

[Report 1970] / Medical Officer of Health, Bolton County Borough.

Contributors

Bolton (Greater Manchester, England). County Borough Council.

Publication/Creation

1970

Persistent URL

<https://wellcomecollection.org/works/t2s6p8j4>

License and attribution

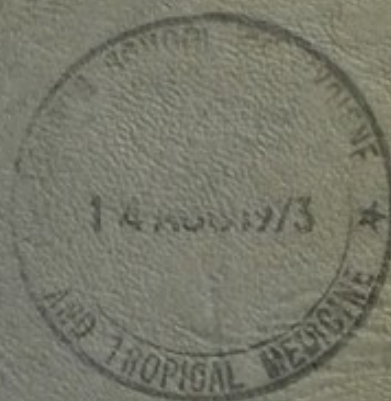
You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.

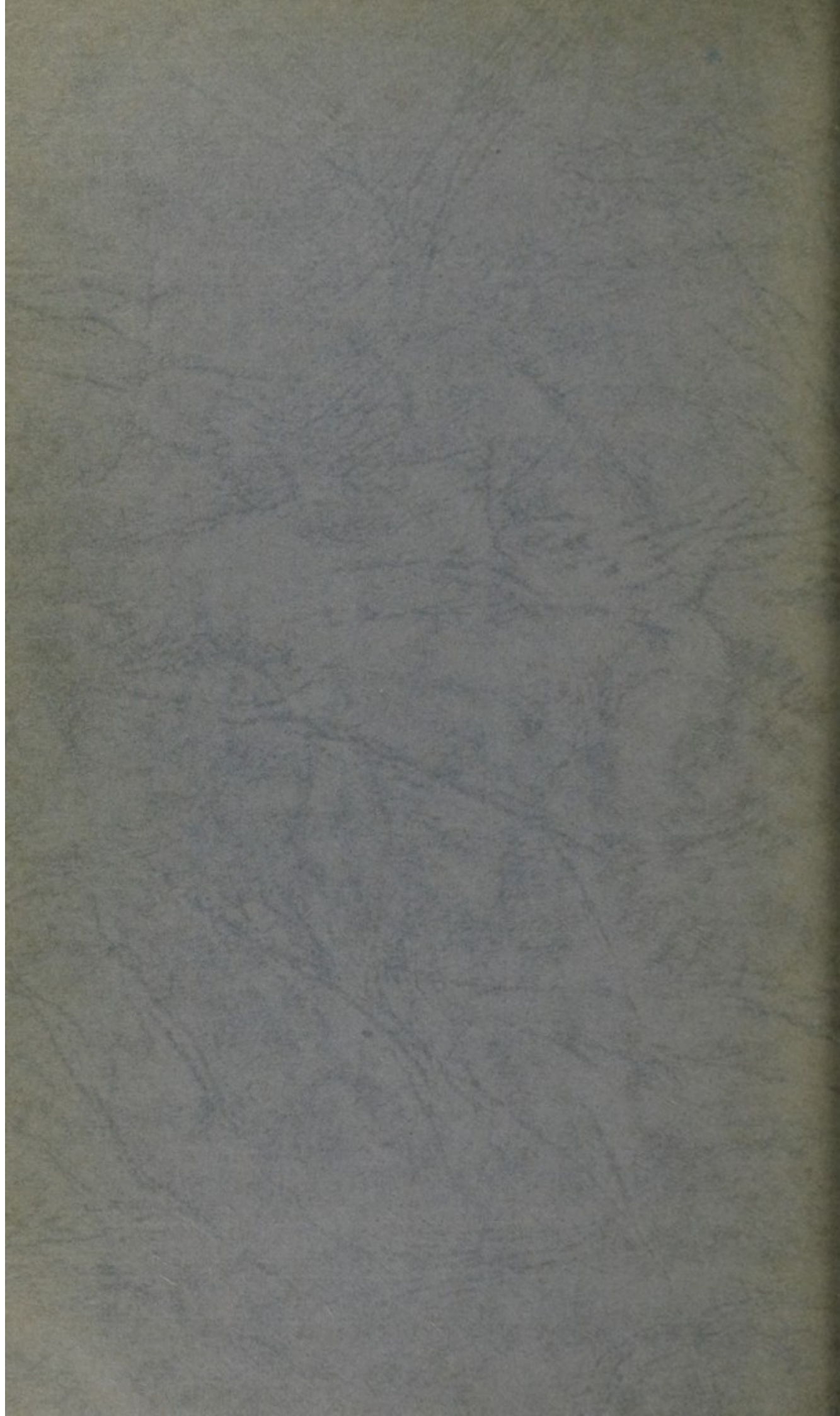


Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



THE
HEALTH OF BOLTON
1970

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH



COUNTY BOROUGH OF BOLTON



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDED

31st December, 1970

A. I. ROSS, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH

HEALTH DEPARTMENT, CIVIC CENTRE, BOLTON

Telephone No. 22311

SOCIAL SERVICES GROUP, 1970-71

(Until November, 1970)

The Mayor (Alderman J. R. Monks, G.M., J.P.)

Chairman:

Alderman Mrs. N. Vickers

Vice-Chairman:

Councillor Mrs. S. Harrison

Alderman J. Gregory
Alderman E. G. Higson
Alderman W. Walsh
Councillor S. Cohen
Councillor T. Connor, J.P.
Councillor J. Cooper
Councillor H. Grime
Councillor R. Halliwell
Councillor J. Knight
Councillor T. McEwan, T.D.

Co-opted Members:

Dr. B. Thornley
Mr. J. H. Bridge
Mr. W. C. Moss

HEALTH COMMITTEE, 1970-1971

(From November, 1970)

The Mayor (Alderman J. R. Monks, G.M., J.P.)

Chairman:

Alderman Mrs. N. Vickers

Vice-Chairman:

Councillor J. Cooper

Alderman E. G. Higson
Alderman W. Walsh
Councillor D. S. Clarke
Councillor S. Cohen
Councillor T. Connor, J.P.
Councillor R. Halliwell
Councillor Mrs. B. A. Hurst
Councillor J. Knight
Councillor J. B. O'Hara, B.A.(Econ.)
Councillor J. Parkinson

Co-opted Members:

Dr. B. Thornley
Mr. J. H. Bridge
Mr. W. C. Moss

INTRODUCTION

It would seem that we are nearing the last of the Annual Reports of Medical Officers of Health, as these appointments are likely to finish in 1974, when the post of Community Physician will be created. The end of local authority health departments will be a sad occasion for many. In the replanned National Health Service, Area Health Authorities will administer the personal services and elected representatives will have less control of what is now local health authorities responsibility. With the recent changes in the social services, and the coming reorganisation of local government and the health services, the period until April, 1974 is going to be a busy one for workers in the health field.

A Medical Officer of Health is often asked about the health of his area. Boltonians, living in an industrial town in the north west of England, suffer from the disabilities common in such areas. There are more deaths due to chronic bronchitis and more baby deaths than in the south. Teeth are poorer, with resultant earlier extractions and dentures. Bolton is not benefiting by having fluoride added to the water supply and therefore the present unsatisfactory dental condition will continue. As in the rest of the United Kingdom, there are high death rates, particularly among males, from lung cancer - 105 deaths in 1970 - and coronary thrombosis. Lung cancer is almost entirely due to cigarette smoking. Chronic bronchitis and coronary deaths are also, to a considerable extent, caused by cigarettes.

Bolton is a "Designated Area" for general practice, the number of patients on family doctors' lists being substantially greater than the national average.

There are many slum houses still to be demolished, but with a clearance programme of 800 houses a year, the end of unsatisfactory housing is in sight. Although considerable progress has been made in cleaning the air - 25,260 out of 57,000 houses are in smoke control areas - the control programme received a very serious set-back last year when because of lack of solid smokeless fuel, control orders affecting 12,000 premises had to be suspended for six months during the winter. There have been several reverses in smoke control over the years. It is now to be hoped that the programme will go forward uninterruptedly and that all the built-up part of the town will be subject to smoke control by 1981.

To be more cheerful, co-operation between the medical and social services in the town is excellent. With the exception of a district nurse who works in a liaison capacity to facilitate the early discharge of patients from the Royal Infirmary and the health visitors who have special responsibility for geriatrics and tuberculosis, all district nurses and health visitors are attached to general practices. The arrangement at the Infirmary has worked extremely well and is to be extended to the Bolton District General Hospital. Our two health centres facilitate co-operation and this will be further improved at the new Deansgate and Cannon Street Health Centres. General practitioners and local authority staff can work closely together when the doctors are in their own surgeries, either singly or in groups, but there is no doubt that this is facilitated when they use buildings such as health centres with adequate amenities for health visitors to see patients and nurses to give treatments, where nursing requisites and aids can be distributed and where other members of the local

authority staff such as social workers can call from time to time. With present developments in the medical, nursing and social services it is desirable that such help as is practicable should be given in this way to those services.

With the division in April, 1974 between the local authority controlled social services and the separately administrated health services, it will be most important that there should be co-operation by all involved including general practitioners, health visitors, nurses, midwives on the one hand and social workers on the other. Attachment of social workers to practices has been successful on a number of occasions and it is hoped that it will be possible to develop something on these lines in Bolton.

As in the rest of the country, Bolton is going to have an increasing number of old people. In 1964, Bolton's population aged 65 and over was 20,000; in 1968 the figure was 22,000 and in 1976, it is likely to be 24,300 - a very substantial increase. Applying the Registrar General's national projection of population to Bolton's population gives 26,700 people aged 65 and over in 1981. Even more serious for those caring for old folk is the 36% increase of those aged 75 to 84 years between 1961 and 1981 and the 57% increase of those aged 85 and over. Although it is highly unlikely that there will be more hospital beds for old people, it is hoped the hospital services will be improved by a new day hospital and more ancillary staff. More community services are necessary - special housing, voluntary workers, social workers, health visitors and hostels. The plight of some old people is shown by four who lived alone dying due to fires in their homes.

The Report gives details of the increase of tuberculosis among immigrants. Tuberculosis is nowadays curable and with treatment those infected are quickly rendered non-infectious. The cases among immigrants in no way constitute a threat to native Boltonians. Considerable effort is made to try to prevent tuberculosis among immigrants by giving B.C.G. vaccine to babies born to immigrant mothers and X-raying and following up the contacts of patients suffering from tuberculosis.

Our immunisation results, unfortunately, are not as satisfactory as they should be. So far the computer programme has not produced the expected improvement. Further work on this is continuing. Too few children were immunised against measles. Rubella immunisation of school girls was started and it is hoped that this will presently end the birth of babies with abnormalities which have been produced by the mother having been infected with rubella at the time she was pregnant.

During the year, attention was given to the syndrome of the "Battered Baby". A meeting of those concerned including social workers, general practitioners, police, etc., was held and a report of this meeting and its recommendations was widely circulated to those who might have to deal with this matter.

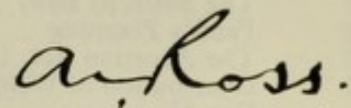
Important developments took place in the management structure of the nursing service. The implementation of the Report of the Working Party on Management Structure in the Local Authority Nursing Services (Mayston Report) by the appointment of a Chief Nursing Officer and two Area Nursing Officers will give more effective management and will facilitate the re-organisation of the local authority nursing service and the hospital service in 1974.

Attention is drawn to the decreasing number of babies being born at home - 147 last year - approximately only 5% of the total births. In recent years the number of domiciliary midwives employed has been reduced. Those with the Authority are fully occupied. They undertake ante-natal care of general practitioners' patients and also deal with larger numbers of mothers who are discharged from hospital after 48 hours or slightly longer.

Health education continued to have attention. The arrangements with the schools are very good and a considerable amount of parentcraft instruction has been given. Health education is likely to be an expanding field of the work of health authorities.

Consideration of cases for rehousing on medical grounds continued to present problems. Although the number was less than in recent years, over 300 applications supported by medical certificates or letters were received. In most cases the point at issue was whether or not ground floor accommodation was necessary. In spite of a considerable Corporation building programme there is a shortage of this type of accommodation and in view of the waiting list it would be unrealistic to recommend other than those who satisfy strict criteria. For example, ordinarily it is unjustifiable to recommend rehousing in a bungalow if there is room for a bed downstairs and the person can reach the toilet without difficulty. Each case is very fully investigated and considered. It is important that insufficient medical reasons should not be used as a means of obtaining a Corporation house or a transfer.

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 interest and helpfulness of the Chairman and members of the Committee are very much appreciated.



Medical Officer of Health.

TABLE OF CONTENTS

	Page
PART I	
Statistical Information	13-24
Summary of Statistics	14
Vital Statistics	15-24
Births	15
Stillbirths	16
Total Live and Stillbirths	16
Deaths	16
Deaths from Puerperal Causes	18
Infant Mortality	18
Deaths under Four Weeks	18
Perinatal Mortality	19
General Discussion - (Infant Mortality and Stillbirths)	19
Deaths from Cancer	20
Deaths due to Lung Cancer	21
Deaths from Coronary Artery Disease	22
Fatal Accidents in the Home	22
Suicide	23
PART II	
Local Health Services	25-92
Co-ordination of the Health Department, Hospital and Family Doctor Services	26-27
Health Centres	27
Deansgate Health Centre	27
Cannon Street Health Centre	27
Care of Mothers and Young Children	28-46
Child Health Centres	28-29
Paediatric Clinic	29-36
Congenital Abnormalities	36
Ascertainment of Deafness in Young Children - Screening Tests of Hearing	37-38
Developmental Paediatrics	38
The Psychological Testing of Children under Two	39
Routine Testing of Babies for Phenylketonuria	39
Care of Unmarried Mothers	39
The Battered Baby	40
Family Planning	40-42
The Abortion Act, 1967	42
Distribution of Welfare Foods	42
Day Nurseries	43
Nurseries and Child-Minders' Regulation Act, 1948	43-44
Dental Treatment	45
Physiotherapy	45-46
Community Nursing Division	47-49
Nursing Staff	47-48
Nursing Establishment	48
Midwifery	50-56
Distribution of Births	50
Domiciliary Confinements	50
Survey	51
Ante-Natal Clinic, Civic Centre	51
General Practitioner Ante-Natal Clinics	52
Flying Squad	52
Medical Aid	53
Testing for Congenital Dislocation of Hip	53
The Oxygenaire Portable Incubator	53
Early Discharge of Maternity Patients from Hospital	53
Selected Patients for Early Discharge	53
Health Education: Mothercraft Classes for Expectant Mothers	55
Radio Telephones for Midwives	56
District Midwife Training	56
Health Visiting	57-62
Home Visits	57
Primary Visits	57
Crisis Visits	57

	Page
Week-end Emergency Scheme	58
Tuberculosis Visiting	59
B.C.G. for Babies of Immigrant Parents	59
T.B. After-Care Committee	60
Geriatrics	60
Paediatrics	60
Liaison with General Practitioners	61
The Prevention of Break-up of Families	61
Mothers' Clubs	62
Home Nursing	63-66
Clinic Sessions	63
Hospital Liaison - Early Discharge of Patients	64
General Practitioner Attachment	64
District Nurse Training	65
Nursing Equipment and Loans	65
Laundry Service and Supply of Incontinence Pads and Garments	65
Dressing Service	66
Practical Training of Students and Other Visitors	66-68
Hospital Nurses	66
Student Health Visitors	66
Day Nursery Students	67
Other Visitors	67
Staff Training	67
Study Days	68
Immunisation and Vaccination	69-73
Immunisation	69
Vaccination Against Smallpox	70
Vaccination Against Poliomyelitis	71
Vaccination against Measles	71
Ambulance Service	74-77
General Review	74
Patients Carried by Rail	75
Yearly Analysis of Work done by the Ambulance Service	75
Emergency Calls	76
Vehicle Strength at 31st December, 1970	77
Ambulance Control Room	77
Civil Defence	77
Ambulance Vehicle Workshop	77
Prevention of Illness, Care and After-Care	78-83
Health Education	78-80
Cervical Cytology and Cancer Screening	80
Geriatric Advisory Clinic	81
Convalescent Home Accommodation	82
Chiropody	82
Home Help	84-86
Cases for whom help was provided during the past four years	85
Summary of Payment for Service	85
Staff	85
Training	85
Night Attendant Service	86
Weekend Emergency Service	86
Medical Examination	86
Mental Health	87-92
Staff	87
Liaison	87
MENTAL ILLNESS	88-90
Hospital Admissions	88
Cases referred to Health Department for investigation	88
Greenmount House	89
Rehabilitation Hostel - Greenmount Annexe	89
Greenroyd Hostel	89
Psychiatric Rehabilitation Unit - Cotton Street	90

	Page
MENTAL SUBNORMALITY AND SEVERE SUBNORMALITY	90-92
Hospital Admissions for Subnormality	90
Cases referred to Health Department for Investigation	90
Junior Training Centre	91
Special Care Unit	91
Medical Inspections	92
Adult Training Centre	92
Medical Inspections	92
Park House	92
 PART III 	
Control of Infectious Diseases	93-106
Notifiable Infectious Diseases	94-98
Incidence	94
Deaths from Infectious Diseases, 1961 - 1970 inclusive	95
Diphtheria	95
Dysentery	95
Gastro-enteritis of Infancy	95
Brucellosis	95
Measles	96
Whooping Cough	96
Poliomyelitis	97
Scarlet Fever	97
Pneumonia	97
Infective Jaundice	97
Enteric Fever	97
Food Poisoning	97
General Administration of the Control of Infectious Diseases	98
Tuberculosis	99-105
Notifications	99
Deaths	100
Summary of the work at the Chest Clinic	100
General Comment	100
Care and After-Care of Patients Suffering from Tuberculosis	102
After-Care Panel	102
Other After-Care Activities	103
Contact Clinic	103
B.C.G. Vaccination	103
B.C.G. Vaccination of School Children	103
School Children with Positive Tuberculin Tests	104
Mass Miniature Radiography Survey in Bolton	104
Venereal Disease	106
 PART IV 	
Environmental Hygiene	107-194
Work of the Chief Public Health Inspector	108
Slum Clearance	108-111
Clearance Areas and Compulsory Purchase Orders	108
Confirmed Clearance Areas	108
Other Clearance Areas	109
Inquiries from Purchasers of Houses	110
Advances for House Purchase	110
Improvement and Standard Grants	110
Certificates of Disrepair - Rent Act, 1957	111
Housing Statistics	111
Housing Inspections	111
Clean Air	112-115
Measurement and Investigation of Atmospheric Pollution	112
Installation of Furnaces	112
Industrial Fumes, Dust, etc.	112
Clean Air Act, 1956 - Section 16; Clean Air Act, 1968 Section 1	112
Alkali, etc., Works Regulations Act, 1906	113
Smoke Control Areas	113
Applications	115
Claims	115

	Page
Inspection and Supervision of Food	116-124
Milk	116
Meat Inspection	117
Meat Inspection Regulations, 1963 (as amended)	117
Analysis of parts of Carcases of Animals Condemned	118
Inspection of Meat and Other Foods	118
Meat (Sterilization) Regulations, 1969	119
Disposal of Condemned Food Stuffs other than fresh meat	119
Slaughterhouses	119
Export Slaughter	119
Slaughter of Animals Acts, 1933 - 1958	119
Diseases of Animals Acts	119
Imported Food Regulations, 1968	120
Poultry Inspection	120
Food and Drugs Sampling for Chemical Examination	120
Food Hygiene	121
Bacteriological Examination of Other Foodstuffs	121
Food Complaints	121
Infestation in Food	123
Legal Proceedings - Food Hygiene	123
Legal Proceedings - Food Complaints	124
Tuna Fish.....	124
Miscellaneous samples	124
General Sanitation	125-131
Conversion of Waste Water Closets	125
Public Water Supplies	125
Private Water Supplies	126
Sewerage and Sewage Disposal	126
Factories Act, 1961	127
Offices, Shops and Railway Premises Act, 1963	127
Houses in Multiple Occupation.....	128
Caravan Sites and Control of Development Act, 1960	129
Caravan Sites Act, 1968	129
Common Lodging Houses	129
Offensive Trades	129
Hairdressing Establishments	129
Pharmacy and Poisons Act, 1933; Poisons List Order, 1970, Poisons Rules, 1970	129
Pet Animals Act, 1951	130
Animal Boarding Establishments Act, 1963	130
Riding Establishments Acts, 1964 and 1970	130
Rag Flock and Other Filling Materials Act, 1951	130
Noise Abatement Act, 1960	130
Fertilisers and Feeding Stuffs Act, 1926	131
Disinfection and Disinfestation	132-133
Disinfection	132
Disinfestation	132
Mortuary	132
Municipal Medical Baths	133
Tables	133-144
TABLE 1 - COMPLAINTS	133
TABLE 2 - STANDING COMMITMENTS	134
TABLE 3 - DETECTION OF SANITARY DEFECTS	135
TABLE 4 - NOTICES SERVED	138
TABLE 5 - HOUSING DEFECTS AND LEGAL PROCEEDINGS	138
TABLE 6 - SANITARY IMPROVEMENTS EFFECTED	139
TABLE 7 - FACTORIES ACT, 1961 - PLACES OF EMPLOYMENT - DEFECTS FOUND	139
TABLE 8 - FACTORIES ACT, 1961 - OUTWORK (SECTIONS 133 AND 134) ..	140
TABLE 9 - FACTORIES ACT, 1961 - PLACES OF EMPLOYMENT - IMPROVE- MENTS SECURED	140
TABLE 10 - FACTORIES ACT, 1961 - PLACES OF EMPLOYMENT - INSPECTION FOR PURPOSES OF PROVISIONS AS TO HEALTH	141
TABLE 11 - OFFICES, SHOPS AND RAILWAY PREMISES ACT, 1963	141

	Page
TABLE 12 - DISINFECTION	143
TABLE 13 - DISINFESTATION	143
TABLE 14 - DESTRUCTION OF RATS AND MICE - PREVENTION OF DAMAGE BY PESTS ACT, 1949	144
Report of the Borough Analyst	145-194
Staff	145
New and Proposed Legislation	146
Labelling of Food Regulations, 1970	146
The Cheese Regulations, 1970	147
The Cream Regulations, 1970	148
The Emulsifiers and Stabilisers in Food (Amendment) Regulations, 1970	149
The Colouring Matter in Food (Amendment) Regulations, 1970	149
The Food and Drugs (Milk) Act, 1970	149
The Agriculture Act, 1970	149
The Food Additives and Contaminants Committee	150
Report on the Leaching of Substances from Packaging Materials into Foods	150
Review of the Emulsifiers and Stabilisers in Food Regulations, 1962.....	150
Food Standards Committee Report on the pre-1955 Compositional Orders	151
Total Number of Samples Examined	151
Food and Drug Samples	152
Unsatisfactory Milk Supplies	153
Unsatisfactory Food and Drug Samples (other than milk samples)	153
TABLE A - SAMPLES EXAMINED UNDER THE FOOD AND DRUGS ACT	156
TABLE B - UNSATISFACTORY MILKS, 1963 - 1970	161
TABLE C - UNSATISFACTORY MILK SAMPLES	162
TABLE D - UNSATISFACTORY FOOD SAMPLES (OTHER THAN MILK)	169
TABLE E - UNSATISFACTORY DRUG SAMPLES	177
FOOD COMPLAINTS	178
TABLE F - FOOD COMPLAINTS	178
Milk Samples	182
Designated Milks	183
Antibiotics in milk	183
Ice Cream Samples	183
Domestic Water Supplies	184
Swimming Bath Waters	184
Fertilisers and Feeding Stuffs	185
Trade Descriptions Act	188
Consumer Protection Act	188
Atmospheric Pollution	188
Waterworks Committee	188
Samples from other Corporation departments, other local authorities and private samples	190
TABLE G - ATMOSPHERIC POLLUTION - SMOKE - DAILY AVERAGES	191
TABLE H - ATMOSPHERIC POLLUTION - SULPHUR DIOXIDE - DAILY AVERAGES	192

PART V

Additional Information	195-206
Fluoridation of Water Supplies.....	196
Medical Examination of Corporation Employees	197-199
National Assistance Act, 1948 - Section 47 - Persons in need of Care and Attention	199
The Incidence of Blindness, Epilepsy and Cerebral Palsy	199-200
Blindness	199
Epilepsy	199
Cerebral Palsy	200
Facilities available for Handicapped Persons	200
Work done on behalf of the Children's Committee	200
Medical Examinations.....	200
Nutritional Status	200
Co-ordinating Committee - Problem Families	201
Nursing Homes	201
Cremation	202
Rehousing on General Medical Grounds	202-203
Baths	203-204
Attendances	204
New Central Baths Project.....	204
Meteorological Summary	206

PRINCIPAL STAFF OF THE HEALTH DEPARTMENT

at 31st December, 1970

MEDICAL STAFF

Medical Officer of Health	.. .. .	A. I. Ross, M.D., D.P.H.
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.
Senior Medical Officer	.. .. .	Audrey Seddon, M.B., Ch.B., D.(Obst.) R.C.O.G.
Medical Officers and School Medical Officers	.. .. .	Mavis J. Allanson, M.B., Ch.B., D.(Obst.) R.C.O.G. E. Losonczy, M.D., D.P.H. Dorothy M. Paterson, M.B., Ch.B., B.A.O. (Cork). J. Tudor, M.B., L.M.S.S.A. (commenced 2.1.70).

NURSING STAFF

Chief Nursing Officer	.. .. .	Miss E. M. Richardson, S.R.N., S.C.M., H.V., and Q.N. Certs., D.N. (London), Nursing Admin. (Public Health) Cert.
Superintendent Health Visitor	.. ..	Mrs. E. Gallagher, S.R.N., S.C.M., H.V. and Q.N. Certs. (commenced 1.4.70)
Deputy Superintendent Health Visitor		Miss A. M. Fraser, S.R.N., S.C.M., H.V. Cert.

HOME NURSING

Superintendent	.. .. .	Mrs. E. Hankin, S.R.N., Q.N. Cert. (commenced 1.4.70)
Deputy Superintendent	.. .. .	A. Rothwell, S.R.N., Q.N. Cert. (commenced 1.4.70)

MIDWIFERY

Non-Medical Supervisor	Miss A. M. Fraser, S.R.N., S.C.M., H.V. Cert.
------------------------	---------	---

DAY NURSERIES

Supervisor	Mrs. M. E. Chapman, S.R.N., S.C.M., Q.I.D.N., 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.

MENTAL HEALTH SERVICE

Chief Mental Health Officer	A. M. Cassam, S.R.N., R.M.N., C.I.S.W.T.
Supervisor - Junior Training Centre	Miss E. Dobbin, Dip. N.A.M.H.
Supervisor - Adult Training Centre	Mrs. J. Cook, Dip.N.A.M.H. (resigned 4.1.70)
	J. Huddart (commenced 5.1.70)
Superintendent - Greenmount House	P. J. Carroll, S.R.N., R.M.N.
Matron - Greenmount House	Mrs. M. T. North, S.E.N.
Superintendent - Park House	D. D. Gould, R.M.N.
Supervisor - Greenroyd Hostel ..	Mrs. E. Lucas

HOME HELP SERVICE

Home Help Organiser	Miss O. Brindle, M.I.H.H.O., A.R.S.H., A.I.S. W
-----------------------------	---

AMBULANCE SERVICE

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

ANALYST

Borough Analyst	P. Morris, B.Sc., F.R.I.C., F.I.F.Sc.T.
-------------------------	---

BATHS

Manager	A. Bolshaw, A.M.Inst.B.M. (resigned 6.12.70)
-----------------	--

COUNTY BOROUGH OF BOLTON

PART 1

STATISTICAL INFORMATION

Summary of Statistics

Vital Statistics

SUMMARY OF STATISTICS, 1970

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. 1887-1970: 51.82")	49.6"
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
„ (Estimated Civilian Population, 1970)	152,010
New permanent houses, including flats, certified	655
Existing buildings altered to provide dwelling accommodation	2
Estimated number of houses in the Borough	56,913
Rateable value at 1st April, 1970	£5,756,821
Rate at 1d. in the £ estimated to produce (1970-71)	£22,850
Live births	2,622
Live births per 1,000 population (Corrected)	18.60
Stillbirths	56
Stillbirth rate per 1,000 live and stillbirths	21.0
Total live and stillbirths	2,678
Infant Deaths	58
Infant mortality rate per 1,000 live births total	22.12
Infant mortality rate per 1,000 live births—legitimate	21.31
Infant mortality rate per 1,000 live births—illegitimate	28.16
Neo-natal mortality rate per 1,000 live births	12.20
Early Neo-natal mortality rate (under one week)	11.02
Illegitimate live births per cent of total live births	10.83
Maternal deaths (including abortion)	Nil
Maternal mortality rate per 1,000 live and stillbirths	Nil
Deaths	2,122
*Death rate (Corrected)	14.60
*Average Death Rate (1961-1970)	14.46
*Heart and Circulation Death Rate	7.05
*Cancer Death Rate	2.48
*Death Rate from diseases of the Respiratory System	2.46
*Pulmonary Tuberculosis Death Rate	0.06
Diarrhoea Death Rate (Deaths under two years per 1,000 live births)	1.14

ENGLAND AND WALES:

*Birth Rate	16.0
Stillbirth Rate (per 1,000 total births)	13.0
*Death Rate	11.70
Infant Mortality (Deaths under one year per 1,000 live births)	18.0

*Per thousand of population

VITAL STATISTICS

Births:

There were 2,622 live births to Bolton residents, 1,309 males and 1,313 females, the lowest figure since 1959. The live birth rate (corrected) per 1,000 of the population was 18.60 compared with 16.0 for England and Wales.

Both the number of births and the rate have fallen compared with the previous year. For the first time since 1940, there were more females born.

The following table shows the pattern of these figures since the last census.

Year	Population	No. of Live Births	Live Birth Rate per 1,000 population (Corrected)
1961	160,740	2,675	16.60
1962	160,650	2,767	17.22
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

LIVE BIRTHS IN INSTITUTIONS	NUMBER	PERCENTAGE OF TOTAL LIVE BIRTHS
Bolton District General Hospital ..	1,643	
Haslam Maternity Home	331	
Havercroft Maternity Home	137	
Heaton Grange Maternity Home ..	341	
Institutions and Homes outside Bolton	24	
TOTAL	2,477	94.5
LIVE BIRTHS AT HOME	145	5.5

The number of births at home and in hospital is dealt with more fully in the Midwifery part of the report. The figures given in the Midwifery Section 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 219 premature live births.

The percentage of deliveries taking place in hospitals and maternity homes continues to rise, 82% in 1956, 86.9% in 1966, 91.6% in 1968, 93.0% in 1969 and 94.5% in 1970.

Stillbirths

The number of stillbirths was 56, giving a stillbirth rate of 21.0 per 1,000 live and stillbirths.

The causes of the 56 stillbirths are given in the following table:

Cause of Stillbirth	Number M & F
Placental insufficiency	1
Haemorrhage without mention of placental condition	3
Toxaemia with convulsions during pregnancy or labour (Eclampsia)	—
Difficulty labour	1
Rhesus incompatibility	1
Diabetes	2
Abnormality of placental cord	2
Hydrocephalus	2
Intra-uterine anoxia	8
Prematurity	5
Other ill-defined causes	31
TOTAL ..	56

Total live and stillbirths:

The total number of live and stillbirths was 2,678.

Deaths:

There were 2,122 deaths (1,064 males and 1,058 females) giving a corrected death rate of 14.6 per 1,000 of the population.

There were 828 Bolton residents who died outside the Borough; of these 719 died in Bolton District General Hospital or Townleys Branch Hospital.

Non-residents who died in the area numbered 219.

Summary of the Principal Causes of Death, 1970

Causes of Death	No. of Deaths	Males	Fe- males	0-	1-	5-	15-	25-	35-	45-	55-	65-	75-
Tuberculosis, Respiratory	10	7	3	-	-	-	1	-	2	1	3	2	1
Other	1	1	-	-	-	-	-	-	-	-	1	-	-
Syphilitic disease	-	-	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	1	1	-	1	-	-	-	-	-	-	-	-	-
Meningococcal infections	4	2	2	-	-	-	1	-	-	1	2	-	-
Acute Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-
Other infective and parasitic diseases	1	-	1	-	-	-	-	-	-	-	-	1	-
Malignant Neoplasm:													
Stomach	60	37	23	-	-	-	-	-	-	8	14	24	14
Lung and Bronchus	105	86	19	-	-	-	1	-	5	10	39	34	16
Breast	37	-	37	-	-	-	-	-	2	6	9	11	9
Uterus	14	-	14	-	-	-	-	-	-	1	3	6	4
Other malignant and lymphatic neoplasms	162	74	88	-	-	2	1	3	7	11	30	46	62
Leukaemia and Aleukaemia	5	4	1	-	-	-	-	-	1	-	1	3	-
Diabetes	16	5	11	-	-	-	-	-	1	-	4	5	6
Vascular lesions of nervous system	325	119	206	-	-	-	-	-	1	11	43	92	178
Coronary disease, angina	496	281	215	-	-	-	-	-	3	47	93	167	186
Hypertension with heart disease	31	16	15	-	-	-	-	-	-	1	7	11	12
Other heart disease	123	48	75	-	1	-	1	-	1	7	16	35	62
Influenza	38	14	24	-	1	-	-	-	1	3	5	15	13
Pneumonia	184	101	83	15	-	-	-	-	2	5	19	55	88
Bronchitis	124	91	33	-	-	-	-	-	2	9	30	42	41
Other diseases of respiratory system	29	16	13	1	-	-	-	-	-	2	7	7	12
Ulcers of stomach and duodenum	16	11	5	-	-	-	-	-	-	1	4	5	6
Gastritis, enteritis and diarrhoea	4	4	-	2	1	-	-	-	-	-	-	1	-
Nephritis and Nephrosis	8	5	3	-	-	-	-	-	1	-	1	3	3
Hyperplasia of Prostate	3	3	-	-	-	-	-	-	-	-	1	1	1
Pregnancy, childbirth and abortion	-	-	-	-	-	-	-	-	-	-	-	-	-
Congenital malformations	13	7	6	5	-	-	-	-	-	-	-	-	-
Other defined and ill-defined diseases	228	100	128	32	1	-	1	8	8	11	27	41	116
Motor vehicle accidents	18	11	7	-	1	-	3	1	-	2	2	4	4
Suicide	10	3	7	-	-	-	1	-	3	2	1	3	-
All other accidents	56	22	34	2	-	1	-	1	3	-	3	4	32
Homicide and Operations of War	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS	2,122	1,064	1,058	58	5	4	10	13	43	139	366	618	866

Death from Puerperal Causes:

There were no deaths from puerperal causes in 1970.

Infant Mortality:

There were 58 deaths of infants under one year - an infant mortality rate of 22.12 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	11	—	—	—	—	11
Congenital malformations	5	2	2	2	—	11
Pneumonia	5	4	6	—	—	15
Post-natal asphyxia and Atelectasis	1	—	—	—	—	1
Birth Injury	5	—	—	—	—	5
Other Causes	5	6	4	—	—	15
TOTALS	32	12	12	2	—	58

Deaths under Four Weeks:

There were 32 deaths of infants under four weeks giving a neo-natal mortality rate of 12.20 per 1,000 live births. The rate for England and Wales was 12.0.

The early neo-natal mortality rate (under one week) was 11.02, the rate for England and Wales being 11.0. The total number of deaths in the first week was 29.

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	9	1	—	1	11
Congenital malformations	4	—	1	—	5
Pneumonia	5	—	—	—	5
Post-natal asphyxia and Atelectasis ..	1	—	—	—	1
Birth Injury	5	—	—	—	5
Other Causes	5	—	—	—	5
TOTALS	29	1	1	1	32

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 1970 the perinatal mortality rate in Bolton was 31.74.

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.

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Infant Mortality Rate ..	19.4	24.2	32.6	19.1	20.5	24.6	23.9	28.04	23.7	22.12
Neo-natal Mortality Rate ..	11.6	18.1	19.6	10.8	14.0	12.7	15.7	18.44	14.8	12.20
Stillbirth Rate	17.6	19.1	16.4	15.3	17.3	16.1	15.1	17.05	14.2	20.91
Perinatal Death Rate	27.5	34.0	32.4	24.8	29.5	27.1	28.1	33.12	23.0	31.74
Deaths of infants aged 1 week but under 1 year per 1,000 total live births	9.2	8.9	16.0	9.2	8.1	13.2	10.7	11.5	14.8	11.02

General Discussion - (Infant Mortality and Stillbirths)

The most significant figure was the number of stillbirths of which there were 56. Whilst there were 79 fewer live births than in the previous year the stillbirths have increased by 17 and this gives a fairly substantial increase in both the perinatal mortality rate and the stillbirth rate. The latter was the highest since 1958 and very much higher than the 13.0 recorded for England and Wales. Nevertheless, the trend over the years is for the figure to fall and the rate for one year, due to the relatively low numbers involved, cannot be taken in isolation.

Fifty eight children died before they reached their first birthday but only 2 of these were over the age of six months. Twelve of these children were from immigrant families and, as in the previous years, were in a greater number than could be expected from the births in this group. Normally the illegitimate children have a higher infant mortality rate than legitimate children but the immigrant children's rate is even higher.

The percentage of children born at home is as follows:

1962	..	..	..	..	..	..	..	20%
1963	..	..	..	..	..	..	..	19%
1964	..	..	..	..	..	..	..	18%
1965	..	..	..	..	..	..	..	18%
1966	..	..	..	..	..	..	..	13%
1967	..	..	..	..	..	..	..	11%
1968	..	..	..	..	..	..	..	8%
1969	..	..	..	..	..	..	..	7%
1970	..	..	..	..	..	..	..	6%

Deaths from Cancer

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

Site	1961		1962		1963		1964		1965		1966		1967		1968		1969		1970	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Stomach	67	2.96	73	3.30	72	3.23	56	2.70	61	2.94	63	2.87	54	2.72	41	1.93	53	2.34	60	2.82
Lung & Bronchus	71	3.13	98	4.43	90	4.04	109	5.26	110	5.27	105	4.80	87	4.39	96	4.51	96	4.33	105	4.94
Breast	32	1.41	40	1.81	31	1.39	32	1.54	22	1.05	45	2.06	37	1.86	31	1.42	44	1.98	37	1.74
Uterus	16	0.71	21	0.95	6	0.27	20	0.97	22	1.05	15	0.69	16	0.81	6	0.28	22	0.99	14	0.65
Other Sites	173	7.63	172	7.77	167	7.50	178	8.59	167	8.0	194	8.86	176	8.88	193	9.08	93	4.19	162	7.63
TOTAL DEATHS FROM CANCER	359	15.84	404	18.26	366	16.43	395	19.06	382	18.30	422	19.27	370	18.66	367	17.27	308	13.89	378	17.84
TOTAL DEATHS: (All Causes) ..	2,267		2,122		2,227		2,072		2,088		2,190		1,981		2,125		2,216		2,122	

Deaths from Lung Cancer:

The number of deaths from lung cancer was 105, which is equal to the second highest figure recorded in Bolton with only 1965 (110 deaths) showing a greater incidence.

Thirty years ago, only 15 people died from lung cancer in Bolton in 1941, and since then there has been a continuous rise in the deaths as seen by the total in each five year period.

Years	Deaths
1941-1945	87
1946-1950	180
1951-1955	308
1956-1960	396
1961-1965	478
1966-1970	488

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

Age Group	Males	Females	Total
15 - 24	—	1	1
25 - 34	—	—	—
35 - 44	5	—	5
45 - 54	8	2	10
55 - 64	35	4	39
65 - 74	29	5	34
75 and over	9	7	16
TOTALS	86	19	105

Cigarette smoking is mainly responsible for the much higher figures in males with their consumption of tobacco four times that of females and if atmospheric pollution is also responsible it must affect the women as well as the men.

Evidence still accumulates about the relationship of tobacco to lung cancer, and few smokers must be unaware that the habit interferes with their health. There appears to be little indication that this is causing a reduction in cigarette smoking except in small groups of people such as doctors. It is surely time that the government gave a more definite lead by such actions as prohibiting smoking in places such as public transport, cinemas and theatres.

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
1961	110	355
1962	138	386
1963	146	407
1964	135	396
1965	129	398
1966	138	388
1967	130	393
1968	141	477
1969	151	504
1970	143	496

Though the total deaths from the disease have fallen slightly, there were fewer deaths from all conditions and the actual percentage of people dying from coronary artery disease has increased slightly. In the year, 23% of the deaths in Bolton were due to the condition compared with 22.7% in the previous year.

The disease is associated with the living conditions in Western countries such as smoking, obesity, high intake of saturated fat and refined sugar, lack of exercise and stress. Many of these factors are avoidable but as with tobacco causing lung cancer, little notice is taken by the public. Future generations may be in even worse trouble when the effects of lack of exercise become evident. It is not uncommon, especially in middle-class areas, to see children being taken short distances to school by car even in good weather.

Fatal Accidents in the Home:

There were 31 fatal accidents in the home during 1970 and, though this is five more than in the previous year, it is still below the pre-1965 figures. In 1965, the Bolton Home Safety Committee was formed and since that date the number of fatal accidents is lower in spite of the growing number of old people. Home accidents are almost wholly confined to the elderly and 28 of the deaths were in people aged 70 and over.

The number of fatal accidents since 1961 are given below:

1961	..	..	..	..	..	..	56
1962	..	..	..	..	..	..	43
1963	..	..	..	..	..	..	50
1964	..	..	..	..	..	..	37
1965	..	..	..	..	..	..	34
1966	..	..	..	..	..	..	29
1967	..	..	..	..	..	..	26
1968	..	..	..	..	..	..	28
1969	..	..	..	..	..	..	26
1970	..	..	..	..	..	..	31

The following table shows the distribution of accidental deaths in the home, according to age, sex and 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 ..	–	–	–	–	1	5	5	9	20
– other	–	–	2	–	–	–	–	5	7
Carbon monoxide poisoning ..	–	–	–	–	1	–	1	–	2
Burns	–	–	–	–	–	–	–	1	1
Asphyxia	1	–	–	–	–	–	–	–	1
TOTALS	1	–	2	–	2	5	6	15	31

Suicide:

There were 10 suicides in 1970, 3 fewer than in 1969 and the lowest figure recorded since the war.

The number of suicides since 1961 are given below:

1961	..	..	..	..	..	34
1962	..	..	..	..	..	22
1963	..	..	..	..	..	13
1964	..	..	..	..	..	25
1965	..	..	..	..	..	20
1966	..	..	..	..	..	24
1967	..	..	..	..	..	15
1968	..	..	..	..	..	28
1969	..	..	..	..	..	13
1970	..	..	..	..	..	10

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

Cause of Death	15-44		45-64		65 and over		Total
	Male	Female	Male	Female	Male	Female	
Barbiturate Poisoning ..	1	1	-	1	1	1	5
Self Inflicted Violence ..	1	1	-	2	-	-	4
Impramine Poisoning ..	-	-	-	-	-	1	1
TOTALS	2	2	-	3	1	2	10

This low figure may indicate that the more effective treatments for depression are being utilised and this in turn may reduce the incidence of suicide. Voluntary bodies such as the "Samaritans" may also be helping to lower the number of deaths.

The following table shows the number of persons in the various age groups according to sex and nature of the disease.

Age Group	Male		Female		Total
	No.	%	No.	%	
Under 15 years	10	1.2	15	1.8	25
15 to 25 years	20	2.4	30	3.6	50
25 to 35 years	30	3.6	40	4.8	70
35 to 45 years	40	4.8	50	6.0	90
45 to 55 years	50	6.0	60	7.2	110
55 to 65 years	60	7.2	70	8.4	130
65 to 75 years	70	8.4	80	9.6	150
75 to 85 years	80	9.6	90	10.8	170
85 to 95 years	90	10.8	100	12.0	190
Total	420	50.4	480	57.6	900

Results: The following table shows the number of persons in the various age groups according to sex and nature of the disease.

Age Group	Male		Female		Total
	No.	%	No.	%	
Under 15 years	10	1.2	15	1.8	25
15 to 25 years	20	2.4	30	3.6	50
25 to 35 years	30	3.6	40	4.8	70
35 to 45 years	40	4.8	50	6.0	90
45 to 55 years	50	6.0	60	7.2	110
55 to 65 years	60	7.2	70	8.4	130
65 to 75 years	70	8.4	80	9.6	150
75 to 85 years	80	9.6	90	10.8	170
85 to 95 years	90	10.8	100	12.0	190
Total	420	50.4	480	57.6	900

The following table shows the number of persons in the various age groups according to sex and nature of the disease.

Age Group	Male		Female		Total
	No.	%	No.	%	
Under 15 years	10	1.2	15	1.8	25
15 to 25 years	20	2.4	30	3.6	50
25 to 35 years	30	3.6	40	4.8	70
35 to 45 years	40	4.8	50	6.0	90
45 to 55 years	50	6.0	60	7.2	110
55 to 65 years	60	7.2	70	8.4	130
65 to 75 years	70	8.4	80	9.6	150
75 to 85 years	80	9.6	90	10.8	170
85 to 95 years	90	10.8	100	12.0	190
Total	420	50.4	480	57.6	900

The following table shows the number of persons in the various age groups according to sex and nature of the disease.

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 Division

Midwifery

Health Visiting

Home Nursing

Immunisation and Vaccination

Ambulance

Prevention of Illness, Care and After-Care

Home Help

Mental Health

CO-ORDINATION OF THE HEALTH DEPARTMENT, HOSPITAL AND FAMILY DOCTOR SERVICES

Critics of the National Health Service frequently suggest that there is lack of communication between the three branches, the hospital services, executive council services (providing the general practitioner service) and the local health authority services. It is suggested that the divisions of the service lead either to duplication of work or failure to provide adequate facilities. To avoid these defects it is important for representatives of all sections to have liaison at co-ordinating committees and workers to meet at all levels of activity. One of the ways in which co-ordination can be achieved is for personnel to work in the same accommodation and health centres are an excellent example of this.

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 spend all their time doing specialised geriatric duties and working closely with the Consultant Geriatrician. 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 prevent hospitalisation with some patients and allows earlier discharge 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.

PSYCHIATRY:

The mental welfare officers work closely with the Consultant Psychiatrists and attendance at case conferences enables the social workers to know about the progress of the patients in hospital so that suitable after-care can be given after they are discharged.

One of the Consultant Psychiatrists visits Greenmount House, the hostel for mentally disturbed old people and helps in the assessment of the suitability of cases for admission. The Consultant in Mental Subnormality at Brockhall Hospital attends the Civic Centre once monthly when he sees cases referred to him from general practitioners, Lancashire County and Bolton Health Department doctors.

PAEDIATRICS:

The Consultant Paediatrician holds a weekly clinic at the Civic Centre and he is assisted by one of the medical officers and a health visitor. Medical officers and a health visitor attend at the Paediatric Out-Patients Department at the Bolton District General Hospital. The health visitor takes part in a ward round and this enables her to advise about any social problems that may be present.

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 are passed to the Health Department.

OBSTETRICS:

Early discharge of midwifery patients, many forty eight hours after delivery, means that these have to be cared for by the local authority midwives. Patients who are selected for early discharge have home conditions assessed by the midwives to make sure that they are suitable for care in the puerperium.

SURGERY:

During the year a district nurse was seconded to the Bolton Royal Infirmary to help in the assessment of surgical patients who were not in need of active treatment and yet still required some nursing. This enabled some patients to be discharged from hospital earlier than usual and freed beds for other cases. The nurse was able to pass to her colleagues full details of their condition and was able to indicate treatment still required.

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 & 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

The two existing health centres (Halliwell and Astley Bridge) continued to run well. They provide accommodation for nine general practitioners as well as all the local authority services including school health and dental treatment for children.

Deansgate Health Centre:

Work was started on the building of this centre at the end of the year and it is expected that it will be ready for use at the end of 1971. Seven general practitioners will be accommodated on the ground floor together with the local authority services now being provided at the Civic Centre. The first floor will give accommodation for the services to be transferred from the Robert Galloway Clinic.

Cannon Street Health Centre:

It is hoped that this will be ready for use in 1971. Surgeries will be provided for six general practitioners and there will be local authority services including a school dental surgery.

Towards the end of the year two additional health centres proposed in the east and north east of the town were deleted from the Corporation's capital programme.

CARE OF MOTHERS AND YOUNG CHILDREN

Child Health Centres:

After a considerable number of years of valuable service to the community of the Halliwell area it was found necessary to discontinue the use of the Halliwell Road Free Church Hall from March of this year, as it was felt that the need for this was adequately met by the clinic held at the Halliwell Health Centre which is in close proximity. This reduced the number of local authority child health clinics to fourteen held weekly and three which are held monthly.

The popularity of baby clinics at general practitioner surgeries continues to develop especially as more general practitioners enter into the computer appointments arrangements for immunisation and vaccinations.

In spite of the unsuitability of many of the improvised premises where child health clinics are held, the staff are continually trying to improve the quality of these sessions. Individual counselling of mothers is gradually replacing the traditional weighing ritual. Education of the mother helps her to accept that the quality of her child is much more important than just his size.

Following the succesful use of an appointment system at one of the child health clinics it is hoped to develop this at other clinics during the coming year.

The recommendations of the Sheldon Report, particularly with regard to developmental assessments, have been discussed at length and it is hoped to implement these as soon as is practicable. A summary of the work carried out is as follows:

				Number of Sessions				Total Attendances			
1968	880	..	..	..	31,989		
1969	846	..	..	..	26,639		
1970	768	..	..	..	26,392		

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 1970	2,049	10,027	4,967
Born 1969	994	9,556	6,078
Born 1965/8 ..	757	3,209	3,072
TOTALS ..	3,600	22,792	14,117

There was a noticeable increase (1,102) in the number of children seen by departmental medical officers at the child health clinics. This is somewhat reflected in the fact that twenty more cases with defects were referred to consultants than in the previous year. Referrals are always with the family doctor's consent.

Details of the 76 cases referred during the year are as follows:

	1969	1970
Referred to Ophthalmic Surgeon	13	15
„ „ Paediatrician	25	41
„ „ Orthopaedic Surgeon	7	12
„ „ General Surgeon	9	5
„ „ Dermatologist	1	1
„ „ E.N.T. Surgeon	—	2
	—	—
TOTAL	56	76
	—	—

VOLUNTARY WORKERS:

Voluntary helpers continue to be a necessary and willing support to the professional staff at the child health clinics. Their personal interest and enthusiasm does much to add to the friendly social atmosphere and to the smooth running of the clinics.

PAEDIATRIC CLINIC:

This clinic has now become fairly established and is held regularly once a week with the Consultant Paediatrician, Departmental Medical Officer responsible for handicapped children and a health visitor in attendance.

Two visits were made to the Firwood Training Centre to see the mentally retarded children in their school environment but many have also been seen at the clinic where other medical problems exist.

About ten children are seen at each clinic and this allows time for discussion of their medical condition, possible school placement, and what social services might help these families. The parents appear to be grateful to have the opportunity for discussion in this way, away from the busy hospital out-patients department.

Of the 194 children attending the clinic, 75 were new cases and 119 were follow-ups.

No. of clinics held	42
No. of attendances	347
No. of children attending clinic	194
No. of children discharged	62
No. transferred to B.D.G.H.	8
No. transferred to Child Guidance	1
Died	
(a) Gastro-enteritis	} 1
(b) Mongolism	

CATEGORIES OF CHILDREN ATTENDING CLINIC:

Orthopaedic	20
Muscular dystrophy	4
Mentally retarded	37
Retarded development	16
Hypotonia	15
Speech	21
Epileptic	10
Vision	4
Renal disease	1
Hearing defects	15
Spina bifida & hydrocephalic	6
Cerebral palsy	6
Neurological	1
Cretin	4
Digestive	2
Heart	1
Respiratory	1
Miscellaneous	30
TOTAL	194

HANDICAPPED REGISTER OF PRE-SCHOOL CHILDREN:

The handicapped register has been maintained in its present form for the past three years. Records are kept of children who are handicapped and likely to remain so and also of children who have a defect at the moment, but who by school age will probably not require special education. This flexibility ensures that a record card is readily available in the file before a firm diagnosis has been established. The growing amount of data recorded in the register enables comparisons to be made and indicates trends and may possibly be of value if computerised for research purposes into the causes of handicapping conditions.

Cases on the combined Handicap and Defect register:

	1968	1969	1970
Children with one or more defect	323	219	366
Children with one or more handicap	186	236	257
TOTAL	509	455	623

ASTHMA:

It is thought that the increased number of asthma cases that appear on the register during the year is possibly due to more referrals to the paediatrician of the pre-school children by the general practitioner because there is a special clinic held at the hospital for asthma.

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
1968	177	69	186	44	142
1969	142	94	236	73	163
1970	163	94	257	90	167

An analysis of the 257 handicapped children is shown in the following table:

Category of Handicap	Cases on Handicapped Register during 1970			Cases deleted from Handicapped Register during 1970							Cases on Register at 31.12.70	
	Cases on Register at 31.12.69	New cases entered in register during 1970	Total	Children who require special Education or Instit. Care				Reached school age not requiring special education	Removed from area	Died		Total
				Being assessed	Assessed and on waiting list	Attending special schools						
Asthma	9	25	34				5	3	-		8	26
Blood diseases	-	1	1									1
Cardiac	29	8	37				5	1	2		8	29
Cerebral Palsy	2	7	9	1	2	1					4	5
Cleft palate	4	2	6									6
Cleft palate and hare lip	10	1	11				2	1			3	8
Cretin and dwarf	-	1	1				1	1			1	-
Deafness	12	4	16	1		5					7	9
Epilepsy and Convulsions	13	4	17			1	6	1			8	9
Fibro-cystic disease of the pancreas	4	-	4					2			2	2
Hydrocephalus and Spina Bifida	15	5	20			1					2	18
Miscellaneous	2	15	17		1						7	10
Mentally Retarded	17	1	18		4	10			4		15	3
Mongols	10	5	15		3	2			2		7	8
Orthopaedic	23	2	25			1					4	21
Speech defects	5	9	14								12	2
Vision	8	4	12			2					2	10
TOTAL	163	94	257	2	10	23	37	10	8		90	167

CHILDREN AT RISK WHO DEVELOPED A HANDICAP:

Of the 94 new cases entered on the register in 1970, 54 were considered to be "at risk" at birth.

An analysis of the 54 "at risk" children is shown in the following table:-

"At risk" factor	Handicap	Number of cases
Congenital defect at birth	Cardiac	7 (includes 4 with other "at risk" factors listed below)
	Mongol	4 (includes 2 with other "at risk" factors listed below)
	Hydrocephalus	2
	Cleft palate	1
	Pierre Robin Syndrome	2 (includes 2 with other "at risk" factors at birth)
	Meningocele	1
	Glaucoma	1
	Orthopaedic defect of fingers	1
	Multiple defects	1
	Cardiac, Cataracts, talips	1
Rubella Syndrome	Asthma	1
Toxaemia of Pregnancy	Progressive spinal muscular atrophy	1 (died at 1 month of age)
	Congenital valvular disease and congenital dislocation of hip	1 (died at 2 months of age)
Prematurity	Convulsions	1
	Hemiparesis	1
	Cardiac	2
	Down's Syndrome	1
	Hemiparesis	2
	Pierre Robin Syndrome	1
	Genetic Rickets	1
	Delayed speech	1
	Acquired hydrocephalus following meningitis	1
	Convulsions	1
Forceps Delivery	Microcephalus	1 Breech presentation, twin
Caesarian Section	Hemiparesis	1
	Spina bifida and hydrocephalus	1
Anti-partum haemorrhage	Orthopaedic defect of hands	1
	Thalassaemia	1
	Asthma	1
Rhesus factor during labour	Deaf	1
	Asthma	1
Multiparity	Hemiplegia	1 anoxia
	Cerebral palsy	1 anoxia
	Retarded	1 6th child
Health of mother	Asthma	1 Mother has asthma
	Cardiac	1 Mother has epilepsy
Age of mother	Down's Syndrome	1 Mother 42 years
Family history	Asthma	1 Both parents retarded
		1 Family history of asthma
		1 Mother has tuberculosis
	Phenylketonuria	1 Mother has mild degree of phenylketonuria

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

	1969	1970
Talipes	9	9
Congenital dislocation of hip (requiring splints)	9	43*
Gastro intestinal disorders (including coeliac disease, gastric allergy and malabsorption)	6	14
A miscellaneous group comprising:		
Restricted oesophagus	—	1
Partial laryngeal obstruction	—	1
Oesophageal atresia	2	1
Tracheo-oesophageal fistula	2	1
Imperforate anus	3	—
Absence of one kidney	1	—

*It will be seen that the number of congenital dislocation of hip cases appears to have increased considerably. During the year more of the clicking hips, which previously did not appear on the register, have been treated by splinting. In the milder cases of congenital dislocation of hip, new types of material have been used for splinting which has made it much easier for the mother to care for the baby than the plaster of Paris splints and hence there has been a tendency to use more of them.

There were two deaths of children with defects during 1970:

Defect	No.	Cause of death	Age at death
Congenital dislocated hip	2	(i) Ventricular haemorrhage - whooping cough	9 weeks
		(ii) Asphyxia - accidental death	3 months

There were 8 deaths of handicapped children during 1970:

Handicap	No.	Cause of death	Age at death
Cardiac	2	(i) Broncho pneumonia Congenital heart disease	6 months
		(ii) Broncho pneumonia Congenital valvular disease of heart	2 months
Mongols	2	(i) Gastro enteritis Mongolism	14 months
		(ii) Broncho pneumonia and heart failure Mongolism	5 months

Miscellaneous: 4

(a) ? Fibrocystic disease of pancreas	Broncho pneumonia Hodgkins disease	14 months
(b) Degeneration of spinal cord	Werdnig Hoffman disease Respiratory failure	3 months
(c) Atresia of bile duct	Broncho pneumonia and bile toxaemia. Congenital atresia of bile duct	9 months
(d) Hypotonia	Progressive spinal muscular atrophy	1 month

TOTAL 8

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
1965	563
1966	566
1967	644
1968	583
1969	463
1970	550

During 1970, reasons for which babies were placed on the register are as follows. Some babies had several reasons why they were placed on the "At Risk" register.

Reason	Number of babies on the "At Risk" Register
Premature	171
Forceps Delivery	136
Caesarean Sections	74
Breech Delivery	54
Rh. Negative	2
Multiple Pregnancy	22
Illness of Baby	93
Illness of Mother	7
Other Reasons	46

The health visitors carried out the modified Dr. Mary Sheridan standardised tests at the selected ages and referred those failing to the medical officers at the child welfare clinics.

Congenital Abnormalities:

Again 38 congenital abnormalities were notified during 1970. The figure remains surprisingly constant and low. This is probably because as is required in this return, the notifications are of those congenital abnormalities observed at birth. Twenty nine abnormalities were notified by the hospitals, 2 by general practitioners, 6 by midwives and 1 by the health visitor.

The figures received are as follows:

Bi-lateral talipes	2
Talipes	7
Hypospadias	2
Dislocated hips	2
Pilonidal Sinus	1
Limb deformity	2
Oesophageal atresia	2
Polydactyle	1
Exomphalos and Spina bifida	1
Cleft palate	1
Hare lip and cleft palate	1
4 digits missing	1
Small fleshy appendages on face	1
Hydrocephalic	1
Spina bifida	2
Spina bifida and hydrocephalic	2
Hydrocephalus and talipes	1
Microcephalic	2
Meningomyocele	1
Anencephalic with spina bifida	1
Anencephalic	4
TOTAL	38

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

From the age of seven months a baby's ability to hear can be reliably tested using the methods developed by the staff of the Department of Audiology and Education of the Deaf of Manchester University. The tests vary according to the age of the child and in past years it has been the practice of this department to have nursing staff trained to test children of all ages up to five years. Most children over the age of five co-operate sufficiently for a pure tone audiometer to be used. However, because 90% of the babies tested are under the age of one year, it was decided in 1970 to concentrate on teaching a larger number of staff how to screen the hearing of babies in this age group. Mr. Waldon from the Department of Audiology trained ten further members of staff to screen the hearing of babies between seven and twelve months of age during the year and this brought the totals at the end of the year to the following figures.

No. of health visitors trained for testing infants:

7 - 12 months	Full time - 19
	Part time - 5

No. of school and clinic nurses trained for testing infants:

7 - 12 months	Full time - 3
	Part time - 7

No. of hygienists trained for testing infants:

7 - 12 months	Part time - 3
---------------	---------------

No. of health visitors trained to test children:

1 - 5 years	Full time - 11
	Part time - 2

In 1970, 1,215 children under five were tested, 1,096 (90.2%) of these being under the age of one year. It is not practicable to test all babies because of the time factor and therefore those most likely to have a hearing loss are selected. In practice this means that rather more than one in three babies have their hearing screened.

A child is only considered to have a possible hearing loss after it has failed the screening tests on three occasions. In 1970, ten children, 0.8% of those tested, failed three hearing tests and were referred for medical opinion. Three of these, all over the age of two years, were found to be deaf; one of them has been supplied with a hearing aid and is to be admitted to the Thomasson Memorial Special School, a second responded to treatment by the E.N.T. consultant and now only has a minimal hearing loss; the third is waiting to see the E.N.T. consultant to see if treatment will improve his hearing also. Some children may not be ready for testing at seven months because of developmental delay, two such babies who had failed three tests passed a fourth test after a short interval and were considered to have normal hearing. The remaining five children who had failed three tests were still being investigated at the end of the year.

Four of the five children who had failed three hearing tests in 1969 were investigated further in 1970. One was considered to have hearing within the normal limits after investigation by the Department of Audiology. Two other children, who are two of a set of triplets, have also been seen at the Department of Audiology but the report is not yet available and the fourth child after treatment by the E.N.T. surgeon has virtually normal hearing. The fifth child is so severely retarded that it is still not possible to test him accurately.

Results

	Under 1 year	%	1 to 2 years	%	2 to 5 years	%	Totals	%
Number tested ..	1096	90.2	108	8.9	11	0.9	1215	
Passed—								
1st Test ..	1041	95.0	95	88.0	5	45.5	1141	93.9
2nd Test ..	49	4.5	8	7.4	2	18.2	59	4.9
3rd Test ..	0	0.0	4	3.7	1	9.1	5	0.4
Failed 3 Tests ..	6	0.5	1	0.9	3	27.2	10	0.8
Diagnosed—								
Deaf ..	0	0.0	0	0.0	3	27.2	3	0.2
Not Deaf ..	2	0.2	0	0.0	0	0.0	2	0.2
Under consid- eration ..	4	0.4	1	0.9	0	0.0	5	0.4
Where tested—								
At home ..	1048	95.6	97	89.8	10	90.9	1155	95.1
At clinic ..	45	4.1	11	10.2	0	0.0	56	4.6
At nursery ..	3	0.3	0	0.0	1	9.1	4	0.3

Development Paediatrics:

The Sheldon Committee in its report on the Child Health Service of the future envisaged it, among other things, as "detecting at an early age the presence of handicaps and departure from normal health of children".

Although babies and young children develop at different rates, all normal children pass through certain stages within a given age range and, by noting a child's level of development at any age and comparing it with standards which have been evolved from the study of many children, it is possible to detect those children who are not developing normally and therefore liable to be handicapped.

There are certain "key ages" at which observable progress in a child's development can be most easily noted. The key ages are six weeks, six months, nine to twelve months, eighteen months, two years, three years and four and a half years. Although a higher proportion of handicaps are liable to be found among children in the "At Risk" groups, they also occur when there is no known precipitating factor. Ideally, therefore, all children should be examined at all the key ages, but from the standpoint of medical time available it will not be possible for us to do this. We have therefore decided to examine all children attending the child health clinics at the three key ages during the first year of life but only thereafter when there is some specific indication.

Schemes have been drawn up for the points to observe in children at these ages and the departmental medical officers have been trained and are introducing these screening procedures routinely into their clinics. It is hoped in the near future to extend this to local authority clinics which are staffed by general practitioners.

Once the routine screening procedures are established it should be possible to arrange an appointments system for them.

The Psychological Testing of Children under Two:

Children who shows signs of developmental delay can be assessed more fully using the Griffith Mental Development Scale. This is a psychological test which can be applied to children whose level of development is less than that of a normal two year old child and one of the medical officers has been trained in its application.

During the year fourteen children, who were not making normal progress, were assessed at the request of the Consultant Paediatrician, Dr. W. Dickson.

Routine Testing of Babies for Phenylketonuria:

Since November, 1969, health visitors have been carrying out a "Scriver Test" on all new babies at the first visit, usually between the 10th and 14th day after birth. This test consists of a heel prick when a small amount of blood is collected in a capillary tube. The specimens are then forwarded to the Manchester Royal Children's Hospital at Pendlebury for testing. This test, which has replaced the former Phenistix test, is a more sophisticated and effective test in detecting excess phenylalanine and various aminoacidaemias such as tyrosinaemia, histidinaemia etc.

One doubtful reaction to the scriver test was detected when the infant was two weeks old. The infant was then admitted to the Pendlebury Children's Hospital for further tests when a diagnosis of phenylketonuria was confirmed. This infant has been closely supervised and the stabilised diet for his level of phenylalanine adhered to. At five months the result of a Griffiths test carried out by a departmental medical officer had a fairly good result. At eight and a half months the child passed an I.Q. test at Pendlebury Children's Hospital and also the hearing test done by the health visitor. This infant appears to be making normal progress almost certainly due to the early detection and treatment for his phenylketonuria, but constant supervision will be necessary throughout his early formative years.

Care of Unmarried Mothers:

In 1970 the Moral Welfare Worker dealt with 119 cases. Of these, 20 were girls aged 16 or less.

	1965	1966	1967	1968	1969	1970
Total number of girls aged 16 years and under who gave birth to live babies	14	24	16	12	24	20

Age of mothers at date of birth of their babies:

Age of mother at last birthday:	1965	1966	1967	1968	1969	1970
16 years	7	16	6	7	10	8
15 years	7	5	8	3	9	6
14 years	—	3	2	2	4	6
13 years	—	—	—	—	1	—

The Battered Baby:

In recent years there has been concern about the "Battered Child" Syndrome which has been defined as, "a clinical condition in young children who have received serious physical abuse, generally from a parent or foster parent".

The Department of Health and Home Office suggested that meetings of those concerned with this problem should take place locally. A meeting was held in Bolton on 1st May, 1970 attended by representatives of the police, the N.S.P.C.C., the Children's Officer and some of his staff, Mr. Mendelsohn, Orthopaedic Surgeon, Dr. Dickson, Consultant Paediatrician, Dr. Clarke, Secretary of the Local Medical Committee and the Medical Officer of Health.

After a full discussion it was agreed that information on the subject be sent to those involved - general practitioners, hospital staff, social workers, health visitors, police, etc.

Family Planning:

The Bolton Branch of the Family Planning Association has continued to provide family planning services during 1970. Two clinics have been held weekly at the Civic Centre, one at Astley Bridge in the evenings and one daytime clinic at Halliwell Health Centre. In August a new clinic was started for the fitting of intra uterine devices and this was held in the daytime at Halliwell Health Centre also. Seventy eight I.U.D.'s were inserted in the 5 months that the clinic was open and 2 removed.

The statistics for the above clinics are as follows:

CIVIC CENTRE:						Total
No. of Sessions .. .. .	..	..	..	..	92	4,341
New Patients .. .. .	..	..	..	..	599	
Repeat Patients .. .. .	..	..	..	..	3,742	
ASTLEY BRIDGE:						
No. of Sessions .. .. .	..	..	..	..	48	1,173
New Patients .. .. .	..	..	..	..	176	
Repeat Patients .. .. .	..	..	..	..	997	

HALLIWELL HEALTH CENTRE:						Total
No. of Sessions	..	..	..	..	..	50
New Patients	..	..	..	..	..	125
Repeat Patients	..	..	..	..	..	710
I.U.D. Sessions	..	..	..	..	..	18
No. of insertions	..	..	..	..	..	78
Removals	..	..	..	..	..	2

The I.U.D. patients do not show in the figures as new cases at Halliwell Health Centre, because they are seen at one of the other clinics for assessment as to their suitability for fitting. They are therefore included as new patients in the figures for the other clinics and as repeat patients attending Halliwell Health Centre.

During the year there were 100 cases referred on social grounds for advice and 21 on medical grounds.

As part of the examination of the patients attending the clinics routine cervical smears are taken if the patient has not already had a recent smear. Seven hundred and twenty nine smears were taken, 2 of which were positive. The patients were referred to their general practitioners. Minor infections were also referred to general practitioners for treatment. Although the total numbers attending the clinics has increased, the mothers of large families are very much in the minority. This is despite the financial help which is available either by the local authority or the remission scheme of the Family Planning Association.

AGE OF MOTHERS ATTENDING:

	Civic Centre	Astley Bridge	Halliwell
Under 20	.. .. 129	32	23
20 - 24	.. .. 273	78	43
25 - 29	.. .. 100	30	27
30 - 34	.. .. 52	22	21
35 and over	.. .. 45	13	11

NO. OF PREGNANCIES BEFORE ATTENDING THE CLINIC:

0	.. .. 300	68	26
1	.. .. 116	33	29
2	.. .. 112	31	35
3	.. .. 45	29	13
4	.. .. 18	10	10
5	.. .. 5	5	5
over 5	.. .. 3	—	7

Most of the cases referred to the clinic on social grounds are either sent or brought by health visitors or the family case workers of the Children's Department with the problem families. It often requires considerable organisation by the health visitors to get the patient to the clinic and arrange for the rest of the family to be cared for. Further encouragement and help is also needed after advice has been obtained at the clinics for any method to be successful to the problem family. The Family Planning Association are very grateful to those health visitors who spend so much of their time in helping in this way.

During the year the voluntary workers of the Family Planning Association have started a visiting scheme at the Bolton District General Hospital to the mothers in the lying-in wards. This is to explain the functions of the Family Planning Association to those who are interested. This has been well accepted at the hospital and patients are beginning to come to the clinics as a direct result of having heard about the Family Planning Association when in hospital.

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 and Social Security within 7 days of the operation.

The Registrar General has given the statistics for 1969, the first full year of operation of the Act. The following is extracted from his report.

Bolton C.B.

	Marital status			Age						Place of operation			
										Home region		Other region	
Total	Single	Married	Other	Under 16	16-19	20-34	35-44	45 & over	Not stated	NHS Hospital	Non NHS	NHS Hospital	Non NHS
133	56	59	18	1	31	74	21	1	5	106	6	3	18

Distribution of Welfare Foods:

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

Commodity	1968	1969	1970
National Dried Milk	8,446	3,990	3,168 packets
Cod Liver Oil	3,082	2,885	2,374 bottles
Vitamin A & D tablets	2,803	2,750	3,004 packets
Orange Juice	41,013	41,728	45,112 bottles

Day Nurseries:

There are four day nurseries and they provide potential accommodation for 190 children.

Nursery	Accommodation	Average daily attendance	
		1969	1970
Lowndes Street	43	43.8	41.36
Shaw Street	50	44.9	46.54
Merehall	47	44.8	45.91
Roxalina Street	50	42.2	40.84
TOTALS	190	175.7	174.65

The children attending the nurseries during the year can be put into the following categories:

Day Nursery:	Social	Medical	Mother's profession	Non-Social
Lowndes Street	35	7	25	—
Shaw Street	102	15	4	6
Merehall	49	12	9	13
Roxalina Street	30	30	6	14
TOTALS	216	44	44	33

TRAINING OF NURSERY NURSES:

During the year, twenty-two students of the Bolton Training Centre, 40 Chorley New Road were awarded the Certificate of the National Nursery Examination Board.

Nurseries and Child Minders' Regulations Act, 1948:

This Act was amended by the Health Services and Public Health Act, 1968 and now requires the registration and supervision by the local authority of any person looking after, for reward, even one child under five years of age, to whom that person is not related.

The full effect of this amendment was probably responsible for the considerable increase in the number of registered child minders. There were 60 child minders registered at the end of 1970 as against 39 in 1969 and only 10 in 1968. Applications for registration as child minders were often referred by health visitors who, during their routine work, made child minders aware of the new requirements made by the amendment of the original Act.

Two industrial nurseries are also registered under this Act. They cater for a total of 99 children for a substantial part of the day, while their mothers are at work. Both premises received regular visits from the staff.

The register of premises and private households where playgroups have been set up has seen many changes during the year. Several playgroups ceased to function but an equal number was started, usually on larger premises. The total number of playgroups at the end of 1970 remained the same as at the end of the previous year - 26 - but now they cater for 420 children as against 321 in 1969.

The playgroups are mainly situated in the residential areas of the town. Several of them, however, accommodate children from families who cannot afford the fees usually charged. The local branch of the Pre-School Play Group Association helps to co-ordinate the running of the play groups on modern nursery school lines. Close and friendly co-operation was maintained with this branch. Officers of the Education Department also advise on the educational requirements of the playgroup premises and children.

The children attending the nurseries during the year can be put into the following categories:

Category	1969	1970
Local nurseries	102	102
Day nurseries	12	12
Private households	4	4
Other	13	13
Total	131	131

Bolton C.N.S.

During the year, twenty-two members of the Bolton Learning Centre, 40 Children New Road, were awarded the Certificate of the National Nursery Examination Board. The Centre was awarded the title of 'Nursery of the Year' for 1969.

This Act was amended by the Health Services and Public Health Act, 1968 and now requires the registration and supervision by the local authority of any person looking after, for reward, even one child under the year of age in which the person is not a parent. The full effect of this amendment was probably responsible for the increase in the number of registered child minders. There were 60 child minders registered at the end of 1970 as against 37 in 1969 and only 10 in 1967. A significant increase in registration as child minders was often referred to by health visitors who, during their routine work, make child minding visits of the new registrations made by the amendment of the original Act.

For industrial nurseries are also registered under the Act. This category is a small but significant part of the total, while their numbers are not yet significant in the total number of child minding visits made in the year.

DENTAL TREATMENT:

I am indebted to Mr. S. Bray, the Principal School Dental Officer, for the following information and comments:

"Two dental surgeries were in full use throughout the year and four other surgeries were in part time use by dental officers working on a sessional basis. It is with regret that two of the part time officers resigned during the year and it was not possible to recruit replacements for them. The Withins Dental Clinic was closed and the Deane Clinic has not yet been in use. Due to shortage of staff it was not possible to examine the Nursery Schools but dental treatment was given to those priority class patients seeking or referred for treatment. Expectant and nursing mothers received advice and treatment at Halliwell Health Centre. The Training Centre was visited and dental treatment given to those who attended at Halliwell Health Centre and Robert Galloway Clinic.

Dental Arrangements

No. of dental treatment centres in use at the end of the year	3
No. of dental officer sessions devoted to priority services	29
No. of expectant and nursing mothers examined	25
No. of children under 5 years (pre-school age) examined	144

Physiotherapy:

After nearly 20 years in the department, Mrs. E. Flintoff retired in August. While she was physiotherapist the work went smoothly and adaptations were made to changing needs. It was not possible to fill the vacancy until 1st December. There was therefore an all round reduction in the number of patients treated in the Physiotherapy Department.

Ultra-violet light sessions were held twice weekly for children of pre-school age and school age.

From January to March ultra-violet sessions were held twice a week at Lostock Open Air School. In December one session of physiotherapy per week was held. The children were given individual postural drainage treatment. Others received exercises for various conditions. Breathing exercises were taken in a class.

Ante-natal relaxation classes for expectant mothers were held each morning and on Tuesday and Thursday afternoons in conjunction with Mothercraft classes. After August these classes continued on Tuesday and Thursday afternoons only. In December two new ante-natal classes were introduced on Wednesday morning and Friday afternoon. Ante-natal classes were held at Halliwell Health Centre on Wednesday morning along with Mothercraft classes.

Treatment was given to mentally handicapped children at Firwood Training Centre until August. The sessions were twice weekly but have now been reduced to one per week. During the school holidays a course of exercises was given to the girls of Cotton Street Adult Training Centre.

Treatment was given to patients referred from the Geriatric Clinic.

SUMMARY OF WORK:

	MASSAGE AND EXERCISES	BREATHING EXERCISES POSTURAL DRAINAGE
No. of Patients . .	31	36
No. of Treatments . .	94	128 + Class Breathing Exer.
No. of New Patients . .	20	13 L.O.A.S.

	ULTRA VIOLET LIGHT	
	PRE-SCHOOL	SCHOOL CHILDREN
No. of Patients	10	14
No. of Treatments . .	177	338
No. of New Patients . .	16	32
No. of Sessions . .	23½	31

	FIRWOOD TRAINING CENTRE					
No. of Patients						16
No. of Treatments						201
No. of Sessions						47

	GERIATRIC PATIENTS					
No. of Patients						1
No. of New Patients						1
No. of attendances						4

	ANTE-NATAL RELAXATION CLASSES		
	NO. OF PATIENTS	NO. OF NEW PATIENTS	NO. OF ATTENDANCES
Domiciliary	1	1	3
Maternity Homes	115	64	251
Own Doctor	25	9	65
B.D.G.H.	63	44	145
Halliwell Health Centre	68	53	256

COMMUNITY NURSING DIVISION

In April there was a change in the nursing establishment when the Superintendent Nursing Officer was re-designated Chief Nursing Officer to co-ordinate the health visiting, home nursing and domiciliary midwifery services and to provide a single channel of communication on policy matters through the Medical Officer of Health to the Health Committee. This was in line with recommendations of the Ministry of Health Circular 12/65, and endorsed by Report 60 of the National Board for Prices and Incomes 1968, and Department of Health and Social Security Circular 13/70.

In 1956 the post of Superintendent Nursing Officer was established to combine supervision of health visitors and co-ordination of the health visiting, home nursing, midwifery and day nursery services. Rapid expansion of duties in the health visiting service during recent years and the employment of part-time staff in an increasing number of grades has made the administration too complex to combine the dual role of co-ordination of all nursing services and day to day supervision of the health visiting service.

The Superintendent of Home Nurses in post was re-designated Superintendent Health Visitor and the Deputy Superintendent of Home Nursing succeeded her as Superintendent of Home Nurses.

Comments on some aspects of work involving all three nursing services will be found after the account of the year's work in the individual services.

Nursing Staff:

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

Chief Nursing Officer (from 1st April)

Health Visitors:

Superintendent Health Visitor

Deputy Superintendent Health Visitor (also Non-medical Supervisor of Midwives)

2½ Group Advisers (full-time equivalent)

3 Field Work Instructors

1 Clinic Nurse

33 Health Visiting staff comprising:

District Health Visitors	19
--------------------------	---------	----

Specialist Health Visitor (tuberculosis)	1
--	-------	---

(geriatric)	1
-------------	---------	---

School Nurses S.R.N.	8½ (full-time equivalent)
----------------------	---------	---------------------------

Centre Nurse S.E.N.	1
---------------------	---------	---

Health Assistants (unqualified)	2½ (full-time equivalent)
---------------------------------	---------	---------------------------

There were 2½ (equivalent) vacant posts in the health visiting staff.

Home Nurses:

Superintendent of Home Nursing

Deputy Superintendent of Home Nursing

32½ Home Nursing staff comprising:

Senior District Nursing Sisters	.. .. .	3
Specialist District Nursing Sister (hospital liaison)		1
S.R.N. District Nurses	.. .. .	15½
S.R.N.	.. .. .	1 (full-time equivalent)
S.R.N. Clinic Nurse	.. .. .	½ (full-time equivalent)
S.E.N. District Nurses	.. .. .	8½ (full-time equivalent)
Auxiliary nurses (unqualified)	.. .. .	3 (full-time equivalent)

3 district nurses S.R.N. were undergoing training.

There were no vacant posts in the home nursing service.

Midwives:

Non-medical Supervisor of Midwives (also Deputy Superintendent Health Visitor) 9½ Midwives (full-time equivalent.)

There was a vacancy for a part-time midwife.

Nursing Establishment:

Chief Nursing Officer (from 1st April)

Superintendent Health Visitor

Non-medical Supervisor of Midwives and Deputy Superintendent Health Visitor

Superintendent of Home Nursing

Deputy Superintendent of Home Nursing

4 Group Advisers

3 Field Work Instructors

1 Clinic Nurse

34 Health Visitors

32 District Nurses (including 3 Senior Nursing Sisters)

10 Midwives

The home nursing service was fully staffed throughout the year. Restructuring of field staff which became operative on 1st January, 1968 to allow the best blending of S.R.N.'s, S.E.N.'s and nursing auxiliaries as recommended by the Work Study Report, was completed during the year. Recruitment presented no difficulties and all full-time S.R.N.'s and S.E.N.'s are now appointed with a view to taking district nurse training at the earliest opportunity.

There was no change in the midwifery staff during 1970. Reduction in the number of domiciliary deliveries was offset by the expansion of other duties especially early discharge schemes, participation in ante-natal clinics at general practitioner surgeries and teaching at relaxation and mothercraft classes. It may be necessary to fill the vacant post for a part-time midwife when the selected early discharge scheme of patients from the Consultants' Unit at Bolton District General Hospital is extended to the three general practitioner maternity homes as proposed early in 1971.

Recruitment and staffing of the health visiting service has been particularly difficult in 1970. During the year one group adviser, three full-time and one part-time health visitor terminated their services, one full-time health visitor reverted to part-time duty and one long-serving school nurse retired. It was decided not to fill the group adviser's position pending re-organisation of senior posts when the Mayston Report would be implemented early in 1971. Advertisement failed to recruit qualified health visitors and of the six student health visitors sponsored for training by Bolton Corporation who completed the course and qualified in September, 1970, none was available to work in Bolton for varying reasons, mainly because of the travelling time involved from their homes. This is a new factor arising out of two recent changes. Regulations made under the Local Government Act, 1966 (S.I. 1968 No. 444) for the pooling of net expenditure incurred by local health authorities in the training of health visitors and others and cancelling of the two year contract of service following qualification as health visitors in accordance with recommendations of the Prices and Incomes Board Report No. 60, was implemented in Bolton in 1968. This resulted in an increase in the number of applicants who were accepted for sponsorship but who subsequently did not join the staff. It is apparent that selection of applicants for sponsorship in future must take into account suitability of the candidate for employment in Bolton.

One vacancy in the health visiting staff was filled by employing on a temporary basis an S.R.N. to work as a school nurse, prior to commencing health visitor training in September, 1971, and another vacancy was filled on a temporary part-time basis when an opportunity arose to employ as a health assistant an Asian teacher as an interpreter to assist health visitors in their work with immigrant families.

MIDWIFERY

Distribution of Births:

There were 147 domiciliary live births, a reduction of 45 on the previous year.

Four babies were stillborn at home before the arrival of the midwife - one was booked for the hospital maternity unit and one was booked for domiciliary confinement.

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

	1968	1969	1970
Total Live Births	2,692	2,666	2,627
Total Stillbirths	46	39	57
Domiciliary	210	190	145
Bolton District General Hospital	1,474	1,578	1,644
Maternity Homes	948	881	813

The number of babies born to Bolton mothers in maternity establishments outside Bolton excluding Bolton District General Hospital totalled 25.

Domiciliary Confinements:

Midwives were in attendance at 145 confinements . Visits were made as follows:

	1969	1970
Ante-natal visits	1,241	1,097
Nursing visits during the puerperium:		
1. Patients delivered at home	2,700	1,986
2. Patients discharged home early		
from hospital	1,421	2,087
Post-natal visits	100	110
Social condition reports at the request		
of the hospital maternity unit	6	3
Ineffective visits to households	529	526
Giving of iron therapy injections	228	428

Twenty seven patients were transferred into Bolton District General Hospital or the maternity homes during labour or after delivery.

Two babies were transferred to hospital soon after birth or within one week:-

1. Baby developed "twitching" of the limbs on the 6th day. Seen by general practitioner who made arrangements for baby to be seen by Paediatrician at Bolton District General Hospital. Diagnosed hypocalcaemia.
2. Unbooked case - baby left unattended at birth for six hours before medical aid was sought. Mother and baby transferred to Bolton District General Hospital. Baby died 24 hours after birth.

One baby died at home after a normal delivery. Message received on the 9th day at 8.45 a.m. from husband. Baby found to have blood in napkin. Midwife went immediately. Medical aid summoned. Doctor visited. Baby died soon after arrival of midwife and doctor. No post mortem. Death notified as pneumonia.

Survey:

A National Survey of all births in the United Kingdom during the week beginning April 5th, 1970, was organised by the National Birthday Trust and the Royal College of Obstetricians and Gynaecologists. The hospitals in Bolton and the domiciliary staff assisted with this survey. A questionnaire was completed on every birth during the week commencing April 5th, 1970.

A nationwide survey is valuable, for it allows us to examine trends of midwifery practice. The last national survey of births in this country yielded valuable information, for it told us of the national picture of midwifery and pointed out areas of high risk existing in 1958.

From this survey in 1970, it is hoped to learn more about the socio-economic background of the patients. Some come from overseas. The ante-natal preparation might be important in relation to the type of delivery the woman has and the extent to which such instruction is used will be valuable information. Smoking is known to have an effect on the pregnancy and baby, but it is necessary to learn more about this on a national level. Some women will have used oral contraception up to (or even into) the present pregnancy. Possibly this can effect events of childbirth. The effect of X-rays in pregnancy has been discussed for years; this is an opportunity to investigate the problem on a wide scale.

Accurate information about the first week of care for both mother and baby is required. To date there are very few statistics available about this period.

The survey was time-consuming, but it will be time well spent when one considers the knowledge that will be obtained when the forms are finally analysed.

Ante-natal Clinic, Civic Centre:

	1969	1970
No. of patients registered during the year	290	168
No. of attendances at the ante-natal clinic..	1,145	786
Haematology: No. of samples taken	471	346
No. of maternity packs issued	202	147

A weekly ante-natal clinic was held at the Civic Centre staffed by midwives and a health visitor. A medical officer attended at the request of the midwives, mainly for the examination of patients referred by the Moral Welfare Officer or any patient where the midwife had difficulty in obtaining a blood sample.

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

Anaemia	2
Breech presentation	1
Sugar ++ proved to be a diabetic	1
Intra-uterine death	1
Hypertension and obesity	1
Hypertension	1
History of previous post-partum haemorrhage ..	1
Multiparity	3
Pre-eclamptic toxæmia	4
Post-maturity	21
Rhesus negative	6
Rhesus negative with antibodies	1
Social reasons	3
Twins	1
Unstable lie	1

General Practitioner Ante-natal Clinics:

Midwives attended seven weekly ante-natal clinics, one every second week and two monthly, in general practitioner surgeries. The clinics are working well. The teamwork of family doctor, midwife and health visitor enables the patient to receive good ante-natal care.

The midwives work in close co-operation with the general practitioners. Whilst attendance at these clinics is time consuming, it is an essential aspect of the midwives' work.

Ante-natal sessions attended by midwives during 1970:

Local authority clinics - 46 General practice clinics - 409

Flying Squad:

The Flying Squad was called out on four occasions during 1970.

1. Post-partum haemorrhage. Mother and baby transferred to Bolton District General Hospital.
2. Secondary post-partum haemorrhage on 14th day. Mother and baby transferred to Bolton District General Hospital. Dilation and Curettage performed.

3. Difficult delivery of shoulders. Post partum haemorrhage. Mother given blood transfusion at home prior to admission to hospital.
4. Unbooked case. Single girl. Midwife summoned 5 p.m. Full term live baby born 11.15 a.m. Baby left unattended, was cold and shocked when midwife arrived at 5.20 p.m. Mother had retained placenta and post partum haemorrhage. Blood transfusion given at home. Mother and baby transferred to Bolton District General Hospital. Baby died after 24 hours.

Medical Aid:

Medical aid was sought by midwives on 25 occasions (48 in 1969)

Testing for Congenital Dislocation of Hip:

Midwives continued to test all babies born at home. No cases were detected during 1970.

The Oxygenaire Portable Incubator:

The incubator cot 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 twelve times during 1970 for transporting babies to hospital.

Early Discharge of Maternity Patients from Hospital:

The scheme for the nursing of selected early discharge patients at home forty eight hours after delivery is now well established in Bolton. At present only patients from Bolton District General Hospital are assessed for early discharge. This scheme on the whole works very well. Difficulties are still encountered with the patients who take their own discharge and have inadequate domestic help. The future trend of early discharge from hospitals will increase and it is likely that in 1971 patients will be assessed for early discharge from the Maternity Homes.

Selected Patients for Early Discharge:

	1969	1970
No. of investigations requested by B.D.G.H.	238	304
No. of investigations not suitable for early discharge	67	59
No. of selected early discharge patients nursed by domiciliary midwives	234	257
No. of patients discharged home after 48 hours not selected from B.D.G.H. and Maternity Homes	93	121

Lack of assistance or inadequate help is still prevalent in selected early discharge patients. The tendency to keep school children away from school to assist with the household chores seems to be on the increase. Patients taking their own discharge give midwives concern especially during the winter months when so often the homes have insufficient heating. One baby discharged early from hospital was readmitted 24 hours later but died after a few days.

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

No Help	Dependent on Neighbours	School Children	Mother or mother-in-law	Off sick	Husband		
					Un-employed	On holiday	Off work
5	4	4-14 yrs. old girls kept off school for 1 week. 3-12 yr. old girls off school for 7 days. 1 boy 11 yrs. for 3 days. 1 girl 11 yrs. for 4 days	part day 2 7 days 21	3	5	2 days - 2 5 days - 1 7 days - 31	1 day 1 2 days 3 3 days 1 5 days 3 6 days 1
5	4	9	23	3	5	34	9

GRAND TOTAL - 92

Eighty three patients not selected for early discharge before admission to hospital were discharged early from Bolton District General Hospital. Forty six of these were discharged at the request of the B.D.G.H. for various reasons:

Took own discharge	Stillbirths	Baby died	Baby a contact of gastro enteritis	Baby transferred to Pendlebury Hospital	Baby kept in Prem. Unit
37	29	9	1	2	5

GRAND TOTAL - 83

Thirty eight cases not selected for early discharge were discharged home from the Maternity Homes in the Borough and from private maternity homes outside the Borough. Many took their own discharge. Some were discharged at the request of the general practitioner. Details are as follows:

Took own discharge	At request of G.P.	Stillbirths	Maternity Homes outside Borough
24	1	2	11

GRAND TOTAL - 38

The following babies were re-admitted to Bolton District General Hospital having been discharged home with mother 48 hours after birth:

1. Baby discharged home in the afternoon during December. Midwife visited same day. Baby was cold, colour pale, temperature 95°. The G.P. was notified. Mother advised about the warmth in the home which was far from satisfactory, and particularly to keep the room at the same temperature during the night. Visited by the midwife the next morning. Baby's temperature had improved but he was still very pale. Doctor again asked to visit that day and the next day when the baby was transferred back to hospital where he died.

Cause of death: Bronchial pneumonia. Congenital heart disease

2. Baby discharged after 48 hours. Pyrexia fifth day. History of baby being shocked at birth. Readmitted to B.D.G.H. on the 5th day.
3. Mother took her own discharge on the fourth day from Bolton District General Hospital. Poor social conditions. Baby developed loose stools and pyrexia on the sixth day. Became very dehydrated. Readmitted to hospital.

Health Education: Mothercraft Classes for Expectant Mothers:

The aims of relaxation and mothercraft classes are :-

1. To give confidence to the young couple.
2. To allay anxiety of the actual birth.
3. To instill accurate knowledge of the ante-natal period, labour and the lying-in period.
4. To allay fears of giving birth to an abnormal child.
5. The ultimate aim of mothercraft teaching is to inspire confidence in the mother to ensure a safe and happy delivery of her baby.

All midwives are now trained to give instruction in ante-natal relaxation exercises. Combined classes of relaxation and mothercraft are held weekly at the Civic Centre and Halliwell Health Centre in which the midwives and health visitors work together.

The expectant mothers are becoming more aware of the need for health education. Many women remain at work and do not attend classes until they finish work at about the seventh month. The need to encourage expectant mothers to come earlier in their pregnancy to gain maximum benefit from the subjects taught, became apparent. To meet this need, evening classes were organised in August 1970 at the Civic Centre and November 1970 at Deane Clinic. These classes have become very popular. Mothers also have a chance to discuss their personal problems, obstetric, social and economic, with the midwives and health visitors.

Attendance at these classes is sometimes the beginning of a lasting friendship which often occurs amongst women having recently moved to live in Bolton.

Mothercraft and relaxation classes are held weekly, two afternoon sessions at the Civic Centre and one morning session at Halliwell Health Centre.

	1969	1970
Number of expectant mothers ..	218	339
Number of attendances	1,018	1,432

Mothercraft and relaxation classes held Tuesday evening, Civic Centre, commenced August, 1970 - December, 1970:

No. of expectant mothers	57
No. of attendances	257
No. of sessions	23

Mothercraft and relaxation classes held Wednesday evening, Deane Clinic, commenced November, 1970 - December, 1970.

No. of expectant mothers	.. .. .	19
No. of attendances	.. .. .	78
No. of sessions	.. .. .	6

Radio Telephones for Midwives:

Domiciliary midwives are equipped with small portable radio sets. Eight sets are in use and two more are on order. This will enable each midwife to be responsible for her own set.

Midwives would be very reluctant to work without the use of a radio telephone and it would be impossible to keep in constant touch with them on the district without this vital link, because of the many telephone kiosks out of working order due to vandalism. In the past, midwives wasted valuable time seeking a phone in working order.

Our thanks are due to the Ambulance control staff who assist the maternity service in receiving and transmitting messages for the midwives in any emergency.

District Midwife Training:

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

The revised programme of training, adapted during 1969 for the students, gave them an insight into the services in the community.

HEALTH VISITING

Home Visits:

The demands on the health visiting service continue to increase. The variety and depth of the health visitors' work has changed considerably over the last few years, particularly since the inception of G.P. attachment, and the extended content of certain types of visit. In view of these changes it becomes even more essential for staff and management to have periodic meetings with the officers of the Work Study Department to discuss the effect of this on "target times" and on interpretation of various statistics.

A CONTROLLED SYSTEM OF HEALTH VISITING:

In May of this year a meeting with the Work Study Officers was convened when the substance of "target times" was discussed at some length. It became apparent at this meeting that several newer members of staff were interpreting the term "visit" as indicating any type of contact with a client, be it in the Health Centre or at home. It was then agreed that only an actual home visit by the health visitor should be recorded as a "visit". The result of this unanimity of recording is partly responsible for the decrease in the number of visits done during the year. There was also some evidence that a review of "target times" in respect of primary visits and crisis visits may prove necessary.

Primary Visits:

As all visits are now done on a selective basis it is essential for the primary visit to be effective. Since the advent of the controlled system of working three years ago this visit has considerably extended in content. The former nappy test for phenylketonuria has been replaced with a more technical blood test, i.e. a heel prick called the Sriver test. The health visitor has to assess the health prospects of the family and consent for the immunisation programme has to be discussed.

To enhance the value of the primary visit a leaflet was devised which contains all the information regarding times and places of child health clinics, family planning clinics, mothers' clubs, etc. This leaflet is left with every family at the first visit and whilst it does not eliminate the need for the health visitor to explain all these services in detail, it does act as a reminder to the mother who has so much information and advice to absorb in one visit.

Crisis Visits:

These are the ever-increasing cases where an emergency, be it physical, emotional or social, demands that the health visitor drops all other commitments at that time and concentrates her energies and resources in helping to cope with a situation involving time well in excess of an average visit. In view of this it is hoped to conduct a short survey into the time spent on these two types of visit early in 1971.

ANALYSIS OF HOME VISITS:

	1968	1969	1970
First visits to babies born during the year	2,802	2,710	3,015
Subsequent visits to babies born during the year	7,594	6,855	7,052
Visits to children aged 1 to 2 years	7,795	7,620	7,569
Visits to children aged 2 to 5 years	8,193	9,383	8,281
Total visits to children under 5 years	26,384	26,568	25,917
Persons aged 65 and over	6,342	6,768	5,244
Mentally disordered persons	164	160	191
After-care (hospital discharges)	175	154	738
Infectious diseases including tuberculosis	400	465	763
Visits in connection with priority rehousing on medico-social grounds	440	317	254
Miscellaneous (other) visits	8,607	10,488	8,313
Total effective visits	42,406	44,920	41,420
Ineffective visits	6,036	5,911	4,661
Included above are visits to Commonwealth immigrants	2,453	1,917	1,855

The decrease in visits during the year has been due to several reasons. The limitation of staff available has been more difficult owing to the lengthy period of sickness of two health visitors and the national shortage of health visitors, making it difficult to replace health visitors who have left.

With an increase of more than 300 first visits to babies born during the year, this lengthy type of visit has taken up a higher proportion of the health visitors' time. This increase reflects also in the subsequent visits to children under one year where assessment visits to the children at risk are greater in number.

In view of the selective visiting now employed, mothers are encouraged to contact the health visitor when in need of help or to consult at the Civic Centre thus partly accounting for a decrease in the home visits to children in the 2-5 age group.

The considerable decrease in the miscellaneous visits is offset by the increase in infectious diseases and hospital discharges. This reflects the more positive recording of visits into definite classifications following the meeting to discuss the unanimity of recording of visits.

The health visitors are not yet in a position to visit the elderly persons in the community as often as they would wish. They are only able to concentrate on the selected cases in need (which includes the recently bereaved). This selection is particularly noticeable in visits paid to hospital discharges which show a remarkable increase (see also Geriatrics).

Week-end Emergency Scheme:

The calls on this service have continued to prove its value. Whilst the cost in manpower for personnel on standby duty is the most expensive item, the value of the comfort and compassion extended to the person in need far exceeds the monetary aspect of the service.

The cases are mainly elderly patients living alone where a "crisis" has arisen either physical or social which requires to be dealt with immediately. The messages are received at the Ambulance Depot and passed on to the health visitor on standby duties. The health visitor visits the patient and assesses the need, whereupon she mobilises the services required. This may involve the family doctor, district nurse, special duty home help or a night sitter.

On several occasions relatives have been found who have willingly taken over the responsibility of caring for the patient until other arrangements could be made. An emergency kit is available for the use of any of the services mobilised if required. This includes food, fuel, nursing equipment, bed and bed linen, commode, emergency lighting and cleaning materials. To this has now been added a mountain rescue type of foil blanket to be used in cases of hypothermia. Eight cases were dealt with during 1970.

The indications are that the calls on this service will be increased during the coming year as the number of elderly persons living alone in the community increases.

Tuberculosis Visiting:

A specialist health visitor has worked in close liaison with the physicians in the Chest Clinic in carrying out her duties of after-care of tuberculosis patients. A part-time health visitor and part-time clinic nurse have assisted at the Chest Clinic Consultant sessions. The number of home visits paid by the specialist health visitor to tuberculosis patients and their contacts remains high, the majority still being to families of Asian immigrants.

HOME VISITS BY SPECIALIST TUBERCULOSIS HEALTH VISITOR:

	1968	1969	1970
No. of patients	376	565	545
Ineffective visits	not recorded		104

The specialist tuberculosis health visitor accompanies the physician on his ward round at the Chest Hospital, when any pending discharges or potential home problems are discussed.

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

In view of the large birth rate in Bolton it would be impractical to attempt to carry out B.C.G. vaccination on all new babies. However, with the higher incidence of tuberculosis amongst the Asian immigrants it was considered reasonable to attempt a B.C.G. vaccination programme in respect of infants born to immigrant parents (approximately 250). Any baby of immigrant parents who weighs 5½ lb. or more and who is considered well from birth is offered B.C.G. vaccination. Where there is a known home contact of tuberculosis I.N.H. resistant B.C.G. is given.

The specialist tuberculosis health visitor accompanies a department medical officer in visiting the maternity unit at Bolton District General Hospital and the General Practitioner Maternity Homes once weekly to carry out this programme of B.C.G. vaccination.

B.C.G. vaccinations carried out at Bolton District General Hospital and the Maternity Homes since 23.2.70. totalled 253 (including 5 I.N.H. resistant B.C.G.).

T.B. After-Care Committee:

The specialist tuberculosis health visitor also attends a monthly meeting with the Deputy Medical Officer of Health and a representative of the Housing Department. Discussion takes place regarding the home conditions and necessary help required with special emphasis on newly notified cases of tuberculosis.

Geriatrics:

The work of the specialist health visitor who carries out her duties in close liaison with the Consultant Geriatrician continues to expand. With the increasing number of elderly persons in the community, pressure on hospital beds has inevitably increased. The specialist health visitor has the responsible task of reviewing the patients on the hospital waiting list once they have been assessed by the Consultant Geriatrician. She keeps him constantly informed of any major changes in the circumstances of these cases.

The specialist health visitor works closely with the Consultant Geriatrician in assessing the social conditions of cases requesting admission to hospital under the Relatives Relief Scheme. The follow-up and initial supervision of patients discharged from hospital has become a vital part of the specialist health visitor's work. To enable her to extend this service it was possible to place an S.R.N. experienced in geriatric work to assist her on a full-time basis from October of this year. The result of this is reflected in the increased number of visits to patients discharged from hospital.

HOSPITAL DISCHARGES:

1968	1969	1970
175	154	738

GERIATRIC ADVISORY CLINIC:

This clinic is held at the Civic Centre each Wednesday morning. A departmental medical officer undertakes a comprehensive medical examination which may include an X-ray of chest and also includes a cervical smear in the case of females. The specialist health visitor is in attendance for individual counselling and teaching these elderly patients how to cope with and accept the limitations of age.

The health visitor and S.R.N. continue to supervise and organise a group of voluntary helpers who concentrate their efforts in work for the elderly.

Paediatrics:

The health visitors are kept in close contact with developments in the paediatric field by their presence and acceptance at the Paediatric Clinics at the hospital. A health visitor also participates in the ward round where she is able to discuss with the paediatrician and the ward sister any possible problems or advice necessary when the children are ready for discharge home. The health

visitor is also in a position to contribute any information regarding the home background and social conditions which may affect the management of the patient. The liaison health visitor disseminates any relevant information to the other health visitors concerned.

Liaison with General Practitioners:

The attachment of health visitors to general practices has continued to enhance the service to the community as a whole. In spite of the difficulties of a health visitor being attached to three or more single practices she has to adapt her working time available to the more positive practice of "selective" visiting. General practitioners have become more aware of the preventive aspects of "well baby" clinics and also many participate in the "computer appointments" arrangements for immunisation and vaccination.

The number of general practitioner ante-natal clinics where a midwife and health visitor work alongside the general practitioner as a team continues to increase. This is an important aspect of the "team work". The patient gets to know her midwife and health visitor well in advance and the elimination of anxiety and stress does much to allay the many physical problems of childbirth which are associated with fear.

GENERAL PRACTICE CLINICS:

	1968	1969	1970
Ante-natal clinics attended by midwives and health visitors	6	8	10
Combined ante-natal clinics and well-baby clinics attended by health visitors only	2	2	2
Well-baby clinics attended by health visitors	2	5	4

In the field of geriatrics, health visitors have proved invaluable in support of the general practitioners' role for their advice and guidance to relatives. Where a patient is suffering from a chronic and debilitating illness, or from a terminal illness and in many cases of psycho-geriatric illness, the support given by the health visitor has enabled relatives to carry their burden with fortitude.

One general practitioner group practice has made full use of the expertise of their health visitor in conducting a survey on the geriatric patients of the practice.

The Prevention of Break-up of Families:

The families with special problems and those failing to cope with the stresses and the high pressures of modern life still command a large proportion of the health visitors' time. These are the families who through low mentally or ill health, sometimes as a result of repeated and frequent child-bearing and often with husbands unwilling to share the burden of family life, have become so uncaring and anti-social that they no longer care what happens to their children or themselves.

The health visitor is in the unique position that she is the only field worker who can contact families before a situation arises. Often her help and guidance can prevent the family's deterioration to the level where break-up becomes inevitable. It is to this end she works in close co-operation with the family care officers of the Children's Department referring to them cases which require more depth of case-work.

Mothers' Clubs:

The four Mothers' Clubs continue to function successfully.

These clubs are now an established feature as an off-shoot to the Child Health Clinics. Originally the clubs were organised and run by the health visitors associated with that particular Child Health Clinic but each Mothers' Club has now appointed a small committee composed of the mothers who attend the Club. The health visitor continues to act as chairman on the committee. Each Mothers' Club meets in the evening once a month with an average attendance of 20 to 30 regular attenders. New members are constantly encouraged at the Child Health Clinics.

The range of subjects has been quite varied during the year, both social and educational. One club was very adventurous in arranging a day out in Paris for 20 members.

HOME NURSING

There has been no change in the organisation of the home nursing service. Recommendations of the O. & M. Report on District Nursing have now been fully implemented. During 1970, efficient deployment of staff has made it possible for the nurses to attend 371 more patients and carry out 1,135 more visits than in the previous year. The number of patients remaining on the books at the end of the year increased by 140.

As the number of visits increases nurses have less and less time to devote to each case. It is essential that establishments are reviewed at regular intervals to ensure that staff are able to nurse each case adequately according to "target times" already agreed. The high sickness rate amongst district nurses is an indication of the pressures under which they work. During 1970, 596 working days were lost due to sickness.

STATISTICS OF CASES AND VISITS:

	1969	1970
Patients on books at 1st January	1,049	1,083
New patients attended during the year	2,185	2,421
	<u>3,234</u>	<u>3,504</u>
Patients remaining on books	1,083	1,223

VISITS IN AGE GROUPS:

	1969		1970	
	Cases	Visits	Cases	Visits
Children under 5	55	462	79	542
5 - 64 years	1,107	29,372	1,379	29,280
65 and over	2,072	68,883	2,147	70,030
	<u>3,234</u>	<u>98,717</u>	<u>3,605</u>	<u>99,852</u>

SUMMARY OF NURSING TREATMENTS:

	1969	1970
General Nursing	72,029	71,656
Injectons	30,073	30,507
	<u>102,102</u>	<u>102,163</u>

The decrease in the number of visits to the 5 - 64 years age group is mainly due to the rising number of patients discharged early from hospital who require only one or two visits to complete their recovery from surgical operations. Improved technique of nursing aimed at early rehabilitation of patients recovering from strokes also cuts down the number of visits required in these cases.

Clinic Sessions:

CIVIC CENTRE:

This clinic is held Monday to Friday from 2 p.m. to 5.30 p.m. for the benefit of ambulant patients and those going out to work who require injections for tuberculosis, anaemia and various allergies and also for any dressings that may be necessary.

HALLIWELL HEALTH CENTRE:

A clinic is held at Halliwell Health Centre Monday to Friday from 11 a.m. to 12 noon when a district nursing sister is in attendance. It is organised on similar lines to the Civic Centre clinic but mainly serves the patients of the seven doctors practising from this Centre. The nurse also attends to school children from nearby schools with minor ailments.

The number of patients attending these clinics increases yearly. A noticeable factor is the high proportion of Asian immigrants who now attend, particularly at the Civic Centre clinic.

Number of patients attending:	1967	1968	1969	1970
Civic Centre	109	137	161	194
Halliwell Health Centre	—	104	157	238

Of the 194 patients attending the Civic Centre Clinic, 50 (25.77%) were Asian immigrants.

Hospital Liaison - Early Discharge of Patients:

Because of the heavy demand for beds at Bolton Royal Infirmary and Bolton District General Hospital, consideration was given to the possibility of discharging selected patients home earlier than usual after surgical treatment to the care of their general practitioners and a district nursing sister.

After discussion with representatives of the Hospital Management Committee and Executive Council it was decided to carry out a pilot survey with a view to expansion of the scheme if it proved to be successful. The scheme was limited to the patients of three consultant surgeons in one of the hospitals. One district nursing sister in post was seconded to be the Hospital Liaison Officer. Cases considered for "early days" discharge were mainly those of patients making uneventful recovery from uncomplicated surgery, e.g. appendectomy, herniorrhaphy etc., who could be discharged home before their sutures or clips were removed, thus saving several days in hospital. The Hospital Liaison District Sister visits patients on the wards and after discussion with the surgical consultant and ward sister, she arranges for the patient to be visited by the home nurse attached to the general practitioner for continuity of care.

The scheme was put into operation in June and has proved to be popular with patients. Consultants and hospital staff have accepted that it is a workable and desirable continuation of care of the patient within the community, home nursing staff find that their work is more varied and interesting and the Hospital Liaison Sister finds herself fulfilling the role of public relations officer between hospital and community.

In the six months ending December, 1970, a total of 124 patients were discharged under the scheme, mainly in the age group 5 to 65 years, making a total saving of 431 hospital bed days. The successful implementation of this scheme gives some indication of how unity of the National Health Service may ultimately be achieved.

General Practitioner Attachment:

There has been no alteration in the organisation of the attachment scheme although constant review and adjustments have to be made as to staff changes. Considerable travelling time is taken in visiting patients who have moved to other areas but who are reluctant to change doctors.

The district nursing sisters continue to enjoy a good relationship with the general practitioners although one or two general practitioners still do not have the sister calling regularly at arranged times, but only when a particular problem arises. This is not a satisfactory use of the nurse's time when she has to take a chance on the doctor being in his surgery just when she needs him.

District Nurse Training:

This continues as before with lectures being given in three weekly blocks at Manchester Training Centre and the practical training being undertaken by the senior staff in Bolton. Films, demonstrations and tutorials are undertaken by the Deputy Superintendent assisted by the senior sisters, in the Health Department twice weekly and visits of interest are arranged to other departments to emphasise the need and usefulness of the social services. Three students successfully passed the examination in May. Two were accepted for training in September and will take the examination in January, 1971.

Two state enrolled nurses took the in-service training course in October (day release for ten weeks) and will also sit a written examination in January, 1971. Continuous practical assessments were carried out by the Superintendent, Deputy Superintendent and the three senior nurses for all four nurses, with satisfactory results. In future State Registered and Enrolled Nurses applying for full-time posts will be appointed with a view to taking the appropriate district nurse training at an early date.

Nursing Equipment and Loans:

There is still a big demand for loans of all kinds, particularly commodes, back rests and bed cradles. All articles are loaned free of charge on receipt of a note from the general practitioner, district nurse or health visitor.

Laundry Service and Supply of Incontinence Pads and Garments:

This continues to be a very necessary part of the service and again is arranged at the request of the general practitioner, district nurse or health visitor. In some cases with the aid of this service, relatives can carry on without the need of a daily visit from the nurse.

The number of patients using the laundry service has fallen from 111 in 1969 to 99 in 1970. The average number of patients per month was 60 in 1969 and 61 in 1970. This can be accounted for by the increase in the number of disposable incontinence sheets and garments which are now being used.

NUMBER OF INCONTINENCE SHEETS SUPPLIED:

	1969	1970
Type I	31,525	37,375
Type II	20,640	29,832
Number of patients receiving the service	563	512

This shows a decrease of 51 but there have been several cases where incontinence has been extremely severe and more sheets were needed, instances of this being cancer of the uterus or cancer of the rectum. The issue of incontinence garments has gone down from 182 in 1969 to 136 in 1970.

Dressing Service:

This has, of necessity, increased since the advent of the early discharge scheme and continues to be of immense value to the district nursing staff. The number of dressing packs made up at Cotton Street Adult Training Centre has increased from 21,585 in 1969 to 26,500 in 1970. The procedure for obtaining dressings is unchanged. All materials such as cotton wool, gauze, lint are obtained on E.C.10 and collected by the staff for transportation to Cotton Street, the local authority providing the disposable articles viz. dressing and hand towels, instruments and gallipots. When packed, the local authority driver transports the boxes to Bolton Royal Infirmary for autoclaving and thence back to the three centres for distribution to the patients by the nursing staff.

PRACTICAL TRAINING OF STUDENTS AND OTHER VISITORS

Hospital Nurses:

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

Practical experience of the community health services was provided for the following nurses:

	1968	1969	1970
Student nurses, 1st year of training ..	82	80	80
Student nurses, 2nd year of training ..	—	—	20
Student nurses, 3rd year of training ..	56	60	48
Student nurses taking the obstetric course	9	4	8
Pupil nurses training for enrolment	23	24	28
Psychiatric student nurses	—	8	6
TOTAL	170	176	190

The meeting of hospital nurses and community nursing staff following the practical experience led to discussion of many points which had been of special interest.

Student Health Visitors:

Four student health visitors were placed with Field Instructors for their practical training during the course and in addition 13 students spent one week accompanying health visitors on their visits to gain insight into the effect on health visiting of attachment to general practice. Six students completing their training on the 1969-70 course spent six weeks in the Health Department during their fourth term for health visiting practice under supervision before they qualified in September.

Day Nursery Students:

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

Other Visitors:

Visitors to the department continue to increase. Arrangements were made for students taking a wide range of courses and with many different needs.

They included :-

Three students taking the Hospital Tutor Course at Bolton College of Education.

A group of 14 students taking the Medical Secretaries' Course at Bolton Technical College.

Six students taking the Social Work Certificate at Manchester Polytechnic College.

Several student teachers preparing projects on community services.

Students taking the Social Science Degree Course at the Department of Social Administration, University of Manchester, were placed with various officers in the Health Department over a ten week period. Two were allocated to the Day Nursery Organiser and two to the health visiting and home nursing service. The general purpose of this placement was to enable the group of students to see some of the needs of Bolton as a whole community, to seek to understand how policy is formed and executed, its relevance to the community which is served and the community's perception of the service, as described by the consumers themselves and by others. This was an experimental scheme of placement and threw some burden on the staff but they found the experience stimulating and await the students' collective report on their work in due course with great interest.

Staff Training:

Midwives in practice are required to attend refresher courses every five years under the Central Midwives Board Rule G.1. Reference has been made to this aspect in the section on the midwifery service. In addition, arrangements are made for health visitors and home nursing staff to attend courses at approximately five year intervals to keep them up to date with the changing pattern of their work. During the year special emphasis was placed on courses with a management content in anticipation of the recommendations of the Mayston Report being implemented in 1971.

The Chief Nursing Officer attended a study weekend in Oxford, organised by the Health Visitors' Association, and a two day conference in Durham for Chief Nursing Officers and tutors organised by the Council for the Education and Training of Health Visitors. At the invitation of Manchester Regional Hospital Board the Superintendent Health Visitor attended a one week Management Appreciation Course at the Regional Staff College and the Deputy Superintendent Health Visitor attended a similar course in London organised by the Health Visitors' Association. A group adviser undertook a four week course on Middle Management at the William Rathbone Staff College. There is a need for local courses at First Line Management levels for nursing personnel.

Discussion has taken place with the local authority training officer with regard to organising courses, possibly on a group basis, with a proportion of places for hospital staffs. A start was made during the year with a useful and informative two day course on staff selection and interviewing techniques for the local authority staffs. This was attended by the Deputy Superintendent of the Home Nursing Service, three group advisers and three day nursery matrons. A health visitor attended a Summer School at Reading. Two experienced school nurses attended a one week audiometry course at Manchester University and one school nurse, already trained in audiometry, attended a three day refresher course on hearing techniques held in London.

One health visitor who commenced a course last year at the Bolton Institute of Technology, completed the remaining two weeks training early in the year to qualify as a field work instructor. Three senior district nursing sisters attended a six day course in Leicester organised by the Queen's Institute of District Nursing on Practical Work Instruction. They found the course informative and stimulating and have been able to put into practice several recommendations arising from the course in their organisation of the work of the student district nurses allocated to their nursing teams.

Study Days:

It is a growing custom for local authorities to arrange study days for their own nursing staffs and to extend invitations to attend to colleagues working in other areas. One group adviser attended a three day course on "Future Trends in Health Visiting" organised by Shropshire County Council and two school nurses attended a one day annual refresher course organised by Manchester Corporation for their health visitors and school nurses.

The annual study day for Bolton nursing personnel took the form of a Day Conference on the theme of the Handicapped Child. We were pleased to welcome senior nursing staff from the local hospitals as well as social workers in the Health Department and other local authority departments and tutorial staff and students attending the Bolton Health Visitor Training Course.

IMMUNISATION AND VACCINATION

Immunisation:

A new venture in this field was the introduction of vaccination against rubella. Supplies of the vaccine, controlled by the Department of Health and Social Security, became available in October, 1970. Its use was limited to girls in their 14th year.

The disease in itself is a very mild disorder with a slight fever and a rash and few complications or after-effects. The main danger is when a mother contracts rubella in the early months of pregnancy. If this occurs there is a considerable risk of the infant being born with congenital defects including deformity of the heart, blindness, deafness or mental deficiency.

Rubella is not always a condition that can be easily diagnosed for there are several other minor conditions that have very similar symptoms. This often means that parents cannot be entirely certain that their daughter has had rubella, and for this reason it is advisable for all girls to have the injection and so ensure that they are protected.

The number of girls immunised against rubella - german measles - in the schools was 639. Three girls attended their general for immunisation bringing the total to 642.

The immunisation schedule, extensively amended in October, 1968, is shown in the table below:

During the first year of life at 3 months, 5 months and one year of age:	Diphtheria, Whooping Cough, Tetanus and Polio- myelitis vaccine.
During the second year of life:	Measles vaccination and vaccination against Small- pox, at least at 4 weekly intervals.
At 5 years of age or at school entry:	Diphtheria/Tetanus antigen and Poliomyelitis vaccine and after an interval of not less than 4 weeks Small- pox vaccination.
At 13 years of age:	B.C.G. vaccination.
At 14 years for girls:	Rubella vaccine.

B.C.G. vaccination is offered to new born babies of immigrant mothers. In Maternity Homes and maternity wards of the General Hospital, 253 babies received B.C.G. This includes also the I.N.H. resistant B.C.G. given to five babies of tuberculosis patients. Immigrant school children entering school in this country for the first time were also offered B.C.G. vaccine. In 1970, 30 such children were skin tested and the 14 negative reactors among them received B.C.G.

We are using a computer for record keeping and for making appointments for the immunisation of all babies born on or after 1st January, 1969. In addition, to the staff conducting the local authority's clinic, doctors from 14 general practices are participating in the scheme. Information concerning name, date of birth, address and place selected for immunisation is fed into the computer which at the appropriate time prints an invitation to each child for a specific appointment.

It was hoped that this reminder would increase the proportion of children immunised. The work performed in this respect is shown in the following tables, but because of the recent changes in the immunisation schedule, comparison with tables from previous years could be misleading.

Vaccination Against Smallpox:

				Age in Years			Total
				Under 5	5-15	Over 16	
Primary Vaccination	..	..	..	1,310	103	151	1,564
Re-vaccination	..	..	..	27	127	482	636
TOTALS (1970)	..	..	..	1,337	230	633	2,300
TOTALS (1969)	..	..	..	1,112	153	1,032	2,297

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

Primary vaccinations	..	..	..	..	..	..	..	36
Re-vaccinations	..	..	..	..	..	..	..	148

NUMBER OF PRIMARY VACCINATIONS UNDER 5 YEARS OF AGE:

1961	..	..	..	..	1,463	
1962	..	..	..	..	2,042	(cases of smallpox
1963	..	..	..	..	124	in country)
1964	..	..	..	..	560	
1965	..	..	..	..	793	
1966	..	..	..	..	902	
1967	..	..	..	..	1,107	
1968	..	..	..	..	1,121	
1969	..	..	..	..	1,103	
1970	..	..	..	..	1,310	

Vaccination Against Poliomyelitis:

Age Group	Numbers who have received three doses during 1970	Numbers who have received reinforcing doses during 1970
Born 1970	-	-
Born 1969	1,569	2
Born 1968	235	380
Born 1967	28	59
Born 1963/66	143	1,574
Others under 16 years ..	51	53
Others over 16 years ..	36	15
TOTALS: ..	2,062	2,083

Total number who have received 3 doses of Poliomyelitis vaccine since the scheme began 76,743
 Total number who have received reinforcing doses since the scheme began 26,168

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 in 1969	1,165
Born in 1968	632
Born in 1967	192
Born in 1963-66	246
Others under 15 years	26
TOTAL	<u>2,261</u>

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 Centres	—	118	1,425	32	319	189
No. of children immunised in schools	—	130	—	42	—	1,350
No. of children immunised by general practitioners and for whom a record card has been received by the Health Department	—	3	408	2	141	25
TOTALS	—	251	1,833	76	460	1,564
GRAND TOTAL		2,160				2,024

IMMUNISATIONS FOR CHILDREN UNDER 16 YEARS OF AGE

	Primary Courses						Re-inforcing injections						Totals
	Born 1970	Born 1969	Born 1968	Born 1967	Born 1963/66	Others under age 16	Born 1970	Born 1969	Born 1968	Born 1967	Born 1963/66	Others under age 16	
Triple antigen	-	1,557	222	43	11	1	-	2	377	26	55	-	2,294
Diphtheria/Whooping Cough	-	-	-	-	-	-	-	-	-	-	-	-	-
Diphtheria/tetanus ..	-	11	4	9	165	62	-	-	29	20	1,494	7	1,801
Diphtheria only	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough only	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetanus only	-	-	-	-	70	6	-	-	-	-	6	8	90
	-	1,568	226	52	246	69	-	2	406	46	1,555	15	4,185

AMBULANCE SERVICE

The area served remains the same as last year, a full service being supplied within the County Borough and also on an agency basis for the Turton area of Lancashire. Accident/emergency cover is also provided for John Booth & Sons, Steelworks, which is situated on the Bolton/Westhoughton boundary. The area covered is 51 sq. miles with a population of 174,000.

General Review:

In the few weeks prior to the official opening in December, 1970, of the new motorway complex on the South West part of the area, the opportunity was taken to ensure that all the Ambulance crews were given special training in dealing with incidents on the motorway.

The new approach to advanced training for ambulancemen continues to gain impetus with the use of skills necessary at an incident and between the incident and the Casualty Department at the hospital. Training is given in the treatment of serious chest or internal injuries, the use of mechanical and manual methods of resuscitation, special treatment in the care and transport of coronary cases and the procedures required at a "major accident" with some light emergency rescue techniques.

The first-aid and non-medical subjects are dealt with to give ambulancemen training in Casualty Department and after-care of casualties. The administration, documentation and care of equipment is becoming increasingly valuable within the Service. During the next financial year a number of the staff will return to the Training School to re-qualify and this is planned to be the pattern of training in the future.

It is encouraging to note a slight decrease in the number of road accidents within the area but the reduction in the number of collapse cases has been offset by the increase in home or works accidents.

The Service has dealt with a large increase in the number of geriatric day care patients, the total of 12,550 being an increase of 2,000 patients in the year and an added increase of 277 patients to the psychiatric day care unit. This part of the Service must be kept under constant review with perhaps ultimately a separate section to deal solely with day care patients.

The number of patients and miles run is the highest on record and the increase in average mileage per patient is mainly conveying County Borough patients and not on patients from the Turton area. The number of patients conveyed for Turton has decreased in the year by 315 patients and 5,000 miles.

Close liaison is maintained with the hospital service. Talks are given to cadet/student nurses on the work of the Ambulance Service. There is close working liaison with the Fire Brigade and the Police. Joint exercises have been undertaken with the motorway patrols.

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

Year	Total Mileage	Total Number of Patients Carried	Average Mileage per Patient
1956	161,578	51,365	3.15
1957	158,270	49,583	3.19
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

Year	Bolton		Turton U.D.C		Total	
	Patients	Miles	Patients	Miles	Patients	Miles
1966	57,430	151,103	3,716	29,272	61,146	180,375
1967	56,152	152,186	3,709	28,186	59,861	180,372
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

Patients Carried by Rail:

	Patients Carried			Ambulance Vehicle Mileage		
	Stretcher Cases	Sitting Cases	Total Patients	Stretcher Cases	Sitting Cases	Total Patients
Bolton Borough	—	56	56	—	202	202
Turton U.D.C. . .	—	—	—	—	—	—
TOTALS: . .	—	56	56	—	202	202

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 sitting 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	
2489	1147	1731	5367	5533	12905	39643	58081	63448

Miles Travelled

Accident and Emergency				Other Cases				Total Miles Per Year
Stretcher	2 Handed	Sitting	Total	Stretcher	2 Handed	Sitting	Total	
7467	3441	5193	16101	16599	38715	118052	173366	189467

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	
133	51	75	259	395	558	2093	3046	3305

Miles Travelled

Accident and Emergency				Other Cases				Total Miles Per Year
Stretcher	2 Handed	Sitting	Total	Stretcher	2 Handed	Sitting	Total	
1210	458	682	2350	3594	5077	19046	27717	30067

Emergency Calls:

The problems of coping with an increasing number of patients and mileage with a fixed establishment of men and vehicles should be appreciated but the response to emergency calls has been excellent. The service attended 5,626 calls in the year an increase of 150 calls over the preceding year. No major difficulties arose in attending calls in the town centre with heavy traffic congestion, but some difficulties arose with parked cars on two of the Corporation estates.

Bolton C.B.

Turton Area

Type of Case	Yearly Total	Type of Case	Yearly Total
Road Accidents	829	Road Accidents	53
Home or Works Accidents	2662	Home or Works Accidents	127
Collapsed Conditions	1876	Collapsed Conditions	79
Discharges from Hospital	1495	Discharges from Hospital	113
Admissions to Hospital	3656	Admissions to Hospital	300
Foot Clinic	571	Foot Clinic	—
Geriatric Day Cases	12550	Geriatric Day Cases	390
Transfer (Hospital to Hospital)	1173	Transfer (Hospital to Hospital)	9
Transfer (House to House)	51	Transfer (House to House)	5
Mental Cases	67	Mental Cases	—
Psychiatric Day Cases	5868	Psychiatric Day Cases	173
Maternity Cases	1841	Maternity Cases	123
Out Patients	30809	Out Patients	1933
	63448		3305

Vehicle Strength at 31st December, 1970:

The number of vehicles remains the same, but the composition is now 2 stretcher, 3 all-purpose, 3 dual-purpose, 3 sitting case and 1 car equipped to deal with long distance stretcher cases or 4 sitting cases. Additional equipment has been placed in the vehicles to deal with motorway accidents i.e. high visibility coats, warning signs, flashing beacons, portable lights.

Ambulance Control Room:

Despite the ever increasing pressure of work the Control Room continues to function with great efficiency. The very essential link with other emergency services is maintained out of normal working office hours, e.g. midwives, district nurses, rota doctor schemes for general practitioners, hospital "Flying Squad", emergency oxygen supplies and the radio link with midwives. The installation of a recording machine in the Transport Office at the Bolton Royal Infirmary has given fluidity to the Transport Officer's duties in that he can still maintain contact with Ambulance Control and leave his office to check and arrange transport for patients with greater efficiency. The Control Room is now virtually a clearing house for calls on midwives and district nurses at week-ends.

Civil Defence:

In accordance with the Central Government policy of retaining Civil Defence instructors within the local authorities, one member of the Ambulance Staff is qualified for this duty.

Ambulance Vehicle Workshop:

Ambulances and departmental vehicles continue to be maintained in the workshop, repairs and maintenance being carried out on 28 vehicles. Ambulance availability is ensured with this service.

PREVENTION OF ILLNESS, CARE AND AFTER-CARE

Health Education:

The importance of health education in the Borough is becoming more apparent especially in the field of dental health, smoking, venereal disease, drug abuse, family planning. However, we should not become complacent. Though much is being done to acquaint people about these matters there is, naturally, still room for improvement.

Great strides have been made in education particularly in relation to venereal disease, drugs and smoking so that approximately 75% of the pupils in secondary schools in Bolton receive talks on these topics.

However, all schemes, no matter how small, involve time, money and personnel. It is essential, therefore, to realise that no matter how ambitious we may be the extent of any programme is dictated by these criteria. This may mean that while some programmes may lack the desired depth every effort has been made to ensure that they are as comprehensive as humanly possible.

Activities:

SCHOOLS:

As previously, continuing emphasis is being placed on the work in schools especially in education relating to venereal disease and drug abuse, and in this the Education Department has been a great help giving assistance and co-operation immediately on request.

While not wishing to go into detail in this report, it should be noted that 7 girls' high schools received weekly talks on Mothercraft from a health visitor whilst most boys' high schools received a series of weekly talks from the Health Education Officer.

Primary schools managed to get more attention during the year. Three separate sessions on various aspects of health were offered and well received.

It is planned to continue placing the main emphasis on schools as it is thought that this is still the area of greatest influence and therefore should be encouraged. Unfortunately, we are now reaching saturation point and the time is approaching where we shall have to evaluate our services fully before considering further expansion.

GENERAL:

- (1) Dental Health Campaign. This included lectures in primary schools - an exhibition in the Central Library foyer - a painting exhibition with prizes presented by His Worship the Mayor.
- (2) A Home Safety Exhibition was held in the Central Library foyer utilising the Lancashire County Council's Health Department's Bird-Brayne exhibition.
- (3) A series of talks on the Learning to Live theme was given to Recreation Club members.

- (4) The film on the work of the Health Department continued to be in demand and talks on this topic proved very popular with Church and Young Wives' Clubs.
- (5) Courses were undertaken in the instruction of candidates for the Duke of Edinburgh Bronze/Silver awards in Home Safety.
- (6) A public teach-in on the dangers of drug abuse was held in the Octagon Theatre in conjunction with the local branch of the Association for Prevention of Addiction. Towards the end of the year a public film show and discussion was held in the Central Library on drug abuse with particular emphasis on LSD.
- (7) An Anti-Smoking Clinic was organised in conjunction with the British Temperance Society and held at the Halliwell Health Centre - 50 people began and 46 followed the course through. A follow-up evening was held in December. Forty people attended of whom 36 stated they had managed to stop smoking.
- (8) During the year a further Return Unwanted Drugs campaign was held in co-operation with the local pharmacists. This again proved extremely worthwhile with large amounts of drugs being returned.
- (9) In co-operation with the Chief Nursing Officer a leaflet was produced outlining all the services available to the mother and her child. This leaflet is given to the mother by the health visitor at the primary visit and to date has proved to be helpful and well received by all.
- (10) Three film strips were made during the year by the Health Education Officer in conjunction with the district nursing service on (a) Sterile Dressing Techniques, (b) Bed Bathing (c) Infection Technique - these strips will be used in the training of district nurses.

MOTHERCRAFT AND PARENTCRAFT TALKS:

The midwives continue to run the popular mothercraft talks. Evening sessions were started to cope with those mothers unable to attend during the day. The sessions began as an experiment and proved so popular that additional ones were needed.

Parentcraft sessions were held during the year and proved as popular as ever. The series has now been expanded to six talks, the last talk dealing with the practical aspects of being a parent.

IN-SERVICE TRAINING:

This continues on a regular basis as and when new films become available. The films are usually shown in the District Nurses' sitting room and all members of the staff are invited.

A study day was held in March with the theme, "Handicapped Children" - invitations being extended to the nursing staff in the nearby boroughs. The course was well attended and proved to be both popular and informative.

IMMIGRANTS:

Our information leaflets in Urdu/Gujerati continue to be updated. The health visitors are distributing the leaflets to the immigrant families but are handicapped by the fact that many mothers cannot read. This makes the husband the obvious person to approach and educate but the cost of carrying out such a programme would be prohibitive.

We are still receiving numerous requests from other authorities for copies of our immigrant leaflets.

CONCLUSION:

An increasing number of requests is being received for assistance by external organisations and individuals. These are being met but are proving a strain on present resources.

We have now approached the stage where there is an urgent need to examine the present scope of our health education services with a view to (a) either enlarging the present facilities or (b) curtailing or reducing our present scope of operations.

Cervical Cytology and Cancer Screening:

This service, which started in 1965 is being more and more appreciated and used by larger numbers. It was necessary to hold 158 sessions in 1970 as against 116 in 1969. Of these, 151 were held at Health Department premises and 7 at industrial premises where large numbers of women are employed.

The total number of tests carried out increased from 2,044 in 1969 to 3,083 in 1970. This includes the 17 ladies who asked for breast examination only. The average number of tests per session show an increase from 18 to 19.5.

The total number of smears taken was 3,065 as against 2,025 in the previous year, and the number of positive or suspicious smears showed a corresponding increase from 13 to 17 cases.

For conditions other than cancer, revealed by the laboratory examination of the smears, 204 patients had to be referred to their general practitioners as against 103 patients in 1969. Again, trichomonas infection was the most common cause: 110 cases as against 78 in the previous year. Sixty-nine cases of monilial infection as against 19 in 1969 were detected during the year. Even the number of suspicious lumps in the breasts has increased from 3 cases in 1969 to 5 cases in 1970.

Patients are asked to return for a repeat smear after three years. A few requested repeat smears before the three years interval and some tests were repeated at the request of general practitioners. The total number of women in Bolton who attended in 1970 for a routine repeat smear test was 2,061. Only 8 of them or 0.39% were positive or suspicious as against the rate of 0.99% in the 908 new cases examined, 9 patients.

The summary by age and parity of the number of patients examined in 1970, new patients and routine repeat smears, together with their results is given in the table below :

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

Age Group	New Patients			Routine Repeat Smears		
	No. examined	No. of positive or suspicious smears	Percentage of positive smears	No. of women examined	No. of positive or suspicious smears	Percentage of positive smears
Under 25	111	1	0.9	6	—	—
25-34 yrs.	294	3	1.02	355	1	0.28
35-44 yrs.	250	1	0.4	750	1	0.13
45-54 yrs.	186	3	1.61	708	5	0.71
55-64 yrs.	53	1	1.88	220	1	0.45
65 and over	14	—	—	22	—	—
TOTAL	908	9	0.99	2,061	8	0.39
Number of Pregnancies:						
0	109	1	0.91	86	1	1.16
1	230	1	0.43	487	2	0.41
2	318	3	0.94	815	1	0.12
3	138	0	—	415	3	0.72
4	62	2	3.23	161	—	—
5	34	2	6.51	59	1	1.70
6 and over	17	—	—	38	—	—
TOTAL	908	9	0.99	2,061	8	0.39

The follow up of the patients with positive or suspicious smears revealed that 8 were treated with cone biopsy, one with cautery, five had total hysterectomy and two with radium treatment. Of the 5 patients with lumps in the breast one was treated with radical mastectomy, the others remained under observation.

Geriatric Advisory Clinic:

This clinic, for patients over 60 years of age, continued to be held on Wednesday mornings at the Civic Centre. A total of 117 patients attended in 1970 as against 109 in 1969 and 115 in 1968. Each patient received 30 minutes of the medical officer's time spent on diagnosis, reassurance of the patient and a concise report to the family doctor concerned in each case.

The sources of referral to the clinic in these 3 years were as follows :

Source of referral	1968	1969	1970
Chiropractic clinic	76	75	86
Previous patients	12	17	22
Health visitors and district nurses	11	14	6
Talks at Over 60 Clubs	15	3	2
General Practitioners	1	0	1
TOTAL	115	109	117

The age and sex distribution of these patients was:

Age	1968		1969		1970	
	Men	Women	Men	Women	Men	Women
Under 65	2	15	0	15	2	20
66-75	11	58	18	44	16	57
Over 75	12	17	10	22	4	18

The most frequent medical condition found was hypertension arising in 18 cases. Eight patients were found with mild anxiety states. Nine cases of arthritis were found and one previously undetected case of diabetes.

As mentioned above the family doctor was informed of the various findings including the examination, blood test, cervical smear, blood pressure readings, etc. It was left to the general practitioner to initiate treatment. Should the doctor so wish it, an early course of physiotherapy can be arranged by the Health Department for his patient and chest cases can be X-rayed within 14 days at the Mass X-Ray sessions at the Civic Centre.

Convalescent Home Accommodation:

Thirty two applications for convalescence for adults were received during the year. Four applicants subsequently withdrew their applications and three were not accepted by the Hospital Saturday Council. Arrangements were made for the others to go for convalescence.

Chiropody:

The department employs eight part-time chiropodists. Clinics are held daily in the Health Department and one day per week at Halliwell Health Centre and Deane Clinic. Over the years the demand for this service has increased considerably, the total number of treatments having risen by approximately 64% during the past ten years. Details of the service are given in the tables below:

	1966	1967	1968	1969	1970
New Clinic Patients	142	504	636	624	633
New Domiciliary patients ..	181	256	358	342	252
Clinic Patients on Register at Year End	1,486	1,830	2,104	2,211	2,380
Domiciliary Patients on Register at Year End ..	369	553	580	734	720
Recall period	7 - 8 weeks	11 - 12 weeks	9 - 10 weeks	9 - 10 weeks	9 - 10 weeks

**Table of Treatments given at the Foot Clinics since the
Inception of the Service on 1st April, 1960**

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			
1970	5,561	430	1	4,122	10,114	3,981	14,095
1969	5,263	453	—	4,039	9,755	3,820	13,575
1968	4,786	464	1	3,699	8,950	3,211	12,161
1967	4,493	460	—	3,561	8,514	2,825	11,339
1966	4,609	339	—	3,573	8,521	2,206	10,727
1965	4,018	353	—	3,306	7,677	1,748	9,425
1964	4,485	356	—	3,857	8,700	1,762	10,462
1963	4,372	343	—	4,112	8,827	1,592	10,419
1962	3,969	338	—	4,147	8,455	1,279	9,734
1961	3,522	271	—	4,046	7,841	755	8,596
1960 (April- December)	1,753	199	—	3,247	5,200	333	5,533

HOME HELP SERVICE

The Home Help Service is now so widely known that it complements every statutory and voluntary service in the health and social welfare field.

During the year, 1,757 households received assistance, 931 new applications were made, 65% of which received service. Over 11,000 follow-up visits were made to keep track of the varying needs. In a service such as this, where use must be made of every hour of service, frequent checks are essential to prevent abuse. An average of 1,400 households were served each week varying from once to six times a week. The weekly wage bill for home helps is in the region of £1,650 per week.

The Home Help Organiser is happy to co-operate with every section of the community but as demand inevitably exceeds supply it is in the interests of everyone that she remain independent - and be seen to be independent - so that her decisions can be made entirely on the need and circumstances of any particular case and the allocation of help is unbiased irrespective of the source of the request.

SOURCE OF APPLICATIONS (expressed in percentages):

Self, Relatives and Friends	26.0
Health Visitors	21.2
General Practitioners	14.9
Hospitals	13.4
Welfare Department	13.1
District Nurses	6.8
Department of Health & Social Security ..	3.8
Mental Health Officers	0.6
Children's Department	0.2

The Service worked at unprecedented pressure during the year, which resulted in patients receiving less help than was desirable. Also, quite apart from the needs of the patients themselves, it led to a situation needing more and more administrative time and effort in an attempt to satisfy the evergrowing need by spreading the help as widely as possible.

Urgent cases received help immediately though only at the expense of withdrawing help from less urgent, though still needy, patients. It will be appreciated that this flexibility results in the patient in the latter category receiving help on a different day, quite possibly with a different home help, or perhaps being left for a week. To give an example, if a full-time home help serving ten cases a week is switched to a home confinement, then her ten cases could well be fitted into the work schedules of ten different home helps. No change is ever made without a definite reason although a surprising number of elderly people like to meet different home helps and are stimulated by change.

Cases for whom help was provided during the past four years:

	1967	1968	1969	1970
Maternity	24	27	18	11
Tuberculosis	13	14	12	12
Chronic Sick, Aged and Infirm ..	1,504	1,641	1,655	1,673
Other cases	67	68	76	61
TOTALS ..	1,608	1,750	1,761	1,757

The maximum charge for the service has remained at 4/6d per hour but from the 1st April, 1971, this will be increased to the decimal equivalent of 5/7d per hour (28p).

Summary of Payment for Service

	Free	Part Cost	Full Cost
Maternity	—	—	11
Tuberculosis	10	—	2
Chronic Sick	1,405	53	215
Other Cases	34	4	23
TOTALS	1,449	57	251

Staff:

It cannot be stressed too highly that the reputation of the Service rests, to a great extent, on the integrity of the home helps and great care is needed in selection.

The employment position during the year continued to be exceedingly difficult, making the recruitment of suitable ladies a marathon task, as the six mail order firms established in the district tend to soak up all available female labour.

Recruitment, therefore, occupies an ever-increasing amount of the Organiser's time. More than one thousand applicants were interviewed this year.

During the year, the Organiser lectured to various associations, mainly concerned with the elderly and had various students from colleges and universities for varying lengths of time.

Training:

The six months training programme was held from September until Easter. Half the syllabus is covered by staff from the College of Domestic Arts and Crafts and includes lectures, demonstrations and practical work on varying subjects concerning housekeeping such as budgetting, selection of food, cleanliness and care in the use of kitchen equipment; preparation of food for invalids, elderly people, balanced and special diets.

Lectures by senior officers of the Health, Welfare and Children's Departments, Social Security and other agencies concerned in community service were responsible for the other half of the syllabus. Visits were made to electricity and gas training centres, where emphasis was laid on recognising potentially dangerous equipment. The programme was wound up by a lecture from the Medical Officer of Health.

The number of students was doubled and two groups were training simultaneously. The willingness of senior officers to co-operate was of great assistance in planning a comprehensive course and the Organiser's thanks are extended to them.

Once a home help has passed the training course she now wears a special badge carrying the words, "Trained Home Help". So far, no difficulty has been experienced in filling these courses which is all the more praiseworthy as many of the helps attend in their own time.

Home helps who have taken a further course concerning working with problem families continued to serve this small but difficult section of the community.

Night Attendant Service:

Two "night sitters" catered for most of the calls for this service with occasional assistance from volunteer home helps. This service is provided so that a patient will not die alone and is purely an emergency service depending mainly on the availability or otherwise, of hospital beds. Twenty-one patients received thirty five nights of help.

Weekend Emergency Service:

Two home helps are on standby duty at certain hours at the weekend. Although this service is not extensively used, nevertheless, it provides real help in an emergency.

Medical Examination:

An agency which provides a service of such personal nature as the Home Help Service must be reliable. The very fact that they need to use this service emphasises its importance in the domestic life of the recipients. All entrants to the Home Help Service are medically examined to ensure that they are, and will remain, in good health and that their reliability can be counted on by those needing help.

The total number of home helps examined during the year was 90 as against 143 in 1969. Two were found to be unfit.

A medical examination is made in the case of home helps where there has been a poor record with sickness absenteeism, so that these women do not feel obliged to work if it has become a drudgery.

MENTAL HEALTH

The Mental Health Department continues to provide an adequate service although we have been unable to replace two trained male mental welfare officers who left the department.

One female mental welfare officer successfully completed the course for the Certificate in Social Work and has resumed duties and one female mental welfare officer has been seconded to the one year course for the Certificate in Social Work.

The welfare assistant also left the department but we have since recruited one male and one female welfare assistant.

Staff:

The staff position at 31st December, 1970 was:

- 1 Chief Mental Health Officer.
- 1 Deputy Chief Mental Health Officer.
- 4 Mental Welfare Officers (1 seconded to the Certificate in Social Work Course).
- 2 Welfare Assistants.

Liaison:

Close liaison with Dr. J. T. Leyberg and Dr. G. G. Hay, Consultant Psychiatrists, Bolton District General Hospital, and their staff, ensures a comprehensive service for the mentally ill. Regular case conferences are held at the Psychiatric Unit ensuring continuity in the treatment, care and after-care, including the finding of accommodation and employment of cases. These meetings are supplemented by day to day informal contact at hospital or Out-Patient Clinics and joint home visits by the Consultant and the mental welfare officer to provide support for clients living in the community.

An excellent relationship exists with the medical staff and social worker at Brockhall Hospital for the mentally subnormal. The monthly clinic held at the Civic Centre by Dr. M. J. Sweeney, Consultant in Mental Subnormality, provided an invaluable link between the hospital, local authority and families of the mentally subnormal.

Liaison with general practitioners is mainly confined to specific cases and there was a 5% increase in referrals during the year. Good relationships exist with other statutory and voluntary social work agencies.

Mental Illness

Hospital Admissions:

Total number of Bolton Residents admitted to Psychiatric Hospitals:

Method of Admission	Under 65 years		65 years and over		Total
	Male	Female	Male	Female	
Mental Health Act, 1959					
Informal	145	129	37	40	351
Section 25	22	31	3	8	64
Section 26	—	—	—	—	—
Section 29	11	16	1	1	29
Section 60	5	—	—	—	5
TOTALS	183	176	41	49	449

	1969	1970
Admissions to hospital	482	449

During the year there was a decrease of 33 patients admitted to hospital (7% decrease). Of the total number of admissions, 75% were admitted on an informal basis.

29 patients were admitted as acute emergency and 5 men were admitted on a hospital order through the Magistrates Court.

Cases referred to Health Department for investigation:

	Under 65 years		65 years and over		Total
	Male	Female	Male	Female	
REPORTED BY—					
Medical Practitioners	71	92	34	57	254
Relatives	43	33	8	26	110
Police	15	10	—	2	27
Consultants and Hospitals	41	41	12	12	106
Others	34	49	13	38	134
TOTALS	204	225	67	135	631
DISPOSAL—					
ADMITTED TO HOSPITAL—					
Informally	52	46	19	15	132
Under Section 25 Mental Health Act ..	22	31	3	8	64
Under Section 26 Mental Health Act ..	—	—	—	—	—
Under Section 29 Mental Health Act ..	11	16	1	1	29
Under Section 60 Mental Health Act ..	5	—	—	—	5
TOTAL HOSPITAL ADMISSIONS	90	93	23	24	230
Referred for Psychiatric Opinion	49	55	14	21	139
Placed under Community Care	36	43	17	56	152
Died	—	—	—	2	2
No further action required by Mental Health Service	29	34	13	32	108
TOTALS	204	225	67	135	631

	1969	1970
Visits to investigate referrals	615	631
Community care visits	5,277	5,130

Greenmount House:

This purpose-built psychogeriatric hostel for 52 patients was full throughout the year and a very high standard of care was maintained by the staff while preserving a homely atmosphere. Three beds are reserved for short term care and 31 were admitted for temporary periods. Day care facilities were continued during the year; six cases were transported daily by ambulance and were returned at night.

There are 54 cases on the waiting list. An essential requirement is for an additional 50 place hostel with day care facilities for 30 elderly mentally disordered people.

Discharges during the year:	Male	Female	Total
To psychiatric hospital	—	4	4
Died	2	4	6
	2	8	10

Admissions were:	Male	Female	Total
From psychiatric hospital	—	1	1
From home	—	7	7
	—	8	8

Rehabilitation Hostel - Greenmount Annexe:

This purpose built hostel was opened on 12th June, 1970. It can accommodate 9 residents who have suffered from mental illness, completed their treatment and are considered to be in need of rehabilitation and employment before returning to live in the community. The hostel is situated in the grounds of Greenmount House and residents are closely supervised by the Superintendent and Matron of Greenmount House. Social workers assist in finding suitable employment and accommodation, and help to integrate them back in the community. At the end of the year, there were 2 males and 4 females in full-time employment and 1 female attending Cotton Street Rehabilitation Centre.

Greenroyd Hostel:

This is a Supervised Group Home for 8 mentally ill adults who have completed their treatment and are considered to be in need of rehabilitation and employment before living in the community without supervision. During the year, 3 females and 2 males have been rehabilitated and are now living in the community.

There are 7 residents at present, 3 males and 3 females having been found full-time employment and 1 female attends the Rehabilitation Unit at Cotton Street.

Psychiatric Rehabilitation Unit - Cotton Street:

The aims of this Unit, which was opened on 8th April, 1969, are to help patients gain confidence in their own abilities and to promote the possibility both of an independent existence and to conform with the normal requirements of society. Employment in this connection is of paramount importance. Patients are employed on contract work obtained from local firms and the gardening section maintain the grounds of Health Department premises.

Three males and two females have been placed in full time employment and are leading an independent life.

The number of patients attending at the end of the year was 7 males and 8 females.

Mental Subnormality and Severe Subnormality:

There was no significant change in the number of subnormal and severely subnormal persons being supported in the community, home visits made by social workers being approximately the same as last year. The service given to both the junior and adult training centres, adult hostel, together with supportive home visits by social workers is at present providing an adequate community care service.

Hospital Admissions for Subnormality

Mental Health Act, 1959	Male	Female
Informal	4	3
Section 29	1	1
Section 60	2	1
TOTALS	7	5

There are 9 cases on the waiting list for admission to hospital. Of these, 6 are severely subnormal children considered to be in urgent need of admission.

Home visits made by Mental Welfare Officers were:

	1969	1970
Community care	1,017	886
At request of hospitals	23	19

Mental Health Act, 1959

Cases referred to Health Department for Investigation

New Cases reported by:	Male	Female	Total
Local Education Authority	1	2	3
Section 57 Education Act, 1944	2	1	3
E.S.N. School Leavers	3	2	5
Health Visitors	3	1	4
Consultant Paediatrician	7	2	9
TOTALS	16	8	24

Action taken:

Admitted to Junior Training Centre ..	5	2	7
Admitted to Adult Training Centre ..	4	3	7
Community Care	6	3	9
No further action at present	1	—	1
TOTALS	16	8	24

Number of Subnormal and Severely Subnormal Persons receiving care on 31st December, 1970

	Male	Female	Total
In hospitals	89	96	185
Community Care	208	168	376
TOTALS	297	264	561

Classification of Severely Subnormal Persons Awaiting Hospital Care on 31st December, 1970

	Under 16 years		Over 16 years		Total
	Male	Female	Male	Female	
IN URGENT NEED:					
Cot and chair cases	1	1	—	—	2
Ambulant	3	—	1	—	4
NOT IN URGENT NEED:					
Cot and chair cases	1	—	—	—	1
Ambulant	—	1	1	—	2
TOTALS	5	2	2	—	9

Junior Training Centre:

The purpose built centre can accommodate 105 children. At present there are 72 children on the register. The syllabus is arranged to enable the children to pass through the stages of learning through activities to a more formal teaching programme. They are encouraged to gain confidence in their own abilities, to become more independent and adventurous and to develop their personalities. Admissions during the year were 5 male and 4 female children.

Social training visits of observation made during the year included Library, Museum, Theatre, Fire Station and excursions into the country. Pupils from Canon Slade Grammar School actively participate in the functions of the Centre and as in previous years helped with the Christmas play.

Special Care Unit:

The number of severely subnormal children, most with physical handicaps, remains the same at 24.

Medical Inspections:

Regular medical examinations were carried out and appropriate action taken to deal with any problem found. The Consultant Paediatrician attends each term.

Adult Training Centre:

The Centre caters for 82 adult subnormals. The range of work done at the Centre includes sewing for the girls in making pillow cases, ironing board covers and simple household articles. Each week 600 District Nurses Dressing Outfits are packed by the trainees. Contract work includes the assembling of corrugated cardboard divisions for large cartons, the making of carrier bags and assembling electric plugs. The gardening section is employed in the maintenance of grounds in Health Department premises.

A total number of 6 trainees were placed in open employment during the year. The Special Care Unit provided day care for 10 severely subnormal persons.

Recreational and social activities were arranged including an evening club held monthly. The week's annual holiday in a hotel at St. Annes on Sea for 60 trainees was again a success.

Medical Inspection:

During the year all trainees have received a medical examination. Those who required treatment were referred to their general practitioners.

Park House:

This hostel for 25 mentally subnormal persons over the age of 16 years provides long term care for 23 residents with 2 beds available for short term care. The hostel provides a good homely atmosphere and the residents are accepted by the community. Admissions during the year were 2 from the community and 1 from hospital. Short term care was provided for 9 persons. Eight residents are in full-time employment. Seventeen attend Cotton Street Adult Training Centre for Subnormals.

PART III

CONTROL OF INFECTIOUS DISEASES

Notifiable Infectious Diseases

Tuberculosis

Venereal Disease

NOTIFIABLE INFECTIOUS DISEASES

Incidence:

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

Disease	Total Cases Notified
Anthrax	—
Diphtheria	—
Dysentery	35
Acute Encephalitis	—
Typhoid Fever	1
Paratyphoid Fever	1
Malaria	—
Measles	1,276
Acute Meningitis	1
Ophthalmia Neonatorum	—
Acute Poliomyelitis:	
Paralytic	—
Non-paralytic	—
Scarlet Fever	82
Smallpox	—
Whooping Cough	73
Food Poisoning	57
Infective Jaundice	193
Tetanus	1

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

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

Disease	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Anthrax	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	1	2	—
Dysentery	229	331	97	94	125	136	53	168	50	35
Acute Encephalitis	—	—	—	—	—	—	—	—	—	—
Enteric Fever	1	2	1	—	—	—	—	—	—	2
Malaria	1	1	1	—	—	—	—	—	—	—
Measles	2708	576	2193	973	1591	1419	666	559	320	1276
Acute Meningitis	1	—	—	—	2	1	1	—	—	1
Ophthalmia Neonatorum	—	1	1	—	—	1	—	—	—	—
Acute Poliomyelitis:										
Paralytic	15	1	1	2	—	—	—	—	—	—
Non-Paralytic	10	—	1	—	—	—	—	—	—	—
Scarlet Fever	89	59	66	58	156	242	63	38	60	82
Smallpox	—	—	—	—	—	—	—	—	—	—
Whooping Cough	147	2	55	142	26	95	96	27	12	73
Food Poisoning	47	66	62	41	38	31	64	61	40	57
Infective Jaundice	(Notifiable from June, 1968)							21	56	193
Tetanus	(Notifiable from October, 1968)							—	—	1

Deaths from Infectious Diseases, 1961-1970 inclusive:

Disease	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Diarrhoea and Enteritis under 2 years of age . .	1	1	3	2	—	2	3	7	6	4
Meningococcal Infection . .	1	1	—	1	1	1	2	1	—	—
Pneumonia	114	122	146	90	115	134	102	141	170	185
Whooping Cough	—	—	—	—	—	—	—	—	—	1

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

Diphtheria:

After two successive years in which there were cases of diphtheria in Bolton, no cases of the disease were notified during the year. Unfortunately, this was not due to an increase in the proportion of children immunised against diphtheria for the percentage remained much the same as previous years. There are still carriers of the disease in the community and the presence of these constitute a danger in those schools where the number of immunised children is low. There appears to be no reason why cases of diphtheria will not continue to occur unless more parents co-operate in producing a better immunisation rate.

Dysentery:

The number of cases notified was the lowest since 1950. In the years after the last war, only one or two cases were notified annually but the number suddenly rose and there were 294 cases of the disease reported in 1951. This reached a peak in 1960 with over 500 cases notified but since that year there has been an almost continual fall. This might indicate that a change in the nature of the organism responsible had occurred about 1950 but in recent years it appears that it may be losing some of its infectivity in Bolton.

The cases that did occur were of a sporadic nature and did not constitute part of any outbreaks.

Gastro-enteritis of Infancy:

Four deaths occurred in children under two years of age in 1970 compared with six in 1969. This figure is still much above average years and still suggests that the organisms responsible have increased their virulence.

All were isolated cases and were not part of any outbreak of enteritis.

Apart from pneumonia, enteritis is the only other infectious disease to cause death in any significant numbers.

Brucellosis:

This condition resembles very severe influenza but may last for a considerable period, sometimes several years. The disease is transmitted by contact with infected animals or by the ingestion of milk from such animals. Pasteurisation of milk will prevent the illness being passed in this media. The disease is not notifiable but at least three people in Bolton had treatment for brucellosis in 1970.

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 a milk agglutination test) are negative.

The number of cows slaughtered was:

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

The Ministry of Agriculture has introduced the Brucellosis Incentives Scheme which encourages farmers to have their herds tested and positive reactors slaughtered in order to form brucellosis free herds and so qualify for registration as a Brucellosis Accredited Herd. Farmers are paid an increased price for the milk from these herds.

In 1971 compulsory eradication will start in five areas of the country, two of which will include parts of North and West Lancashire.

In the year, 733 samples of milk (from bulk and individual samples) were taken from both roundsmen and farms and examined for brucella abortus. Twenty-six cows were slaughtered and the milk temporarily pasteurised. Positive reactions from farms outside Bolton were referred to the County Medical Officer of Health.

Measles:

After three years in which there was a lower than average number of cases of measles, the notifications of the condition in 1970 were 1,276. This comparatively high number was very disappointing for almost all the cases occurred in children who were eligible for immunisation. In some of these children, complications of the condition such as ear infections left permanent damage. Some of the complacency among parents was due to the assumption that measles is an almost inevitable accompaniment to childhood and is relatively harmless.

The only encouraging thing to emerge was the fall in the number of cases towards the end of the year and only 12 were notified in the last three months.

The number of children immunised during the year was:

Under 5 years	..	..	..	..	..	1,853
Over 5 years	..	..	..	..	..	272

Whooping Cough:

There was a considerable increase in the number of cases notified in 1970, 73 compared with 12 in 1969. Most of the cases were mild and unaccompanied by complications but a death occurred in a baby of 9 weeks, a time considerably before any immunisation could have commenced.

Poliomyelitis:

No cases of poliomyelitis were notified during the year but the immunisation rate is not high enough to ensure that Bolton will be free from the condition in the future.

Scarlet Fever:

There were 82 cases notified in 1970 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 five people died from pneumonia in the year and of these 139 were over the age of 65. Few of these cases occurred in previously healthy people, most representing a complication of some other serious disease.

Infective Jaundice:

1970 was the second full year in which notification of this disease occurred. The number of cases was 193 compared with 56 in the previous year. The condition again was mainly found in children and young adults which suggested that the older people had acquired some immunity to the disease. Other areas in Lancashire also had an increased number of cases and Bolton reflected this change. There were fewer cases in the second half of the year.

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 one week after he returned to this country. The diagnosis was made after he had been admitted to a general ward of a local hospital and this necessitated much contact follow-up among the other patients in the ward and the staff.

Another man was notified as paratyphoid fever after routine blood tests showed that he had acquired the disease. He was being treated at the time for another condition in hospital. All enquiries failed to detect the source of the infection.

A case of typhoid fever occurred in a 12 year old boy living in a neighbouring local authority area. He had been on holiday for two months in Spain and developed the disease in a mild form initially and continued to attend a secondary school in Bolton. This involved much contact tracing at the school on pupils who lived in several local authority areas but no further cases developed.

Food Poisoning:

In April about half the pupils (over 100) were away from one of the primary schools with temperature rise, abdominal pain, nausea, vomiting, and diarrhoea. A small number of the parents appeared to have symptoms similar to that of the children. Bacteriological specimens were taken from some of the children, the staff and all of the food handlers but no organism was isolated to indicate the cause of the outbreak. Within two weeks all the children had returned to school.

In May over a period of two weeks, sixteen old people in a welfare home had episodes of diarrhoea and vomiting but again, after extensive testing, no organism was found for the cause of the outbreak.

All of the other cases of food poisoning notified were isolated incidents and a variety of pathogenic organisms were isolated from the patients.

General Administration of the Control of Infectious Diseases:

Public Health Inspectors carried out 258 visits and health visitors 199 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 1,096. 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	4
	Salmonella typhimurium	33
	Salmonella virchow	22
	Salmonella heidleburg	20
	Salmonella bredeney	2
	Salmonella agona	3
	Salmonella brandenburg	5
	Negative results	1,007
TOTAL		1,096

Notices under the Public Health (Infectious Diseases) Regulations, 1953, were served upon 4 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	-	4	-
Negative	10	17	17
NURSERY STAFF			
Positive	-	-	-
Negative	-	1	3
NURSING AND HOSPITAL STAFF			
Positive	-	-	-
Negative	-	4	3
SCHOOL STAFF			
Positive	-	-	-
Negative	-	1	1
HOME HELP			
Positive	-	-	-
Negative	-	1	5
TOTALS ..	10	28	29

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	2	1	-	3	-	2	3	-	12
Females (European)	-	-	-	-	-	-	-	1	2	-	1*	-	1	5
Males (Asian)	-	1*	1	-	5	6	9*	5	4	1	2	-	-	34
Females (Asian)	-	-	2*	-	1	5	2*	4*	1	-	-	-	-	15
TOTALS	-	1	3	-	7	13	12	10	10	1	5	3	1	66

Non-Respiratory Tuberculosis

Age Periods	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Males (European)	-	-	-	-	-	-	-	-	-	-	2	-	-	2
Females (European)	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Males (Asian)	-	-	-	-	4	3	4	2	5	-	-	-	-	18
Females (Asian)	-	-	1	-	1	4	1	5	3	2	-	1	-	18
TOTALS	-	-	1	1	5	7	5	7	8	2	2	1	-	39

*Two males (Asian) and four females (Asian) and one female (European) notified also as non-respiratory tuberculosis.

The number of cases on the Tuberculosis Register at the end of the year was 205.

	MEN	WOMEN	CHILDREN	TOTAL
Respiratory Tuberculosis	73	36	22	131
Non-Respiratory Tuberculosis	30	27	17	74
	103	63	39	205

Deaths:**Respiratory Tuberculosis**

Age Periods	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Males ..	-	-	-	-	-	-	-	-	1	1	3	2	-	7
Females ..	-	-	-	-	-	-	1	-	1	-	-	-	1	3
TOTALS ..	-	-	-	-	-	-	1	-	2	1	3	2	1	10*

*This figure includes 2 deaths in Asians

Non-Respiratory Tuberculosis

Nil

Summary of work at the Chest Clinic:

	1969	1970
Number of new cases notified	89	105
Number of deaths	10	10
Number of attendances of new cases	574	493
Number of cases referred from Mass Miniature Radiography Units	115	198
B.C.G. Vaccinations	204	380
Total attendances at clinic	1686	1785
Number of contacts examined	323	399

General Comment:

There were 105 new cases of tuberculosis notified during 1970, 16 more than last year. Ten patients died of tuberculosis during the year.

There are now no patients with persistently positive sputa.

During the year, 380 B.C.G. vaccinations were carried out at the Chest Clinic.

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

The following table shows that there has been an increase in notified cases of tuberculosis among immigrants in Bolton in recent years and in 1970 it represented 81%.

Year	Number of Tuberculosis notifications		Total	% Immigrants
	Boltonians	Immigrants		
1967	26	20	46	43
1968	40	45	85	52
1969	26	63	89	71
1970	20	85	105	81

Although there has been an increase in the number of cases of tuberculosis notified in Bolton, notifications are less than some years ago and more important, the death rate is very much less than pre-war.

	1930	1951	1970
NOTIFICATIONS:			
Respiratory	83	124	66
Non-Respiratory ..	27	29	39
Total	<u>100</u>	<u>153</u>	<u>105</u>
DEATHS:			
	82	48	10

There has been a greater increase in non-respiratory than respiratory tuberculosis. In the former, the increase was from 4.3 per 100,000 in 1965 to 25.6 per 100,000 in 1970, whereas the rate of notified cases of respiratory tuberculosis increased from 26.5 per 100,000 in 1965 to 43.3 per 100,000 in 1970.

In 1970, the most common form of non-respiratory tuberculosis notified was adenitis - 20 cases in immigrants or children of Asian parents and one only in a Boltonian, a total of 21. There were also 5 cases of tuberculosis peritonitis and one case of renal tuberculosis, all in immigrants. Tuberculosis of the bones and joints made up the rest of the 39 cases, two of the spine and one each of elbow, wrist, right thumb, hip, right knee, left knee and heel. With the exception of the patients suffering from tuberculosis wrist and tuberculosis right knee, all were immigrants. All these patients suffered from tuberculosis of human origin, none had been infected by tubercle bacilli in milk.

The following table gives the length of residence in the United Kingdom of notified tuberculosis cases among immigrants.

Residence in U.K. in years	FEMALES		MALES		Total
	Respiratory Tuberculosis	Non-Respiratory Tuberculosis	Respiratory Tuberculosis	Non-Respiratory Tuberculosis	
Born in U.K.	2	-	1	2	5
1 year ..	2	1	1	1	5
2 years ..	5	4	9	5	23
3 years ..	2	5	5	3	15
4 years ..	2	1	2	-	5
5 years ..	1	-	2	2	5
6 years ..	-	2	1	-	3
7 years ..	-	2	-	1	3
8 years ..	1	-	3	-	4
9 or more years	-	-	4	2	6
Not known ..	-	3	6	2	11
TOTAL ..	15	18	34	18	85

This shows that only 5 of the 85 patients were notified within one year of entry to this country.

Twelve of these patients had previous negative chest X-rays, including three taken at Heathrow Airport.

Tuberculosis is a disease which spreads slowly within households. There is no danger of spread in the street, shops, schools or buses. It can nowadays be treated effectively and cured. Patients who die from the disease have usually suffered from it for many years. They were infected, and received serious damage to their lungs for example, before modern treatments were available. There is no danger to native Boltonians from cases among immigrants. In recent years there have been fewer new infections among Boltonians.

In Bolton there are effective means of finding cases of tuberculosis at an early stage when the patient is curable. General practitioners, hospital and local authority staff work closely together. Whenever a case of tuberculosis is found appointments are offered to other members of the household to be examined and X-rayed at the Chest Clinic in the Civic Centre. Where appropriate contacts are vaccinated against tuberculosis. Enquiry also takes place where the individual works and when advisable, contacts there are similarly followed up. The Mass Miniature X-ray Unit may visit the works or the contacts may be X-rayed at the Civic Centre.

After consultation, and in full agreement with the immigrant organisations, all babies born to immigrant mothers and all immigrant school children where indicated, are given B.C.G. vaccine. The special X-raying of immigrants and others is facilitated by the fortnightly Mass Miniature X-Ray Unit's visit to the Civic Centre.

The present methods of medical examination of immigrants ensure that tuberculosis among them is diagnosed and appropriate action can then be taken. All applicants for employment vouchers and non-entitled dependents i.e. those dependents who can be refused entry on medical grounds, have a chest X-ray in their country of origin. Immigrant wives and children under 16 are medically examined on arrival in this country and, if necessary, landed subject to a condition that they report to the Medical Officer of Health at their destination with a view to receiving necessary treatment.

Of the 85 cases of tuberculosis among immigrants last year, only 5 were found in immigrants who had been in the country under one year.

Care and After-Care of Patients Suffering from Tuberculosis:

This was again carried out jointly by the Health Department and Chest Clinic staff, in close co-operation as in previous years. The increase in the number of notified cases from 89 to 105 led to a great increase in activities in this field. A health visitor and two nurses attended all sessions of the Chest Clinic.

After-Care Panel:

The After-Care Panel consists of a medical officer of the Health Department, a representative of the Housing Department, the health visitor who works in the Chest Clinic and the Superintendent Health Visitor. 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 1970, district nurses cared for 43 respiratory and 27 non-respiratory tuberculosis patients and gave 4,344 treatments, mainly injections of streptomycine. The health visitor paid 649 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. On her return visit to read the result of the Heaf test, she was often accompanied by a medical officer in the department who performed the B.C.G. vaccination if necessary.

Contact Clinic:

Special evening clinics were held monthly or two-monthly if necessary, at which contacts of known cases of tuberculosis were X-rayed and examined by the doctor. Three hundred and ninety nine cases attended in 1970 as against 323 in 1969 and 179 in 1968.

B.C.G. Vaccination:

Contacts of 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. Two hundred and fifty three children received B.C.G., the same number as the new-born babies of immigrant mothers who were given B.C.G. 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, if their parents consented, were tuberculin tested and the negative reactors, 1,623 in number, were given B.C.G. vaccine. This was in addition to the 14 immigrant school children who received B.C.G. vaccination when found to be negative reactors to tuberculin amongst the 30 who entered school in this country for the first time and who were all tuberculin tested. The result of this work is summarised in the following tables:

B.C.G. Vaccination of School Children:

Total No. of consents received	1,884
No. of children skin tested	1,886*
No. absent for skin test	186
No. absent for reading	114
No. found positive	149
Positive reaction - 95	
Strongly positive reaction - 54	
No. found negative	1,623
No. given B.C.G.	1,623

*Includes some children skin tested twice - at school and at absentee session.

Year	Total No. of Children	No. Positive	%Positive
1970	1,772	149	8.4
1969	1,815	166	9.15
1968	1,950	322	16.5
1967	1,859	233	12.0

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 leavers found to have strongly positive reactions to tuberculin tests, 95 appointments were made to X-ray such children as against 68 appointments in 1969. No new cases were found.

Mass Miniature Radiography Survey in Bolton:

I am indebted to Dr. J. I. Capper, Medical Director of No. 1 Mass Radiography Unit for sending me the following information:

"In Bolton 8,576 people (3,658 males and 4,918 females) were examined, 127 people referred by general practitioners, 4,450 people from factories and offices and 3,999 at sessions for general public volunteers. Six cases of tuberculosis requiring treatment, 6 cases requiring supervision and 9 cases of bronchial carcinoma were found."

During 1970, 20 general practitioner and health authority referral sessions were held and the numbers X-rayed were as follows:

Males	Females	Total
1,720	1,463	3,183

Of these, 2,662 were general practitioner referrals. The special sessions for general practitioner and local authority referrals have been most successful and have fulfilled a useful purpose.

Mass Miniature Radiography Surveys

	No. of Persons Examined			Active Tuberculosis			Malignant Neoplasms		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
1961									
Rate per 1,000 examined	6,530	5,057	11,587	15 2.30	10 1.98	25 2.16	9 1.39	2 .39	11 .92
1962									
Rate per 1,000 examined	6,559	5,507	12,066	1 .15	9 1.63	10 .83	15 2.29	3 .54	18 1.49
1963									
Rate per 1,000 examined	7,818	6,561	14,379	8 1.03	4 .61	12 .83	8 1.03	3 .46	11 .76
1964									
Rate per 1,000 examined	6,651	6,880	13,531	8 1.20	4 .58	12 .89	15 2.26	4 .58	19 1.40
1965									
Rate per 1,000 examined	6,685	5,045	11,730	7 1.05	3 .59	10 .85	10 1.50	1 .20	11 .94
1966									
Rate per 1,000 examined	7,469	6,014	13,483	3 .40	—	3 .22	10 1.34	2 .33	12 .89
1967									
Rate per 1,000 examined	4,331	2,993	7,324	3 .69	1 .33	4 .55	2 .46	—	2 .27
1968									
Rate per 1,000 examined	2,170	5,974	8,144	6 2.80	6 1.00	12 1.50	8 1.80	—	8 .98
1969									
Rate per 1,000 examined	3,103	5,906	9,009	6 1.93	4 .68	10 1.11	3 .97	1 .17	4 .44
1970									
Rate per 1,000 examined	3,658	4,918	8,576	4 1.09	2 0.41	6 0.70	6 1.64	3 0.61	9 1.05

Significant Abnormalities (Distribution by Age and Sex)

	Males										Females										Grand Total	
	Under 14	14-19	20-24	25-34	35-44	45-54	55-64	65 & over	Total	Rate per 1000	Under 14	14-19	20-24	25-34	35-44	45-54	55-64	65 & over	Total	Rate Per 1000	Cases	Rate per 1000
Abnormalities																						
Tuberculosis requiring close clinical supervision or treatment.				1	1		2		4	1.09		1		1					2	0.41	6	0.70
Tuberculosis requiring only occasional outpatient supervision					1	1	1		3	0.82					1	1		1	3	0.61	6	0.70
Malignant Neoplasms.							3	3	6	1.64					1			2	3	0.61	9	1.05
Non-Malignant Neoplasms.															1				1	1		
Lymphadenopathies, (excluding Sarcoids)																						
Sarcoids (including enlarged Hilar Glands).														1					1		1	
Congenital Cardiac abnormalities and abnormalities of the Vascular System.																						
Acquired Cardiac abnormalities and abnormalities of the Vascular System.					1	7	7	3	4	22				1		3	7	7	6	25	47	
Pneumoconiosis without P.M.F.						2	2	1	3	8						1			1		9	
Pneumoconiosis with P.M.F.									1	1									-			

VENEREAL DISEASE

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

"Ten cases were referred from the Moral Welfare Worker and the ante-natal clinic. Three were sent from the Children's Department. The clinic staff carried out 80 domiciliary visits for the purpose of ascertaining the cause of non-attendance.

Gonorrhoea:

Gonorrhoea in the age group 16 - 20 has increased by 45% over the previous year, but there has been a decrease in the incidence of gonorrhoea in females of the 20 - 24 age group amounting to 18%. The male age group 20 - 24 shows only a 2.5% increase.

Gonorrhoea is becoming steadily more insensitive to treatment with penicillin and tetracycline resistant cases are also being seen. This necessitates the use of more exotic and expensive antibiotics and an increased load of work on the Public Health Laboratory at Withington Hospital, since every case has to have sensitivities done as a routine. The sources of infection are mainly from asymptomatic female carriers and it is of the utmost importance that the public should be made to realise that four out of five females infected with gonorrhoea will have no symptoms that would be likely to make them seek medical aid.

There were two cases of congenital syphilis, both females over the age of 20.

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Syphilis	19	10	14	16	10	7	20	4	4	7	1	7
Gonorrhoea ..	58	74	123	72	46	64	93	157	182	235	205	212
Non-Venereal Diseases ..	265	320	348	349	352	335	407	310	413	401	470	438
TOTALS ..	342	404	485	437	408	406	510	471	599	643	676	657

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 extensions at the premises of Bolton Abattoir Limited are now in progress.

It has been possible on a limited scale to resume the bacteriological examination of glasses in pubs and restaurants, and also to swab slicing machines in food preparation establishments.

The survey of houses thought to be suitable for inclusion in Improvement Areas has continued and as soon as practicable it is hoped to carry out a random survey of all houses in the Borough.

SLUM CLEARANCE

Clearance Areas and Compulsory Purchase Orders:

Since the start of the Council's Slum Clearance Programme (November, 1955) 6,567 houses have been demolished by way of compulsory purchase order or individual unfit procedure.

There have been 4,900 families rehoused from these premises.

During the year 1970, there were 678 houses demolished and 405 families rehoused under the provisions of the Housing Acts, 1936 - 1969.

The areas dealt with were as follows:-

West Ward Nos. 17 to 21 (Brougham Street, Hampden Street Areas)

East Ward Nos. 9 to 20 (Folds Road Area)

West Ward Nos. 14 to 16 (part Leicester Street Area)

Bradford Ward No. 22 (Bryce Street)

West Ward No. 22 (Everitt Street Area)

Bradford Ward Nos. 12 to 21 (Pilkington, Shaw and Hammond Street Areas)

West Ward Nos. 23 to 25 (Bark Street Area)

Halliwell Ward Nos. 8 and 9 (Wapping Street and Broughton Street Areas)

Derby Ward Nos. 19 to 23 (Bamber, Hector and Defence Street Areas)

West Ward No. 26 (Snowden Street Area)

Confirmed Clearance Areas:

The Minister confirmed the Bolton (West Ward Clearance Areas) Compulsory Purchase Order, 1969 (Bark Street Area; public inquiry held 6th November, 1969) on the 20th March, 1970 with modifications; 5 houses with 2 passages were excluded from the Order. Two applications for well maintained payments were approved.

A public inquiry in connection with the Bolton (Derby Ward Nos. 19 - 23 Clearance Areas) Compulsory Purchase Order, 1969 (Bamber, Hector and Defence Street Areas) held on the 13th January, 1970 was confirmed with modification. One property was excluded from the Order. Twenty-two applications for well maintained payments were approved by the Minister.

The Bolton (Halliwell Ward Nos. 8 and 9 Clearance Areas) Compulsory Purchase Order, 1970 (Wapping and Broughton Street Areas) was confirmed on the 14th August, 1970. A public inquiry was not necessary as no objections were received by the Minister.

A public inquiry in connection with the Bolton (West Ward No. 26 Clearance Area) Compulsory Purchase Order, 1970 (Snowden Street Area) held on the 19th May, 1970, was confirmed with modification on the 28th August, 1970. Twenty-eight well maintained payments were approved by the Minister.

A public inquiry in connection with the Bolton (Derby Ward Nos. 24 - 27 Clearance Areas) Compulsory Purchase Order, 1970 (Rumworth Street Area) held on the 28th August, 1970 was confirmed on the 11th November, 1970 without modification. Twenty-three well maintained payments were approved by the Minister. (Sixteen whole, two external, five internal). These well maintained payments were made in accordance with Section 67 of the Housing Act, 1969, which makes provision for partially well-maintained houses.

A public inquiry in connection with the Bolton (Derby Ward Nos. 28 and 29 Clearance Areas) Compulsory Purchase Order, 1970 (Washington Street Area) held on the 20th October, 1970, was confirmed on the 16th December, 1970, without modification. Fourteen well maintained payments were approved by the Minister (seven whole, four external, three internal).

A public inquiry in connection with the Bolton (West Ward No. 27 Clearance Area) Compulsory Purchase Order, 1970 (Gladstone Street) held on the 20th October, 1970 was confirmed without modification on the 17th December, 1970. Five well maintained payments were approved by the Minister. (One whole, four internal).

Other Clearance Areas:

On the 1st June, 1970, one hundred and fifty-eight unfit houses (including fourteen houses with businesses) in the Venture Street Clearance Area were represented to the Housing Committee. Subsequently the Bolton (Bradford Ward Nos. 23 - 27 Clearance Areas) Compulsory Purchase Order, 1970, was made and submitted to the Minister. In addition to the unfit houses in the clearance area, this Order includes seventeen other buildings including houses and land. Four hundred and one persons will require rehousing. A public inquiry is to be held on the 2nd February, 1971.

On the 14th October, 1970, two hundred and five unfit houses (including eight houses with shops or other businesses) in the Grecian Street Area, were represented to the Housing Committee. Subsequently, the Bolton (Bradford Ward Nos. 28 - 30 Clearance Areas) Compulsory Purchase Order will be made and submitted to the Minister. Six hundred and eighty-two persons will require rehousing.

In accordance with the Council's Clearance Programme inspections were commenced in the Part Gibbon Street, Craddock Street and Kay Street Areas.

Pilot surveys and other inspections of houses were carried out during the year in connection with improvement grants, house purchase loans and future additions proposed for the clearance programme.

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.

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

Several meetings were held in this connection and, in consequence, the existing clearance programme was amended and the clearance programme from Autumn 1970, to December, 1974, was approved by the Housing Committee on the 9th November, 1970 and the 7th December, 1970.

The decisions were confirmed by the Council on the 2nd December, 1970 and the 6th January, 1971. Copies of the schedule of properties included in the programme can be obtained from the Borough Solicitor.

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 695 inquirers during the year. The number of inquiries regarding land charges received from potential purchasers of properties within the Borough was 3,538.

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 concerned 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 1970:

Number of applications received	..	..	..	734
Number of applications approved	..	..	..	627
Number of applications refused..	..	..	..	23
Number of applications cancelled	..	..	..	26

The Borough Planning Officer states that in all cases applicants are interviewed, and where possible inspections are carried out, so that advice can be given prior to the application being made, to avoid the necessity for the refusal of applications. In addition, the Borough Planning Officer requests the advice of the Health Department in all cases as to whether or not houses concerned are likely to have a life of not less than ten years. 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 1970, extend beyond 1972.

Certificates of Disrepair - Rent Act, 1957:

During the year no applications were received under this legislation.

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..	50
Demolition Orders made	28
Closing Orders made	21
Closing Orders converted to Demolition Orders.. .. .	12

COMPLETED ACTION:

Houses demolished	25
Persons rehoused	27
Houses closed	16
Persons rehoused	41
Cases outstanding at close of year	11
Closing Orders rescinded	2
Houses incorporated into slum clearance areas before Order made	4

Housing Inspections:

INSPECTION OF DWELLING-HOUSES

1. Dwelling-houses inspected for housing defects (under Public Health Act or Housing Acts)	2,446
Inspections made for the purpose	5,908
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	433
Inspections made for the purpose	433

REPAIRS - INFORMAL ACTION

Unfit or defective houses rendered fit as a result of informal action by the Local Authority under the Public Health Act or Housing Acts	166
--	-----

ACTION UNDER STATUTORY POWERS

PUBLIC HEALTH ACT, 1936:

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

By Owners	70
By Local Authority in default of owners	37

HOUSING ACT, 1957:

No action was taken under sections 9 or 10.

CLEAN AIR

Measurement and Investigation of Atmospheric Pollution:

The measurement and study of atmospheric pollution was continued during the year. There was no change in the location of 8 volumetric air sampling instruments situated in a geographical pattern designed to secure a fair average sample of the pollution in the developed part of the Borough.

The results for 1970 indicate a continuation of the downward trend in smoke and sulphur dioxide which has been apparent for a number of years. The figure for smoke is the lowest recorded since this method of measurement was adopted in 1957; the reduction in SO_2 is less noticeable, but the figure for 1970 was equalled only in the year 1967.

During the month of June, 1970, abnormally high results for sulphur dioxide were obtained from all 8 stations, these occurring mainly in the first half of the month, but not in a complete sequence of consecutive days. Enquiries were made of surrounding local authorities, but only one sampling station, situated close to the Bolton Borough Boundary, measured a significant increase in sulphur dioxide concentration. Extensive enquiries into the working of all major combustion plants, earth movements, heath fires and meteorological conditions, etc., provided no explanation of the cause of these abnormal results.

Installation of Furnaces:

Twenty-five notifications, relating to the installation of 36 furnaces were made in accordance with section 3 of the Clean Air Act, 1956; 4 applications requested approval under sub-section (2) of section 3, and such approval was granted.

The installation of 2 cupola furnaces with wet grit arresters was completed and commissioned.

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

Industrial Fumes, Dust, etc.:

A fume emission problem, resulting from a mechanised paint applications system, was resolved by the extension of an existing extraction plant.

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

Legal proceedings under section 1, Clean Air Act, 1968, were taken against the proprietors of two scrap yards, the offences having occurred in November, 1969. The proprietors were fined £15 and £25 respectively. In the latter case, fires were burning at no fewer than 6 separate points, most of which were emitting smoke darker than Ringlemann 2.

Three written notifications were issued in accordance with section 30 of the 1956 Act after verbal notifications on the site of the burning of waste materials.

Alkali, etc., Works Regulation Act, 1906:

Five premises are registered under the Act, i.e.:-

Electricity generating station	.. .. .	1
Iron and steel manufacturers	.. .. .	2
Aluminium manufacturer	.. .. .	1
Chemical manufacturer	.. .. .	1

During the year, demolition of the gas works was commenced, and work was still in progress at the end of 1970.

Nuisance occurred at two sites during the year, due to the use of spent oxide from gas works for filling-in on demolition sites. The practice was discontinued, following its notification to the Borough Architect and the Local Alkali Inspector.

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

Smoke Control Areas:

The following table shows the smokeless zone and smoke control orders made by the Town Council under the Bolton Corporation Act, 1949, and the Clean Air Act, 1956, respectively, up to the end of December, 1970:-

SMOKELESS ZONE (TOWN CENTRE):

Acreage	86	} 3,161 acres
Premises	1,050	

SMOKE CONTROL AREAS:

Acreage	3,075	} 25,260 premises
Premises	24,210	

Smoke control during 1970 was dominated by the increasingly difficult position (which the Health Department had fully anticipated) in the supply of "soft coke" for domestic appliances. Nevertheless, at the end of January, 1970, the Ministry of Housing and Local Government was still trying to dissuade the Corporation from their policy of making "no grant" designations in respect of "soft coke" appliances; yet within weeks, the supply of domestic cokes was so restricted that nation-wide crash programmes of conversions of solid fuel central heating systems in schools and other public buildings were being carried out to release soft coke for the domestic market. As a consequence of the supply position, no further action was taken in respect of the proposed Brooklyn Street (general improvement area) smoke control order, while the Rumworth No. 2 smoke control order (made during 1969) was withdrawn (87 acres - 1,467 premises) and action in respect of this area will have to be recommended from the start as and when the fuel position permits.

During May, 1970, the views of the Regional Officer of the Solid Smokeless Fuels Federation were sought as to the advisability of permitting four smoke control orders (Moorfield and Firwood, Great Lever, Moss House Farm, and Hillside; 323 acres - 3,028 premises) to come into operation on their original operative date, i.e., 1st July, 1970; in view of the Regional Officer's advice, the Town Council suspended these four smoke control orders for one year and they will not now come into operation until 1st July, 1971.

In July, 1970 the Minister issued Circular 63/70 in which local authorities were asked, as a matter of urgency, to review the position in regard to their smoke control areas. The views of the Regional Officer of the Solid Smokeless Fuels Federation were again sought as to the advisability of permitting the town centre smokeless zone order and 18 pre-1964 orders, all of which had been made on a "soft coke" basis, to continue in operation during the winter of 1970/71. In the light of the advice given, the Town Council suspended the operation of the Town Centre smokeless zone order and the 18 smoke control orders for the period 1st November, 1970 - 31st March, 1971; all occupiers of premises within these areas were notified regarding the effect of the suspension, as were also the local fuel merchants, gas and electricity undertakings, etc.

The following table shows the position at 31.12.69, the changes made during 1970, and the effective position at 31.12.70; this shows that the acreage under effective operation had been reduced to approximately 40% of the original figure, and the number of premises to approximately 30% of their original figure. In view of the pioneering work done in Bolton over the years, the present position can only be described as deplorable.

	Acreage	No. of Premises	Acreage	No. of Premises
Position at 31.12.69			3,161	25,260
<i>Less</i>				
Rumworth No. 2 Order withdrawn . .	87	1,467		
4 Orders postponed for one year . . .	323	3,028		
1 Smokeless Zone Order and 18 Smoke Control Orders suspended 1.11.70/31.3.71	1,534	12,476	1,944	16,971
In effective operation at 31.12.70 . . .			1,217	8,289

The events of 1970 show clearly that the Town Council had been perfectly sound in their policy regarding the designation of "soft coke" appliances, including the point (never before adequately recognised by the Ministry) that all appliances and solid smokeless fuels are not mutually interchangeable without practical or economic difficulties or (in some cases) danger arising, and the arrangements made for issuing appropriate advice to householders bears out this latter point. Incidentally, the Council's policy of designating "soft coke" appliances in their more recent smoke control orders proved extremely useful when the present fuel crisis developed, since it enabled the Council to suspend merely those orders made pre-1964 on a "soft coke" basis,

leaving those areas based on the use of "hard coke" to continue without any interruption, and it is interesting to note that there have been no suggestions whatever of any "hard coke" shortages within these areas.

During the year (January, 1970) the Mobile Exhibition of the Solid Smokeless Fuels Federation paid a visit to the town, being stationed on the Blackhorse Street site for the whole of the week; an offer of a further visit of the Mobile Exhibition to Bolton had to be refused, in view of the fuel supply position.

SMOKE CONTROL PROGRAMME, 1.1.70 TO 31.12.70

Applications:

No. of houses in respect of which applications for approval of proposed works were submitted	219
Estimated expenditure allowable for grant	£13,497 14 6
Estimated amount of grant payable by Corporation (seven-tenths)	£9,448 7 11

Claims:

No. of houses in respect of which claims for payment of grants were received	595
Total amount paid by way of grant	£22,120 10 4
No. of 100% grants paid	47
Amount paid in 100% grants	£1,854 15 7
Additional cost of 100% grants	£556 8 8

INSPECTION AND SUPERVISION OF FOOD

Milk:

MILK AND DAIRIES (GENERAL) REGULATIONS, 1959:

No. of Dairies	15
No. of milk Distributors (including retail shops and dairy roundsmen)	505
No. of Dairy vehicles	145

MILK (SPECIAL DESIGNATION) REGULATIONS, 1963, and MILK (SPECIAL DESIGNATION) (AMENDMENT) REGULATIONS, 1965:

During the year 1970, the following licences were granted:
Dealers' (Pre-packed Milk) Licences valid to 31.12.75 314

DAIRIES AND DAIRY VEHICLES:	Dairies	Dairy Vehicles
No. of inspections	60	108
No. of notices served	12	20

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, processing plants, milk shops, schools and vending machines and during the course of delivery to consumers. Details of examinations carried out are given on page 120.

Ten samples of untreated milk were reported as unsatisfactory, i.e., failed to comply with the Methylene Blue Test for the keeping quality of milk. The County Dairy Husbandry Adviser of the Ministry of Agriculture, Fisheries and Food was notified in each case; advice was also given to the farmers and vendors concerned about correct storage and handling of untreated milk during the summer months.

BIOLOGICAL SAMPLING OF MILK:

Seven hundred and thirty-three samples of raw milk were examined for *Brucella abortus*. Twenty-six samples were reported positive. The positive animals were sold for slaughter by the farmers concerned. It is now an offence under the Agriculture Act, 1970, to offer for sale, other than for slaughter, an animal which has reacted to the Brucellosis test.

One sample giving a positive result was referred to the County Medical Officer of Health, as the farm concerned was situated outside the Borough, although the milk was being sold within the Borough.

Three cases of undulant fever were reported. In one case it is clear that the infection started many years before the patient came to live in the Borough. Investigation of the raw milk supply to the second infected person failed to show it to be infected, but the occupation of this person, a butcher, may be

significant. In the third case the untreated milk supply was clearly identified as a result of routine tests and 2 infected cows from the herd producing the milk supply had been slaughtered one month prior to the case being reported.

SAMPLING OF MILK FOR CHEMICAL ANALYSIS:

Four hundred and sixty-five samples were obtained, thirty-seven of which were reported as unsatisfactory. Seven of the samples were genuine but sub-standard milks. The County Dairy Husbandry Adviser of the Ministry of Agriculture, Fisheries and Food was notified of the results of these samples. Twenty-four samples of milk contained extraneous water; five samples were deficient in fat, four samples of untreated milk contained anti-biotics; and one sample of pasteurised milk failed the Phosphatase Test. Warnings were issued in each case and subsequent samples were reported satisfactory.

Meat Inspection:

The following table shows the number of animals slaughtered:

	Cattle ex- cluding Cows	Cows and Bulls	Calves	Sheep and Lambs	Pigs
Number of animals killed and inspected ..	15,034	18,837	90	41,205	44,184
ALL DISEASES EXCEPT TUBERCULOSIS AND CYSTICERCOSIS:					
Whole carcasses rejected	4	64	—	62	109
Carcasses of which some part or organ was rejected	1,129	16,174	—	14,580	11,333
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	11	44	—	—	—
Carcasses submitted to treatment by refrigeration	11	44	—	—	—
TOTALLY CONDEMNED	Nil	Nil	—	—	—

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

	Tons	Cwts.	Qrs.	Lbs.
Carcasses (meat)	24	15	1	0
Offal	165	15	1	7
	190	10	2	7

Meat Inspection Regulations 1963 (as amended):

All carcasses of animals slaughtered within the Borough were inspected in accordance with the Regulations and stamped with the inspector's mark. Hours of slaughtering were restricted under the 1966 Amendment Regulations, and the times then laid down have proved satisfactory in operation. Occasional

exceptions are made in the event of machinery breakdowns or excessive throughput at certain times of the year.

Analysis of parts of Carcasses 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 diseases or conditions.

NATURE OF DISEASE OR CONDITION:	Percentage
Telangiectasis	64.8
Tuberculosis	Nil
Cysticercus bovis .. .. .	.3
Distomatosis	59.6
Septicaemia & Pyaemia	4.2
Mastitis	13.5
Actinomycosis .. .. .	.002
Pneumonia, Pleurisy, Peritonitis	23.8
Others	18.5

There is a high incidence of telangiectasis due to the high proportion of aged cattle killed for manufacturing meat.

There was a slight increase in the number of animals affected with *Cysticercus bovis*, probably due to the increase in throughput.

1966	1967	1968	1969	1970
34	57	61	44	55

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 for the purpose of inspecting and advising on suspected food stuffs. 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)					4	—	—
Meat (Tinned)					1	2	3
Tongue (Tinned)					—	3	3
Ham (Tinned)					—	11	2
Poultry					2	16	3
Fish (Fresh)					—	3	2
Fish (Tinned)					—	18	1
Vegetables (Fresh)					5	5	4
Vegetables (Tinned)					1	18	4
Fruit (Fresh)					3	8	1
Fruit (Tinned)					1	4	3
Milk (Tinned)					—	10	—
Provisions (Miscellaneous)					11	8	2
					33	6	1

Meat (Sterilization) Regulations, 1969:

All meat which is unfit for human consumption is placed in locked rooms at the slaughter house, and is subsequently collected in accordance with the Regulations and converted into fertiliser or animal feeding stuffs. Under the Regulation 6, facilities have been afforded for the collection of certain offal and glands for pharmaceutical purposes. Unsound carcase meat is collected every day by a processing firm under the supervision of an inspector.

Disposal of Condemned Food Stuffs other than fresh meat:

All such food stuffs were collected and buried at the Corporation's tip as the new incinerator at Raikes Lane was not, by the end of the year, ready for use. In due course, all such condemned food stuffs will be destroyed by incineration.

Slaughterhouses:

There are two slaughterhouses in the Borough, i.e., the new privately-owned abattoir at Lever Street opened in 1966 and a small privately-owned slaughterhouse used only for slaughtering pigs. During 1970, the throughput at the Lever Street abattoir was 53,825 units and at the pig slaughterhouse, 3,045 units, making a total of 56,870 units (one unit = 1 bovine or 3 pigs or 5 sheep or 2 calves). This figure is a record for the County Borough of Bolton.

The slaughterhouses have received regular visits from veterinary officers of the Ministry of Agriculture, Fisheries and Food, especially the Lever Street abattoir, since it is licensed for export of meat.

A proposed extension of the abattoir premises at Lever Street, for the purpose of building a meat-processing plant within the curtilage of the abattoir, has necessitated the submission of an application for a "new licence" and at the end of the year, this was still under consideration by the Ministry.

Mohammedan ritual slaughter is carried out at the Lever Street abattoir, but by arrangement with the local Moslem community, all animals are rendered unconscious before being slaughtered, by a mechanically operated instrument.

Export Slaughter:

All animals slaughtered for export were inspected in accordance with the regulations laid down by the country of destination. Parts only of the carcasses were used for export purposes, and these parts were despatched to factories in England to be processed and canned before export. During the year, approximately 46 tons of meat were exported.

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 Acts:

ANTHRAX ORDER, 1938:

Ten cases of suspected anthrax were notified (6 cows, 4 pigs) but after veterinary investigation the disease was not confirmed in any case.

FOWL PEST:

No outbreaks were reported during the year.

SWINE FEVER:

No outbreaks were reported during the year.

TUBERCULOSIS:

No cases occurred during the year.

FOOT AND MOUTH DISEASE:

There were no movement restrictions in force in the Borough during the year. By arrangement with the Ministry of Agriculture, Fisheries and Food, a coloured film of the 1967-68 outbreak of foot and mouth disease was shown to the staff at the Lever Street abattoir. This was done primarily to aid the slaughtermen in recognition of the disease and the appropriate procedure to take. Invitations were issued to other local authorities and to local veterinary surgeons, and a good response resulted.

Imported Food Regulations, 1968:

Ninety-two containers of food came into the Borough during the year, all of which were notified in advance by telephone and later confirmed in writing by authorities controlling the ports of landing. Details of the contents were as follows:

Beef	..	..	..	..	..	..	..	..	3,827	quarters
Beef	..	..	..	..	..	..	..	..	1,516	boxes
Lambs	..	..	..	..	..	..	..	..	360	
Offal	..	..	..	..	..	..	..	..	137	boxes
Onions	..	..	..	..	..	..	..	..	1,280	bags
Honey	..	..	..	..	..	..	..	..	6,688	cartons
Potatoes	..	..	..	..	..	..	..	..	1,270	bags
Bacon	..	..	..	..	..	..	..	..	20	bales
Fruit	..	..	..	..	..	..	..	..	1,408	cartons
Coffee-mate	..	..	..	..	..	..	..	..	46,000	cartons

Poultry Inspection:

There are no poultry slaughterhouses within the Borough, but there are two processing plants. During the year, 96 visits were made by food inspectors for the purpose of poultry inspection and food hygiene. The "spotter" system is used at both premises, and doubtful poultry are put on one side to await inspection by a qualified food inspector.

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	..	..	..	..	..	21	10	31
Informal	..	..	..	..	..	427	62	489
DRUG SAMPLES:								
Formal	..	..	..	..	..	12	3	15
Informal	..	..	..	..	..	57	5	62
MILK SAMPLES:								
Formal	..	..	..	..	..	11	7	18
Informal	..	..	..	..	..	405	42	447
						<hr/> 933	<hr/> 129	<hr/> 1,062
						<hr/>	<hr/>	<hr/>

Food Hygiene:

Details of the visits made, etc., in connection with the enforcement of the Food Hygiene (General) Regulations, 1960, are given in Table 3 on page 135. As a result of this work the following improvements were effected in the town's food premises.

STRUCTURAL IMPROVEMENTS:

Floors	404
Walls and ceilings	572
Doors, windows	161
Decorations	204
Lighting	69
Ventilation	37
Drainage	12

FITTINGS, EQUIPMENT, ETC.:

Sinks, etc.	52
Wash-hand basins, etc.	47
Water supplies - cold	8
Water supplies - hot	30
Shop fittings, equipment, etc.	569
Miscellaneous improvements	654

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 four samples of ice cream were obtained from ice cream vendors and manufacturers. Thirty-one samples were reported as unsatisfactory. The high proportion of unsatisfactory samples is due to the number of follow-up samples taken following an unsatisfactory report in order to locate the source of contamination and check that it had been eliminated.

Bacteriological Examination of Other Foodstuffs:

Seventeen samples of foods were submitted to the Department of Pathology, Bolton Royal Infirmary, for bacteriological examination for the presence of food poisoning organisms, but negative reports were received in all cases.

Food Complaints:

One hundred and thirty five complaints were made to the department varying from fresh pork steak contaminated with tobacco flakes to a live spider found in a bottle of medicinal tablets prescribed for headaches. Each food complaint was thoroughly investigated and in some cases batches of food were withdrawn from sale.

Bread constituted the largest item, giving rise to 18 complaints and mouldiness was the major complaint (8). One complaint referred to a live earwig found inside the wrapper and another that the slices had not been properly formed, the remainder relating to the presence of foreign matter.

Among the variety of insects found in food were 6 complaints of common flies found in meat pies or similar products; an earwig in dehydrated chop suey; a cockroach in a steak pudding; a wasp in strawberry jam; and a snail in a fruit pie.

A hairgrip found in a can of mandarin oranges, wire in a potato pie and two drawing pins in a bottle of milk were among the metal foreign objects complained of.

The majority of complaints about the taste or smell of foods were found on chemical and bacteriological examination to be unjustified. None of the foods alleged to have caused illness were found to contain food poisoning organisms.

BOTTLED SHANDY:

The investigation of a complaint that a bottle of shandy had an unusual smell revealed that the contents were urine. This is obviously a case of sabotage and it was impossible to discover the person responsible.

ANALGESIC TABLETS:

A complaint was received that analgesic tablets of a well known brand were unusual in that they did not have the brand name imprinted in each tablet. The tablets had been sold in a packet which was an indential copy of that used for the genuine product, and analysis of the tablets showed that they contained only aspirin. Similar complaints had also been made by members of the public to the manufacturers who informed the London Metropolitan Police. Unfortunately the police were unable to locate the source of the tablets.

FRUIT TART:

A person found pieces of glass in his mouth when eating a fruit tart. The complaint arose as a result of accidental breakage of a glass door to a pie warmer and although all the open foodstuffs near the pie warmer were immediately destroyed, the vendor had not appreciated the wide distribution throughout the shop of cuboid shaped fragments of toughened glass.

Type of Food	Nature of Complaint				Total
	Mouldy	Foreign Matter	Unsatisfactory Appearance Taste or Smell	Suspected of Causing Food Poisoning	
Bread	8	6	4		18
Cooked meats, Pies and other prepared meat products	2	17	7	2	28
Canned meat	1	3	3	1	8
Canned Fruit/Veg.	2	1	1		4
Confectionery		5	5		10
Milk and milk products . .	3	7	13	1	24
Fish			4		4
Other foods	3	17	15	4	39
	19	56	52	8	135

Infestation in Food:

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

Legal Proceedings - Food Hygiene::

An employee at a local bakehouse was fined £10 for smoking in a food room.

Fines and costs totalling £170 were imposed on a supermarket for exposing unfit food for sale, and failing to protect food from contamination.

The proprietor of a bakehouse was fined £220, plus £10 advocate's fee, for offences relating to dirty premises and equipment.

Two female assistants on the Ashburner Street Market were fined £5 each for smoking when handling food on a stall.

A retail grocer and greengrocer was fined £10 for failing to protect food from contamination, and a further £10 in respect of a dirty floor (fouled with cat excreta); an inspector saw the occupier's cat rolling about on fruit and vegetables displayed for sale in the shop window.

Legal proceedings were instituted in respect of offences which occurred during 1970 although the hearing did not take place until March, 1971. An immigrant food trader was fined £2 for not having his name and address on his delivery vehicle; £25 in respect of a dirty vehicle, and a further £25 in respect of dirty equipment; a fine of £25 was also imposed for carrying food liable to contamination from live poultry carried in the vehicle at the same time (total of £77 fines).

Legal Proceedings - Food Complaints:

A vendor was fined £25 for selling a carton of yoghurt containing mould contrary to section 2, Food and Drugs Act, 1955.

Tuna Fish:

As a result of the announcement in the U.S.A. that mercury residues had been found in canned tuna fish, samples were purchased for examination. Of the three cans of tuna; one can of mackerel; one jar of shrimps; and one fresh plaice sampled, in only one can of tuna was there any measurable amount of mercury and this did not exceed the maximum acceptable level.

Miscellaneous samples:

Twelve 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:

During the year a sum of £1,250 was allocated in the estimates for the conversion of waste water closets to fresh water closets. The amount of the grant at present is a maximum sum of £15, the grant having been raised to this figure during 1963; 56 grants were paid. The average cost of a conversion at the present time is approximately £52.

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 annually for bacteriological examination; new employees are required to submit faeces specimens on three successive days, and a specimen of blood is also taken for a Widal test.

Mr. J. M. Adams, Waterworks Engineer and Manager, has 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 1970, 671 samples of raw water were subjected to bacteriological examination and part chemical analysis and 24 to full chemical analysis in the statutory area of supply. In addition, 1,573 samples of filtered and treated water received bacteriological examination and partial chemical analysis and 31 full chemical analysis. Results showed that the filtered and treated water was of satisfactory quality, B.Coli being absent in 98.00% 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. 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 152,010 people living in 56,480 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 1970.

Size	Existing Property	New Property	Other Development	Renewals
2"	317 yds.	2,690 yds.	70 yds.	43 yds.
3"	187 "	1,880 "	—	283 "
4"	—	341 "	—	999 "
6"	—	241 "	—	1,061 "
8"	—	—	—	190 "
9"	—	—	—	31 "
10"	—	—	—	120 "
12"	—	—	—	153 "
15"	—	—	—	34 "

Private Water Supplies:

Routine sampling of spring water supplies on the Smithills Estate was carried out during the year to check the bacteriological and chemical quality to the supply of various farms and cottages. Where the results indicated either bacteriological or chemical contamination, efforts were made to trace the source of contamination and to remedy the cause, as a result of which the following improvements were carried out:-

Chadwicks Close Farm	—	Collecting chamber re-lined.
Holden's Farm	—	Lead pipe to domestic sink replaced by copper pipe.
Hampson's Farm	—	2 new collecting chambers provided.
Haslam's Farm	—	Lead pipe to domestic sink replaced by copper pipe.
Harricraft Farm and Harricraft Cottages	—	Converted to mains supply.
Higher Tongs Farm	—	Lead pipe to domestic sink replaced by copper pipe.
Sheepcote Green Cottage	—	New collecting chamber provided.

Sewerage and Sewage Disposal:

The following information has been supplied by the Borough Engineer and Surveyor:

"The policy of providing separate foul and surface water sewerage systems and the abolition of storm sewage overflows whenever possible, has continued. This policy has been pursued for several years. There is, however still much to be done, and many overflows still to be abolished.

The first phase of the sewer construction works necessary to prevent the flooding of property in the Regent Road area has now been completed, and similar works for the prevention of flooding in the Manchester Road and Crescent Road areas are due to start early in 1971."

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

"Treatment of sewage, including industrial effluent, from Bolton along with that from Radcliffe, Farnworth, Kearsley, Little Lever and parts of Turton, Whitefield and Worsley is carried out at the Bolton and District Joint Sewerage Board's regional treatment works at Ringley Fold. During 1970 two obsolete and over-loaded sewage works situated at Bradley Fold and Outwood were abandoned and the flows diverted to Ringley Fold Works via recently completed connecting sewers.

At Ringley Fold Works the sewage is treated, by settlement followed by biological oxidation before discharge to the River Irwell. During the year the volume of sewage treated, to standard well within the River Authority requirements, totalled 8,649,000,000 gallons (39,319,000 cubic metres) a daily average of 23,680,000 gallons (107,500 cubic metres). Sludge treatment by heated digestion, a process which reduces the bulk of the sludge and eliminates offensive odours yielded in the year 94,800,000 cubic feet (2,684,000 cubic metres) of sludge gas, which has been utilized to produce power for works operation.

A small section in the South West of the County Borough, outside the Board's designated area, drains to the Salford Road Treatment Plant, constructed by the Corporation, but operated by the Board, which has throughout the year consistently produced a well nitrified stable effluent, conforming in all respects with River Authority requirements.

Agreements have been completed for the discharge of trade effluent from 26 premises into the Bolton Corporation sewers, while one previous discharge has ceased."

Factories Act, 1961:

There are 866 factories within the Borough which were the subject of 430 inspections, resulting in 59 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 139 to 141.

Offices, Shops and Railway Premises Act, 1963:

Up to the end of 1970, 2,132 premises have been registered with the local authority in accordance with the Act; in 55 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 at a steady rate and it is estimated that premises will be inspected at least once every two years.

Legal proceedings were taken against a supermarket for failing to notify an accident to a 15-year old female employee, injured while using a food-slicing machine; the firm pleaded guilty and were fined £5.

Three accidents during the year call for some comment:-

- (a) A workman was using a fork lift truck with removable platform for "order-picking"; a second workman was driving the truck. When the order was completed, the first workman intended to descend with the load on the platform; it is thought that the driver pressed the wrong control, resulting in the fork tipping forward and the man being thrown off, fracturing his skull in falling to the ground. Improved order-picking arrangements have been introduced since the accident occurred.
- (b) A workman was using a portable conveyor to off-load parcels from a delivery vehicle at a mail order firm. A parcel fell off the conveyor

into the floor well of the vehicle. The workman jumped into the floor well to retrieve it, but the floorboarding gave way beneath him; his foot was trapped in the metal framework of the floor well, causing him to fall in such a way as to strike his neck on the edge of the floor well, resulting in a fractured neck. It is thought that a bolt which might well have stood up to normal usage gave way under the impact when he jumped into the floor well. All the vehicles of the fleet in question were checked for this particular defect and found to be in satisfactory condition.

- (c) An employee in a canteen was cleaning a mechanical dishwasher. For this purpose the cover was removed and the operative then removed the caps from the ends of the jet pipes to clean them. She then operated what she thought was the rinse mechanism, but instead operated the hot water supply to the machine. The result was that a jet of scalding hot water was projected from the machine, striking another employee in the back and causing severe scalding. The machine did not incorporate any interlock to prevent hot water being delivered to the jet pipes while the cover was up, and this matter is being taken up with the manufacturers of the appliance in the hope of persuading them to fit such an interlock on future appliances; in the meantime the electrical engineers of the organisation in question have fitted their own interlocks.

Previous annual reports have included comments to the effect that the Act should be applied to covered markets as soon as possible and this recommendation is repeated.

During the year Miss E. B. Horsfall, H.M. Inspector of Factories for the Bolton area, left this area to take up a similar appointment in the Leeds area; Miss Horsfall had been H.M. Factory Inspector in Bolton for the whole period of operation of the Offices, Shops and Railway Premises Act, 1963, and the department has had many dealings with her; it is pleasing to record the excellent degree of co-operation which has existed between the public health inspectors and the factory inspectors during this period, due largely to Miss Horsfall's efforts in this direction.

Houses in Multiple Occupation:

During the year 76 visits and inspections were made of houses in multiple occupation, and 12 notices (section 15, Housing Act, 1961) were served, in addition to notices for repairs under the Public Health Act, 1936.

Legal proceedings were taken in respect of one house in multiple occupation; a fine of £25 was imposed for failure to comply with a statutory notice under section 15, Housing Act, 1961, and two fines of £5 for failure to comply with statutory notices under sections 39 and 56 respectively of the Public Health Act, 1936; the Borough Magistrates also made a nuisance order under the Public Health Act, 1936 requiring the owner to carry out essential repairs within 14 days.

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 1970 there were 4 licensed sites, the maximum number of caravans licensed at one site being four. The total number of caravans on the occupied sites was 11.

Caravan Sites Act, 1968:

Considerable difficulty was again experienced during the year by the occupation of vacant sites in various parts of the Borough by caravan dwellers, sometimes in appreciable numbers. Sites which became occupied in this way were notified to the Borough Solicitor, and under later revised arrangements, to the Chief Valuer, who in conjunction with the police arranged for the sites to be vacated. Some sites were re-occupied again by caravans within days of the sites being cleared and it is possible in some cases, caravan dwellers merely moved from one cleared site to another.

The Town Council continued to give attention to the possibility of providing a caravan site of 15 pitches in anticipation of the coming into operation of Part II of the Caravan Sites Act, 1968 and in the end a decision was reached to set up such a site in Hall Lane, a part of the Borough very close to the boundaries with Farnworth and Little Lever. It was made quite clear during the year that the two latter authorities will strenuously oppose the setting up of a caravan site in this particular area.

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 three offensive trades within the Borough, i.e.:-

One fellmonger

One gut-scraper

One fellmonger and gut-scraper.

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 346 hairdressing premises registered in accordance with the Bolton Corporation Act, 1949, section 48. Seventy-nine inspections were made.

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

The names of 67 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 Establishment Act, 1963:****Riding Establishments Acts, 1964 and 1970:**

The following premises were licensed in respect of the year 1970:

	Premises	Inspections
Pet Animals Act, 1951	11	31
Animal Boarding Establishments Act, 1963 ..	3	26
Riding Establishments Act, 1964	2	2

Legal proceedings were taken against the licensee of an animal boarding establishment for (a) contravening the conditions of his licence, and (b) for keeping an unlicensed establishment. Fines of £25 were imposed on each count, and costs of £7 were awarded. The Corporation's solicitor invited the Borough Magistrates to cancel the licence in view of the contraventions, but the Magistrates declined to do so, as the establishment was the licensee's principal means of livelihood. The circumstances, briefly, were that the defendant held a licence enabling him to accommodate 18 dogs at his licensed site; on the date of the inspection, the licensed site accommodated 61 dogs; land immediately adjoining, but not licensed for animal boarding, had also been brought into use, and on this land a further 75 dogs were accommodated; in all, there was a total of 136 dogs accommodated, against the permitted number of only 18. The offence occurred during the town holiday, despite the fact that the defendant (along with the other animal boarding establishment proprietors) had been warned in advance not to overcrowd his premises during the holidays, and warned that inspections would be carried out to ensure that no overcrowding occurred.

During the year, the Riding Establishments Act, 1970 was passed and will come into operation on the 1st January, 1971. Appropriate arrangements are being made to revise the licensing conditions in view of the new provisions in the 1970 Act.

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 18 premises in the Borough registered under the Act; there are no licensed premises within the Borough.

Noise Abatement Act, 1960:

During the year, 43 complaints were received (2 of which referred to a previous complaint) and were classified as follows:-

COMPLAINTS OF NOISE FROM NON-DOMESTIC PREMISES:

Machinery	6
Guard Dogs	5
Launderettes	2
Fans	2
Property Repairs	2
Music	2
Scrap Metal	2
Vehicles	2
Sheet Metal Work	1
Miscellaneous	4

— 28

COMPLAINTS OF NOISE FROM DOMESTIC PREMISES:

Property Repairs (D.I.Y.)	6
Animals	4
Music	3
Miscellaneous	2
—	15

Complaints of noise from vehicles were referred to the Police. One complaint of noise from music referred to licensed premises (after hours) and was also referred to the Police. In 16 cases, the complaints were not substantiated upon investigation. In 26 cases, the nuisance was abated following informal action. In the remaining case the necessary work is in progress. Formal statutory action was not required in any case.

Fertilisers and Feeding Stuffs Act, 1926:

Twenty-six samples of fertilisers and animal feeding stuffs were taken under the Act. Twelve samples were reported as unsatisfactory. Eight of these contained ingredients which were in excess of the declared amount, although the excess was not to the prejudice of the purchaser. In each case of an unsatisfactory sample, the matter was taken up with the manufacturer.

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 interests of public health. Details are given in Table 12 on page 143.

A special stock of equipment, together with a supply of formaldehyde, and a mixture of carbolic soap, water and white cyllin, is retained at School Hill in readiness 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:

An increasing number of occupiers of food or other business premises subject to special infestation risks continue to enter into annual agreements with the Corporation for regular treatment of their premises, with a view to preventing insect infestation; in many cases the agreements also provide for preventive measures against rodent infestation. There are now 256 agreements in force, and the annual income from pest destruction is now over £7,000. Table 13 on page 143 summarises the work carried out.

Regular destruction treatments to control the rat population in the sewers are carried out by the Borough Engineer's Department in collaboration with the Health Department. Warfarin is the poison in general use, but zinc phosphide and arsenious oxide are used on occasions, paranitrophenol being incorporated to inhibit mould growth. In selected areas, fluoracetamide is used under strict supervision.

A block survey of town centre premises which was being made by the Pest Control Officer was extended to other selected areas in the town.

An interesting feature of the summer months was the large increase in the number of treatments of wasp swarms and nests which was almost double the number treated the previous year.

The schools and school meals kitchens in the Borough are surveyed at least once every two months to detect any rodent or insect infestation. Any necessary treatment is carried out immediately.

Control of the rodent population on the Corporation's controlled tipping sites is maintained by regular surveys and treatments. River banks are also subject to regular surveys and any infestation dealt with.

Mortuary:

The mortuary forms part of the premises at School Hill used as a Disinfection and Disinfestation Depot. An attendant is employed in combined mortuary and disinfestation duties.

Ten bodies were received at the mortuary during the year. One post mortem examination was carried out. Refrigeration facilities are provided for the storage of bodies.

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 the foreman of the Depot. The cleansing of verminous women and children is carried out by nursing staff at the Health Department.

A summary of the cases dealt with is given below:

	Males
Head Infestation	1
Scabies	52
Body Lice	13
	—
	66
	—

TABLE 1

Complaints:

The following complaints were received and investigated:

Housing defects	578
Choked and defective drains	259
Accumulations of offensive matter	326
Unsatisfactory foodstuffs	135

Verminous premises:

(a) Bed bugs	101
(b) Rat and mouse infestations	3,509
(c) Cockroaches and other insect pests	1,221
Keeping of animals and poultry	16
Smoke	39
Noise	43
Offensive odours	108
Miscellaneous	221
	—
	6,556
	—

TABLE 2

Standing Commitments:

Premises Subject to Routine Inspection

TYPE OF ESTABLISHMENT	NO. OF PREMISES
Common Lodging houses	—
Houses in multiple occupation	245
Moveable dwellings	11
Food Premises:	
Bakehouses	84
Basement bakehouses	2
Fish Friers	75
Registered premises, Sec. 16, Food and Drugs Act, 1955	451
Other catering establishments	188
Miscellaneous food preparing premises	77
Ice-cream premises - manufacture	4
Ice-cream premises - sale only	460
Meat shops	157
Slaughterhouses	2
Dairies	15
Milk distributors	505
Food Shops	956
Licensed premises (On)	172
Licensed premises (Off)	180
Food stalls	105
Vehicles - Meat	15
Vehicles - Milk	145
Factories (Mechanical)	776
Factories (Non-mechanical)	90
Workplaces	214
Offices	523
Retail shops	1,004
Wholesale shops, Warehouses	113
Catering establishments open to the public, canteens	236

NOTE: So far as is known, all the above premises comply with Regs. 16 and 19 of the Food Hygiene (General) Regulations, 1960.

TYPE OF ESTABLISHMENT	NO. OF PREMISES
Fuel storage depots	8
Outworkers' premises	36
Factory chimneys	193
Hairdressers' premises	346
Places of entertainment	73
Clubs	35
Offensive trades	3
Registered premises, Rag Flock and Other Filling Materials Regulations, 1951 and 1954	18
Pet Shops (Pet Animals Act, 1951)	11
Animal boarding establishments	3
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	1,101
Subsequent visits	3,319
Dwelling-houses under Housing Acts:	
Detailed inspections	903
Re-inspections, re-visits	2,278
Certificate of disrepair	—
Infected dwelling-houses:	
After notified infectious disease (other than tuberculosis)	232
Contacts	26
Schools and church halls	30
Swimming baths	2
Water sampling:	
Swimming baths	—
Dwelling houses	10
Business premises	301
Cinemas, dance halls, billiard halls	19
Offensive trade premises	171
Stables, piggeries, keeping of animals	59
Houses in multiple occupation	76
Factories Act, 1961:	
Factories with mechanical power	332
Factories without mechanical power	2
Outworkers' premises	—
Underground rooms	—
Hairdressing premises	79
Tents, vans, sheds	74
Smoke Abatement:	
Boiler house surveys	6
re Prior Approval applications	4
re Smokeless Zone and Smoke Control Areas	1,811
Delivery of pamphlets	50
Smoke observations	136
Smoke investigations	46
Re-visits	76
Combustion readings	—
Volumetric stations	1,069
Noise abatement	72
Fairgrounds	22

Drainage:

Conversion from waste water to water carriage system	112
Miscellaneous tests and inspections	433
Public sewers	6
Water courses and ditches	34
Land and tips	384
Septic tanks and cesspools	7
Sanitary conveniences - including public houses	79
Miscellaneous visits	1,808
Visits not inspections	2,371

Verminous premises:

Rats and mice: After complaint or from survey	4,500
Subsequent and survey visits	26,545
Bug infestations: No. of premises visited	103
No. of premises where definite infestation existed	101
Cockroaches	711
Other vermin	506

Inspections for supervision of food:

Unfit foodstuffs other than meat	374
Slaughterhouses and cold stores	2,149
Butchers' Shops (Food Hygiene (General) Regulations, 1960)	283
Freight Containers	137

Food Hygiene (General) Regulations, 1960:

Bakehouses	165
Fish shops, grocers and greengrocers	1,816
Factory canteens	96
Restaurant kitchens, fish friers, etc.	472
Food vehicles	7
Chemists	15

Hotel and Beerhouse bars and cellars:

Day inspections	455
Night inspections	18

Food and Drugs Act, 1955 - Section 16:

Ice-cream premises (Heat Treatment Regs. 1959-1963)	28
Sausage manufacturers	99
Preserved meat preparation premises	281
Preserved fish preparation premises	47

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

Milk sampling for bacteriological examination	58
Contravention of Milk and Dairies Regulations	—
Dairies	61
National Assistance Act, 1948, Section 47	—
Diseases of Animals Acts and Orders	77
Farms (Brucellosis, sampling, etc.)	134

Offices, Shops and Railway Premises Act, 1963:

General inspections	1,420
Other visits	3,091

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 1960	Factories Act 1961	Offices, Shops and Railway Premises Act 1963	Byelaws: Hairdressers and Miscellaneous Premises
No. of informal notices served	277	502	59	356	14
No. of informal notices complied with without recourse to statutory action	231	199	59	294	4
No. of statutory notices served	151	—	—	—	—
No. of premises concerned . .	140	—	—	—	—
No. of statutory notices complied with	70	—	—	—	—
No. of premises concerned . .	60	—	—	—	—
No. of cautionary letters sent by Borough Solicitor . .	7	—	—	—	—

Outstanding notices from previous year are included.

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, Secs. 39, 93	Failure to comply with abatement and statutory notices in respect of general and drainage defects.	Nuisance Order made against owner, and fine of £5 imposed.
2	Public Health Act, 1936, Secs. 39, 93	Failure to comply with abatement and statutory notices in respect of general and drainage defects.	Nuisance Order made against owner, and fine of £5 imposed.
3	Public Health Act, 1936, Sections 39, 56, 95	Failure to comply with Nuisance Order and continued failure to comply with statutory notices.	Fines of £20 and £5 plus 5s. per day for 52 days imposed.
4	Public Health Act 1936, Section 93	Failure to comply with abatement notice in respect of general defects.	Nuisance Order made against owner and costs of £5 8s. 6d. imposed.
5	Public Health Act, 1936, Section 95	Failure to comply with Nuisance Order.	Fine of £20 imposed.

Twelve 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 repaired	29
Internal walls repaired	183
Ceilings repaired	31
Doors and windows repaired	161
Stairs repaired	5
Roofs repaired	92
Chimneys and flues repaired	40
Eavesgutters repaired	108
Rainwater pipes repaired	33
Soil and waste pipes repaired	11
External walls repaired	42
Yards, paths, etc., repaired	14
Sanitary conveniences repaired	68
"Tippler" closet conversions	56
Refuse accommodation	28
Drains repaired	100
Fireranges repaired	3
Sinks, water supplies, wash boilers, etc., repaired	47
Miscellaneous	98

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)	109	110	—	1	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3) ..	1	1	—	—	—
Inadequate ventilation (S.4)	8	8	—	—	—
Ineffective drainage of floors (S.6) ..	—	—	—	—	—
Sanitary Conveniences (S.7):-					
(a) Insufficient	5	8	—	4	—
(b) Unsuitable or defective	116	131	—	15	—
(c) Not separate for sexes	1	1	—	—	—
Other offences against the Act (not including offences relating to Out-work)	66	65	—	—	—
TOTALS	306	324	—	20	—

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
Wearing (Making, etc.) apparel ..	-	-	-	-	-	-
Furniture and Upholstery ..	9	-	-	-	-	-
Brush making ..	1	-	-	-	-	-
Making etc. household linen ..	1	-	-	-	-	-
Making paper fancy goods ..	25	-	-	-	-	-
TOTALS ..	36	-	-	-	-	-

TABLE 9**Factories Act, 1961****Places of Employment - Improvements Secured**

Cleanliness improved	110
Temperature improved	1
Sanitary Accommodation:	
Additional accommodation provided	8
Accommodation improved	120
Accommodation reconstructed	12
Ventilation improvements	8
Drainage improvements	26
Miscellaneous improvements	65

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	90	2	2	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	776	424	57	—
(iii) Other premises in which Section 7 is enforced by the Local Authority* (excluding outworkers' premises) ..	36	4	—	—
TOTALS	902	430	59	—

*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	523	397
Retail Shops	98	1,004	858
Wholesale Shops, Warehouses	9	113	77
Catering Establishments Open to the Public, Canteens	17	236	74
Fuel Storage Depots	6	8	14

Table B

No. of Visits of all kinds by Inspectors to Registered Premises 3,091

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

Class of Workplace	Number of Persons Employed
Offices	8,895
Retail Shops	5,087
Wholesale Departments, Warehouses	2,047
Catering Establishments Open to the Public	2,051
Canteens	194
Fuel Storage Depots	14
TOTAL	18,288
TOTAL MALES	6,574
TOTAL FEMALES	11,714

TABLE D - Exemptions "Nil".**TABLE E - Prosecutions instituted of which the hearing was completed in the year.**

Section of Act or title of Regulations or Order	No. of persons or companies prosecuted	No. of informations laid	No. of informations leading to a conviction
Section 48	1	1	1

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 15
 No. of other staff employed for most of their time
 on work in connection with the Act 1

TABLE 12**Disinfection**

	Free of Charge	On Payment of Charge	Total
Premises visited for Disinfection	2	—	2
Beds	4	1	5
Rooms	12	—	12
Articles	17	—	17
Articles Destroyed	24	—	24

The premises disinfected free of charge were for the following reasons:

Tuberculosis 2

TABLE 13**Disinfestation**

	Number of Premises Disinfested				Total
	Domestic Premises	Business & Industrial	Hospitals	Schools	
Bed Bugs.	101	—	—	—	101
Cockroaches	485	126	50	50	711
Fleas	41	4	—	—	45
Golden Spider Beetles	27	1	—	—	28
Wasps	182	11	3	3	199
Wood Lice	—	—	—	—	—
Body Lice	6	1	—	—	7
Silver Fish	19	2	—	3	24
House Fly	28	10	—	9	47
General Disinfestation	52	2	—	—	58
Others	92	10	—	—	102

TABLE 14

Destruction of Rats and Mice

Prevention of Damage by Pests Act, 1949

	Type of Property	
	Non-Agricultural	Agricultural
PROPERTIES OTHER THAN SEWERS		
1. Number of properties in district	63,378	90
2. (a) Total number of properties (including nearby premises) inspected following notification	3,509	—
(b) Number infested by (i) Rats	1,266	—
(ii) Mice	2,243	—
3. (a) Total number of properties inspected for rats and/or mice for reasons other than notification	10,567	193
(b) Number infested by (i) Rats	176	—
(ii) Mice	815	—

REPORT OF THE BOROUGH ANALYST

1970 was European Conservation Year and the publicity surrounding this has directed some attention to the problems created by man's pollution of his environment. Public Analysts are much involved with these problems in their efforts to provide data essential for any assessment of the dangers to health as a result of pollution, via the food we eat, the water we drink or the air we breathe. Modern technology produces a continually widening range of materials both of natural mineral origin, e.g., toxic metals, and synthetic materials and the disposal of these materials or of by-products of their manufacture imposes an ever-increasing burden on the environment. To ensure that food, water and air are free from toxic hazards Public Analysts and other environmental and health protection services must face the need for a corresponding increase in the range of toxic materials for which tests must be performed. To cite but two well-known examples, there was no point in testing milk for antibiotics before antibiotics were discovered and brought into widespread use and a similar argument applies to pesticides residues in foods generally. Testing for new contaminants and new additives in foods often requires new techniques and equipment. Gas-chromatography for pesticide residues is an example, but this applies more generally and the increasing quantity of information required about each sample submitted can only be met by the usage of some of the newly developed techniques of analytical chemistry and the necessary equipment.

At the end of 1970 the discovery of mercury in tuna reached the headlines of the national press. Mercury is a poisonous metal but the form of mercury found in tuna fish, methyl-mercury is more poisonous. The amounts found, up to 0.5 part per million and averaging about 0.2 to 0.3 part per million were not such that the Ministry of Agriculture and Fisheries and Food decided on any emergency measures to stop the sale of tuna fish and subsequently several authoritative opinions were given that this mercury could have been of "natural" origin, as distinct from the result of man's activities. One national newspaper, perhaps anxious to re-assure its readers of the safety of tuna fish, reported these opinions under the headlines that the tuna fish scare had been a "giant red herring". Even if the mercury found in tuna fish is natural, there is still the possibility that it may be the result of concentration through a biological food chain and this should serve as a warning of the dangers of disposal of toxic wastes in the sea.

Staff

It is with regret that I have to report the death in August, 1970, of Mr. M. F. Lacy, general assistant in the laboratory for a number of years. Mr. Lacy would have retired in December, 1970, after 31 years service in local government, including 23 years in the Health Department.

Mr. J. L. F. Cranshaw, Assistant Analyst, left us in July to take up an appointment with Manchester Corporation Waterworks Department, and Miss K. Lythgoe, Trainee Chemist, was promoted to fill the vacancy. Miss S. Lancaster was appointed as a Trainee Chemist in September.

Following the death of Mr. Lacy and in order to deal with additional sampling for the Waterworks Department, it was decided not to appoint another general assistant, but to re-organise the administration of the laboratory within the Health Department and to appoint a second driver-technician. Mr. F. G. Lord was appointed to fill this post as from August, 1970.

I am pleased to report two examination successes for our Trainee Chemists, Miss K. Lythgoe gaining the Higher National Certificate and Mr. P. Heelis the Ordinary National Certificate.

In presenting this Annual Report to the Health Committee, I would like to express my appreciation of the continued loyal support I have received from the staff of the laboratory. My thanks are due to the Manager and staff of the Waterworks Department, the Public Health Inspectors, and the clerical staff of the Health Department for their kind co-operation and assistance.

I should also like to thank the Medical Officer of Health for his encouragement and interest in the work of the laboratory.

New and Proposed Legislation

Several new regulations and orders, affecting the composition and labelling of food were issued in 1970, of which the most significant is undoubtedly the labelling of Food Regulations 1970. Milk, cheese, cream, colouring matters, emulsifiers and stabilisers were also the subject of regulations affecting the composition of foods.

Labelling of Food Regulations 1970

These regulations, most of which will come into force on the 1st January, 1973, replace the 1967 Labelling Regulations which should have come into operation on the 1st January, 1971, but which are revoked by the 1970 Regulations. The long interval between the issue of new labelling regulations for foods and the date of coming into force is intended to avoid manufacturers having to discard their stocks of labels and packaging materials. Both the 1967 and 1970 Regulations have their origin in two reports of the Food Standards Committee, one on labelling issued in 1964 and the second on misleading claims and descriptions in 1966. Most of the recommendations on the labelling of food in the 1964 Report were embodied in the 1967 Regulations and these have been carried over, largely unchanged, into the 1970 Regulations. The new regulations go further and have incorporated many of the recommendations of the 1966 Report on misleading claims and descriptions.

The regulation on the labelling of food currently in force is the Labelling of Food Order 1953 and the main changes which the new regulations will involve are summarised below.

All pre-packed foods without any exceptions will have to bear the name and address of the manufacturer or packer and the use of a registered trade mark instead of the name and address will no longer be sufficient. More pre-packed foods will have to declare a list of ingredients and even some of those which will continue to be exempt from this requirement will have to declare the presence of any artificial colouring matter, preservative, antioxidant, or saccharin.

In addition to the present requirements for the labelling of alcoholic liquors, which are continued largely unchanged, the new regulations will require liqueur chocolates to contain a significant amount of liqueur, spirit or wine, and shandy will be required to contain at least 1.5 per cent of proof spirit (0.85 per cent alcohol). The use of the words "milk", "butter" and "cream" are restricted in such a way as to prevent their use in a misleading sense and the minimum limit of 4 per cent of butter fat in butter confectionery, e.g., butter toffee, for many years in a code of practice, will have through the new regulations the full backing of the law.

The present regulation regarding vitamins and minerals, i.e., that if any mention of these is made then a quantitative statement of the amounts present in the food must be given, is continued, and this part of the new regulations is extended to cover claims involving slimming, energy value, protein content, suitability for diabetics, and tonic, restorative or medicinal properties.

The new regulation on slimming claims is similar to that in the Bread and Flour Regulations 1963, but will, of course, apply to all foods. No claim must be made that any food has specific weight-reducing properties, nor must any claim be made that a food is of value in reducing body-weight, unless it forms part of a calorie-controlled diet. Energy claims must be accompanied by a statement of the calorie value of the food and must not be made unless this value is a significant contribution to the daily diet. Diabetic foods must carry on the label a statement of both calorie value and carbohydrate content.

Protein claims are to be controlled by a requirement that no mention must be made of protein on the label unless the protein content is such that the proportion of the total calorie value of the food contributed by protein is at least 12 per cent. However, this limit will not apply if the only reference to protein is a plain statement, "without further elaboration", that the food contains protein together with a statement of the amount of protein present, or the mention of protein in the appropriate place in the list of ingredients. (Regulation 21 proviso (iii) (ab)). Opinions may differ as to the precise meaning of the words "without further elaboration", but it appears that by virtue of the proviso to this regulation, statements emphasising the presence of protein could be made of many foods, in which the protein content is nutritionally insignificant.

Several drafting errors are evident in the 1970 Labelling Regulations and the meaning of the expression "average minimum" in Regulation 27 is somewhat obscure. This expression is used with reference to claims for the presence of certain natural constituents, including vitamins and minerals, in foods, but it is not a term with any precise mathematical meaning and the regulation is therefore for all practical purposes unenforceable.

The minimum height of the lettering to be used in the declarations of statutory information are laid down in the Schedules to the Regulations.

The Cheese Regulations 1970

These regulations supersede those made in 1965 and provide standards for both composition and description of cheese, processed cheese and cheese spread. The Schedules to the regulations list 29 varieties of cheese and for each variety a minimum fat content and maximum moisture content. Cheeses of these varieties may be sold under the variety name provided they comply with the compositional standards. Other cheeses must either have one of the

descriptions in the table below and comply with the corresponding compositional standard or have a declaration of the minimum percentage of milk fat or the minimum percentage of milk fat calculated on the dry matter and the maximum water content. Processed cheese must comply with similar standards.

<i>Required Description</i>	<i>Milk fat in dry matter per cent.</i>	<i>Milk Fat per cent</i>	<i>Water (Maximum) per cent</i>
Full Fat Hard Cheese	Not less than 48		48
Medium Fat Hard Cheese	10 - 48		48
Skimmed Milk Hard Cheese	Less than 10		48
Full Fat Soft Cheese	—	Not less than 20	60
Medium Fat Soft Cheese	—	10 - 20	70
Low Fat Soft Cheese	—	2 - 10	80
Skimmed Milk Soft Cheese	—	Less than 2	80
Cream Cheese	—	Not less than 45	—
Double Cream Cheese	—	Not less than 65	—
Full Fat Whey Cheese	Not less than 33	—	—
Whey Cheese	10 - 33	—	—
Skimmed Whey Cheese	Less than 10	—	—
Full Fat Processed Cheese	Not less than 48	—	48
Medium Fat Processed Cheese	10 - 48	—	48
Skimmed Milk Processed Cheese	Less than 10	—	48
Cheese Spread or Cheese Food	—	Not less than 20	60

The Cream Regulations 1970

These regulations are the result of recommendations of the Food Standards Committee which published its report on Cream in 1967. The more important provisions of the regulations will come into force in March, 1972, and provide a list of statutory descriptions and minimum milk fat contents for various kinds of cream as follows:-

<i>Type of Cream</i>	<i>Minimum Milk Fat per cent</i>
Clotted Cream	55
Double Cream	48
Whipping Cream	35
Whipped Cream	35
Sterilised Cream	23
Cream or Single Cream	18
Sterilised Half-Cream	12
Half Cream - not Sterilised	12

Whipped cream will be allowed to contain sodium alginate, bicarbonate or pyrophosphate, sodium carboxymethyl cellulose, carrageenan or gelatine and up to 13 per cent of sugar. Whipping cream, when not sold by retail, will be permitted the same ingredients, whilst cream in an aerosol container may contain the same ingredients and in addition up to 0.5 per cent of glyceryl monostearate. Sterilised or ultra heat treated (U.H.T.) cream will be allowed to contain calcium chloride and the carbonates, citrates and phosphates of sodium and potassium.

The method of heat treatment of cream will have to be declared, e.g., "pasteurised" or "ultra heat treated", or "untreated" in the case of cream which has not been heat treated.

One effect of the Cream Regulations 1970 appears to be that canned products now on sale under descriptions which do not include the word cream, e.g., "Top of the Milk" and contain 18 per cent milk fat compared with 23 per cent in canned sterilised cream labelled as such, will have to carry the description, "Sterilised Half-Cream".

The Emulsifiers and Stabilisers in Food (Amendment) Regulations 1970

The effect of these amending regulations is to remove brominated vegetable oils from the permitted list of emulsifiers and stabilisers. The main use of brominated vegetable oils was in citrus soft drinks where its function was to increase the density of the volatile oils present and prevent the accumulation of these oils as an unsightly scum in the neck of the bottle.

The Colouring Matter in Food (Amendment) Regulations 1970

The Pharmacology Sub-Committee of the Food Additives and Contaminants Committee have recommended that the red colouring matter Ponceau MX should not be permitted in foods, and these amending regulations give effect to this recommendation as from 1st January, 1971.

The Food and Drugs (Milk) Act 1970

The Food and Drugs Act 1955, Section 32 prohibits the addition of water to milk. This prohibition is removed by this 1970 Act which allows the production of U.H.T. milk by direct steam injection, provided this is carried out in accordance with special designation regulations and the fat and solids-not-fat contents are the same after treatment as before, that is, no excess water remains in the milk. At present U.H.T. milk is controlled by the Milk (Special Designation) (Amendment) Regulations 1965, but proposals have been made by the Minister to amend these regulations so as to legalise the steam injection process.

The Agriculture Act 1970

Part IV of this Act will eventually replace the Fertilisers and Feeding Stuffs Act 1926 and will have the general effect of widening the scope of legislation controlling the manufacture and sale of fertilisers and animal feeding stuffs. In the 1926 Act, "feeding stuff" means food for cattle and poultry, cattle being defined as bulls, cows, oxen, heifers, calves, sheep, goats and swine. In the new Act the term is given a much wider meaning and regulations may be made by the Minister to control food for horses, mink, bees and trout. Fertiliser is also given a wider definition. The Act empowers the Minister to make regulations requiring information or instructions on storage and use of feeding stuffs and fertilisers to be included in statutory statements as well as the usual compositional statements. Regulations may also be made which would require any special claims to be supported by particulars in the statutory statement.

Under the new Act the appointment of agricultural analysts will no longer be subject to approval by the Minister, but the analysts will be required to hold certain prescribed qualifications.

The Food Additives and Contaminants Committee

Two reports of this committee published by the Ministry of Agriculture, Fisheries and Food are of particular importance to Food and Drug authorities. One deals with the problems of leaching of substances from packaging materials into food and the other is a review of the Emulsifiers and Stabilisers in Food Regulations.

Report on the Leaching of Substances from Packaging Materials into Foods

Attention is being directed to the possible hazard to health from the leaching from packaging materials into food, mainly as a consequence of the ever-widening range of synthetic materials from the plastics industry now available to the food manufacturer for the packing of his products. This should not be taken to imply that traditional materials used for packaging are necessarily safe.

The leaching from packaging materials is not covered by any specific regulations except the maximum limit of 5 part per million of formaldehyde derived from formaldehyde resin allowed by the Preservatives in Food Regulations 1962. The Food Hygiene Regulations include a general prohibition of the use of wrapping materials which may contaminate food.

The report emphasises the difficulty of assessing the hazard to health caused by the migration of substances from packaging materials into food and gives a list of "food-simulating" solvents and recommended procedures for the testing of food packaging materials.

Review of the Emulsifiers and Stabilisers in Food Regulations 1962

The definition of the terms "emulsifier" and "stabiliser" in the regulations at present in force excludes a long list of substances used in food and thereby removes them from any control by the regulations. The Food Additives and Contaminants Committee recommend that this list of excluded substances should be drastically reduced so as to widen the application of the regulations, and include materials such as chemically modified starches.

This review recommends that the permitted list of emulsifiers and stabilisers should include only individual substances or, if necessary, technical mixtures of closely related substances and that each substance should have a specification of composition and purity. In general it was felt that there is no need to lay down maximum limits for the amounts of emulsifiers and stabilisers in food except for cream, for which the Cream Regulations 1970 allows up to 0.3 per cent of certain emulsifiers in whipped cream, and a maximum limit of 200 part per million for quillaia in soft drinks. Stearyl tartrate, mono- and diglycerides of fatty acids, and diacetyl tartaric acid esters of mono- and diglycerides should continue to be the only emulsifiers permitted in bread, and consideration should be given to the restriction of sorbitan and polyoxyethylene sorbitan esters to foods which are not significant items of the normal diet. The general exemption for tin-greasing emulsions should be withdrawn and oxidatively polymerised soya bean oil should be permitted for this purpose so as to leave residues in foods of not more than 50 part per million.

The Appendix to the review lists numerous substances which are in use or have been suggested as emulsifiers or stabilisers and classifies these according to the latest knowledge of their toxicity.

Food Standards Committee Report on the pre-1955 Compositional Orders

This report reviews the compositional standards issued before 1955 for the following foods:-

Baking Powder and Golden Raising Powder, Edible Gelatine, Mustard, Curry Powder, Tomato Ketchup, Fish Cakes, and Suet.

The report recommends that the standards for the first four of these foods are no longer necessary and that the general provisions of the Food and Drugs Act can be relied on to ensure that the quality of these foods does not fall below the present legal minima. Maximum limits for lead and arsenic are part of these standards, but are now covered by other regulations. The present legal standards for Tomato Ketchup, Fish Cakes and Suet should be retained.

Total Number of Samples Examined

The total number of samples examined during 1970 was 7,744. The method of calculation has been slightly amended this year, so that milk samples which are examined for antibiotics and under the Milk (Special Designation) Regulations are only counted as one sample rather than two or three as in previous years.

The number of samples examined each year for the past seven years are shown below, calculated on both old and new systems:

	<i>Old System</i>	<i>New System</i>
1964	8,058	7,685
1965	7,858	7,477
1966	7,787	7,284
1967	7,485	7,060
1968	6,758	6,450
1969	7,492	7,162
1970	8,266	7,744

For the Health Committee

Food and Drugs	1,062
Ice Cream (bacteriological examination)	84
Water from domestic premises (Bolton only)	67
Swimming Bath Waters	138
Fertilisers and Feeding Stuffs	26
Complaint samples	114
Miscellaneous samples	300
Air Pollution - Smoke and Sulphur Dioxide measurements	3,066
For the Waterworks Committee	2,707
For other departments, other local authorities and private samples	180
Total	7,744

Food and Drug Samples

In 1970, sampling officers submitted a total of 1,062 samples of food and drugs, rather more than the previous year (900 samples). Details of all food and drug samples are listed in Table A.

129 samples were reported as adulterated or unsatisfactory for other reasons, a proportion of 12.1 per cent which is slightly higher than in 1969 (11.1 per cent). Unsatisfactory milk samples accounted for a higher proportion of the total number of unsatisfactory samples than in previous years. Details of all unsatisfactory food and drug samples are given in Tables B to F.

UNSATISFACTORY SAMPLES OF FOODS AND DRUGS

Unsatisfactory Milk Samples

Details of all unsatisfactory milk samples are listed in Table C and a summary of the position regarding milk samples, including a comparison with previous years, can be seen from Table B.

The proportion of unsatisfactory milk samples is higher than in recent years, particularly with respect to those samples found to contain added water. Of the 24 samples in this category, 14 were found to have fat and solids-not-fat above the respective minimum limits of 3.0 and 8.5 per cent, the Freezing-Point indicating the presence of added water. Owing to the natural variation in the composition of milk, a sample showing figures for fat and solids-not-fat above the legal minima, may still contain added water, which will only be revealed by the Freezing-Point test. This particularly applies to Channel Islands milk, in which the solids-not-fat is typically nearer 9.0 or above, than the minimum of 8.5, and a sample of Channel Islands milk with 8.6 per cent of solids-not-fat had a Freezing-Point indicating at least 6 per cent of added water.

Unsatisfactory Food and Drug Samples (other than milk samples)

Apart from milk samples, 79 samples of other foods and drugs were reported as unsatisfactory and of these 36 or almost half, were unsatisfactory not because of any failure to meet compositional standards, but because of infringements of the labelling requirements. Most of these infringements were of a relatively minor technical nature, such as the use of non-specific names in lists of ingredients, but a few had rather more serious implications and merit further consideration.

The packaging of a margarine bore the claim that it was "made from pure natural corn oil" and that "the only oil in — margarine is pure natural corn oil". To any one with even a slight knowledge of the manufacture of margarine, this must seem a rather surprising claim, since there must be some solid fat in margarine and corn oil is completely liquid at room temperature. Liquid vegetable oils can be converted to a solid or semi-solid form by the chemical process known as hydrogenation or hardening and the finding by infra-red spectroscopy of the presence of trans-unsaturated fatty acids, indicating the presence of hardened (hydrogenerated) oils, hardly came as a surprise. The manufacturers readily admitted that part of the corn oil must be hardened by hydrogenation before making the margarine. No doubt the wording on the label was directed at that section of the population which believes they do themselves a power of good by restricting their fat intake to vegetable oils in their natural state. This view may not be shared by all nutritionists or food technologists, but that hardly justified a label claim which on almost any interpretation of the English language is misleading. The manufacturers have now agreed to amend the wording to "prepared from corn oil".

Safflower oil is a highly unsaturated vegetable oil, containing as much as 70 per cent of the poly-unsaturated fatty acid, linoleic acid. A sample of capsules of this oil carried the new usual claims of the value of safflower oil in preventing or reducing the incidence of certain forms of heart disease, but also a specific claim that it had weight-reducing properties. When this claim was questioned, the manufacturers agreed to omit any reference to weight reduction, when re-printing their labels and pamphlets.

Many localities in this country are associated with distinctive types of food products and one such product examined in 1970 was the Cumberland sausage, of which the main distinctive feature is that the meat is coarsely cut, not finely comminuted as in the normal sausage. The Cumberland sausage often, though not always, has a higher meat content than ordinary sausages and Cumberland Pork Sausage has been found on sale with a guaranteed 80 per cent of meat, which has been confirmed by analysis. One sample of canned sausages, described as the Cumberland type, was found to have a finely comminuted texture and was reported as not being the Cumberland type. The manufacturers are understood to have withdrawn this label on their canned sausages.

Several samples of dressed crab, sold loose, were found to have crab meat contents of about 70 per cent, well below the minimum limit of 95 per cent recommended by the Food Standards Committee or the limit of 93 per cent laid down by the Fish and Meat Spreadable Product Regulations 1968 (not in force until 1st March, 1971). These samples were reported as unsatisfactory, but it now appears that the same product is being sold as Crab Paste, for which the standard is 70 per cent crab meat.

Seven samples of canned braised steak in gravy, four informal and three formal, were reported as deficient in meat, the meat contents varying from 55 to 66 per cent, well below the minimum limit of 75 per cent for this category of meat product required by the Canned Meat Product Regulations 1967. Six of the seven samples, including all three formal samples, were of cans packed in Northern Ireland and the Borough Solicitor's Department advised that no proceedings be taken in view of Section 114 of the Food and Drugs Act, which provides a special defence in cases where the food originates in Scotland or Northern Ireland. The Ministry of Agriculture, Fisheries and Food were informed of the results of the analysis and it is now understood that this manufacturer has undertaken to increase the meat content to 75 per cent.

Many samples are examined for the presence of toxic trace elements, particularly lead, and during the course of the year two samples were reported as containing lead in excess of legally permitted maximum limits. Both samples were of dried herbs, one of thyme and the other sweet basil, and in the writer's experience excessive amounts of lead in foods seem most often to occur in dried herbs. The legal maximum limit, 10 part per million, appears to be a generous one, and the origin of this lead remains something of a mystery. The results of some published research work on the occurrence of lead in plants suggests that some of it may be natural, although there is no evidence that lead plays any role as an essential trace element.

Eight samples of drugs were reported as unsatisfactory, the most frequent reason being a deficiency of chloroform in cough mixtures, but some interest centres on the unusual circumstances connected with a sample submitted to the proprietary analgesic, Phensic Tablets. This matter originated as a complaint from a member of the public, a fairly regular user, who had purchased Phensic Tablets and complained that the tablets in the latest packet did not look the same as on previous occasions. Examination of these tablets quickly established that they were not Phensic Tablets and further laboratory work showed them to be ordinary 300 mg. Aspirin tablets. A formal sample, taken from the same source as the complainant's, was also found to consist of Aspirin

tablets. These tablets were packed in small cardboard cartons, clearly marked "Phensic" and apparently the genuine packaging or a very expert copy, but subsequent enquiries revealed that the manufacturers had stopped using this particular kind of packet about a year ago. They had received several similar complaints from other parts of the country and had referred the matter to the police. No action was taken against the local retailer since it was established that he had bought the so-called Phensic tablets in good faith and the findings were reported to the police. Aspirin tablets are, of course, much cheaper than Phensic tablets, but at the time of writing, there is no report of any prosecution for this piece of undoubtedly fraudulent activity.

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
Milks	18	447	465	7	42	49
Anchovies (canned)	-	5	5	-	-	-
Apples	-	2	2	-	-	-
Apples (canned)	-	2	2	-	-	-
Apple flakes	-	1	1	-	-	-
Apple sauce	-	1	1	-	-	-
Asparagus lettuce (canned) ..	-	2	2	-	-	-
Baby foods	-	8	8	-	-	-
Barley, pearl	-	2	2	-	-	-
Basil	-	4	4	-	1	1
Beef, potted, with butter ..	-	1	1	-	-	-
Beer	-	5	5	-	-	-
Beetroot, pickled	-	3	3	-	-	-
Bilberries in syrup (bottled) ..	-	1	1	-	-	-
Biscuits	-	1	1	-	-	-
Brandy	1	-	1	-	-	-
Bread and Butter	4	-	4	1	-	1
Butter	-	3	3	-	2	2
Butter, rum flavoured	-	1	1	-	-	-
Carrots (canned)	-	1	1	-	-	-
Carrots and peas (bottled) ..	-	1	1	-	-	-
Cereal mixture	-	1	1	-	1	1
Cheese	-	3	3	-	1	1
Cheese, dried grated	-	1	1	-	-	-
Cheese with pineapple	-	1	1	-	-	-
Cheese spread	-	2	2	-	-	-
Cheese spread with chives ..	-	1	1	-	-	-
Cheese spread with smoky bacon	-	1	1	-	-	-
Cheese spread with tomato ..	-	1	1	-	-	-
Cheese, processed	-	5	5	-	1	1
Cheese, processed, with caraway	-	1	1	-	-	-
Cheese, processed with wine ..	-	1	1	-	-	-
Chicken, minced, in jelly ..	-	1	1	-	-	-
Chicken and bacon spread (canned)	-	1	1	-	-	-
Chocolate, confectionery	-	1	1	-	-	-
Chocolate, drinking	-	1	1	-	-	-
Cinnamon, ground	-	1	1	-	-	-
Coffee, instant	-	1	1	-	-	-
Coffee-mate	-	2	2	-	-	-
Colouring, food	-	1	1	-	-	-
Crab (canned)	-	3	3	-	-	-
Crab, dressed (loose and canned)	-	16	16	-	5	5
Crab (fresh)	-	1	1	-	-	-
Crab spread	-	2	2	-	-	-
Cream dessert	-	1	1	-	-	-
Cream, whipped	-	1	1	-	-	-
Crumbs, cooking	-	1	1	-	-	-
Currants	-	1	1	-	-	-
Curry Powder	-	1	1	-	-	-
Custard (canned)	-	2	2	-	-	-
Dessert (canned)	-	1	1	-	-	-
Dessert mix	-	4	4	-	-	-
Eel, smoked, in oil (canned) ..	-	2	2	-	-	-
Eggs, pickled	-	1	1	-	-	-

Article	Number examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Fat, cooking	-	1	1	-	-	-
Figs, dried	-	3	3	-	-	-
Fish (fresh)	-	8	8	-	-	-
Fish paste	-	2	2	-	-	-
Fish roes (canned)	-	1	1	-	-	-
Fish soup (canned)	-	1	1	-	-	-
Flavourings	-	3	3	-	-	-
Flour, self-raising	-	4	4	-	-	-
Fruit, mixed, dried	-	1	1	-	-	-
Gherkins	-	1	1	-	-	-
Gin	2	-	2	-	-	-
Ginger, ground	-	1	1	-	-	-
Ginger in syrup	-	1	1	-	-	-
Grapefruit	-	3	3	-	-	-
Ham roll, smoked (Debowiecka)	-	1	1	-	-	-
Health food, Polymur	1	-	1	1	-	1
Health food, Spartan Elixir ..	1	-	1	-	-	-
Herbs, mixed	-	3	3	-	-	-
Herrings (canned)	-	2	2	-	-	-
Home Brewing and winemaking materials						
Acid reducing solution ..	-	1	1	-	-	-
Fruit flavour, concentrated ..	-	2	2	-	-	-
Fruit squash concentrate ..	-	3	3	-	3	3
Heading liquid	-	1	1	-	1	1
Irish Moss	-	1	1	-	1	1
Preservative tablets	-	2	2	-	2	2
Stabilising tablets	-	1	1	-	1	1
Wine sweetener	-	1	1	-	-	-
Wine tannin solution	-	1	1	-	-	-
Yeast energiser	-	1	1	-	-	-
Ice cream	-	1	1	-	-	-
Jam	-	8	8	-	-	-
Jelly	-	1	1	-	-	-
Leek, pickled (canned)	-	1	1	-	1	1
Lemons	-	3	3	-	-	-
Lentils	-	3	3	-	-	-
Liver, pigs	-	6	6	-	-	-
Lobster tails (canned)	-	1	1	-	1	1
Mackerel in tomato sauce (canned)	-	1	1	-	-	-
Margarine	-	5	5	-	1	1
Marjoram	-	1	1	-	-	-
Marzipan	-	2	2	-	-	-
Meat paste	-	2	2	-	-	-
Meat pie	-	2	2	-	-	-
Meat and potato pie	-	1	1	-	1	1
Meat products (canned)						
Stewed steak	-	1	1	-	-	-
Bacon grill	-	2	2	-	-	-
Meat with gravy	3	6	9	3	4	7
Sliced meat with gravy ..	-	5	5	-	-	-
Meat with onion and gravy ..	-	1	1	-	-	-
Meat with carrots and gravy ..	-	1	1	-	1	1
Sliced meat with gravy and Stuffing	-	1	1	-	-	-
Luncheon meat	-	3	3	-	-	-
Hamburgers	-	2	2	-	1	1

Article	Number examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Hamburgers with onions and gravy	-	1	1	-	-	-
Irish stew	-	8	8	-	1	1
Curried Beef	-	3	3	-	2	2
Curried Chicken	-	1	1	-	-	-
Beef casserole	-	1	1	-	1	1
Beef casserole with vegetables and beef	-	1	1	-	-	-
Beef casserole with vegetables and gravy	-	1	1	-	-	-
Chicken casserole with vegetables and gravy ..	-	1	1	-	-	-
Pork cutlets with mushrooms	-	1	1	-	-	-
Canelloni	-	1	1	-	1	1
Sausages	-	2	2	-	1	1
Sausages with lard	-	1	1	-	-	-
Sausages in brine	-	5	5	-	3	3
Frankfurters in brine	-	2	2	-	-	-
Steak and kidney pie	-	1	1	-	-	-
Meat spread (canned)	-	1	1	-	-	-
Meat tenderiser	-	1	1	-	-	-
Melon	-	1	1	-	-	-
Mint	-	3	3	-	-	-
Mushroom capri (ready meal) ..	-	1	1	-	1	1
Nutmeg, ground	-	1	1	-	-	-
Oil, cooking	-	16	16	-	1	1
Olives, cocktail	-	1	1	-	-	-
Olive oil	-	1	1	-	-	-
Onion gravy mix	-	1	1	-	-	-
Onions, pickled	-	3	3	-	-	-
Oranges	-	7	7	-	1	1
Orange juice (canned)	-	2	2	-	-	-
Oysters (canned)	-	1	1	-	-	-
Parsley	-	3	3	-	-	-
Pastry mix	-	1	1	-	-	-
Pasty	-	3	3	-	1	1
Paté (canned)	-	3	3	-	1	1
Peaches	-	1	1	-	-	-
Peanuts	-	1	1	-	-	-
Pears	-	1	1	-	-	-
Peas (canned)	-	1	1	-	-	-
Peas, dried	-	2	2	-	-	-
Pepper, seasoned	-	1	1	-	-	-
Pilchards (canned)	-	1	1	-	-	-
Pineapple	-	1	1	-	-	-
Pork, chopped	-	1	1	-	1	1
Pork, roast	-	3	3	-	-	-
Potatoes	-	1	1	-	-	-
Potato, mashed, calorie-reduced	-	1	1	-	1	1
Potato pie	-	1	1	-	-	-
Potato and meat pie	-	1	1	-	-	-
Potato puffs	-	1	1	-	-	-
Prawns (canned)	-	2	2	-	2	2
Prawns (fresh)	-	5	5	-	-	-
Prawns, cocktail	-	1	1	-	1	1
Raisins	-	1	1	-	-	-
Raspberries in syrup (canned)	-	1	1	-	-	-
Ravioli, cheese (canned)	-	1	1	-	-	-
Ravioli with tomato sauce (canned)	-	1	1	-	-	-

Article	Number examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Rice	-	4	4	-	-	-
Rice, ground	-	1	1	-	-	-
Rice pudding (canned)	-	1	1	-	-	-
Rosemary	-	2	2	-	-	-
Rum	1	-	1	-	-	-
Rum, white	2	-	2	-	-	-
Safflower oil capsules	1	-	1	1	-	1
Sage	-	5	5	-	-	-
Sago	-	3	3	-	-	-
Salmon (canned)	-	2	2	-	-	-
Salmon Spread	-	1	1	-	-	-
Salmon, potted, with butter	-	1	1	-	-	-
Salt, seasoned	-	1	1	-	-	-
Sardines (canned)	-	2	2	-	-	-
Sardine spread with tomato (canned)	-	1	1	-	-	-
Sausages	5	8	13	4	-	4
Sausage, liver	-	1	1	-	-	-
Sausage meat	-	1	1	-	1	1
Scones, buttered	1	-	1	-	-	-
Seafood dressing	-	1	1	-	-	-
Seasoning	-	1	1	-	-	-
Seasoning and sauce mixes	-	5	5	-	-	-
Shrimps (canned and bottled)	-	8	8	-	2	2
Smetana	-	1	1	-	1	1
Soft drinks	-	46	46	-	5	5
Soup (canned)	-	1	1	-	-	-
Soup mix, fish	-	1	1	-	1	1
Soup mix, fruit	-	1	1	-	-	-
Spaghetti in sauce (canned)	-	1	1	-	-	-
Spaghetti sauce (canned)	-	2	2	-	-	-
Spice, mixed	-	1	1	-	-	-
Spice, whole pickling	-	1	1	-	-	-
Sprats (canned)	-	2	2	-	-	-
Stock powder	-	2	2	-	-	-
Strawberries in syrup (canned)	-	1	1	-	-	-
Sugar, brown	-	3	3	-	-	-
Sugar confectionery	-	9	9	-	-	-
Sultanas	-	2	2	-	-	-
Sweet corn (canned)	-	1	1	-	-	-
Tapioca	-	6	6	-	-	-
Tarragon	-	1	1	-	-	-
Thyme	-	1	1	-	1	1
Tomato puree	-	2	2	-	-	-
Tomato sauce (canned and bottled)	-	3	3	-	-	-
Top-of-the-milk	-	1	1	-	-	-
Trifle	-	4	4	-	3	3
Trifle mix	-	1	1	-	-	-
Tripe	1	-	1	-	-	-
Tuna (canned)	-	3	3	-	-	-
Tuna with onion (canned)	-	1	1	-	-	-
Vegetable juice (canned)	-	1	1	-	-	-
Vegetarian "meatless" products (canned)	-	5	5	-	-	-
Vinegar	-	3	3	-	-	-
Vodka	3	-	3	-	-	-
Wheat germ	-	1	1	-	-	-
Whisky	5	-	5	-	-	-

Article	Number examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Wine	-	1	1	-	-	-
Yeast tablets	-	1	1	-	-	-
Yogurt	-	2	2	-	-	-
Andrenalin cream	-	1	1	-	-	-
Allopurinol tablets B.P.	1	-	1	-	-	-
Aludrox	-	1	1	-	-	-
Aspirin tablets	-	1	1	-	-	-
Aurum ambrosium	-	1	1	-	-	-
Benylin	-	1	1	-	-	-
Bethanidine tablets B.P.	1	-	1	-	-	-
Bronchial mixture	-	2	2	-	1	1
Camphor, syrup of	-	1	1	-	-	-
Camphorated goose grease	-	1	1	-	-	-
Catarrh, cough and throat lozenges and pastilles	-	11	11	-	-	-
Codeine linctus B.P.C.	-	1	1	-	-	-
Cold tablets	-	1	1	-	-	-
Cough Mixture	1	5	6	1	3	4
Cough Sweets	-	1	1	-	1	1
Davenol linctus	-	1	1	-	-	-
Diazepam capsules B.P.	1	-	1	-	-	-
Diazepam tablets B.P.	2	-	2	-	-	-
Dihydrocodeine tablets B.P.	1	-	1	-	-	-
Disprin tablets	1	-	1	-	-	-
Distalgesic tablets	-	1	1	-	-	-
Dulcolax	-	1	1	-	-	-
Glycerine lemon oil and honey with citric acid	-	1	1	-	-	-
Glycerine, syrup of lemon and honey	-	1	1	-	-	-
Herbal mixture	-	3	3	-	-	-
Indian brandy	-	1	1	-	-	-
Indigestion mixture	-	2	2	-	-	-
Indigestion tablets	-	4	4	-	-	-
Kruschen capsules	-	1	1	-	-	-
Lithium carbonate tablets B.P.	1	-	1	-	-	-
Mandrax tablets	1	-	1	-	-	-
Mogadon tablets	1	-	1	-	-	-
Mouthwash, antiseptic	-	1	1	-	-	-
Nasal decongestant	-	1	1	-	-	-
Olive oil and raspberry syrup	-	1	1	-	-	-
Paraffin, liquid	-	1	1	-	-	-
Phensic tablets	1	1	2	1	-	1
Pholcodine linctus B.P.C.	-	1	1	-	-	-
Sedative tablets	1	-	1	-	-	-
Senokot tablets	-	1	1	-	-	-
"Slim-u-ettes" compound laxative preparation	1	-	1	1	-	1
Smelling bottle	-	1	1	-	-	-
Tonic	-	1	1	-	-	-
Toothache drops	-	1	1	-	-	-
Travel sickness tablets	-	4	4	-	-	-
Valium tablets	1	-	1	-	-	-
Vapour rub	-	1	1	-	-	-
Vitamin C tablets	-	3	3	-	-	-
TOTAL	64	998	1,062	20	109	129

Total number of samples analysed during the year = 1,062
Adulterated samples - 129 = 12.1%

TABLE B
UNSATISFACTORY MILKS, 1963 - 1970

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
1970	465	49	7	24 contained added water 5 deficient in fat 4 contained an 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 an antibiotic 1 deficient in fat	2.6	0.6	2.0
1966	572	42	36	5 contained an antibiotic 1 contained added water	7.3	1.0	6.3
1965	666	37	34	2 deficient in fat 1 failed pasteurisation test	5.6	0.5	5.1
1964	662	8	8	No adulterated samples	1.2	0	1.2
1963	595	11	8	3 contained added water	1.8	0.5	1.3

TABLE C
UNSATISFACTORY MILK SAMPLES

Sample No.	Type	Formal or Informal	Nature of Adulteration or Irregularity	Observations
7519	Pasteurised	Informal	Fat, 3.65 per cent Solids-not-Fat, 8.55 per cent Freezing Point Depression (Hortvet) 0.528°C.	Although the fat and solids-not-fat are above the presumptive minimum limits for genuine milk, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7524	Pasteurised	Informal	Fat, 3.4 per cent Solids-not-Fat, 8.5 per cent Freezing-Point Depression (Hortvet) 0.527°C.	Although the fat and solids-not-fat are above the presumptive minimum limits for genuine milk, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7540	Pasteurised	Informal	Fat, 3.6 per cent Solids-not-Fat, 8.5 per cent Freezing-Point Depression (Hortvet) 0.525°C.	Although the fat and solids-not-fat are above the presumptive minimum limits for genuine milk, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7541	Sterilised	Informal	Fat, 3.55 per cent Solids-not-Fat, 8.65 per cent Freezing-Point Depression (Hortvet) 0.527°C.	Although the fat and solids-not-fat are above the presumptive minimum limits for genuine milk, the Freezing-Point Depression indicates the presence of extraneous water.
7569	Untreated	Informal	Fat, 3.9 per cent Solids-not-Fat, 8.6 per cent Freezing-Point Depression (Hortvet) 0.522°C. Methylene Blue Decolourisation Time: under 30 minutes	Although the fat and solids-not-fat are above the presumptive minimum limits for genuine milk, the Freezing-Point Depression indicates the presence of a small amount of extraneous water. This sample failed to comply with the Methylene Blue Test for untreated milk.
7571	Untreated	Informal	Fat, 3.70 per cent Solids-not-Fat, 8.15 per cent Freezing-Point Depression (Hortvet) 0.502°C.	The solids-not-fat is below the presumptive minimum limit for genuine milk of 8.5 per cent and the sample contains at least 4 per cent of extraneous water.

Sample No.	Type	Formal or Informal	Nature of Adulteration or Irregularity	Observations
7564	Untreated	Formal	Fat, 3.93 per cent Solids-not-Fat, 8.22 per cent Freezing-Point Depression (Hortvet) 0.517°C.	The solids-not-fat is below the presumptive minimum limit for genuine milk of 8.5 per cent and the sample contains at least 3 per cent of extraneous water.
7573	Untreated	Informal	Fat, 2.95 per cent Solids-not-Fat, 8.45 per cent Freezing-Point Depression (Hortvet) 0.525°C.	Both fat and solids-not-fat are below the presumptive minimum limits for genuine milk of 3.0 and 8.5 per cent respectively. The Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7574	Untreated	Informal	Fat, 3.05 per cent Solids-not-Fat, 8.45 per cent Freezing-Point Depression (Hortvet) 0.539°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent, but the Freezing-Point Depression is normal and there is, therefore, no reason to believe that the deficiency in solids-not-fat is due to the presence of extraneous water.
7568	Untreated	Formal	Fat, 3.0 per cent Solids-not-Fat, 8.3 per cent Freezing-Point Depression (Hortvet) 0.523°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent and this milk contains at least 2 per cent of extraneous water.
7616	Pasteurised	Informal	Phosphatase Test, Disc Reading: over 42	This sample failed to comply with the Phosphatase Test for Pasteurised Milk.
7624	Sterilised	Informal	Fat, 3.60 per cent Solids-not-Fat, 8.57 per cent Freezing-Point Depression (Hortvet) 0.524°C.	Although the fat and solids-not-fat are above the presumptive minimum limits, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7628	Pasteurised	Informal	Fat, 3.65 per cent Solids-not-Fat, 8.50 per cent Freezing-Point Depression (Hortvet) 0.523°C.	Although the fat and solids-not-fat are above the presumptive minimum limits, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.

Sample No.	Type	Formal or Informal	Nature of Adulteration or Irregularity	Observations
7635	Sterilised	Informal	Fat, 3.59 per cent Solids-not-Fat, 8.37 per cent Freezing-Point Depression (Hortvet) 0.536°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent, but the Freezing-Point Depression is normal and there is, therefore, no reason to believe that the deficiency in solids-not-fat is due to the presence of extraneous water.
7657	Sterilised	Formal	Fat, 3.60 per cent Solids-not-Fat, 8.35 per cent Freezing-Point Depression (Hortvet) 0.530°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent, but the Freezing-Point Depression is normal and there is, therefore, no reason to believe that the deficiency in solids-not-fat is due to the presence of extraneous water.
7645	Untreated	Informal	Methylene Blue Decolourisation Time: under 30 minutes	This sample failed to comply with the Methylene Blue Test for untreated milk.
7646	Untreated	Informal	Fat, 2.55 per cent Solids-not-Fat, 8.45 per cent Freezing-Point Depression (Hortvet) 0.531°C.	Both fat and solids-not-fat are below the presumptive minimum limits of 3.0 and 8.5 per cent respectively. The Freezing-Point Depression is normal, and although this milk is deficient in fat there is no reason to believe that the deficiency in solids-not-fat is due to the presence of extraneous water.
7647	Untreated	Informal	Fat, 3.15 per cent Solids-not-Fat, 8.45 per cent Freezing-Point Depression (Hortvet) 0.533°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent, but the Freezing-Point Depression is normal and there is, therefore, no reason to believe that the deficiency in solids-not-fat is due to the presence of extraneous water.
7653	Untreated	Informal	Fat, 3.2 per cent Solids-not-Fat, 8.3 per cent Freezing-Point Depression (Hortvet) 0.538°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent, but the Freezing-Point Depression is normal and there is no reason to believe that the deficiency in solids-not-fat is due to the presence of extraneous water.
7656	Sterilised	Informal	Fat, 3.75 per cent Solids-not-Fat, 8.45 per cent. Freezing-Point Depression (Hortvet) 0.525°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent and the Freezing-Point Depression indicates the presence of a small amount of extraneous water.

Sample No.	Type	Formal or Informal	Nature of Adulteration or Irregularity	Observations
7676	Untreated	Informal	Methylene Blue Decolourisation Time: under 30 minutes	This sample failed to comply with the Methylene Blue Test for untreated milk.
7700	Untreated	Informal	Fat, 2.65 per cent Solids-not-Fat, 8.8 per cent Freezing-Point Depression (Hortvet) 0.530°C.	This sample is deficient in fat.
7709	Pasteurised	Informal	Fat, 3.4 per cent Solids-not-Fat, 8.0 per cent Freezing-Point Depression (Hortvet) 0.481°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent and this milk contains at least 7 per cent of extraneous water.
7743	Pasteurised	Formal	Fat, 3.25 per cent Solids-not-Fat, 8.45 per cent Freezing-Point Depression (Hortvet) 0.510°C.	The solids-not-fat of this milk is below the presumptive minimum limit of 8.5 per cent and the Freezing-Point Depression indicates the presence of at least 3 per cent of extraneous water.
7744	Pasteurised	Formal	Fat, 3.3 per cent Solids-not-Fat, 8.45 per cent Freezing-Point Depression (Hortvet) 0.506°C.	The solids-not-fat of this milk is below the presumptive minimum limit of 8.5 per cent and the Freezing-Point Depression indicates the presence of at least 3 per cent of extraneous water.
7717	Untreated	Informal	Methylene Blue Decolourisation Time: under 30 minutes	Sample failed to comply with Methylene Blue Test for untreated milk.
7722	Untreated	Informal	Fat, 3.50 per cent Solids-not-Fat, 8.35 per cent Freezing-Point Depression 0.532°C. Chlorides, as Cl, 0.13 per cent. Penicillin antibiotics: 0.4 I.U. per ml.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent, but the Freezing-Point Depression (Hortvet) is normal and there is no reason to believe that the deficiency in solids-not-fat is due to the presence of extraneous water. Milk must not contain antibiotics.
7745	Pasteurised	Informal	Fat, 3.65 per cent Solids-not-Fat, 8.65 per cent Freezing-Point Depression (Hortvet) 0.524°C.	Although the fat and solids-not-fat are above the presumptive minimum limits of 3.0 and 8.5 per cent respectively, the Freezing Point Depression indicates the presence of a small amount of extraneous water.

Sample No.	Type	Formal or Informal	Nature of Adulteration or Irregularity	Observations
7780	Untreated	Informal	Fat, 2.75 per cent Solids-not-Fat, 8.9 per cent Freezing-Point Depression (Hortvet) 0.541°C.	This sample of milk is deficient in fat.
7799	Untreated	Informal	Methylene Blue Decolourisation Time: under 30 minutes	This sample failed to comply with the Methylene Blue Test for untreated milk.
7800	Untreated	Informal	Penicillin antibiotic: 0.03 I.U. per ml.	Milk must not contain antibiotics.
7801	Untreated (Channel Islands)	Informal	Methylene Blue Decolourisation Time: under 30 minutes Penicillin antibiotics: 0.03 I.U. per ml.	This sample of milk failed to comply with the Methylene Blue Test for untreated milk. Milk must not contain antibiotics.
7805	Untreated	Informal	Methylene Blue Decolourisation time: under 30 minutes	This sample of milk failed to comply with the Methylene Blue Test for untreated milk.
7809	Pasteurised	Informal	Methylene Blue Decolourisation Time: under 30 minutes	This sample of milk failed to comply with the Methylene Blue Test for pasteurised milk.
7826	Pasteurised	Informal	Methylene Blue Decolourisation Time: under 30 minutes	This sample of milk failed to comply with the Methylene Blue Test for pasteurised milk.
7827	Pasteurised	Informal	Fat, 3.65 per cent Solids-not-Fat, 8.6 per cent Freezing-Point Depression (Hortvet) 0.527°C.	Although the fat and solids-not-fat of this milk are above the presumptive minimum limits of 3.0 and 8.5 per cent respectively, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7831	Untreated	Informal	Methylene Blue Decolourisation Time: under 30 minutes	This sample of milk failed to comply with the Methylene Blue Test for untreated milk.
7861	Untreated	Informal	Trace of penicillin antibiotic present - less than 0.04 I.U. per ml.	Milk must not contain antibiotics.

Sample No.	Type	Formal or Informal	Nature of Adulteration or Irregularity	Observations
7864	Pasteurised	Informal	Fat, 3.55 per cent. Solids-not-Fat, 8.6 per cent. Freezing-Point Depression (Hortvet) 0.526°C.	Although the fat and solids-not-fat of this milk are cent respectively, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7886	Untreated	Informal	Methylene Blue Decolourisation Time: under 30 minutes	This sample failed to comply with the Methylene Blue Test for untreated milk.
7895	Untreated (Channel Islands)	Informal	Methylene Blue Decolourisation Time: under 30 minutes.	This sample failed to comply with the Methylene Blue Test for untreated milk.
7901	Pasteurised	Informal	Fat, 3.65 per cent Solids-not-Fat, 8.6 per cent Freezing-Point Depression (Hortvet) 0.527°C.	Although the fat and solids-not-fat of this milk are above the presumptive minimum limits of 3.0 and 8.5 per cent respectively, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7915	Untreated (Channel Islands)	Informal	Fat, 5.1 per cent Solids-not-Fat, 8.95 per cent Freezing-Point-Depression (Hortvet) 0.526°C.	Although the fat and solids-not-fat are above the minimum limits of 4.0 and 8.5 per cent respectively, the Freezing-Point Depression indicates the presence of a small amount of extraneous water.
7921	Pasteurised (Channel Islands)	Informal	Fat, 4.45 per cent Solids-not-Fat, 8.6 per cent Freezing-Point Depression (Hortvet) 0.492°C.	Although the fat and solids not-fat are above the minimum limits of 4.0 and 8.5 per cent respectively, the Freezing-Point Depression indicates the presence of at least 6 per cent of extraneous water.
228	Untreated (Channel Islands)	Formal	Methylene Blue Decolourisation Time: under 30 minutes	This sample failed to comply with the Methylene Blue Test for untreated milk.

Sample No.	Type	Formal or Informal	Nature of Adulteration or Irregularity	Observations
230	Pasteurised (Channel Islands)	Formal	Fat, 4.7 per cent Solids-not-Fat, 8.7 per cent Freezing-Point Depression (Hortvet) 0.520°C.	Although the fat and solids-not-fat are above the minimum limits of 4.0 and 8.5 per cent respectively, the Freezing-Point Depression indicates the presence of at least 1 per cent of extraneous water.
7937	Sterilised	Informal	Fat, 2.45 per cent. Solids-not-Fat, 8.7 per cent Freezing-Point Depression (Hortvet) 0.539°C.	This sample is deficient in fat.
7939	Sterilised	Informal	Fat, 3.7 per cent Solids-not-Fat, 8.35 per cent Freezing-Point Depression (Hortvet) 0.528°C.	The solids-not-fat is below the presumptive minimum limit of 8.5 per cent and this sample contains at least 1 per cent of extraneous water.
7953	Sterilised	Informal	Fat, 3.55 per cent Solids-not-Fat, 8.45 per cent Freezing-Point Depression (Hortvet) 0.532°C.	The solids-not-fat of this milk is below the presumptive minimum limit of 8.5 per cent, but the Freezing-Point Depression is normal and there is no reason to believe the deficiency in solids-not-fat is due to the presence of extraneous water.

TABLE D
UNSATISFACTORY FOOD SAMPLES (OTHER THAN MILK)

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
7462	Informal	Grapefruit Squash	Cyclamates 0.07 per cent.	Cyclamates are not permitted in soft drinks - Soft Drinks (Amendment) Regulations 1969.
7489	Formal	Bread and Butter	Results of examination of fat from surface: Butyric acid: less than 0.25 per cent, equivalent to Butter fat: less than 10 per cent.	This sample consisted of bread and margarine.
7498	Informal	Dressed Crab	Crab meat content 72.9 per cent.	Dressed crab should contain at least 93 per cent of crab meat and this sample is therefore deficient in crab meat.
7502	Informal	Dressed Crab (canned)	Strong putrid odour on opening can. Total Volatile Bases calculated as Nitrogen (N), 104 mg. per 100g. Free fatty acids, as oleic acid, per cent of fat 24.0.	This dressed crab was partly decomposed and was declared unfit for human consumption.
7504	Formal	Beef sausage	Sulphur Dioxide 335 part per million.	The presence of sulphur dioxide preservative in these sausages was not declared in accordance with the Preservative Regulations 1962.
7506	Formal	Beef sausage	Sulphur Dioxide 405 part per million.	The presence of sulphur dioxide preservative in these sausages was not declared in accordance with the Preservative Regulations 1962.
7511	Informal	Dressed Crab (canned)	Crab meat content 85.9 per cent.	Dressed crab should contain at least 93 per cent of crab meat and this sample is therefore deficient in crab meat.
7512	Informal	Dressed Crab	Crab meat content 69.6 per cent.	Dressed crab should contain at least 93 per cent of crab meat and this sample is therefore deficient in crab meat.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
7513	Informal	Dressed Crab	Crab meat content 68 per cent.	Dressed crab should contain at least 93 per cent of crab meat and this sample is therefore deficient in crab meat.
7524	Informal	Rock Lobster Tails (canned)	Sample consists of lobster tails in brine.	The correct description of this sample is "Rock Lobster Tails in Brine".
7527	Informal	Prawns (canned)	Sample consists of prawns in brine.	The correct description of this sample is "Prawns in brine".
7528	Informal	Shrimps (canned)	Sample consists of shrimps in brine.	The correct description of this sample is "Shrimps in brine".
7529	Informal	Prawns (canned)	Sample consists of prawns in brine.	The correct description of this sample is "Prawns in brine".
7530	Informal	Shrimps (canned)	Sample consists of shrimps in brine.	The correct description of this sample is "Shrimps in brine".
7605	Informal	Full-fat soft cheese - Gouda type.	Moisture, 45.5 per cent; Fat, 29.2 per cent; Fat, calculated on dry matter, 53.8 per cent.	The Cheese Regulations 1970 require that cheese sold under the description "Gouda" must contain not more than 43 per cent moisture.
7614	Informal	Butter	This sample of butter was rancid.	—
7615	Informal	Butter	This sample of butter was rancid.	—
7628	Informal	Pasty	Meat Content 7.9 per cent.	This pasty was offered for sale as containing meat and vegetables and should contain at least 12.5 per cent of meat. The sample is therefore deficient in meat.
7636	Informal	Oranges	Diphenyl, 115 part per million.	The amount of diphenyl found in this sample is above the maximum limit of 100 part per million permitted by the Preservative Regulations 1962.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
7641	Informal	Trifle	The container in which this sample was offered for sale had no list of ingredients.	The opinion was given that the Labelling of Food Order 1953 requires pre-packed trifle to declare a list of ingredients on the label.
7655	Informal	Trifle	The container in which this sample was offered for sale had no list of ingredients.	The opinion was given that the Labelling of Food Order 1953 requires pre-packed trifle to declare a list of ingredients on the label.
7656	Informal	Trifle	The container in which this sample was offered for sale had no list of ingredients. Blue VRS (Colour Index No. 42045) present.	The opinion was given that the Labelling of Food Order 1953 requires pre-packed trifle to declare a list of ingredients on the label. Blue VRS is not permitted in foods by the Colouring Matter in Foods Regulations 1966.
7682	Informal	Orange Concentrate	The container in which this sample was offered for sale had no list of ingredients.	The Labelling of Food Order 1953 requires a list of ingredients on the label of this sample.
7684	Informal	Orange Concentrate	The container in which this sample was offered for sale had no list of ingredients.	The Labelling of Food Order 1953 requires a list of ingredients on the label of this sample.
7685	Informal	Raspberry Concentrate	The container in which this sample was offered for sale had no list of ingredients.	The Labelling of Food Order 1953 requires a list of ingredients on the label of this sample.
7687	Informal	Heading liquid	The container of this sample had no list of ingredients.	The opinion was given that "heading liquid" is not a specific name as required by the Labelling of Food Order 1953 and that a list of ingredients must appear on the label.
7689	Informal	Preservative tablets	These tablets contained 51.6 per cent of sulphur dioxide for a label claim of 64 per cent.	Sample is deficient in sulphur dioxide.
7691	Informal	Stabilising tablets	These tablets contained 94.4 per cent of Sodium benzoate.	Sample was not labelled in accordance with the Preservatives in Food Regulations 1962.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
7692	Informal	Irish Moss	The container of this sample had no name or address of the manufacturer or packer.	Sample was not labelled in accordance with the Labelling of Food Order 1953.
7693	Informal	Calorie-reduced mashed potato	List of ingredients: Potatoes, vegetable cellulose, fat-free milk, salt, partial glycerol esters, emulsifying salt, sodium sulphite, flavouring.	The correct description of this sample is "Calorie-reduced mashed potato mix".
7694	Formal	Health Food	The container carried the words, "produced from skimmed milk, orange juice, cereal germ oil and carbohydrates". Elsewhere on the label the presence of vegetable lecithin was declared.	"Cereal germ oil" and "carbohydrates" are generic names and must be replaced by specific names. The opinion was also given that the list of ingredients should appear as a single item, not separated.
7696	Formal	Safflower oil capsules	Average content of each capsule 497.6 mg. for a label declaration of 600 mg. per capsule.	A pamphlet enclosed with these capsules claimed that both "Sunflower and Safflower seed oils reduce high blood pressure, coronary thrombosis, hardening of the arteries and of course, overweight". The last claim is questioned.
7701	Informal	Corn oil margarine	The infra-red spectrum of this sample showed the presence of hydrogenated oils.	The label stated that the only oil in this margarine was pure natural corn oil. This claim is not in accordance with the results of the analysis of the sample.
7736	Formal	Beef Sausage	Sulphur Dioxide 225 part per million.	The presence of preservative in these sausages was not disclosed in accordance with the Preservatives in Food Regulations 1962.
7737	Formal	Beef Sausage	Sulphur Dioxide 317 part per million.	The presence of preservative in these sausages was not declared in accordance with the Preservatives in Food Regulations 1962.
7738	Informal	Meat and Potato Pie	Meat Content 7.2 per cent.	A meat and potato pie must contain at least 12.5 per cent meat and this sample is therefore deficient in meat.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
7745	Informal	Processed cheese (canned)	Moisture 57.1 per cent Fat 16.8 per cent Stated Fat Content 17.2 per cent.	Deficient in fat.
7750	Informal	Cereal mixture	This sample consists of a mixture of cereals and pulses.	The correct description should be "cereal and pulse mixture".
7752	Informal	Hot dog sausages in brine (canned)	Meat content of sausages 52.6 per cent.	The opinion was given that a hot dog sausage should be a Frankfurter sausage and should therefore contain at least 70 per cent of meat.
7757	Informal	Cocktail sausages (canned)	This sample consisted of sausages in brine.	The correct description should be "Cocktail sausages in brine".
7767	Informal	Cumberland Pork Sausages (canned)	Texture: smooth and well-comminuted, meat content 65 per cent.	Cumberland sausages contain meat in a coarsely-cut form. This sample was one of ordinary pork sausages not Cumberland Pork sausages.
7769	Informal	Irish Stew (canned)	Meat content 19.8 per cent.	Irish Stew should contain at least 25 per cent of meat and this sample is therefore deficient in meat.
7772	Informal	Gin flavour lemon drink (canned)	Alcohol content 0.18 per cent by volume, equal to 0.34° proof.	This sample was labelled "not more than 2° proof". The opinion was given that any declaration of this kind should be nearer the actual alcohol content of the sample.
7773	Informal	Banana flavour syrup	Saccharin present.	The presence of saccharin was not declared on the label as required by the Soft Drinks Regulations.
7774	Informal	Pineapple flavour syrup	Saccharin 0.037 per cent.	The presence of saccharin was not declared on the label as required by the Soft Drinks Regulations.
7779	Informal	Smetana	Fat, 9.1 per cent. Protein ($N \times 6.38$), 4.5 per cent. Total Solids, 19.4 per cent.	Traditionally this is an East European product consisting of fermented cream and the opinion was given that the fat content should be at least as great as that of single cream, i.e., 18 per cent.

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
2	Informal	Strawberry flavour syrup	Saccharin 0.026 per cent.	The presence of saccharin was not declared in accordance with the Soft Drinks Regulations.
5	Informal	Pickled leek (canned)	Can ends distended probably due to hydrogen swell.	—
18	Informal	Preservative tablets	Sodium metabisulphite 435 mg per tablet.	The label declared 300 mg per tablet of Potassium metabisulphite, and was not in accordance with the Preservatives in Food Regulations 1962.
21	Informal	Pork sausage meat	The container had no name or address of a manufacturer or packer.	Unless this sausage meat was packed on the premises where it was sold it was not labelled in accordance with the Labelling of Food Order 1953.
22	Informal	Cooking oil	List of ingredients: "Edible Vegetable Oils, colouring, methyl polysiloxane.	The opinion was given that the specific names of the oils present must be stated in the list of ingredients.
46	Informal	Porkburgers (canned)	The list of ingredients included the item "cereal".	The opinion was given that the specific names of the cereal or cereals present must be stated.
48	Informal	Braised steak in gravy (canned)	Meat Content 55.2 per cent.	The Canned Meat Product Regulations require at least 75 per cent and the sample is therefore deficient in meat.
64	Informal	Mushroom Capri (Ready Meal)	The directions for use on the label required the addition of milk.	The opinion was given that the description "Ready Meal" should not be applied to an article requiring the addition of milk and this necessity to add milk must be declared conspicuously as part of the name of the product.
65	Informal	Beef Madras (canned)	Meat content 56.4 per cent.	The opinion was given that the Canned Meat Product Regulations 1966 require this product to be described as "Beef Curry" or "Curried Beef".

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
66	Informal	Beef Rogan Josh (canned)	Meat content 52 per cent.	The opinion was given that the Canned Meat Product Regulations 1967 require that this product should be described as "Beef Curry" or "Curried Beef".
78	Informal	Beef Casserole (canned)	Meat Content 75 per cent.	The opinion was given that the Canned Meat Product Regulations 1967 require this product to be described as "Beef with Gravy".
88	Informal	Sweet Basil	Lead, 11.4 part per million.	The amount of lead is above the permitted maximum limit of 10 parts per million.
90	Informal	Stewed Steak with gravy (canned)	Meat content 79.8 per cent. List of ingredients includes "Beef cured and fresh" and "stock".	The opinion was given that stewed steak with gravy should be prepared from fresh meat and not cured meat, and that the particular kind of stock should be stated.
94	Informal	Canelloni (canned).	The list of ingredients (in French) included the item "viande rotie".	"Viande rotie" is a generic name, not a specific name as required by the Labelling of Food Order 1953.
99	Informal	Chopped Pork	Meat Content 82.6 per cent. List of ingredients includes beef as well as pork.	This sample is deficient in meat. Chopped pork should contain at least 90 per cent meat and pork should be the only meat present.
101	Informal	Thyme	Lead, 11 part per million.	The amount of lead in this sample is above the permitted maximum limit of 10 part per million.
113	Informal	Fish soup mix	List of ingredients includes "glutamates" and "vegetables".	The correct name is "monosodium glutamate" and the names of each kind of vegetables present must be stated.
116	Informal	Hot Dog sausages in brine (canned)	Meat content 56.3 per cent.	The opinion was given that a hot-dog sausage should be a Frankfurter sausage which must contain at least 70 per cent meat. The sample is therefore deficient in meat.

Sample No.	Type	Formal or Informal	Nature of Adulteration or Irregularity	Observations
121	Informal	Pate with Paprika (canned).	The can ends were slightly distended and the internal surface severely attacked. Tin, 216 part per million.	Sample is unsatisfactory owing to internal corrosion of can.
166	Informal	Prawn cocktail	14 per cent of cooked peeled prawns.	The opinion was given that prawn cocktail should contain at least 30 per cent of cooked peeled prawns.
209	Informal	Braised Steak in Gravy (canned)	Meat content 65.9 per cent.	Canned meat in gravy must contain at least 75 per cent of meat.
210	Informal	Braised steak in gravy (canned)	Meat content 63.9 per cent.	Canned meat in gravy must contain at least 75 per cent of meat.
221	Formal	Braised steak in gravy (canned)	Meat content 59 per cent.	Canned meat in gravy must contain at least 75 per cent of meat.
222	Formal	Braised steak in gravy (canned)	Meat content 54 per cent.	Canned meat in gravy must contain at least 75 per cent of meat.
223	Formal	Braised steak in gravy (canned)	Meat Content 60 per cent.	Canned meat in gravy must contain at least 75 per cent of meat.
258	Informal	Braised steaks in gravy with carrots (canned).	Meat content 65 per cent.	Canned meat in gravy must contain at least 75 per cent of meat.

TABLE E
UNSATISFACTORY DRUG SAMPLES

Sample No.	Formal or Informal	Description of Sample	Nature of Adulteration or Irregularity	Observations
7490	Informal	Cough mixture	Chloroform 0.01 per cent for a label claim of 0.5 per cent.	This sample is deficient in chloroform.
7491	Informal	Cough Mixture	Chloroform 0.25 per cent by volume for a label claim of 0.4 per cent by volume.	This sample is deficient in chloroform.
7515	Informal	Cough Sweets	This sample consisted of sugar sweets containing liquorice and the packaging carried the words - "throat and chest", "for Voice, throat, chest", and "invaluable for throat and chest", but had no quantitative statement of active ingredients.	The wording on the packaging of this sample constitutes a recommendation as a medicine and quantitative particulars of active ingredients must be given to comply with the Pharmacy and Medicines Act, 1941.
7589	Formal	Cough Mixture	Chloroform 0.04 per cent for a label claim of 0.58 per cent (1.91 per cent Spirit of Chloroform and 0.48 per cent Chloroform).	This sample is deficient in chloroform.
14	Formal	"Slim-U-ettes" compound laxative preparation.	Phenolphthalein 0.51 gr. per tablet.	The opinion was given that medicinal preparations containing laxative drugs should not be sold as slimming aids.
80	Formal	Phensic tablets	Aspirin, 305 mg. per tablet Salicylamide, less than 1 mg per tablet. Caffeine, none detected.	These tablets are not Phensic tablets and the results of the analysis indicates that they are Aspirin tablets.
233	Informal	Cough mixture	Chloroform 0.09 per cent by volume for a label claim of 0.625 per cent by volume.	This sample is deficient in chloroform.
270	Informal	Bronchial mixture	Chloroform 0.49 per cent w/w for a label claim of 0.86 per cent w/w.	This sample is deficient in chloroform.

Food Complaints

Details of the results of the examination of foods which have been the subject of complaints are listed in Table F. Most of these samples originate as complaints made by members of the public to the public health inspectors. Not all of the complaint samples submitted are found to be unsatisfactory and these are listed at the end of the Table.

The presence of foreign matter and mouldy food are the commonest causes of complaints. The most unusual cause of complaint and certainly the most surprising to the analyst who performed the tests was the sample of shandy which turned out to be urine. Almost certainly the result of a malicious act on someone's part, it is a matter of great difficulty to track down the offender and it must be hoped that this instance will remain the only one which your Borough Analyst has had to investigate.

TABLE F

Food Complaints

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
Insect Contamination		
M56/70/8	Steak Pudding	Contained a dead "Rove" beetle, one of the larger beetles of the order Staphylinidae. (Note: These are normally carnivorous insects).
M146/70/37	Fish, Chips & Peas	This sample of fish, chips and peas in greaseproof paper contained a dead cockroach. No trace of wings could be seen and the insect was therefore probably at the nymph stage just before becoming a mature insect.
M174/70/52	Strawberry Jam	Contained a dead worker bee.
M210/70/68	Semolina	This sample contained much insect webbing, a dead caterpillar, probably an <i>Ephestia</i> species, and a live booklouse.
M272/70/86	Vinegar	Contained dead fruit flies. (<i>Drosophylla</i> sp.)
M358/70/118	Meat Pie	A dead fly was present in the meat filling.
M360/70/120	Steak & Kidney Pie	A dead fly was present between the meat filling and the pastry.
M375/70/126	Table Jelly	A dead caterpillar, probably a moth caterpillar, was present in the gap between two adjacent cubes of the jelly.
M376/70/127	Chop Suey	A mixture of rice and chop suey contained a dead earwig - the common earwig, <i>Forficula auricularia</i> .
M381/70/128	Cheese Spread	A foil-wrapped portion of cheese spread, which had been cut into two roughly equal parts, contained insect fragments, probably a house-fly.
M422/70/152	Baby Food	A sample of baby food and a caterpillar, probably a moth caterpillar, stated to have been found in the baby food. Several dead moths (the common house-moth - <i>Hofmannophila pseudopratella</i>) were found in the premises where this complaint originated. The caterpillar submitted may also have been of this species.

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
M427/70/155	Meat & Potato Pie	Contained insect fragments, probably a house-fly.
M438/70/161	Pasty	Contained a dead fly just beneath the crust of the pasty.
Foreign Matter M270/70/87	Milk bottle	Contained mortar or cement.
M293/70/96	Bread	This sample contained woody material about 1 cm long.
M302/70/98	Chopped Ham and Pork	Sample contained a pig's tooth.
M314/70/97	Beef Sausages in Lard	Contained a piece of wood measuring $\frac{3}{4}$ -in. \times $\frac{1}{4}$ -in. \times 1/10-in.
M339/70/108	Bottled Beer	This sample contained a dark brown deposit on the bottom of the bottle, shown to be a compact mass of yeast cells.
M354-6/70/113-5	Sugar Confectionery	This sample showed evidence of having been gnawed by rodents and rodent droppings were found near the sample in the retail shop where it was taken.
M367/70/125	Pastilles	In one of these pastilles, from a tin of 25, was found a bristle, about 2.5 cm. in length, embedded in the pastille and protruding at either side.
M393/70/136	Bread	This sample contained oily residues and other miscellaneous dirt.
M401/70/144	Steak with Gravy (canned)	This sample contained several matted pieces of hair up to 1 inch across and shown by microscopic examination to be cow hair.
M402/70/140	Potato Pie	Contained a piece of wire about 2 cm. long, weighing 18 mg. and similar to broken wire from domestic electricity cable.
M413/70/147	Milk Bottle	Contained cement.
M426/70/154	Tomato Sausage	This sample contained the calyx of a tomato, which should have been removed during the cleaning and processing of the tomatoes.
M428/70/156	Pork Steak	This sample, consisting of four pieces of pork steak, had flakes of tobacco adhering to the surface of the meat. The total amount of tobacco present, after drying, amounted to 50 mg.
M429/70/157	Rice	This sample was submitted following a complaint that it contained rodent droppings. No rodent droppings were found, but the sample did contain several damaged rice grains which might have had a superficial resemblance to rodent droppings, a piece of grit, and a piece of rubber.
M445/70/158	Pasteurised Milk	Small dark specks of material were present on the surface of the milk and were shown to be small flakes of the paint used on the metal foil caps.
M467/70/172	Vanilla Slice	Contained a mouse dropping.

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
M492/70/184	Steak & Kidney Pie	This sample contained a metal staple of the kind used to secure the edges of large cardboard boxes.
M506/70/186	Fruit Tart	This sample contained glass fragments, 3 pieces in all, roughly cuboid in shape and similar in appearance to fragments of glass from a broken armour-plate glass oven door at the bakery concerned. That the glass found in the fruit tart was the same as that from the broken oven door was confirmed by their identical specific gravities, 2.4736 at 20.4°C.
M482/70/177	Meat Pie	A human hair, about 5 cm. long was found in the filling of this pie.
M511/70/187	Blackcurrant Fruit Pie	A broken, but more or less complete snail shell about 1.5 cm. diameter was found in this sample.
M513/70/189	Mincemeat	This sample contained a pebble, probably a quartz pebble, about 7 mm. across and weighing 0.344 g.
Mouldy Foods and Foods Unsatisfactory Owing to Decomposition M54/70/6	Pork Pie	Mould was present on the inside surface of the pastry casing.
M104/70/13	Low-fat Fruit Yoghurt	An area of mould, about 1 cm. across was present on the surface of the yoghurt.
M159/70/42	Chicken Flour Cake Sandwich	Unpleasant odour, due mainly to rancidity of chicken fat.
M169/70/48	Chopped Ham with Pork (canned)	Mould growth on the meat probably due to a faulty or damaged can.
M181/70/53	Untreated Milk	This sample was sour, the acidity, calculated as lactic acid being 0.64 per cent.
M183/70/55	College Pudding	A growth of mould (<i>Aspergillus</i> species) was present on the surface of this pudding.
M266/70/81	Cream Sandwich Cake	This cake consisted of a sponge sandwich, filled with cream and part of the lower half of the sandwich filled with pineapple fruit puree. Fermentation of pineapple puree had given rise to a distinct "off" odour characteristic of decayed fruit.
M291-2/70/94-5	Cheese	Two packets of cheese in transparent plastic film wrappers were found to have growths of mould (<i>Penicillium</i> species) on the surface of the cheese.
M359/70/119	Roast Pork	This sample had a distinctly unpleasant amine-like odour, indicating that the meat had begun to decompose and this was confirmed by chemical analysis.
M380/70/130	Spam	The meat had a marked putrid odour due to a faulty seam on one end of the can. In places this seam was not properly folded over so as to make an effective seal.
M423/70/149	Full Fat Soft Cheese	Six 3 oz. packets of full-fat soft cheese were found to contain mould growths (<i>Penicillium</i> species).

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
M437/70/160	Minced Beef in Gravy (canned)	A heavy growth of mould was present on the meat. The end seam of the can had been damaged, probably after canning, and this damage was sufficient to cause leakage of the can.
M512/70/188	Canned Soup	The soup in this can had an extensive mould growth covering most of the surface, almost certainly due to the can body having been pierced by the impact of a sharp instrument about 0.5 cm. below the upper edge of the can.
Other Miscellaneous Complaints		
M134/70/29	Double Cream	This double cream had an unattractive granular appearance instead of the usual smooth texture, possibly the result of being stored too long under refrigeration conditions in which the temperature has varied from above the freezing-point to a point below it.
M137/70/32	Sterilised Milk	Fat, 0.6 per cent. Solids-not-Fat 2.96 per cent. Freezing-Point Depression (Hortvet) 0.148°C. These results indicate that the sample is a mixture of about 30 per cent milk and 70 per cent water. The crown cork of the bottle was damaged and a substantial quantity of water could have entered the bottle during the sterilisation process.
M160/70/39	Canned Orange Juice	Orange juice from an opened can of orange juice stated to have made the consumer ill was found to contain the following amounts of trace metals:- Iron, Fe 430 part per million Lead, Pb..... 2.1 part per million Tin, Sn 560 part per million Copper, Cu less than 0.2 part per million These amounts of trace metals may well have been sufficient to make the consumer ill, but there was some doubt about how long the can had been opened before submission of the sample, or the possibility of damage to the can.
M273/70/88	Shandy	This sample proved to be stale urine, not shandy, and was clearly the result of a malicious act. The closure of the bottle, although similar in appearance to a crown cork, was of the screw-on type, which can be removed and replaced without damage or any other evidence that the bottle has been opened.
M301/70/93	Canned Rice Pudding	This rice pudding had a stiff, almost rubbery consistency. The moisture content 67.4 per cent was appreciably less than the usual figure for canned rice pudding, 75 - 80 per cent. The stiff consistency may have been due to the use of too much rice and too little milk.
M404/70/142	Phensic Tablets	These tablets were not Phensic tablets but ordinary aspirin tablets (see also under unsatisfactory Food and Drug samples).

Serial No.	Product	Nature of Complaint or other reason for being unsatisfactory
M456/70/165	Chopped Pork (canned)	The meat in this can was discoloured, dark patches up to 2 - 3 cm. across being visible. This discolouration was probably due to breakdown of the internal lacquer of the can and subsequent reaction between the meat and the exposed metal surface.
Complaint Samples found to be satisfactory M346/70/112	Canned Sweet Corn	A complaint of an unpleasant odour on opening a can of sweet corn could not be substantiated, and no unpleasant odour could be detected in a freshly opened can.
M390/70/134	Pasteurised Milk	A sample of pasteurised milk, suspected to contain added water, was found to be genuine.
M403/70/141	Dried Onions	These dried onions were said to taste of paint, but no smell or taste of paint could be detected.
M324/70/103	Potato and Meat Pie	A complaint was made that this potato and meat pie contained no meat, but analysis showed 12.4 per cent which is surprisingly high, since there is no minimum standard in the Meat Pie and Sausage Roll Regulations 1967, for a product sold under this name.

Milk Samples

465 samples of milk were examined in 1970, of which 18 were formal and remainder 437 samples were informal. Included in this total are 27 samples of Channel Islands Milk. Details of milk samples found to be unsatisfactory are given in Tables B and C.

	No. of samples	Fat %	Solids-not-Fat %	Water %
1st Quarter, 1970	96	3.63	8.63	87.74
2nd Quarter, 1970	99	3.58	8.65	87.77
3rd Quarter, 1970	138	3.64	8.70	87.66
4th Quarter, 1970	105	3.78	8.72	87.50
For the year 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
" " " 1965	666	3.71	8.74	87.55

The table above shows the average composition of milk samples examined in each quarter and yearly averages over the last five years. The averages do not include the Channel Islands samples since there is a higher legal minimum limit for fat (4 per cent) in Channel Islands Milk.

Designated Milks

All samples of milk, in addition to the chemical analysis, are also submitted to the tests specified in the Milk (Special Designation) Regulations which include the Methylene Blue Test for keeping quality on Untreated and Pasteurised Milks, the Phosphatase Test for the efficiency of pasteurisation and the Turbidity Test for a check on the sterilisation process for Sterilised Milk.

Examination of Designated Milks

Designation	No. Examined	Satisfactory	Failed Meth. Blue Test	Failed Phos. Test	Failed Turbidity Test
Untreated	146	135	11	—	—
Pasteurised	191	188	2	1	—
Sterilised	111	111	—	—	0
TOTALS ..	448	434	13	1	0

Antibiotics in milk

74 samples of milk were examined for the presence of antibiotics and of these 4 were shown to contain penicillin.

Ice Cream Samples

Ice cream samples are taken with suitable precautions to prevent any extraneous contamination with bacteria 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 provide an indication of the growth of any bacteria which may have occurred and therefore of the keeping quality of the ice cream. Details of the Methylene Blue Grading System are given below, Grades 1 and 2 being reported as satisfactory and Grades 3 and 4 unsatisfactory. In addition all samples of ice cream are examined bacteriologically for the presence of bacteria of intestinal origin, in particular the coliform group. The presence of large numbers of coliform organisms or any organisms of *E. coli* Type I, which is typical of human or animal faecal matter, is an indication of unsatisfactory conditions in manufacture and/or handling.

Methylene Blue Tests on Ice-Cream

No. of Samples	Satisfactory	Unsatisfactory	Methylene Blue Grading			
			1	2	3	4
84	66	18	47	19	9	9

84 samples of ice-cream were submitted during the year, of which 66 were of a satisfactory grade by the Methylene Blue Test, but of these 66 samples, 13 were reported unsatisfactory and 8 doubtful as a result of the examination for coliform organisms. Out of 18 samples with an unsatisfactory Methylene Blue Grading, 8 were found to contain *E. Coli* Type I.

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 (immediate decolourisation)

Domestic Water Supplies

Samples of water taken from domestic premises in the Bolton area are examined bacteriologically and the results show that domestic water supplies of a satisfactory quality have been maintained throughout the year.

Similar sampling is carried out in areas outside the Borough itself, but within the Bolton Waterworks Department supply area and the results reported to the Waterworks Engineer.

A small number of properties in more rural areas of the Borough, usually farms and cottages, are not connected to the public supply system and have their own private water supplies. Most of these supplies are derived from small springs and samples are now taken regularly for bacteriological and chemical tests. Some of these supplies are very soft, plumbo-solvent waters, and some concern was felt early in the year about the level of lead contamination. Lead piping in these properties is to be replaced with other materials and much of it has been replaced, but a simple method of treating the water with calcium carbonate to reduce the plumbo-solvent tendency was installed for one supply. The water entering the collecting tank was led upwards through wide bore tube filled with pellets of calcium carbonate. This arrangement requires little or no attention and a marked reduction in the plumbo solvent action of the water was demonstrated by laboratory tests. The pellets used are a by-product of the softening of hard water by the pellet-reactor process. They are an almost ideal form of calcium carbonate for the purpose in hand, but there are few water-softening plants which use this process. One was fortunately within reasonable distance, the Broughton (Nr. Preston) plant of the Fylde Water Board, where the quantity of these pellets constitutes something of an embarrassment and they are available at a purely nominal charge.

Swimming Bath Waters

Samples of the water in public swimming baths and in swimming baths at local schools are taken regularly and submitted to chemical and bacteriological tests. Recommendations are made to correct any abnormalities and, where necessary, further samples are examined to ensure that the treatment of the water is satisfactory.

In 1970, 187 samples were examined and the results indicate that treatment of the water in the swimming baths has been satisfactory. 138 samples were taken from the Corporation's public swimming baths and 44 samples from local school baths. In addition 16 samples from children's paddling pools in the Corporation's parks have been examined.

A sharp crystalline incrustation on the sides and bottom of a swimming bath was the cause of several complaints by bathers of cuts and abrasions on their feet. This deposit was found to consist of calcium carbonate and almost certainly was the product of a reaction between the soda ash used to adjust the pH value of the water and the hardness salts in the water. All Bolton's waters are soft or fairly soft, but they still contain small amounts of calcium and magnesium salts (hardness salts). In this particular bath the practice had been adopted of adding the soda ash near the inlet end, so that the water then had the whole length of the bath in which to deposit calcium carbonate. Advice was given to add the chemicals near the outlet end immediately before the water enters the filtration plant and so far no further incrustation has occurred.

Fertilisers and Feeding Stuffs

14 samples of animal feeding stuffs and 12 samples of fertilisers were examined in 1970. In 9 of the feeding stuff samples and 3 of the fertiliser samples, the results of the analysis were found not to be in accordance with the statutory statements, but in only 3 samples of feeding stuffs and 1 sample of fertiliser were there any discrepancies from the statements which were to the prejudice of the purchasers. Details of the analysis of unsatisfactory samples are set out over.:

FEEDING STUFFS

Ref. No.	Article Sampled	Oil		Protein		Fibre		Other Constituents		Remarks
		D %	F %	D %	F %	D %	F %	D	F	
F2/70	Baconers Compound	2.25	2.5	13.5	15.9	5	3.9	Copper 250 ppm	290 ppm	High Protein
F7/70	Weaners and Growers	2.25	3.7	15.25	17.1	5.5	4.0	Sulphadiazine: 27 ppm	37 ppm	High oil and high protein
F8/70	Dairy Cake	4.5	5.1	20.5	25.7	8	5.8			High protein
F9/70	Battery Mash	4.0	3.15	16	16.8	4	3.6			Deficient in oil
F21/70	High Energy Poultry Lay Feed	3.0	5.0	16.5	18.8	3.5	3.7			High oil and high protein
F22/70	Baby chick meal	3.0	4.85	18.5	18.4	5	3.2	Nitrofurazone: 320 ppm	< 30 ppm	High oil, deficient in nitrofurazone
F24/70	Intensive Beef Cubes	1.5	2.5	14.0	16.9	6	3.4			High oil and high protein
F25/70	Dairy Cubes	4.0	2.9	17.0	16.0	7	4.2			Deficient in oil
F26/70	Calf rearing cubes	3.0	3.25	17.5	13.75	6	3.2			Deficient in protein

D — Declared F — Found

FERTILISERS

Ref. No.	Article Sampled	Nitrogen		Phosphoric Acid						Potash		Other Constituents		Remarks
				Soluble		Insoluble		Total						
				D %	F %	D %	F %	D %	F %					
F3/70	Webb's Special Fertiliser ..	7.0	8.49	6.5	6.45	0.5	1.22			7.0	6.3			High Nitrogen High insoluble phosphoric acid
F4/70	Steamed Bone Meal	1	1.73							29	27.5			High Nitrogen
F12/70	Rose Fertiliser	5.0	5.5	5.0	5.35	1.0	1.34			12.0	10.75		Magnesium: 0.3 0.79 Iron: 0.6 0.57	High Magnesium

D — Declared
F — Found

Trade Descriptions Act

The following is a list of samples submitted for the purposes of the Trade Descriptions Act. In each case reports have been issued to the Chief Inspector of Weights and Measures.

- 1 piece of textile material.
- 1 pram cover.
- 1 part-baked loaf.
- 4 samples of paint.
- 2 Ladies' dresses.
- 1 pair of shoes.
- 1 knitted garment (part of).
- 2 pieces of carpet
- 1 sample of turpentine substitute.

Consumer Protection Act

6 samples of toys have been examined for the purpose of the Consumer Protection Act. One sample of children's building bricks was found to contain lead in the paint well above the maximum limit of 5,000 parts per million required by the Toys (Safety) Regulations 1967.

Atmospheric Pollution

Measurement of contamination of the atmosphere by smoke and sulphur dioxide have continued at eight sites within the Borough and the monthly averages for each site are given in the accompanying tables (Tables G and H). The block diagrams (histograms) show the summer, winter and whole year averages for all sites for the 10-year period 1961 - 1970.

In February 1970, the site at Astley Street ceased to be available and the sampling apparatus was moved to another site in the same area of the town at Astley Bridge Clinic. The figures for this site, particularly the smoke figures, suggest that the air is slightly less polluted than at the former site, but the effect on the averages for the whole town is probably small and much less than that due to other factors such as weather.

The average smoke figures for the winter months and the whole year are the lowest on record, but this effect is most noticeable on the figures for November and December when compared with previous years and could well be due to the mild but stormy weather experienced at this time. The sulphur dioxide figures show a similar trend and would have given a significantly lower average than that for previous years but for a very high figure in June. All sites showed high concentrations of sulphur dioxide in June and so far no satisfactory explanation of these results has been found. Possible contributory factors were moorland fires to the north of the town, an unusually heavy load on the Back-o'th-Bank power station, and tip fires on the south-east side of the town together with winds in an easterly direction.

Waterworks Committee

In 1970, 2,707 samples were examined for the Waterworks Department, slightly more than the total for 1969, 2,577 samples. The increase is mainly due to the inclusion of the Horwich and Blackrod districts in the area of the Bolton Water undertaking as from April, 1970, and to a revised sampling pro-

gramme which was brought into operation near the end of the year. Every source of supply is sampled weekly and from the larger sources samples are taken at least twice a week. At each filter station where treatment of the water is carried out, samples are taken of both the raw water, i.e., the untreated water and the same after treatment, but before it enters the distribution system. These samples are examined for their bacteriological quality and also for a part-chemical analysis, which includes pH value, colour (Hazen scale), residual chlorine, iron, aluminium and in the case of two sources, manganese. This routine testing is designed to ensure the safety of the water entering the distribution system and to assess the efficiency of the operation of the treatment plants. In 1970 624 samples of raw water and 1,017 samples of treated waters entering supply were examined.

An equally important part of the routine testing of water is the examination of samples taken from the distribution system, mainly from domestic premises. During the year 239 samples were taken for this purpose. In addition to the bacteriological tests on these samples, they are also examined for pH value, colour (Hazen scale), residual chlorine and lead. No significant amounts of lead were found in any of the samples, and the overall quality of the water in distribution has been satisfactory.

More extensive chemical analyses (i.e., full chemical analyses) were made on 53 samples of raw and treated waters and measurements of the radio activity (total beta-activity) were carried out on 35 samples.

77 samples were examined in connection with consumers' complaints and a further 33 samples as part of special investigations, some of which are listed below. In addition to the samples examined for the Waterworks Committee 67 samples taken from domestic premises within the Borough of Bolton were examined for the Medical Officer of Health.

An incident which involved sampling of domestic premises in a semi-rural area serves to emphasise the continuing need for vigilance to ensure the safety of water supplies. In this case the results of the analysis showed that the water in question was not derived from the public supply and confirmed the investigations by Inspectors from the Waterworks Department that this particular property had been wrongly connected by a local plumber to an old spring supply, the pipe from which was still intact near the building. This particular spring water, in spite of its clear and sparkling appearance was shown by the bacteriological tests to be subject to dangerous pollution.

Samples taken from the River Irwell and its headwater streams have been examined with a view to providing additional information on the quality of this river in case public supplies should need to be augmented by a pumped storage scheme taking water from the Irwell at Stubbins. Two such schemes have been proposed by the Mersey and Weaver River Authority.

The results of the tests show that the head water streams of the Irwell in the Rossendale Forest Area are subject to a considerable load of industrial pollution, particularly that from the Loveclough area and this pollution is in addition to the effect of the effluent from the Haslingden sewage works, recently enlarged and modernised. In dry weather up to about one third of the flow in the Irwell at Stubbins consists of sewage effluent.

Samples from other Corporation departments, other local authorities and private samples

EDUCATION DEPARTMENT AND BOLTON SCHOOL	49 swimming bath waters
PARKS DEPARTMENT	16 waters from Queen's Park Paddling Pool
WELFARE DEPARTMENT	5 samples of sausages
BOROUGH ARCHITECT'S DEPARTMENT	2 flue deposits 1 deposit 1 sample of concrete
WEIGHTS AND MEASURES DEPARTMENT	14 samples for examination under Trade Descriptions Act (see above) 6 toys for examination under Con- sumer Protection Act (see above) 3 honey based products
ATHERTON URBAN DISTRICT COUNCIL	2 waters 1 effluent
COUNTY BOROUGH OF BURY	2 waters
HINDLEY URBAN DISTRICT COUNCIL	1 sludge
HORWICH URBAN DISTRICT COUNCIL	8 swimming bath waters
TYLDESLEY URBAN DISTRICT COUNCIL	5 swimming bath waters 1 water
WESTHOUGHTON URBAN DISTRICT COUNCIL	1 water 2 swimming bath waters
COUNTY BOROUGH OF WIGAN	12 deposit gauge samples
PRIVATE SOURCES	10 swimming bath waters 13 waters 1 sample of coffee 1 sample of brine 1 rubber diaphragm 1 steak and kidney pudding 1 sample of petrol 1 effluent 1 deposit from paper-making machine 8 samples of milk 1 sample of stone 1 cleansing fluid 1 chicken pasty 1 veterinary medicine 1 sample of ground nutmeg 2 samples of tablets 3 bath water treatment chemicals

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 average at each site for			
													1970	1969	1968	1967
1 Johnson Fold ..	220	139	135	71	57	42	40	62	88	121	159	153	107	141	123	95
2 Astley Street or Astley Bridge Clinic ..	324	156	156	98	62	48	49	72	55	157	184	230	133	224	220	235
3 Tonge Moor	270	211	195	124	94	71	64	95	126	147	215	259	156	188	183	219
4 Lostock Open Air School	159	98	89	41	35	23	15	29	63	80	90	110	69	91	188	104
5 Central Police Office	206	167	129	67	42	33	27	50	78	114	165	179	105	128	128	134
6 Withins Clinic ..	236	142	142	90	56	36	44	63	83	130	144	243	117	152	146	165
7 Lock Lane	244	194	131	62	52	39	28	53	79	115	223	150	114	138	194	143
8 Grecian Mill	337	117	177	105	68	106	48	73	108	183	137	313	148	198	146	200
Daily average (each month) of all sites, 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		
„ 1968 ..	247	308	157	142	127	62	60	55	82	130	192	277			153	
„ 1967 ..	307	203	106	125	95	67	47	79	123	134	395	275				162

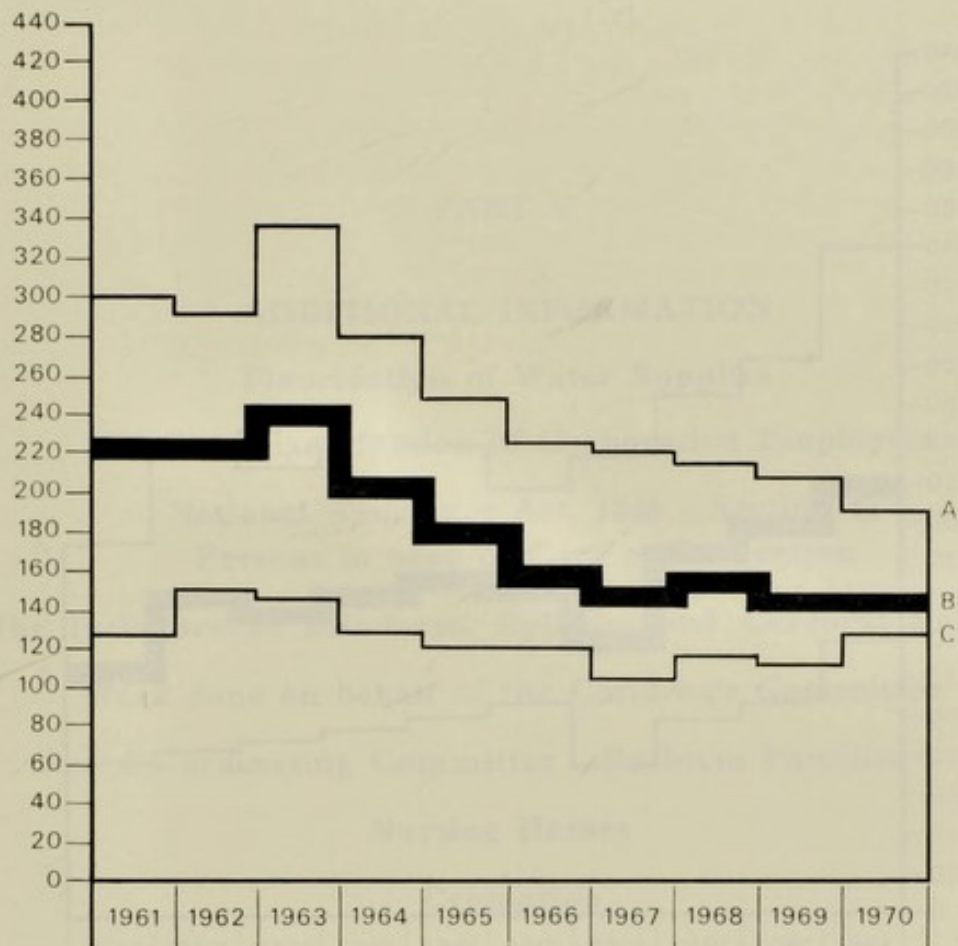
TABLE H
Atmospheric Pollution
Sulphur Dioxide—Daily Averages
(Micrograms per cubic metre of air)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Daily average at each site for			
													1970	1969	1968	1967
1 Johnson Fold ..	236	161	140	90	86	238	35	81	96	111	136	125	128	122	139	91
2 Astley Street or Astley Bridge Clinic ..	332	277	158	110	88	224	50	83	106	131	161	177	158	188	192	202
3 Tonge Moor ..	234	166	163	119	95	259	70	104	122	139	183	192	154	142	153	166
4 Lostock Open Air School ..	214	128	154	81	64	151	2	N	94	95	104	96	108	97	101	105
5 Central Police Office	268	183	220	146	108	276	54	100	102	146	164	197	164	179	155	192
6 Withins Clinic ..	212	142	159	113	109	290	74	109	123	162	129	195	151	147	149	155
7 Lock Lane ..	225	218	134	94	99	258	42	96	98	130	149	126	139	137	139	121
8 Grecian Mill ..	323	219	182	139	118	319	53	123	122	166	114	199	173	165	194	148
Daily average (each month) of all sites, 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		
„ 1968 ..	178	284	147	151	131	81	85	80	112	164	188	231			153	
„ 1967 ..	264	196	100	120	113	82	57	81	99	102	347	209				147

N — No result

ATMOSPHERIC SULPHUR DIOXIDE

Micrograms per cubic metre of air



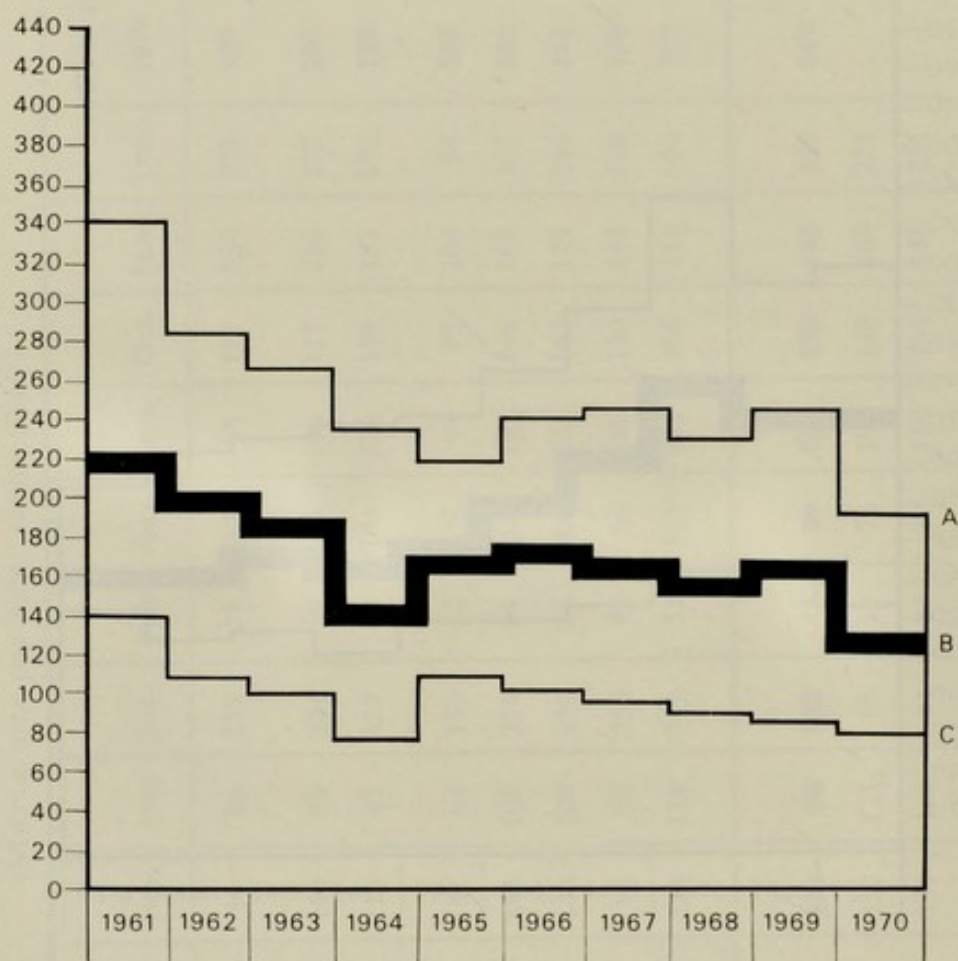
A Jan. to Mar. and Oct. to Dec.

B Whole Year

C April to September

ATMOSPHERIC SMOKE

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 Children's Committee

Co-ordinating Committee - Problem Families

Nursing Homes

Cremation

Rehousing on General Medical Grounds

Baths

Meteorological Summary

FLUORIDATION OF WATER SUPPLIES

No further progress was made during the year towards adding fluoride to the water supply of the town. In Bolton the amount of fluoride is between 0.1 and 0.2 parts per million but this is too low to make any difference to the incidence of dental caries. In West Hartlepool, where they are lucky enough to have a fluoride content of 1.8 parts per million, only a quarter of the children require dental treatment every year compared with nearly three-quarters of the Bolton children. Unfortunately, the school dental service in Bolton has only been able to fill half the establishment and cannot provide the amount of treatment which is required.

Many parents fail to take adequate preventive measures to keep their children's teeth free from decay by ensuring regular dental examinations, adequate use of tooth brush and reduction of the intake of sweets. Unless these unfortunate children are to be condemned to frequent discomfort and pain with premature extractions and dentures, health authorities must be able to take measures that do not involve co-operation by the parents. This can be done by adding fluoride to the water supplies so that they contain 1 part per million of fluoride.

There is no evidence that this amount of fluoride causes any harmful effects to health and this has been confirmed by repeated and extensive investigation. All water contains various kinds of salts which enter the water as it passes over different rocks. Fortunately, there has been no similar outcry about the adding of chlorine to the water to sterilize it. If water authorities could not add this chemical then water-borne disease might be relatively widespread in the community.

It is quite surprising that when the majority of people in Bolton take medical advice from consultants and general practitioners, almost without question, for such major undertakings as operations they reject fluoridation, a measure which has the universal support of medical and dental opinion, in the area.

MEDICAL EXAMINATION OF CORPORATION EMPLOYEES

The number of medical examinations carried out during the year was 1,203 involving 1194 persons (some of the individuals needed to be examined more than once). A further 624 persons were considered fit to enter the Superannuation and Sickness Payment Schemes without medical examination after consideration of a questionnaire about their health.

Examination for—	No. of persons examined		No. of persons found unfit	
	Males	Females	Males	Females
Entry into Superannuation Scheme	296	80	3	1
Entry into Sickness Payment Scheme	60	311	3	15
Other medicals, e.g., fitness to resume employment, etc.	54	24	—	—
Retirement on Medical grounds	13	1	—	—
Surrender of part of superannuation allowance . .	2	—	—	—
Examinations in accordance with Teachers' Sick Pay Regulations	—	3	—	—
Fitness to be employed as a teacher	38	29	—	—
Fitness for admission to a Training College . . .	62	113	—	—
Fitness to teach after leaving Bolton College of Education	29	25	—	—
Renewal of P.S.V. Licence	14	—	—	—
Renewal of H.G.V. Licence	31	—	—	—
Examinations carried out at the request of other local authorities	8	1	—	—
TOTALS	607	587	6	16

Of the above, there were 24 incomplete examinations, i.e. where a decision was deferred pending the result of further investigations or where the persons concerned were asked to attend for re-examination at a later date.

Four hundred and eighty six persons were sent to mass radiography units for chest X-ray. All persons leaving the Bolton College of Education were sent to the mass radiography unit and this accounts for 298 referrals. One hundred and sixty seven persons were sent because their employment involved work with children; eight of these were appointed to posts on the nursing staff. All students examined for fitness for admission to training colleges were advised to have a chest X-ray and information regarding available mass radiography units was supplied.

Ninety-nine actual and potential P.S.V. drivers were examined and four of these were considered to be unfit.

Nine persons were examined at the request of other local authorities.

Candidates for entry to the Superannuation and Sickness Payment Schemes complete a questionnaire (Form S.6) giving details about their past and present medical condition. This is considered by a medical officer and in 621 cases of persons who were under 45 years of age, it was decided that a medical examination was not necessary. Medical examinations were carried out on employees of SELNEC Passenger Transport Executive and other persons whose work involved driving duties, home helps who mostly work in the homes of people not in good health and persons over 45 years of age.

Of the 785 persons examined :

SELNEC P.T.E. employees and others whose work involved driving duties	233
Home Helps	90
Other persons over 45 years of age	282
Persons under 45 examined at the request of the medical officer	209

An analysis of the conditions which caused persons examined for entry into 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) ..	—	—	1	6
Respiratory system	1	—	1	1
Nervous system	1	1	1	3
Abdominal conditions (including hernia)	—	—	—	4
Other conditions	1	—	—	1
TOTALS	3	1	3	15

It will be seen that the principal cause of failure to pass the medical examination was cardiovascular disease and this was due to hypertension in the majority of cases.

Five persons were examined at the request of the Motor Taxation Department concerning their fitness to drive a motor vehicle.

Whilst the number of people failing to qualify on medical grounds is much lower than in many previous years, it was two more than in 1969. The numbers that failed to pass medical examinations in the last ten years are as follows:

1961	..	..	..	..	..	..	23
1962	..	..	..	..	..	..	18
1963	..	..	..	..	..	..	19
1964	..	..	..	..	..	..	34
1965	..	..	..	..	..	..	44
1966	..	..	..	..	..	..	51
1967	..	..	..	..	..	..	46
1968	..	..	..	..	..	..	65
1969	..	..	..	..	..	..	20
1970	..	..	..	..	..	..	22

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 in great need of institutional care but is unwilling to go voluntarily.

During 1970, it was not necessary to use these powers to remove any person from their home. On the whole, elderly people are generally unwilling to leave their homes even when conditions are extremely unsatisfactory but in the majority of cases they can be helped without the need to evoke any statutory sanctions.

THE INCIDENCE OF BLINDNESS, EPILEPSY AND CEREBRAL PALSY

Blindness:

The Register of Blind Persons contained the names of 202 men and 232 women at the end of the year.

Fifty five men and 116 women were registered as partially-sighted.

The ophthalmic surgeons completed a total of 46 Forms B.D. 8 (19 men and 27 women).

Epilepsy:

The Chief Welfare Officer states that the Register of Handicapped Persons contained the names of 32 men and 26 women suffering from epilepsy. Of these, 6 men and 3 women were in colonies for epileptics, 1 man and 2 women were in homes provided by Bolton Corporation and 25 men and 23 women were in their own homes.

The Local Education Authority knew of 59 boys and 32 girls attending ordinary schools who were epileptics and maintained two boys and two girls in special schools for epileptic pupils.

Cerebral Palsy:

Twenty four males and 32 females suffering from cerebral palsy were on the Register of Handicapped Persons maintained by the Chief Welfare Officer.

The Local Authority was aware of 31 children with this handicap. Thirteen of these children were attending Birtenshaw Hall Special School and four children were attending other special schools; twelve children were attending ordinary schools and two were pre-school children.

Of the sub-normal and severely sub-normal persons known to the Authority, 9 males and 19 females were suffering from cerebral palsy in addition to the mental handicap.

Facilities available for Handicapped Persons:

The Welfare Department continued to provide a wide range of services. The facilities provided were substantially the same as in 1969.

WORK DONE ON BEHALF OF THE CHILDREN'S COMMITTEE

During the year the routine supervision of children in the care of the local authority has been carried out by a medical officer of the Health Department and all the children have been examined 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. The Poplars, Withins Lane, is a new children's home which was opened in September.

Each 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	.. ..	43
No. of routine examinations 1 - 5 years	..	101
No. of routine examinations over 5 years	..	195
		<hr/>
TOTAL	.. .. .	339
		<hr/>

Nutritional Status:

The nutritional status of all children examined at routine medical examinations was satisfactory.

CO-ORDINATING COMMITTEE - PROBLEM FAMILIES

Quarterly meetings of this Committee have continued to be held under the Chairmanship of the Medical Officer of Health to consider the co-ordination of the services and review the work of the monthly Case Conference. Senior officers of each of the Corporation Departments concerned with the health and welfare of children in their own homes and representatives of all other bodies concerned with this problem attend these meetings.

I am grateful to Mr. P. E. Varey, Children's Officer, for supplying the following information.

"During the year a total of 36 families, involving 172 children, were the subject of consideration. Of these, a total of 15 families (61 children) were newly reported cases.

At the end of the year a total of 13 families (72 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 23 families (100 children) were deleted from the register. One family (3 children) had been received into care. The remaining 22 families 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

In the County Borough, only two establishments were on the Register of Nursing Homes, with accommodation for a total of 55 patients. All of them were geriatric cases.

Under the Conduct of Nursing Homes Regulations, 1963, to ensure that the facilities and staffing in these institutions were appropriate for the type of patients catered for, the medical and nursing staff of the local authority carried out regular inspections during the year under review.

The standard of services provided in the nursing homes in Bolton was sufficient to comply with the Conduct of Nursing Homes Regulations, 1963. The ownership of one of these homes has changed during the year, and prior to the sale of the establishment, it was extensively repaired and modernised.

CREMATION

The Overdale Crematorium has now completed sixteen full years of operation. Details are as follows:

Year	Number of Bolton Residents cremated	Cremations of persons from other areas	Total Cremations	Approx. percentage of deceased Bolton residents who were cremated
1955	659	774	1,433	28%
1960	948	1,324	2,272	46%
1965	1,194	1,808	3,002	57%
1966	1,301	1,973	3,274	59%
1967	1,257	1,975	3,232	63%
1968	1,373	2,136	3,509	65%
1969	1,466	2,316	3,782	66%
1970	1,409	2,443	3,852	66%

REHOUSING ON GENERAL MEDICAL GROUNDS

The total number of applications received during the year was 318.

Eighty seven applicants living in Corporation houses were recommended for transfer to other Corporation accommodation and 36 applicants living in houses other than Corporation property were recommended for rehousing, a total of 123. Details of the reasons in the 36 cases are:

Respiratory disease	5
Heart & circulatory disease	5
Arthritis	8
Chronic ill-health	10
Pulmonary tuberculosis	4
Muscular dystrophy	1
Amputation of leg	1
Diseases of the nervous system	1
Miscellaneous	4

In 4 cases, the medical conditions of both husband and wife were taken into consideration.

Rehousing in ground floor accommodation was recommended in 26 cases.

Eight applicants were living in accommodation in clearance areas and they will be rehoused when the property is dealt with under the house clearance scheme.

In 8 cases the houses were dealt with as individual unfit houses.

Action was taken in 14 cases through the Chief Public Health Inspector's Section to have repairs carried out.

In 20 cases where there was no medical reason for recommending rehousing, the circumstances were reported to the Housing Manager for consideration on social grounds.

Twenty seven applications were withdrawn.

One application was referred to the Welfare Department for inclusion on the waiting list for admission to one of their homes.

BATHS

The various establishments offered the following facilities:

BATHS:

High Street	.. .. .	1 Plunge 2 Slipper Baths (Male)
Bridgeman Street	.. .. .	2 Plunges 20 Slipper Baths (Male) 5 Slipper Baths (Female) 1 Establishment Laundry
Moss Street	.. .. .	2 Plunges 10 Slipper Baths (Male) 2 Showers (Male) 6 Slipper Baths (Female) 1 Establishment Laundry
Rothwell Street	.. .. .	15 Slipper Baths (Female)
Great Moor Street	.. .. .	Turkish Baths

Below are the attendances during the past three years:

Establishment	Swimming Baths			Slipper Baths		
	1968	1969	1970	1968	1969	1970
High Street	80,395	77,210	67,446	25,628	25,945	24,861
Bridgeman Street	134,658	98,206	70,500	46,736	38,572	33,553
Moss Street	119,793	107,601	111,204	31,461	34,120	34,142
Rothwell Street	—	—	—	21,286	20,853	14,531
TOTALS	334,846	283,017	249,150	125,111	119,490	107,087

TURKISH BATHS:

YEAR					ATTENDANCES
1959	..	..	..	..	7,498
1960	..	..	..	..	8,494
1961	..	..	..	..	11,205
1962	..	..	..	..	12,389
1963	..	..	..	..	12,248
1964	..	..	..	..	11,984
1965	..	..	..	..	12,713
1966	..	..	..	..	11,728
1967	..	..	..	..	11,465
1968	..	..	..	..	10,262
1969	..	..	..	..	8,472
1970	..	..	..	..	8,072

SCHOOL CHILDREN ATTENDANCES:

	1968	1969	1970
Bolton Borough	56,877	58,751	56,446
Lancashire County Council	5,377	—	—

Lancashire County Council schools ceased to attend in 1969. The children were taken to new pools which have been constructed within the County area.

THE TURKISH BATHS:

Figures again show a reduction when compared to recent years. This is due to the popularity of sauna bathing, two such establishments having opened in the town.

Attendances:

The attendances recorded for the year 1970 are the lowest for ten years.

The plunge bathing figures show clearly that the Bolton Baths Department is now feeling the full effect from the new swimming pool projects which have been completed in the surrounding area. The fact that more and more people are now acquiring private transport means that travelling to these new establishments is not a problem, and the family bathing trend in the Bolton area is to travel to baths outside the Bolton Borough.

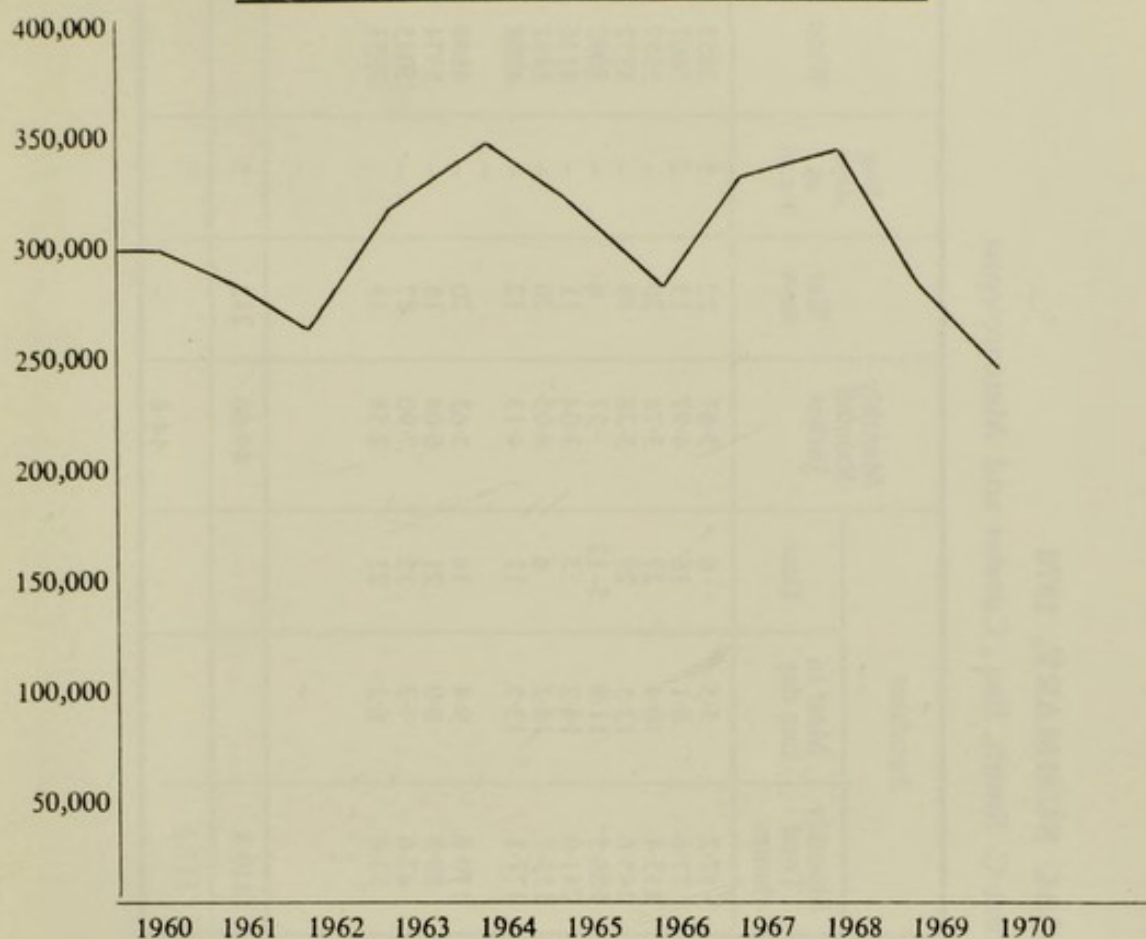
This trend is unlikely to change before new swimming facilities are provided within the town.

The figures for slipper baths have dropped considerably during the past year. The main reason for the reduction is the slum clearance and redevelopment which is being carried out throughout the Bolton Borough. The new houses provide excellent bathing facilities at home and do, therefore, reduce the need for the Baths Department to provide a slipper bath service. However, the services will be required for some years to come and will need to be modified as future bathing trends develop.

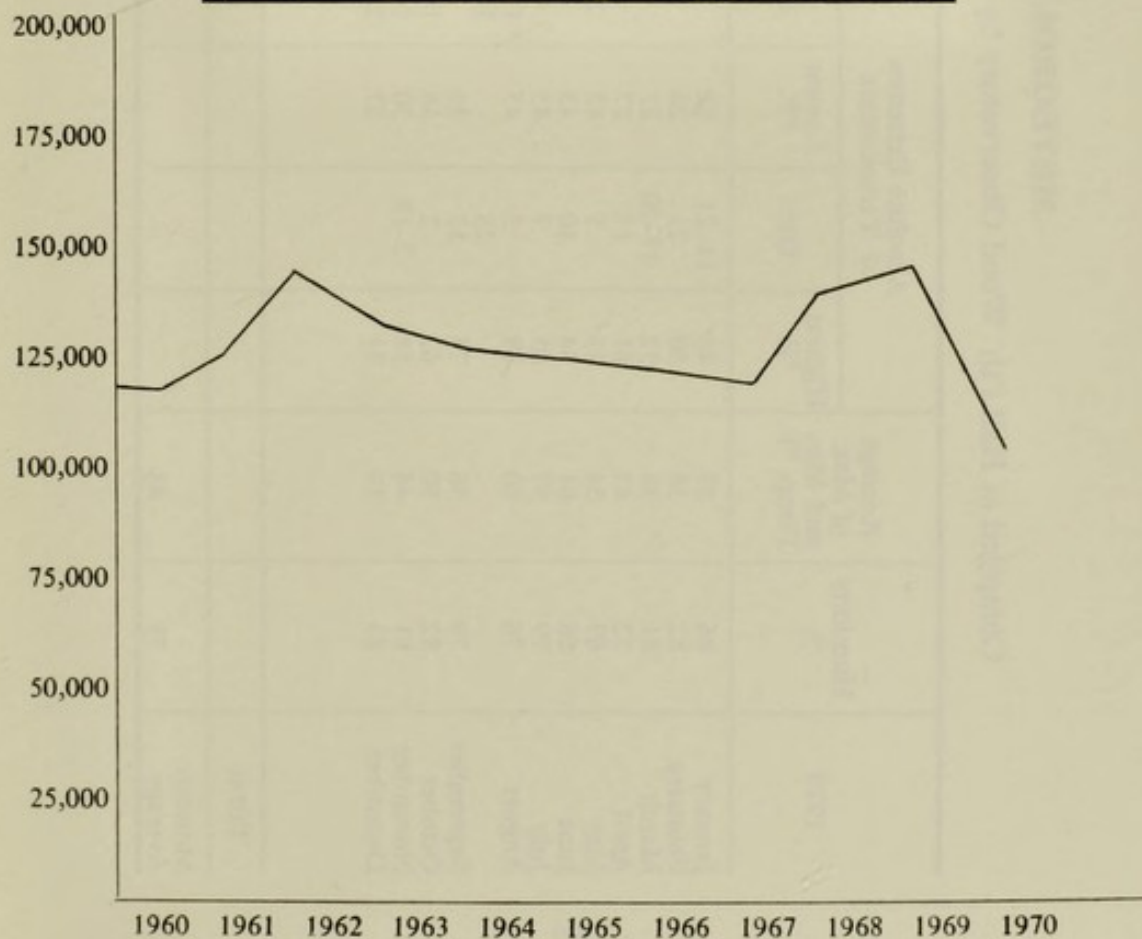
New Central Baths Project:

Provision has been made in capital estimates for a new central swimming pool to be built within the next few years.

SWIMMING ATTENDANCES - LAST DECADE



SLIPPER BATH ATTENDANCES - LAST DECADE



METEOROLOGICAL SUMMARY, 1970

Compiled at Hall i'th' Wood Observatory by Vincent C. Smith, Esq., Curator and Meteorologist

1970	Humidity %	Average of Max. and Min. Temp. °F.	Absolute Extremes of Temperature			Sunshine			Monthly Rainfall Inches	Wet days	Fog days at 9 a.m.	Wind
			Highest °F.	Date	Lowest °F.	Date	Monthly Total hours	Most in one day	Date			
January	86	37	48	11-21	12	7	17.2	5.5	6	22	5	3853
February	82	36	50	21	20	15	77.6	8.1	16	19	2	5607
March	81	38	52	17-20	21	9	115.4	10.4	27	20	-	5557
April	72	43	61	17	27	2	145.6	12.5	29	19	-	5572
May	69	54	73	5	42	22-29	186.5	11.9	3-12	6	-	5092
June	66	61	84	10	43	15	241.0	14.2	5	11	-	4136
July	79	57	85	7	45	10	153.7	14.2	6	20	-	5911
August	76	60	79	3	45	11-15	177.1	13.5	11	12	-	4088
September	79	56	75	28	39	18-19	110.6	9.4	14	20	-	4668
October	82	50	62	12	36	15	89.9	8.0	21	18	-	5374
November	81	44	58	2	30	10-17	42.6	7.3	15	27	-	5035
December	83	39	51	2-18	27	16-20	53.6	6.2	21	18	-	3951
TOTAL							1410.8			49.60	212	
Monthly Average	78	48					117.5			14.4	7	



INSTRUCTIONS FOR THE STUDENT

These instructions are to be read carefully by all students before beginning the course and should be read again from time to time.

No.	Name	Attendance			Grades	Remarks
		Present	Absent	Excused		
1	John Doe	20	0	0	A	
2	Jane Smith	18	2	0	B	
3	Robert Brown	15	5	0	C	
4	Mary White	12	8	0	D	
5	William Black	10	10	0	F	
6	Elizabeth Green	8	12	0	F	
7	Thomas Gray	5	15	0	F	
8	Patricia King	3	17	0	F	
9	Charles Lee	2	18	0	F	
10	Barbara Hall	1	19	0	F	
11	Richard Scott	0	20	0	F	
12	Susan Adams	0	20	0	F	
13	David Baker	0	20	0	F	
14	Linda Clark	0	20	0	F	
15	Michael Evans	0	20	0	F	
16	Karen Foster	0	20	0	F	
17	Christopher Gibson	0	20	0	F	
18	Nancy Howard	0	20	0	F	
19	Gregory Jenkins	0	20	0	F	
20	Michelle Kelly	0	20	0	F	
21	Anthony Lewis	0	20	0	F	
22	Stephanie Miller	0	20	0	F	
23	Timothy Moore	0	20	0	F	
24	Rebecca Nelson	0	20	0	F	
25	Jonathan Ortiz	0	20	0	F	
26	Kristina Parker	0	20	0	F	
27	Benjamin Quinn	0	20	0	F	
28	Victoria Reed	0	20	0	F	
29	Samuel Shaw	0	20	0	F	
30	Christina Taylor	0	20	0	F	
31	Matthew Turner	0	20	0	F	
32	Angela Vance	0	20	0	F	
33	Christopher Webb	0	20	0	F	
34	Elizabeth Wright	0	20	0	F	
35	Robert Young	0	20	0	F	
36	Michelle Zander	0	20	0	F	
37	Gregory Adams	0	20	0	F	
38	Nancy Baker	0	20	0	F	
39	Gregory Clark	0	20	0	F	
40	Michelle Evans	0	20	0	F	
41	Christopher Foster	0	20	0	F	
42	Rebecca Gibson	0	20	0	F	
43	Jonathan Hall	0	20	0	F	
44	Kristina King	0	20	0	F	
45	Benjamin Lee	0	20	0	F	
46	Victoria Miller	0	20	0	F	
47	Samuel Moore	0	20	0	F	
48	Christina Nelson	0	20	0	F	
49	Matthew Ortiz	0	20	0	F	
50	Angela Parker	0	20	0	F	
51	Christopher Quinn	0	20	0	F	
52	Elizabeth Reed	0	20	0	F	
53	Robert Shaw	0	20	0	F	
54	Michelle Taylor	0	20	0	F	
55	Gregory Turner	0	20	0	F	
56	Nancy Vance	0	20	0	F	
57	Gregory Webb	0	20	0	F	
58	Michelle Wright	0	20	0	F	
59	Christopher Young	0	20	0	F	
60	Rebecca Zander	0	20	0	F	

