactory	Unsatisfactory	Change of position in class	For observation	Repeat audiogram	Treatment at the clinic	To Aural Surgeon
Failed sweep test in school ..	452	58	127	267	—	80	105	2	80
School Medical Officers ..	411	62	104	245	1	112	73	3	56
School Medical Officers on account of speech defect	135	46	60	29	—	21	7	—	1
On account of backwardness	8	4	3	1	—	1	—	—	—
Others:									
Aural Surgeon	76	8	20	48	—	12	5	—	31
Headmaster	23	8	6	9	1	4	2	—	2
Parent	42	9	10	23	—	19	3	—	1
Family Doctor	44	5	14	25	—	20	3	2	—
Health Visitor	4	—	1	3	—	3	—	—	—
Repeat Audiograms	154	24	32	98	—	46	41	—	11
TOTALS ..	1,349	224	377	748	2	318	237	7	182

Diseases of the Eye:

Altogether, 1,794 children are known to have been dealt with for errors of refraction. Of these, 1,762 were refracted by the ophthalmic surgeon at the school clinics. The total attendances at the clinics numbered 3,690, of which 2,284 were for refraction, repairs to glasses and re-examinations and 16 for diseases of the eye.

Twenty-nine children were referred to hospital services.

In 506 cases spectacles were repaired or replaced.

Twenty-seven children were referred to the ophthalmic clinic at the Bolton Royal Infirmary for treatment for squint.

(153 children were referred to the orthoptist at Deansgate Health Centre.)

Mr. T. E. Shannon, Consultant Ophthalmologist attending at the Deansgate Health Centre, reports:

"I am pleased to report that we are now happily installed in the new Health Centre after having overcome minor teething troubles.

The Orthoptist has at last obtained the equipment necessary to carry out her work and I am pleased to report that for the first time in Bolton we are able to give a comprehensive eye service to children.

I think we can now look forward to a few years of satisfactory ophthalmic treatment to our children.

I thank the staff for their willing co-operation."

Mr. T. Chadderton, Consultant Ophthalmic Surgeon attending at the Deansgate Health Centre reports:

"The work of the clinics has not changed very much during the year.

We are very pleased to have the help of the Orthoptist who is a great asset in the treatment of squints.

Thanks to the nursing and clerical staff all work was carried out efficiently."

	Number of cases known to have been dealt with
External and other conditions excluding errors of refraction and squint	56
Errors of refraction (including squint) . .	1,762
TOTAL	1,818
Number of pupils for whom spectacles were prescribed	972

The following were found at periodic medical inspection to require attention for defects of the eye.

Defect	Age Groups Inspected				Totals
	Entrants	Primary School Leavers	Senior School Leavers	Additional Periodic Inspections and Special Schools	
Defective Vision	263	110	50	59	482
Squint	69	15	2	10	96
Blepharitis ..	1	—	—	—	1
Conjunctivitis ..	—	—	—	—	—
Other	4	7	—	—	11

Orthoptics:

An orthoptist commenced part-time duties (4 sessions a week) in November, 1971, and her duties are to screen young children for visual defect with special emphasis in the discovery of strabismus (Squint). Those children who subsequently need further observation are followed up by the orthoptist at the ophthalmic clinic.

Defective Colour Vision:

As in previous years, the colour vision of secondary school leavers has been tested using the Ishihara method. In 1972, 24 boys were found to have defective colour vision, compared with 25 boys in 1971.

Orthopaedic Defects:

One hundred and fifty-three children were found to have orthopaedic defects. One hundred and twenty-one of these were found at periodical and special medical inspections and the remaining 32 at school clinics. Twenty-two children were referred to consultant orthopaedic surgeons at the Royal Infirmary for advice and treatment.

Chiropody:

Three sessions weekly were held by the chiropodist at the Deansgate Health Centre.

Mr. S. Astley, the Chiropodist, reports:

“The work of the School Chiropody Clinic during the opening year of the new Health Centre has run smoothly, with excellent co-operation of all the staff concerned.

As in previous years, the larger part of each session has been devoted to the treatment of Verrucae, this, in children necessitates the use of a mild ointment, giving unfortunately a usual length of time for treatment of approximately eight weeks. I feel this is the most suitable way, for to try a shorter period of time and change a relatively painless treatment into one a child is afraid of, then, the Chiropodist becomes one to be feared, should therefore, other foot problems arise, either in childhood or even later, there could be a reluctance to seek professional advice.”

The number of children attending the clinic, and a summary of defects treated, are given below:

	BOYS	GIRLS
Number of new patients who attended the clinic	508	
Defects treated:		
Plantar warts	150	294
General Chiropody	14	38
Onychocryptosis	10	6
Totally incorrect fitting shoes	5%	11%
Incorrect type of shoes	31%	21%
Total No. individual treatments	1,159	1,838
Total No. Sessions	141	

Cleanliness of School Children:

The percentage of children with infested heads in 1972 was 12.31, compared with 12.51% in 1971.

The total number of children with nits continues to remain at a high rate but this reflects the careful examinations which take place in an attempt to identify every child with the condition in school. There has been quite a marked increase in the numbers of school boys who are infested and this may be associated with changing fashions in the length of hair.

Fortunately methods of treating head lice have advanced considerably and this is reflected in the reductions in Cleansing Orders issued under the Education Act as can be seen in the figures for the last 5 years.

1968	134
1969	231
1970	102
1971	102
1972	40

Sixty-seven children attended the Municipal Medical Baths at School Hill for vermin.

Notices to Cleanse were issued under Section 54(2) of the Education Act in 436 cases, compared with 498 in 1971.

	1968	1969	1970	1971	1972
School Population	25,521 + 395 part time	26,128 +450 part time	26,941 +492 part time	27,717 +509 part-time	29,146 +515 part-time
No. of head inspections	55,768	66,204	68,245	61,517	64,942
No. of children with nits	1,838	2,121	2,410	3,532	3,652
Expressed as a percentage of school population	7.1	7.9	8.7	12.51	12.31

THE GENERAL CONDITION OF SCHOOL CHILDREN

Result of Routine Medical Inspection:

At the routine medical inspections, the school medical officer concludes his medical report with a statement on the child's general condition, whether satisfactory or unsatisfactory. This classification, which was adopted nationally from the 1st January, 1956, has the merits of simplicity and practicability.

Of the 4,059 children examined at periodic inspections, 4,052 (99.83%) were satisfactory. Seven children were unsatisfactory. Details are given in the following table.

Age Groups Inspected (By year of birth) (1)	No. of Pupils inspected (2)	Physical Condition of Pupils Inspected	
		Satisfactory (3)	Unsatisfactory (4)
1968 and later	367	367	—
1967	988	984	4
1966	1,179	1,179	—
1965	107	106	1
1964	41	40	1
1963	39	39	—
1962	590	589	1
1961	279	279	—
1960	36	36	—
1959	43	43	—
1958	31	31	—
1957 and earlier	359	359	—
TOTALS	4,059	4,052	7

Education (Milk) Act, 1972:

PROVISION OF MILK IN SCHOOLS:

From September, 1971, milk could only be given to children of junior school age if a school medical officer certified that this was required on medical grounds.

Head teachers, health visitors and social workers submitted the names of children who might require milk on medical grounds, and these children were examined in school by the school medical officers, who issued certificates for the supply of milk, in appropriate cases, for periods of one or two years.

No. of schools visited	53
No. of children examined	820
No. of certificates issued for one year	592
No. of certificates issued for two years	22

The School Meals and Milk in Schools Scheme:

Daily average number of children (entitled to free milk on grounds of age) taking milk - Autumn Term, 1972	7,370
Daily average number of children taking free school milk at special schools - Autumn Term, 1972	307
No. of children entitled to free school milk on health grounds at 31.12.72	600
No. of dinners produced in the school kitchens during 1972	3,676,720
Average number of children taking meals daily	17,123
Percentage of school children taking dinners in school 1972, expressed as percentage of average attendances	66.8%
No. of central kitchens	2
No. of kitchen/dining rooms	61
No. of children on free meals list at 31st December	4,137

IMMUNISATION

Immunisation against diphtheria, tetanus and poliomyelitis continued on the same lines as in 1971.

Children are offered a booster injection against diphtheria and tetanus and a booster dose of oral poliomyelitis vaccine on entry to school at 5 years of age. Where parental consent is given for the immunisation to be given in school the immunisation records are checked and the parent is notified of the course of immunisation recommended.

No. of children who received a "booster" injection against diphtheria and tetanus	1,892
No. of children who received a "booster" dose of poliomyelitis vaccine	1,901
No. of children who received first injection against diphtheria and tetanus	434
No. of children who received first dose of poliomyelitis vaccine	426

Parents are notified of the date when any further immunisation is due. Where practical, and by arrangement with the head teacher, this is given in school. Two hundred and one children completed a primary course of immunisation against diphtheria, tetanus and poliomyelitis.

Immunisation against Rubella:

Immunisation against rubella was introduced in 1970, and is now offered routinely to girls in their first year at secondary school. The number of girls who received this protection in 1972 was 1,129. Of these, 1,121 were immunised at school and 8 attended their general practitioner.

Rubella Immunisation for Adults:

Rubella infection in early pregnancy may produce congenital defects and those women particularly at risk include school teachers. For this reason, rubella vaccination was offered to female teachers who first had a blood test to determine their resistance to the disease.

No. of women teachers given blood test	129
No. vaccinated against rubella	19

B.C.G. Vaccination of School Children:

School children in their thirteenth year were offered B.C.G. vaccination against tuberculosis. Those whose parents give consent are skin tested and the negative reactors are given B.C.G. vaccination. A summary of this work is given in the following table:

Total No. of consents received	2,560
No. of children skin tested	2,459*
No. absent for skin test	101
No. absent for reading	146
No. found positive	257
(Mildly positive reaction - 201)	
(Strongly positive reaction - 56)	
No. found negative	2,056
No. given B.C.G.	2,072

*Includes some children tested twice - at school and at absentee session.

Of the 2,560 children whose parents gave consent, 62 were found to have had B.C.G. vaccination previously and were not, therefore, included in the scheme. The majority of these were immigrant children who were given the vaccination in their own country.

Those children who gave strongly positive reactions to tuberculin tests were given appointments for follow-up X-ray at the Chest Clinic. No new cases of tuberculosis were found.

DENTAL HYGIENE

Report of the Principal School Dental Officer

Staff:

Mr. S. J. Bray retired at the end of August after a long and distinguished career with this Authority. He was appointed as a Dental Officer in February, 1935, was promoted to Senior Dental Officer in 1948, and finally - after having been acting Principal since August, 1967 - was appointed to the post of Principal School Dental Officer with effect from February, 1968.

I took over the duties of Principal School Dental Officer from 2nd October, 1972.

During the year two part-time Dental Officers left the service; one to take up a senior appointment with another authority, and one to devote all his time to his private practice.

In the latter half of the year we acquired the part-time services of two lady Dental Surgeons who between them have worked five sessions per week.

It appears therefore, that there was no major change in our already precarious staffing position which remained at the end of the year at two full-time officers and five part-time officers. This is an approximate equivalent of just under 3.5 full-time officers throughout the year.

When one considers that the ideal establishment should be not less than 8 full-time Dental Officers, it becomes immediately apparent how difficult it is to organise a fully comprehensive service under the present circumstances.

Clinics:

1. DEANS GATE HEALTH CENTRE - this is a new clinic which was opened in January this year. It has 3 surgeries available, all of which were open throughout the year but 2 on a part-time basis.

2. HALLIWELL HEALTH CENTRE - 2 surgeries available, both open throughout but one on a part-time basis.

3. ASTLEY BRIDGE - 1 surgery unit; open on a part-time basis.

4. WITHINS - 1 surgery unit; remained closed throughout the year.

5. DEANE - 1 surgery unit; remained closed throughout the year.

6. CANNON STREET HEALTH CENTRE - No dental equipment has as yet been installed into this Health Centre, although a single surgery unit was planned and rooms have been set aside for this purpose.

Since we seem to suffer from a chronic staff shortage I think that the patients who due to geographical positioning would be treated at this clinic, can be better served from Deansgate Health Centre which is only one mile away, and I propose that no dental equipment shall be installed there, and that the rooms shall be made available for other purposes.

Dental Inspections:

The total number of pupils on the registers of our full time nursery, primary, secondary and special schools was 29,147. This includes the pupils of the maintained grammar schools, but not the part-time nursery and primary school children which amounted to 515.

Out of this total only 7,045 received a routine dental inspection in school, and 3,738 were inspected at our clinics when they presented themselves for an examination or as "casuals" with toothache.

Thus, it would appear that only just under 25% of the school children were inspected in schools; and school inspections can therefore be performed only once every four years if we were adhering strictly to a rota system. This, however, we do not do as we give preference to special schools and primary schools. Grammar schools and some technical schools have not been included in our inspection rota system, as I think they would be the most likely pupils to seek inspection and treatment on their own accord either at a general practitioner or at the clinic.

We are, therefore, far from our declared goal of giving each school child a minimum of one annual inspection at school to be followed with a firm offer of treatment to those whom require it. This time interval is over eight times that which is considered to be an ideal interval between each dental inspection, but I can see little value in increasing the frequency of inspections without being able to offer treatment, to those that accept, within a reasonable time.

Since it seems unlikely that there will be a significant improvement in the availability of Dental Surgeons seeking employment within the School Dental Service - particularly in this part of industrial South West Lancashire - our biggest aim must be to try to stem the tide of forever increasing dental decay. It is an undisputed fact that where fluoride is added to the drinking water, dental decay is reduced by up to 50%. Fluoride has now been added to the public water supply in many parts of the world for very many years, and it is considered to be absolutely safe and harmless when the level does not exceed 1.0 parts per million - usually referred to as the optimum level.

I therefore think that the only way we can hope to stem, and indeed reduce, the incidence of dental decay is by the fluoridation of the public water supply, and I hope that this can be achieved in our area in the near future.

Dental Treatment:

The closing down of the Robert Galloway Dental Clinic in Ward Street and the opening of a new clinic in new purpose-built premises in the Deansgate Health Centre, coupled with 66 dental officer sessions lost due to illness, and a considerable time interval between my predecessor retiring and my commencing my appointment have been factors, all of which have contributed to our returns this year being somewhat reduced compared with the previous one.

During the year under review, a total of 4,301 children attended the clinics for dental treatment in one form or another, and 9,523 visits were recorded for registerable treatment. In addition, 1,155 visits were made for various forms of unregistrable treatment, e.g., polishing of fillings, root dressings, dressings in teeth, X-ray photographs, impressions for dentures or orthodontic appliances, etc.

Of the children that attended the clinics for treatment, 3,614 were made dentally fit, although due to our chronic staff shortage, it was impossible to maintain this dental fitness since the time interval between each school inspection was far too long.

In all, 5,808 fillings were inserted of which 3,369 were in permanent teeth and 2,439 in deciduous teeth. The total number of teeth extracted was 5,383, of which 1,865 were permanent and 3,518 were deciduous.

It is regretted that a total of 1,487 appointments were wasted during the year due to the children failing to attend the clinics at the appointed time, without giving prior notification of cancellation.

Children needing orthodontic treatment, other than by extraction only, were supplied with 36 removable appliances, and 25 children had their treatment completed during the year.

General anaesthesia was administered on 2,100 occasions, of which 153 were administered by a dental officer.

Other forms of treatment included 403 operations comprising various forms of prophylactic treatment, fraenectomies, dressings for the relief of pain, pulp cappings, treatment of oral ulceration and septic gums, opening of abscesses, arrest of haemorrhage after extractions, removal of stitches, desensitising sore teeth and taking impressions for study models. In addition 100 patients had a radiological examination performed either for diagnostic purposes with special reference to orthodontic treatment, or for aid during root canal therapy.

I was disappointed to see the rather steep increase in the number of patients who had been supplied with dentures during the year. Both the number of dentures supplied and the number of children fitted with dentures show an increase of 100% compared with the previous year, but it is difficult to say whether this is coincidental or may be connected with our most inadequate staff/patient ratio and the resultant work load.

Inspections:

(a) First inspection in school	7,045
(b) First inspection in clinic	3,323
(c) Reinspection in school or clinic	415
No. of (a) and (b) found to require treatment	7,151
No. of (c) found to require treatment	373
No. of (a) and (b) offered treatment	6,176
No. of (a), (b) and (c) offered treatment	6,542

Attendances and Treatment:

	Ages 5 - 9	Ages 10 - 14	Ages 15 and over	Total
First visits	2,278	1,711	312	4,301
Subsequent visits	2,337	2,381	504	5,222
	<u>4,615</u>	<u>4,092</u>	<u>816</u>	<u>9,523</u>

Additional courses of treatment commenced	156	120	24	300
Total courses commenced	2,434	1,831	336	4,601
Courses completed	.. ..			3,614
Fillings in permanent teeth	547	2,256	566	3,369
Fillings in deciduous teeth	.. .. 2,210	229	—	2,439
Permanent teeth extracted	419	1,249	197	1,865
Deciduous teeth extracted	2,595	923	—	3,518
General anaesthetics	.. 1,146	852	102	2,100
Emergencies	.. .. 1,273	997	205	2,475
No. of pupils X-rayed	.. .. .			100
Prophylaxis	.. .. .			277
Teeth otherwise conserved	.. .. .			126
Teeth root filled	.. .. .			16
Crowns	.. .. .			14
Inlays	.. .. .			1

Orthodontics:

New cases	.. .. .	42
Cases completed	.. .. .	25
Cases discontinued	.. .. .	17
No. of removable appliances fitted	.. .. .	46
No. of fixed appliances fitted	.. .. .	1
No. of cases referred to consultant	.. .. .	6

Prosthetics:

	Ages 5 - 9	Ages 10 - 14	Ages 15 and over	Total
Pupils supplied with dentures	.. .. 3	12	11	26
No. of dentures supplied	.. .. 3	12	14	29

Anaesthetics:

Administered by Dental Officers	.. .. .	153
Administered by part-time Anaesthetist	.. .. .	1,947

Sessions:

Devoted to treatment	.. .. .	1,320
Devoted to inspection in school	.. .. .	40
Devoted to dental health education	.. .. .	Nil

Dental Health Education:

Due to all the changes that have taken place during this year and also due to shortage of staff which could barely be freed from their clinical duties, no large scale Dental Exhibition has been held or organised by this Authority. However, during school inspections and when children attended for treatment they were questioned regarding their oral hygiene and diet, and they were constantly instructed in tooth brushing and the correct foods to eat. Pamphlets and brochures were freely distributed to emphasise these points.

During the year, all members of the dental team have been greatly encouraged in their work by the keen interest shown by all Head Teachers and members of the teaching profession. I also wish to express my sincere thanks to all Departmental Medical Officers, Health Visitors and School Nurses, who have all taken an active role in this important aspect of preventive dentistry, and rendered invaluable help and assistance to expectant and nursing mothers and to parents of pre-school children.

Fluoridation:

Results coming through from areas in this country which have had the addition of fluoride to water supplies for several years are fully in accord with the findings in America and other parts of the world and show a dramatic fall in the number of decayed teeth amongst young school children. A general medical practitioner who worked in Bolton 8 - 10 years ago and then moved to the North East of England (to a fluoridated area) was so impressed by the improvement of his children's teeth that he appeared on a film called "The Natural Way", to give his personal account of his young family's dental improvement which he could only attribute to the fluoridated water supply.

INFECTIOUS DISEASES IN SCHOOL CHILDREN

There was a considerable increase in the number of cases of measles in 1972 with 1,032 children having the disease and 494 of these were of school age. Only 46 of the children were under the age of one year and all the rest were eligible to be immunised against the condition but parents had not availed themselves of the facilities. A certain proportion of these children had sustained complications from the disease, such as ear trouble, which could potentially interfere with their ability to benefit fully from their education.

In spite of the increase this year the figures for two successive years (the disease generally occurring in two year cycles) shows the improvement since vaccination against measles was introduced in 1968.

Year	No. of children with measles	Two year total
1961	2,698	3,270
1962	572	
1963	2,182	3,066
1964	884	
1965	1,573	2,989
1966	1,416	
1967	651	1,202
1968	551	
1969	318	1,594
1970	1,276	
1971	46	1,078
1972	1,032	

The outbreak was mainly confined to the summer months and there were only 23 cases in the last four months.

Apart from measles and scarlet fever there were only 24 cases of infectious disease notified in children. Two cases of malaria were reported, in both children the disease appeared to have been acquired abroad and they developed manifestations of the condition soon after arriving in this country.

There were no special outbreaks of infectious disease in school apart from an incident at one secondary school. At this school a very small number of children developed influenza and in the early stages at school complained of feeling unwell and faint. The latter symptom seemed to have communicated itself to other pupils at the school. Within a comparatively short time a larger number of pupils are said to have felt ill and one or two appear to have become unconscious. The pupils involved were almost all girls and there appeared to be an element of hysteria present. Apart from the original few cases of influenza, tests upon the remainder of the pupils failed to show that their illness was due to an infection. Within a short time all the children made a full recovery. No members of the staff or kitchen workers developed any illness.

Incidence of Infection:

The number of cases of infectious diseases each month was as follows:

Disease	Number of Cases												Total
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	
Scarlet Fever	6	11	5	7	8	8	2	6	-	5	1	4	63
Measles	3	-	45	106	301	398	125	31	12	6	1	4	1032
Whooping Cough ..	1	-	-	-	-	-	-	1	-	-	1	-	3
Enteric Fever (Paratyphoid B) ..	1	-	-	-	-	-	-	-	-	-	-	-	-
Dysentery	-	-	-	-	1	1	-	-	-	2	-	-	4
Food Poisoning	-	-	-	1	2	8	-	2	-	-	2	-	15
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningitis:													
Meningococcal ..	2	3	2	1	1	1	4	-	1	2	-	1	18
Other	1	1	3	1	2	-	-	1	4	1	1	-	15
Acute Encephalitis ..	-	-	-	-	-	-	1	-	-	-	-	-	1
Infective Jaundice ..	-	-	-	1	1	-	4	-	-	1	-	2	9
Polio (Paralytic) ..	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	1	-	-	1	-	-	-	-	2

Age of Infection:

The age of the children at infection is shown below:

Disease	Age															Total	
	Un- der 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14		15
Scarlet Fever	-	2	1	4	12	11	8	7	5	2	4	4	3	-	-	-	63
Measles	46	112	86	141	153	228	172	48	25	13	5	3	-	-	-	-	1032
Whooping Cough ..	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	3
Enteric Fever (Paratyphoid B)	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Dysentery	-	1	1	1	-	1	-	-	-	-	-	-	-	-	-	-	4
Food Poisoning ..	2	1	2	2	2	2	1	-	-	1	-	-	-	2	-	-	15
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningitis:																	
Meningococcal ..	2	8	6	2	-	-	-	-	-	-	-	-	-	-	-	-	18
Other	4	3	2	-	-	-	1	1	-	2	-	-	-	1	-	1	15
Acute Encephalitis	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Infective Jaundice	-	-	-	-	1	3	1	-	-	1	1	-	1	1	-	-	9
Polio (Paralytic) ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	2

REPORT ON PHYSICAL EDUCATION

Activities in the Physical Education field continue to broaden, giving wider choice to participants.

In March, a party of 119 children and staff from the Secondary schools in Bolton took part in a most successful Ski Tour in Pertisau, Austria, where the children enjoyed the experience and exhilaration of ski-ing on deep snow in brilliant sunshine.

Swimming continues to be one of the most popular activities. The number of awards gained both from the Royal Life Saving Society and Proficiency Certificates to beginners has been most gratifying. During the year, one thousand five hundred and twenty Royal Life Saving Society Awards ranging from Preliminary Survival to Award of Merit were gained. The tests for the Salford Hundred Awards were held at the Halliwell Baths in November, followed by a presentation of the awards by the Mayor in the Mayor's Parlour later in the school year. The school swimming baths were again extensively used during the holidays.

In-service training courses included - Netball, Football, Archery, Rounders and an Advanced Respiration Course. The indoor Cricket School at Clarendon County Primary School was in use five nights per week throughout the winter session.

Both Secondary and Junior Athletics Championships were held on the track at Leverhulme Park in June and the Cross Country Championships in February.

Bolton was honoured by the visit of H.R.H. The Duke of Edinburgh who came to review the various aspects of the work being carried out in his Award Scheme. This demonstration of activities was held on May 31st at the Deane Base.

CHILD GUIDANCE CENTRE

From 1st January to 31st December, 1972

At the beginning of 1972 the Child Guidance Centre moved premises to the new Deansgate Health Centre to occupy a suite of rooms on the first floor, these being sumptuous in comparison to the old Robert Galloway Clinic. All the previous services operating from the Child Guidance Centre are now housed at the Deansgate Health Centre (with the exception of the Adjustment Class which has stayed at the Robert Galloway Clinic pending more permanent accommodation being found). The Child Psychological Services now operating from Deansgate are the School Psychological Service, Remedial Service and the Child Guidance Clinic, along with the Speech Therapy Service with which we share office facilities and staff.

Staffing:

It is pleasant to report that during 1972 there were no changes of staff at the Child Guidance Centre, with staffing at full establishment level.

Child Guidance Clinic: (Report provided by Dr. M. P. Jonas, Consultant Child Psychiatrist).

The number of new cases seen at the clinic has remained constant to the previous year. The staffing of the clinic has not altered. Dr. Gopal and I contribute between us three sessions a week and co-operate at the clinic with the staff of the School Psychological Service.

There is still no change in the lack of day facilities for emotionally disturbed children in Bolton of all age groups and this lack tends to mean that many children are referred to residential schools who would do quite well in their own community, if such places were available. Stocks Park Day School for Maladjusted Children in Horwich, and the school at the Lady Tong Clinic, take a small proportion of children, but this is not adequate to meet the needs. I would hope that in 1974, when the new Metropolitan area comes into being, this problem will be looked at again.

I would like to thank the Local Health Authority and Hospital staff for all their co-operation over many cases.

No. of new cases referred	57
Cases still outstanding brought forward from 1971	8
	<hr/>
	65
	<hr/>
New cases seen during the year	53
Cases transferred from Bolton District General	
Hospital	3
Number of new cases outstanding at the end of the	
year	5
Number of cases closed but not seen	4
	<hr/>
	65
	<hr/>
Number of Bolton Day Patients at Lady Tong	
Clinic	8

Sources of Referral:

Consultants	5
School Medical Officers	55
General Practitioners	5
	<hr/>
	65
	<hr/>

Recommendations:

School for Educationally Sub-normal Children (Residential)	2
School for Maladjusted Children (Residential) ..	6
Stocks Park Special School (Day Maladjusted) ..	2
Crowthorn Special School (Residential E.S.N.) ..	1
Lady Tong Children's Unit	6
No. of children discharged from the clinic	12
School transfer	2
Treatment	29
	<hr/>
	60
	<hr/>
No. of children in treatment and review transferred from 1971	52
Total number of children in treatment and review at 31st December, 1972	112

School Psychological Service:

1972 was the first full year of the School Psychological Service operating with two educational psychologists and two social workers.

Table 1 gives statistics and comparisons of referrals and cases seen in comparison with previous years. Although the number of new cases referred has dropped slightly in comparison with 1971, there were considerably more cases seen and the high figure of 275 does not take into account many of the cases where advice is given in schools or children not referred as cases. Comparing figures with previous years shows the increase in the volume of work undertaken by the School Psychological Service. The large number of cases on the waiting list continues to be a problem, and even though the number of cases dealt with is in excess of the number of cases referred the waiting list is still something of a millstone for the Service.

Table 2 indicates the source of referrals. The open referral system is amply justified, and parents have continued to seek help and advice directly. It is surprising that General Practitioners do not utilise the services of the School Psychological Service more fully, but perhaps this will increase with the better liaison between agencies.

Table 3 indicates the reason for referral as given by the referring agency, and Table 4 gives the age distribution of children referred. The numbers of infant's age and the pre-school children continues to be a large proportion of the number referred, and the earlier the problems can be helped the better, although provision for children at this age is still very limited.

The Service is attempting to change its emphasis somewhat on to more preventive work as well as the diagnostic and treatment aspects. Regular school sessions have been arranged at certain schools and these have proved, up to now, to be of benefit to all concerned. Much more work is being attempted in the schools where it is important for class-teachers and Educational Psychologists to be able to discuss children and methods of helping in the

class-room. More lecturing and in-service training is being undertaken to try to promote the preventative aspects by giving advice on how to help children before their problems become severe. In this aspect day provision for emotionally disturbed children on a full-time basis is still sadly lacking and the burden of coping with these children is unfortunately continuing to fall on the ordinary teacher in the ordinary school.

The small Adjustment Class catering for children on a part-time basis continues to remain at the old Robert Galloway Clinic building, and is playing a major part in helping a limited number of children to cope and overcome their difficulties.

The Observation Class at Lever Edge Lane C.P. School has been increased in size, both from a staffing and "pupil" point of view. It is now possible to accommodate up to 14 children attending for day placement for continuous observation/diagnosis/treatment.

The Service continues to provide help in assessments for Bolton school children attending the Lady Tong Clinic, and children admitted to Firwood School, as well as the Woodside Schools. Liaison with other agencies continues to improve to the benefit of all concerned.

The 7+ Screening Survey undertaken to detect children in need of remedial reading help at the end of the first year in the Junior School produced 481 children for further assessment out of 2,483 in the age group (19.4%), and of these 349 were considered to be in need of remedial reading help (14.1% of age group). It is hoped that this survey will be modified in 1973 in order to make it more sensitive, and also it is hoped to undertake a pilot survey at 6+ to discover whether it is possible to screen for problems at this earlier age.

Remedial Service:

The Service continues to expand slowly and to cover more Primary Schools. It is still completely peripatetic and only part-time in each school, although some schools could benefit by more help, either from this Service or from within the schools themselves.

Child Guidance Clinic:

A report on the Child Guidance Clinic is given by Dr. Jonas, Consultant Child Psychiatrist. The Consultant Child Psychiatrist visits the Child Guidance Centre twice a week and the Educational Psychologists and Social Workers are available on both sessions as a contribution to the Child Guidance team approach of Child Psychiatrist, Educational Psychologist and Social Worker. The Educational Psychologists spend a further session per week in liaison with schools on children seen within the Child Guidance Clinic, and the Social Workers spend two further sessions per week on liaison with parents, other social agencies, etc.

SCHOOL PSYCHOLOGICAL SERVICE

TABLE 1

	1972	1971	1970	1969
No. of children referred during the year . .	223	246	147	153
No. of children re-referred during the year	24	25	(no separate figures)	
No. of children dealt with during year . .	275	217	95	125
No. of children on waiting list (31st Dec.)	186	214	170	168

TABLE 2
Referring Agencies

Referred by	No. of cases	
	1972	1971
Head Teachers	105	118
Parents	25	31
School Medical Officers	33	31
Education Welfare Officer	—	8
Chief Education Officer	36	16
Speech Therapist	1	2
Psychiatrist	17	6
Paediatrician	2	7
Social Services	9	4
Juvenile Liaison	6	1
General Practitioners	2	—
Careers Officer	6	—
Further Education	2	—
Self	1	—
N.S.P.C.C.	1	—
Catholic Children's Rescue Society	1	—
TOTAL	247	271

TABLE 3
Reasons for Referral

Reason given by Referring Agency	No. of cases	
	1972	1971
Backwardness	49	105
Behaviour problems	48	59
Assessment	56	56
Stealing and Lying	10	5
School Phobia	7	10
Learning Problems	2	2
School Transfer	4	9
Advice	48	13
Truanting	5	11
School Placement	14	—
Others	4	—

TABLE 4
Age Distribution of Children Referred and Re-referred

Age in years	Under 5	5 - 7	8 - 11	12 - 15	16 +
No. of children, 1972	16	55	87	78	11
No. of children, 1971	14	76	109	69	3
No. of children, 1970	8	25	96	33	3

HANDICAPPED PUPILS

One of the most important duties of the School Health Service is to advise the authority on the ascertainment of handicapped pupils. These are pupils who, because of some physical or mental disability, require special educational treatment if they are to obtain the maximum possible advantage from education. Correct ascertainment and placement is of considerable importance to individual pupils.

As far as possible, children are retained in ordinary schools unless their handicap is so severe that this would not give the child the best possible education.

The examination of children who are ascertained as educationally sub-normal is carried out by medical officers who have attended a prescribed course in this work and have fulfilled regulations laid down in The Medical Examination (Sub-Normal Children) Regulations, 1959. At the beginning of the year four medical officers having fulfilled the requirements of the regulations were able to undertake this work.

Ascertainment in 1972:

The following children were ascertained as in need of special educational treatment as handicapped pupils during the year:

Blind	1
Physically handicapped	6
Partially sighted	—
Partially hearing	2
Delicate	11
Educationally sub-normal	59
Maladjusted	17
Pupils suffering from speech defects	135
Deaf	—
Epileptic	—
Total ..	<u>231</u>

Children in Special Schools:

At the end of the year there were 440 handicapped pupils receiving special educational treatment in the special schools. Details are given in the following table

HANDICAP	SPECIAL SCHOOL	NO. OF PUPILS	
		BOARDERS	DAY
BLIND	Condoover Hall, Shrewsbury	1	—
	Wavertree, Liverpool	5	—
	Royal Normal College, Shrewsbury	1	—
	Sunshine House, Southport	1	—
PARTIALLY SIGHTED	Blackamoor School, Blackburn	—	5

HANDICAP	SPECIAL SCHOOL	NO. OF PUPILS	
		BOARDERS	DAY
DEAF	Thomasson Memorial	—	6
	Hamilton Lodge, Brighton	1	—
	Mary Hare Grammar, Berks	1	—
PARTIALLY HEARING	Thomasson Memorial, Bolton	2	13
DELICATE	Lostock Open Air	43	—
EDUCATIONALLY SUB-NORMAL	Firwood, Bolton	—	81
	Woodside, Bolton	—	199
	Allerton Priory, Liverpool	1	—
	Bostock Hall, Cheshire	2	—
	Capenhurst, Cheshire	1	—
	Crookhey Hall, Cockerham	1	—
	Crowthorn, Edgworth	9	—
	Pield Heath, Essex	1	—
	Stone Cross, Ulverston	1	—
	Pontville R.C. School, Ormskirk	2	—
	St. Peter's, Bridgnorth	1	—
	Thingwall School, Liverpool	1	—
	Woodlands, Deganwy	2	—
SEVERELY SUB-NORMAL	Linn Moor, Aberdeen	2	—
AUTISTIC	Wargrave House, Cheshire	1	—
EPILEPTIC	David Lewis Centre, Alderly Edge	1	—
	Maghull House, Liverpool	1	—
MALADJUSTED	Arkwright School, Irchester	1	—
	Besford Court, Worcester	2	—
	Bladon House, Burton-on-Trent	1	—
	Bramfield House, Halesworth	2	—
	Burnt Norden, Chipping Camden	2	—
	Caldwell Hall, Burton-on-Trent	1	—
	Clwyd School, Ruthin	2	—
	Dawlish College, Exeter	1	—
	Dennington College, Exeter	1	—
	Oxley Parker School, Colchester	3	—
	Farney Close, Sussex	1	—
	Highfield School, Worsley	1	—
	Knowl View, Rochdale	9	—
	Lendrick Muir, Kinross	1	—
	Philpots Manor, West Hoathly	1	—
	Pitt House, Torquay	1	—
	Stocks Park, Horwich	1	—
	St. Peter's, Horbury	1	—

HANDICAP	SPECIAL SCHOOL	NO. OF PUPILS	
		BOARDERS	DAY
PHYSICALLY HANDICAPPED	Bethesda School, Cheadle	1	—
	Birtenshaw Hall, Bromley Cross ..	—	10
	Blackamoor, Blackburn	—	2
	Keppleway, Broughton-in-Furness	2	—
	Singleton Hall, Blackpool	3	—
	Children's Convalescent Home, West Kirby	2	—
	Mere Oaks, Wigan	1	—
	Thomas de la Rue, Tonbridge ..	1	—
TOTALS		124	316
TOTALS		440	

Children awaiting placement in Special Schools:

The following pupils were ascertained in need of special educational treatment, but at the end of the year arrangements for accommodation had not been completed.

Physically handicapped	8
Educationally sub-normal/SSN	2
Maladjusted	5
Partially hearing	1
TOTAL ..	16

Total number receiving or awaiting special school accommodation .. 456

Special Schools in Bolton:

WOODSIDE DAY SPECIAL SCHOOLS FOR EDUCATIONALLY SUB-NORMAL CHILDREN:

The number of children on the rolls, and those admitted and discharged were as follows:

WOODSIDE SENIOR SCHOOL:

From the Bolton Area:

	BOYS	GIRLS
No. of children on the roll, December, 1972 ..	50	56
No. of children admitted during 1972	21	21
No. of children who left during 1972	8	14

From Outside Areas:

No. of children on the roll, December, 1972 ..	6	5
No. of children admitted during 1972	1	3
No. of children who left during 1972	1	3

WOODSIDE JUNIOR SCHOOL:

From the Bolton Area:

No. of children on the roll, December, 1972	..	57	36
No. of children admitted during 1972	.. ..	23	10
No. of children who left during 1972	.. ..	15	15

From Outside Areas:

No. of children on the roll, December, 1972	..	-	1
No. of children admitted during 1972	.. ..	-	-
No. of children who left during 1972	.. ..	2	1

One of the medical officers who is approved for the purpose of ascertaining educationally sub-normal children attends these schools regularly.

Children leaving Woodside Senior School at the age of 16 years who are thought to require further supervision are reported informally to the local health authority.

Firwood Special School:

(Formerly FIRWOOD TRAINING CENTRE)

For educationally sub-normal children

		BOYS	GIRLS
No. of children on the roll, December, 1972	..	46	35
No. of children admitted during 1972	.. ..	9	4
No. of children discharged during 1972	.. ..	6	2

THOMASSON MEMORIAL DAY AND RESIDENTIAL SPECIAL SCHOOL FOR DEAF AND PARTIALLY HEARING CHILDREN:

The Thomasson Memorial School continued to do good work amongst partially hearing children from the County Borough and also from other authorities' areas. There are a number of deaf children from Bolton attending the school. With a few exceptions, the children who lived in Bolton or nearby attended as day scholars; the remainder were resident.

The Consultant Aural Surgeon pays regular visits to the school. A school medical officer also paid regular visits. There is a good link with the Manchester Department of Audiology and Education of the Deaf. A start is soon to be made on parent guidance to help the parents of children suffering from deafness.

The numbers of children were:

From the Bolton Area:

		BOYS	GIRLS
No. of children on the roll, December, 1972	..	10	11
No. of children admitted during 1972	.. ..	-	2
No. of children who left during 1972	.. ..	3	4

From Outside Areas:

No. of children on the roll, December, 1972	.. ..	61	38
No. of children admitted during 1972	.. ..	10	6
No. of children who left during 1972	.. ..	5	4

LOSTOCK RESIDENTIAL OPEN AIR SCHOOL FOR DELICATE CHILDREN:

The open air school continued on the same lines as in previous years. During 1972, 43 children in the school were from the Bolton area and 29 from outside areas, principally Lancashire County. This compared with 70 children from Bolton and 42 from outside areas in 1971.

The school continued to be useful for children suffering from a variety of conditions and, apart from general debility, asthma is the principal single entity concerned.

A school medical officer visits the school each week, and the children are cared for by a local practitioner when they are ill.

The following table gives details of the number of children in attendance, admitted and discharged during the year.

From the Bolton Area:	BOYS	GIRLS
No. of children on the roll, December, 1972 ..	28	15
No. of children admitted during 1972	6	4
No. of children discharged during 1972	8	16
From Outside Areas:		
No. of children on the roll, December, 1972 ..	22	7
No. of children admitted during 1972	5	4
No. of children who left during 1972	2	3

An analysis of the medical conditions of the children who were in residence during the year is given below:

MEDICAL CONDITION	NO. OF CHILDREN	
	BOLTON	OUTSIDE AREAS
Asthma	5	9
Bronchitis	7	3
Delicate	8	1
General debility	18	3
Other conditions	5	13
	<hr/> 43	<hr/> 29
	<hr/>	<hr/>

Children in other Special Schools:

A number of Bolton children who are handicapped and who cannot be suitably educated in the special schools provided in Bolton attend residential schools in other parts of the country. These children are examined by the authority's medical officers during the school holidays when they return to Bolton so that progress can be assessed, and if there is any change in the child's disability an appropriate recommendation can be made.

Children suffering from Cerebral Palsy:

As far as possible, spastic children whose physical disability is slight and whose intelligence level is adequate are encouraged to attend an ordinary school. The majority of spastic children from Bolton whose physical disability

makes them unfit for ordinary school attend Birtenshaw Hall Special School for Spastic Children. The admission and discharge of these children is the responsibility of the Medical Advisory Panel, which meets from time to time to consider applications.

Altogether there were 26 children known to the School Health Service to be suffering from cerebral palsy. The situation at the end of the year was as follows:-

	BOYS	GIRLS
Attending Birtenshaw Hall Special School ..	7	3
Attending special school for delicate children ..	—	1
Attending residential special school	1	—
Attending ordinary schools	9	3
Not at school - pre-school children	1	1
	<hr/> 18	<hr/> 8

Children unable to attend school:

The service of home teachers was needed for 48 children. The conditions necessitating this service were as follows:-

	BOYS	GIRLS
Maladjusted	1	1
Lung infection	2	1
In plaster	4	1
Arthritis	—	1
Thalidomide	1	—
Fractures	5	2
Heart condition	1	—
Operations	4	1
In calipers	1	—
Other conditions	8	14
	<hr/> 27	<hr/> 21

Nineteen boys and sixteen girls who had suffered from conditions mentioned below were taken off the peripatetic teachers list:-

RESUMED ATTENDANCE AT ORDINARY SCHOOL:	BOYS	GIRLS
In plaster	3	—
Thalidomide	1	—
Lung infection	1	1
Fractures	5	2
Heart condition	1	—
Operations	4	1
Other conditions	4	10
DIED	—	1

ADMITTED TO SPECIAL SCHOOL:

Maladjusted	—	1
	19	16

Co-operation with the Youth Employment Service:

Handicapped pupils may encounter difficulties in obtaining or keeping employment after they leave school and to assist the Youth Employment Officers in placing these children school medical officers provide advice on Forms Y.9 or Y.10 which are sent to the Youth Employment Officer.

FORM Y.9

This form was completed in respect of 83 children and was used for children who had relatively minor defects and who were not likely to need registration under the Disabled Persons (Employment) Act, 1944. The conditions for which the form was used are given in the following table:

	BOYS	GIRLS
Defective colour vision	22	1
Defective hearing	3	5
Defective vision	16	23
Epilepsy	—	—
Heart condition	—	—
Respiratory conditions	2	1
Other conditions	6	4
	49	34

FORM Y.10

This form is used where children are sufficiently severely handicapped to make a registration under the Disabled Persons (Employment) Act, 1944, a possibility. In 1972 this form was issued in respect of 8 children, compared with 4 in 1971. These children attended residential special schools.

This form is not completed unless the parent is willing to sign a declaration stating that the nature of the disability may be revealed to the Youth Employment Officer. Generally speaking, it is to the advantage of the child that the handicap should be declared at this stage as failure to do so may lead to unsuitable employment and, eventually, to unemployment.

Leavers from—	Form Y.9 completed for—			Form Y.10 completed for—		
	Boys	Girls	Total	Boys	Girls	Total
Secondary Modern Schools ..	38	28	66	3	—	3
Art School	—	—	—	—	—	—
Grammar Schools	7	3	10	—	—	—
Special Schools	—	—	—	—	1	1
Residential Special Schools ..	3	4	7	2	2	4
Out of School	—	—	—	—	—	—
TOTALS	48	35	83	5	3	8

Speech Therapy:

A Speech Therapist is trained to assess and treat children with any sort of problem of communication, whether the cause be physical, such as cleft palate, a degree of hearing loss, or cerebral damage: whether the cause be emotional as with some stammerers, or children who become electively mute: or whether the cause is due to a poor linguistic environment resulting in the slow and often faulty acquisition of speech and language. The resultant speech problems may be of an articulatory or a linguistic nature, but are very often a mixture of the two. During her assessment and therapy the Speech Therapist works in close co-operation with others involved with the child's well-being and education, for example, E.N.T. departments, Educational Psychologists, Health Visitors and Teachers.

It cannot be emphasised too strongly how important is the early recognition of this type of problem since communication is all important. Any child whose speech development is giving cause for concern should be referred to this department. But, with only one full-time Speech Therapist in the department (Mrs. Woodcock, Senior Speech Therapist, being obliged to leave due to family illness) the outlook is gloomy for those children who are having problems with their speech.

Referrals requesting Speech Therapy come from Parents, Teachers, Health Visitors, General Practitioners and School Medical Officers and are enough to fill the waiting list many times over, but I still feel that some children in need of help are slipping through the net, or are not being referred early enough because people are unaware of the extent of the problems with which we can give help in the form of treatment or advice. The more contact we have with other professions and the general public, the less likely it is that the waiting list will be padded out with children who really do not need Speech Therapy, for example, a six-year old child who is reported to have faulty speech which on examination, turns out to be a simple lisp because the child has no front teeth! or, a three and a half year old reported to be "stammering", who in fact, is most likely passing through a stage of normal non-fluency which he will outgrow without any help at all from a Speech Therapist.

A child who is not "picked up" until he is at school has had several precious years in which to ingrain any "bad" speech habits which makes his task of undoing these habits twice as hard.

With a large waiting list it is difficult to spend time visiting schools and nurseries to find children who are having speech problems, rounding up poor attenders and advising teachers on how they can best help a child in school. The enormity of the problem can be seen from the table below:-

Present School Population	.. .. .	27,000	
Incidence of Speech Defect	.. .. .	1,350	5%*
Maximum No. receiving weekly treatment	..	60	
No. remaining requiring Speech Therapy	..	1,290	95%

Assuming that one Speech Therapist treating all day and every day - excluding interviews with new patients, review appointments, school visits, dealing with correspondence, etc., - would be able to see 60 children each week, this leaves over 95% of those in need of Speech Therapy struggling along on their own in playgroups, nurseries and schools trying to make themselves understood, trying not to mind the teasing of other children, trying to cope with the complex tasks of reading and writing.

Throughout the year two students from the School of Speech Therapy, Elizabeth Gaskell College, Manchester, have attended the clinic regularly to observe treatment sessions and the everyday running of the clinic. With a national shortage of Speech Therapists we are not doing much to encourage new employees or to promote Speech Therapy as a worthwhile and rewarding career to prospective trainees. Unless some drastic re-thinking is undertaken the outlook for those already in need of Speech Therapy and those who may require the service in the future is very bleak indeed.

* Journal of Speech and Hearing Disorders (Vol. 7) (Wohl gives a figure as high as 12% of school population suffering from speech defect).

EXAMINATIONS UNDER SECTIONS 34 AND 57 OF THE EDUCATION ACT, 1944

Approved medical officers of the authority carried out examinations under the above sections of the Education Act, 1944 of children who were not making satisfactory progress at school. In 29 cases it was recommended that the children be ascertained as educationally sub-normal and that special educational treatment should be provided.

ADDITIONAL REPORTS

Physiotherapy:

ULTRA-VIOLET LIGHT TREATMENT:

As from January, 1972, two sessions of ultra-violet light treatment per week were given on Tuesdays and Fridays. Due to fewer children being recommended for treatment it was still possible to treat pre-school and school children together. During the year 1972, 42 children attended for 502 treatments.

The conditions for which the medical officers recommended children for treatment are shown in the following table:

Loss of appetite	.. .. .	4
General Debility	.. .. .	2
Coughs and colds..	.. .. .	15
Bronchitis	.. .. .	6
Anaemia	.. .. .	2
Nasal Catarrh	.. .. .	4
Underweight..	.. .. .	2
Genu Varum	.. .. .	2
Others	.. .. .	5
		<hr/>
		42
		<hr/>

One child only was sent for breathing exercises. These exercises followed the child's ultra-violet light session. Altogether the child received 16 treatments.

Lostock Open Air School:

Two courses of ultra-violet light treatment were given during the year.

At the first course, from January to May, 19 children received 172 treatments, and at the second course, from October to December, 18 children received 180 treatments.

As from January, 1972, the children at Lostock Open Air School received physiotherapy treatment one afternoon per week. The treatments included postural drainage, postural exercises, and breathing exercises. The children were treated individually except for the breathing exercises which were taken in a class.

No. of patients	.. .. .	148
No. of new patients	.. .. .	11
No. of sessions	.. .. .	31
No. of treatments..	.. .. .	613

Firwood School:

The children at Firwood received physiotherapy treatment one afternoon per week. Each child received individual treatment.

No. of patients	88
No. of new patients	4
No. of sessions	36
No. of treatments	263

Various Physiotherapy Conditions:**Details of Children's Section**

Thirty-six children (21 boys and 15 girls) were recommended for treatment by the medical officers. Each child received individual attention.

	BOYS	GIRLS
Inversion of feet	4	5
Arthrogryposy multiplex congenita	1	—
Muscular weakness left leg	—	1
Injury right ankle	—	1
Rheumatoid Arthritis	—	1
Right torticollis	—	1
Obesity	1	—
Genu Valgum	3	2
Pes Planus	3	2
Pigeon chest	2	—
Pulled left groin muscles	—	1
Eversion of feet	3	1
Spasticity of lower limbs	1	—
Mild clumsy child	1	—
Cerebral Palsy	1	—
Restricted extension of right elbow due to old fracture	1	—
	<hr/> 21	<hr/> 15

The treatments were all carried out by a qualified physiotherapist.

Mortality in School Children:

Six children of school age (three boys and three girls) died during the year. Two deaths were due to natural causes, one was due to an accident and three were due to vehicle accidents.

School Health Education:**SECONDARY SCHOOLS**

A great variety of health education programmes now exists in the town's schools. The diversity is due to the particular specialization of the staff involved, the type of pupil, size of class, resources available and contributes to an overall picture of expansion and enthusiasm which is more valuable than a stereotyped rigid syllabus. On a generalized scale health education can be included in many other curriculum subjects as certain topics arise (i.e., English, History, Religious Education, etc.) and this calls for more accurate knowledge on the part of the teacher involved. More specifically, it is included as a time-tabled subject in many schools and the advantages of allocated time for this are obvious. The Health Education Officer is asked to advise on programmes, supply material, talk to Parent Teacher Association and augment the teaching with talks to classes.

The schools visited by the Health Education Officer include 11 High Schools, 3 Grammar Schools, 2 Special Schools and 3 Direct Grant Grammar Schools as well as 3 Further Education Establishments.

The work is still being concentrated with the school leavers and the upper age range. Raising of the school leaving age will increase the activity in this end of school, but the need to cater for the lower age range is very important and in the few schools where this has been done it has proved very successful. Two excellent prepared schemes of work which schools are being encouraged to use are Nuffield Certificate in Secondary Education Theme 3 "Biology of Man" and the North West Curriculum Development Project in Health Education. Nine Health Visitors are teaching Mothercraft to the British Red Cross Syllabus.

PRIMARY SCHOOLS:

Two primary schools had talks on hygiene from a school nurse and on dental health from a dental nurse. These were given to all the children in the school from the age of 7 upwards and included visual aids. Although they were offered sex-education talks as well, both schools declined this.

THE CARE OF CHILDREN ATTENDING NURSERY SCHOOLS, NURSERY CLASSES AND SPECIAL SCHOOLS

Nursery Schools:

School medical officers made visits to Kay Street Nursery School, Pikes Lane Nursery School and other nursery classes, throughout the year. The school nurse made monthly visits to the nursery schools.

Nursery Classes:

Medical examinations of new admissions were carried out at the 24 nursery classes.

Special Schools:

Monthly visits were paid by school medical officers to Woodside School, and weekly visits to Lostock Open Air School. The Consultant Aural Surgeon visits Thomasson Memorial Special School periodically through the year.

Results of Periodic Medical Inspection at Special Schools:

Defect or Disease	Special Schools			
	WOODSIDE (E.S.N.)		THOMASSON MEMORIAL (Deaf & Partially Hearing)	
	Requiring treatment	Requiring observation	Requiring treatment	Requiring observation
SKIN	10	3	1	-
EYES:				
Defective vision	30	10	5	2
Squint	4	1	2	-
Other	-	1	-	-
EARS:				
Defective hearing	5	6	7	19
Otitis media	1	12	1	-
Other	1	3	-	-
NOSE AND THROAT:				
Tonsils and adenoids	4	13	-	-
Other	-	1	-	-
SPEECH ABNORMALITIES	14	5	2	16
LYMPHATIC GLANDS	-	9	-	-
HEART	1	2	1	-
LUNGS	3	3	-	-
DEVELOPMENTAL:				
Hernia	-	1	-	-
Other	1	4	1	1
ORTHOPAEDIC:				
Posture	-	2	-	-
Flat Feet	5	2	-	-
Other	2	3	-	-
NERVOUS SYSTEM:				
Epilepsy	5	2	-	-
Other	2	4	-	1
PSYCHOLOGICAL:				
Development	-	140	-	-
Stability	1	9	-	-
OTHER DEFECTS OR DISEASES	-	2	-	1
TOTALS ..	89	238	20	40

EMPLOYMENT OF CHILDREN

Three hundred and twenty-five children were examined for employment outside school hours. One child applied for Juvenile Performers' Licence.

The type of employment was as follows:

	No. OF CHILDREN
Newspaper delivery	297
Shop or Store Assistants	21
General Duties	5
Entertainments	1
Milk Delivery	1
	<hr/>
	325
	<hr/>

