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Contributors

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the Health
of the
City of Leicester
during 1972





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Health Committee

(as constituted 18th May, 1973)

Chairman Coun Mrs J M Setchfield

Vice-Chairman Coun R A Flint

Coun G W Billington
Coun M Clayton
Coun Mrs L Davies
Coun H Dunphy

Coun J E S Ellis
Ald N R Hanger, MPS, JP
Coun P Kind
Coun J K McLauchlan

Rev Coun K F Middleton
Coun Mrs F F L Riley
Ald A R Williamson

Co-opted Members Dr A E Fairbrother

Miss M H Perkins

Improvement Areas Sub-Committee

Coun G W Billington
Coun Mrs L Davies
Coun J E S Ellis

Coun R A Flint
Coun P Kind
Coun Mrs F F L Riley

Coun Mrs J M Setchfield
Ald A R Williamson

National Health Service

Reorganisation Sub-Committee

Coun G W Billington
Coun M Clayton

Coun R A Flint
Coun Mrs F F L Riley

Coun Mrs J M Setchfield

Senior Public Health Officers

Medical Officer of Health B J L Moss, *MB, BS(London), MRCS, LRCP, DCH, DPH, MFCM*

**Principal Medical Officer
(Personal Health Services)** Stephanie A Laing, *MRCS, LRCP, CPH, DCH, DPH*

Consultant Chest Physician C M Connolly, *BSc, MD, MRCP, DPH*

City Analyst E R Pike, *BSc(Aston), M.Chem.A, MPhA, MPS, FIFST, FRIC*

Chief Public Health Inspector G A Hiller, *FRSH, FAPHI* (Retired 23.4.72)

C W Stacey, *DFC, FAPHI* (Appointed 24.4.72)

Chief Administrative Assistant G Cree, *DMA, FHA, AMBIM*

Director of Nursing Services Jane I Jones, *SRN, SCM, QNS, HV, HV Tutor's Cert.*
(Resigned 29.2.72)

Daphne G Hussey, *RSCN, SRN, SCM, QNS, HV, Dip PHA*
(Appointed 1.3.72)

Chief Ambulance Officer J McCafferty, *A/AO*

*To the Chairman, the Lord Mayor, and Members of the
City Health Committee*

Madam Chairman, my Lord Mayor, Ladies and
Gentlemen,

Towards the middle of 1972 the Department of Health and Social Security issued a number of circulars initiating the process by which the re-organisation of the National Health Service is eventually to be brought about. The work involved is complex in so far as it requires a careful integration of the existing branches of the National Health Service in order to achieve both a more effective and comprehensive service for the public.

The task of collecting information and examining the procedures at present being undertaken by Officers of the three existing Services has brought about a better understanding of common problems and identified areas where improvements in the provision of care for the patient can be made.

The report for 1971 gave some indication of the cost of providing services, but it is necessary to stress once again that the changing pattern of demand by the public on services will inevitably necessitate increased expenditure, for Leicester is faced with all the ingredients necessary for the creation of major problems – a high proportion of old people, large numbers of handicapped and a substantial percentage of immigrants.

The maintenance of the existing service, let alone the development of a more effective service, will necessitate all those involved in reorganisation of the Health Service, together with the Social Services of the Local Authority, appreciating that this can only be achieved by the most careful budgeting of manpower and finance. Both long and short term programmes will

require to be more clearly defined and co-ordinated in order that unilateral action by individuals or pressure groups does not seriously impair the overall plan.

Every effort has been made by the Department to make more effective use of existing resources. Following the Mayston Report the Nursing Service has been re-structured (for a detailed account see Page 30).

As part of a phased programme of Health Centre development Centres have been opened at St. Peter's and Rushey Mead (see Page 30). Experience gained in the planning, development and operation of these has been applied to new projects being built at Pasley Road, Westcotes and Springfield Road. Further Health Centres are also being planned for other parts of the city.

The discovery of soil pollution at Beaumont Leys in 1971 was a matter of concern and when the results of our investigations were brought to the attention of the Department of Health and Social Security in 1972, it is probable that this did much to stimulate that Body into more active consideration of the problems of pollution as a whole.

Following shortly after our own initial reports publicity was given to reports from various parts of the country indicating the accidental findings of cyanide dumps and serious lead pollution. Thus throughout 1972 the problem of pollution has been highlighted nationally.

The problem is not solely that of soil pollution for many of the rivers and, indeed, the sea have been contaminated as a result of the indiscriminate disposal of waste products. It is hoped that before more serious pollution occurs this country will introduce adequate measures to prevent further contamination of the environment.

Besides pollution of soil and air our urban society is faced with a further hazard – that of noise. More and

more evidence is accumulating to confirm the detrimental effects of noise on both individuals and communities. Despite this known hazard roads continue to be carved through cities and towns with little regard for the effects on residents. It is to be hoped that far greater consideration will be given to the task of preventing further noise nuisances being created in this city.

Staff

Sincere congratulations are offered to Miss Jenny Jones on her appointment as Chief Nursing Officer to No. 1 Group of Hospitals in Leicester. During the course of her twelve years of service with this Authority, Miss Jones achieved many 'firsts' in the nursing field being appointed the first Chief Nursing Officer in a Public Health Department in 1964. She was also one of the first nurses to obtain a Churchill Scholarship enabling her to visit the United States to study community nursing. Over the years that she spent with the Department her advice was sought at the specific invitation of the Minister of State on numerous working parties on health matters.

Whilst her departure will be a great loss to our own Nursing Services her experience in both the hospital and community fields will be of inestimable value in planning for the reorganisation that is going to take place in nursing in 1974. We wish her every success in her new post.

Miss D. G. Hussey succeeded to the post of Director of Nursing Services and during the course of the year has been responsible for implementing the Mayston proposals for the reorganisation of the Nursing Service and has also been appointed as a representative of community nursing of the Joint Liaison Committee planning the reorganisation of Health Services for 1974. We extend a welcome and best wishes to Miss Hussey on her new appointment.

The retirement of Mr. Hiller sees the closing of an important chapter in the history of Public Health in Leicester. A recognised national figure George Hiller has done much for the city and for two things he will be especially remembered – clearance of the slums and freeing of the city of smoke pollution. It can be truly said he has made it a better place to live in. Best wishes are extended to him on his retirement.

Congratulations are extended to Colin Stacey on his appointment as Chief Public Health Inspector. Faced with the problem of re-orientation of environmental health services in 1974 we wish him every success.

I am,

Madam Chairman, my Lord Mayor,
Ladies and Gentlemen,
Your obedient servant,
B. J. L. MOSS, M.B., B.S., D.P.H.
Medical Officer of Health

Health Department
Midland House
52-54 Charles Street
Leicester
(Tel. No. 25732)
June, 1973

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Vital Statistics – Summary for the year 1972

	1972	1971
Population (estimated) mid 1972	281440	282000
Population at Census, 23rd April 1961	273298	273298
Marriages	2845	2663
Area Comparability Factor: Births	1.02	1.04
Deaths	0.94	0.98
Live births (corrected): Number	4385	4756
Birth Rate per 1000 pop (crude)	15.6	16.9
Birth Rate per 1000 pop (adjusted)	15.9	17.6
Number of illegitimate live births	588	587
Illegitimate live births per cent of total live births	13.41	12.0
Stillbirths: Number	62	62
Stillbirth rate per 1000 total live and stillbirths	14.0	13.0
Illegitimate stillbirth rate per 1000 total illegitimate live and stillbirths	20.0	13.45
Total live and stillbirths	4447	4818
Infant deaths (deaths under 1 year)	108	107
Infant mortality rates:		
Total infant deaths per 1000 total live births	25.0	22.0
Legitimate infant deaths per 1000 legitimate live births	22.0	21.0
Illegitimate infant deaths per 1000 illegitimate live births	39.0	31.0
Neo-Natal mortality (deaths under four weeks per 1000 total live births)	16.0	14.0
Early neo-natal mortality rate (deaths under one week per 1000 total live births)	15.0	13.0
Perinatal mortality rate (stillbirths and deaths under one week combined per 1000 total live and stillbirths)	28.0	26.0
Illegitimate perinatal mortality rate (illegitimate stillbirths and illegitimate deaths under one week combined per 1000 total illegitimate live and stillbirths)	43.33	28.57
Legitimate perinatal mortality rate (legitimate stillbirths and legitimate deaths under one week combined per 1000 total legitimate live and stillbirths)	25.99	25.10
Maternal mortality (including abortions):		
Number of deaths	4	5
Rate per 1000 total live and stillbirths	0.9	1.0
Deaths (corrected for transferable deaths)	3674	3474
Death rate per 1000 pop (crude)	13.1	12.3
Death rate per 1000 pop (adjusted)	12.3	12.1
Area of city (in acres)	18144	18144
Number of inhabited tenements January 1973	91507	91285
Number of empty houses January 1973	2528	2651
Rateable Value at 1st April	£16198802	£15676819
General rate for the year 1972/73		
Total rate poundage levied	73.5p in £	76.5p in £
For domestic properties (dwelling houses)	63p in £	67p in £
For mixed properties (mainly domestic)	68.5p in £	72p in £
<i>Registrar-General's figures – England and Wales</i>	<i>1972</i>	<i>1971</i>
Birth rate	14.8	16.0
Death rate	12.1	11.6
Infant mortality rate (per 1000 births)	17.0	18.0

Vital Statistics Comparisons between Leicester County Borough and England and Wales

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Total Live Births (per 1000 Population)										
England and Wales	18.2	18.5	18.1	17.7	17.2	16.9	16.3	16.0	16.0	14.8
Leicester C.B.	18.5	19.1	18.8	18.3	18.6	18.4	18.4	17.6	16.8	15.9
Illegitimate Live Births (per 1000 total live births)										
England and Wales	69.0	72.0	77.0	79.0	84.0	85.0	84.0	82.0	80.0	86.0
Leicester C.B.	113.0	109.2	122.8	120.8	126.8	123.1	130.9	129.3	120.0	134.0
Stillbirths (per 1000 live and stillbirths)										
England and Wales	17.2	16.3	15.8	15.3	14.8	14.3	13.2	13.0	12.2	12.0
Leicester C.B.	19.2	18.7	13.4	16.3	16.6	17.8	14.3	12.4	13.0	14.0
Deaths (per 1000 population)										
England and Wales	12.2	11.3	11.5	11.7	11.2	11.9	11.9	11.7	11.6	12.1
Leicester C.B.	13.2	12.5	12.6	12.2	11.7	12.5	13.0	12.5	12.3	12.3
Infant Mortality (per 1000 live births)										
England and Wales	21.1	19.9	19.0	19.0	18.3	18.3	18.0	18.2	17.6	17.0
Leicester C.B.	21.4	22.8	21.5	27.0	21.3	19.8	24.4	21.0	22.0	25.0
Perinatal Mortality (per 1000 live and stillbirths)										
England and Wales	29.3	28.2	26.9	26.3	25.4	24.7	23.4	23.5	22.0	22.0
Leicester C.B.	32.4	32.2	25.4	30.6	30.3	27.9	26.0	22.5	26.0	28.0
Neonatal Mortality (per 1000 live births)										
England and Wales	14.3	13.8	13.0	12.9	12.5	12.4	12.0	12.3	12.0	12.0
Leicester C.B.	15.0	16.1	14.0	16.6	15.4	12.3	14.1	11.3	14.0	16.0
Post Neonatal Mortality (per 1000 live births)										
England and Wales	6.8	6.1	6.0	6.1	5.8	5.9	6.0	5.9	5.6	5.7
Leicester C.B.	6.4	6.7	7.5	10.4	5.9	7.5	10.3	9.7	8.0	8.4

Causes of death at different periods of life during 1972

Cause of death	sex	Total all ages	4 wks under 4 under wks 1 year	Age in years										
				1—	5—	15—	25—	35—	45—	55—	65—	75+		
B4 Enteritis and other Diarrhoeal diseases	<i>m</i>	4	.	2	1	.	.	.	.	.	1	.	.
	<i>f</i>	.	.	.	.	.	.	.	.	.	.	.	.
B5 Tuberculosis of Respiratory System	<i>m</i>	3	.	.	.	.	.	.	.	1	2	.	.
	<i>f</i>	3	.	.	.	.	.	.	2	1	.	.	.
B6(1) Late effects of Respiratory T.B.	<i>m</i>	3	.	.	.	.	.	1	.	1	1	.	.
	<i>f</i>	.	.	.	.	.	.	.	.	.	.	.	.
B6(2) Other Tuberculosis	<i>m</i>	1	.	.	.	.	.	.	.	1	.	.	.
	<i>f</i>	3	.	.	.	.	.	.	.	2	1	.	.
B17 Syphilis and its sequelae	<i>m</i>	1	.	.	.	.	.	.	.	.	.	.	1
	<i>f</i>	1	.	.	.	.	.	.	1	.	.	.	.
B18 Other Infective and Parasitic Diseases	<i>m</i>	4	1	.	.	.	.	.	.	.	1	2	.
	<i>f</i>	1	1	.	.	.	.	.	.	.	.	.	.
B19(1) Malignant Neoplasm, Buccal Cavity, etc.	<i>m</i>	9	.	.	.	.	.	.	.	2	3	4	.
	<i>f</i>	2	.	.	.	.	.	.	1	.	1	.	.
B19(2) Malignant Neoplasm, Oesophagus	<i>m</i>	10	.	.	.	.	.	.	3	2	4	1	.
	<i>f</i>	7	.	.	.	.	.	.	.	2	3	2	.
B19(3) Malignant Neoplasm, Stomach	<i>m</i>	40	.	.	.	.	.	.	5	11	15	9	.
	<i>f</i>	24	.	.	.	.	.	.	3	1	8	12	.
B19(4) Malignant Neoplasm, Intestine	<i>m</i>	47	.	.	.	.	.	.	4	11	12	20	.
	<i>f</i>	56	.	.	.	.	.	1	4	9	15	27	.
B19(5) Malignant Neoplasm, Larynx	<i>m</i>	3	.	.	.	.	.	1	.	.	1	1	.
	<i>f</i>	.	.	.	.	.	.	.	.	.	.	.	.
B19(6) Malignant Neoplasm, Lung, Bronchus	<i>m</i>	143	.	.	.	.	.	4	10	44	55	30	.
	<i>f</i>	34	.	.	.	.	.	1	1	12	14	6	.
B19(7) Malignant Neoplasm, Breast	<i>m</i>	.	.	.	.	.	.	.	.	.	.	.	.
	<i>f</i>	69	.	.	.	.	2	3	6	19	19	20	.
B19(8) Malignant Neoplasm, Uterus	<i>f</i>	25	.	.	.	.	.	.	3	3	8	11	.
B19(9) Malignant Neoplasm, Prostate	<i>m</i>	26	.	.	.	.	.	.	1	1	10	14	.
B19(10) Leukaemia	<i>m</i>	6	.	.	.	1	1	.	.	3	.	1	.	
	<i>f</i>	8	.	.	.	1	1	.	.	3	1	2	.	
B19(11) Other Malignant Neoplasms	<i>m</i>	94	.	.	.	1	.	4	3	10	23	32	21	
	<i>f</i>	85	.	.	2	1	1	1	1	7	13	32	27	
B20 Benign and unspecified Neoplasms	<i>m</i>	5	.	.	.	.	.	1	.	1	.	2	1
	<i>f</i>	8	.	.	.	.	.	.	.	1	2	4	1
B21 Diabetes Mellitus	<i>m</i>	8	.	.	.	.	.	1	.	.	4	3	.
	<i>f</i>	19	.	.	.	.	.	.	.	2	2	6	9
B22 Avitaminoses etc	<i>m</i>	.	.	.	.	.	.	.	.	.	.	.	.
	<i>f</i>	2	.	.	.	.	.	.	1	1	.	.	.

Causes of death continued

Cause of death		sex	Total all ages	4 wks under and 4 under 1 year		Age in years									
						1—	5—	15—	25—	35—	45—	55—	65—	75+	
B46(1)	Other Endocrine etc. Diseases	<i>m</i>	4	.	.	.	.	.	.	.	.	2	.	2	
		<i>f</i>	11	.	1	1	2	.	.	1	2	3	.	1	
	B23 Anaemias	<i>m</i>	6	.	.	.	.	.	.	.	.	1	1	4	
		<i>f</i>	6	.	.	.	.	.	.	.	.	.	2	4	
B46(2)	Other Diseases of Blood, etc.	<i>m</i>	.	.	.	.	.	.	.	.	.	.	.	.
		<i>f</i>	1	.	.	.	.	.	.	.	.	1	.	.	
	B46(3) Mental Disorders	<i>m</i>	4	.	.	.	.	.	.	.	.	2	1	1	
		<i>f</i>	7	.	.	.	.	.	.	.	.	.	1	6	
	B24 Meningitis	<i>m</i>	1	1	.	.	.	.	.	.	.	.	.	.
		<i>f</i>	1	.	.	.	1	.	.	.	.	.	.	.
	B46(4) Multiple Sclerosis	<i>m</i>	3	.	.	.	.	.	.	.	.	3	.	.	
		<i>f</i>	5	.	.	.	.	.	.	1	2	2	.	.	
B46(5)	Other Diseases of Nervous System	<i>m</i>	12	.	.	.	.	1	.	2	1	2	3	3	
		<i>f</i>	14	.	.	.	2	.	.	1	1	2	4	4	
B26	Chronic Rheumatic Heart Disease	<i>m</i>	15	.	.	.	.	.	.	.	.	5	7	3	
		<i>f</i>	33	.	.	.	1	.	.	1	2	7	12	10	
	B27 Hypertensive Disease	<i>m</i>	28	.	.	.	.	.	.	1	1	4	11	11	
		<i>f</i>	31	.	.	.	.	.	.	.	2	4	5	20	
	B28 Ischaemic Heart Disease	<i>m</i>	462	.	.	.	.	1	.	9	45	112	159	136	
		<i>f</i>	331	.	.	.	.	.	.	1	4	28	81	217	
B29	Other forms of Heart Disease	<i>m</i>	101	.	.	1	.	.	.	2	.	15	26	57	
		<i>f</i>	162	.	1	.	1	.	.	.	1	7	27	125	
	B30 Cerebrovascular Disease	<i>m</i>	216	.	.	.	2	.	.	2	6	20	85	101	
		<i>f</i>	355	.	.	.	1	.	.	1	7	17	79	250	
B46(6)	Other Diseases of Circulatory System	<i>m</i>	51	.	.	.	.	.	.	.	4	5	18	24	
		<i>f</i>	82	.	.	.	.	.	.	1	1	3	10	67	
	B31 Influenza	<i>m</i>	9	.	.	.	.	.	.	2	1	.	2	4	
		<i>f</i>	18	.	.	.	.	1	.	.	2	1	10	4	
	B32 Pneumonia	<i>m</i>	147	1	4	.	1	.	.	.	1	10	40	90	
		<i>f</i>	170	2	1	.	1	.	1	1	3	4	32	125	
B33(1)	Bronchitis and Emphysema	<i>m</i>	122	.	.	.	.	.	.	1	1	21	54	45	
		<i>f</i>	44	.	.	1	.	.	.	3	.	6	13	21	
	B33(2) Asthma	<i>m</i>	6	.	.	.	.	.	.	.	3	2	1	.	
		<i>f</i>	4	.	.	.	.	.	.	1	1	1	1	.	
B46(7)	Other diseases of Respiratory System	<i>m</i>	28	1	10	2	.	.	.	1	2	.	6	6	
		<i>f</i>	29	.	10	2	.	.	.	1	1	1	4	10	
	B34 Peptic Ulcer	<i>m</i>	17	.	.	.	.	.	.	.	3	3	8	3	
		<i>f</i>	11	.	.	.	.	.	.	.	.	2	4	5	

Causes of death continued

Cause of death	sex	Total all ages	4 wks under and 4 under		Age in years									
			1 year		1—	5—	15—	25—	35—	45—	55—	65—	75+	
B35 Appendicitis	<i>m</i>	2	.	.	.	.	.	.	.	1	.	1	.
	<i>f</i>	2	.	.	.	.	.	.	.	.	.	2	.
B36 Intestinal Obstruction and Hernia	<i>m</i>	10	.	.	.	.	.	.	.	1	1	3	5
	<i>f</i>	9	.	1	.	.	.	.	.	1	.	1	6
B37 Cirrhosis of Liver	<i>m</i>	2	.	.	.	.	.	.	.	.	1	.	1
	<i>f</i>	4	.	.	.	.	.	.	.	.	1	3	.
B46(8) Other Diseases of Digestive System	<i>m</i>	20	.	.	.	.	2	.	1	3	6	4	4
	<i>f</i>	14	.	.	.	.	.	.	1	1	5	7	.
B38 Nephritis and Nephrosis	<i>m</i>	10	.	.	.	.	.	3	1	.	.	4	2
	<i>f</i>	8	.	.	.	1	.	.	.	2	1	4	.	
B39 Hyperplasia of Prostate	<i>m</i>	11	.	.	.	.	.	.	.	1	2	2	6
B46(9) Other Diseases, Genito-Urinary System	<i>m</i>	11	.	.	.	.	1	.	.	2	.	3	5
	<i>f</i>	15	.	.	.	.	.	.	2	.	2	3	8
B41 Other Complications of Pregnancy, etc.	<i>f</i>	1	.	.	.	.	1	.	.	.	.	.	.
B46(10) Diseases of Skin, Subcutaneous Tissue	<i>m</i>	2	.	.	.	.	.	.	.	.	1	.	1
	<i>f</i>	.	.	.	.	.	.	.	.	.	.	.	.
B46(11) Diseases of Musculo-Skeletal System	<i>m</i>	2	.	.	.	.	.	.	.	.	.	1	1
	<i>f</i>	6	.	.	.	.	.	.	.	1	.	1	4
B42 Congenital Anomalies	<i>m</i>	17	9	3	2	.	.	.	2	.	.	1	.	
	<i>f</i>	11	7	1	2	1	.	.	.	.	.	.	.
B43 Birth Injury, Difficult Labour, etc.	<i>m</i>	23	23	.	.	.	.	.	.	.	.	.	.
	<i>f</i>	9	8	1	.	.	.	.	.	.	.	.	.
B44 Other causes of Perinatal mortality	<i>m</i>	6	6	.	.	.	.	.	.	.	.	.	.
	<i>f</i>	12	12	.	.	.	.	.	.	.	.	.	.
B45 Symptoms and ill-defined conditions	<i>m</i>	4	.	.	.	.	.	.	.	1	.	.	3
	<i>f</i>	9	.	.	.	.	1	.	.	.	.	.	8
BE47 Motor Vehicle accidents	<i>m</i>	29	.	1	1	3	6	6	2	.	2	4	4	
	<i>f</i>	12	.	.	1	2	1	.	.	1	1	4	2	
BE48 All other accidents	<i>m</i>	26	.	.	1	2	1	2	1	4	1	4	10	
	<i>f</i>	54	.	.	.	.	2	.	2	3	3	9	35
BE49 Suicide and self-inflicted injuries	<i>m</i>	9	.	.	.	.	.	3	3	1	1	1	.
	<i>f</i>	10	.	.	.	.	.	.	1	2	4	2	1
BE50 All other external causes	<i>m</i>	6	.	.	.	.	1	.	.	1	1	1	2
	<i>f</i>	7	.	.	.	.	1	.	.	2	2	2	.
Total all causes	<i>m</i>	1829	42	20	8	10	14	16	42	118	324	593	642	
	<i>f</i>	1845	29	17	9	11	11	6	25	72	174	430	1061	

Blind Persons

I am indebted to the Director of Social Services for the information included in this Section.

Classification according to age (at date of registration) of **blind persons** registered in 1972

		0	1	2	3	4	5-10	11-15	16-20	21-29	30-39	40-49	50-59	60-64	65-69	70-79	80-84	85-89	90+	Total
Cataract	<i>m</i>	.	.	.	1	.	.	.	.	.	.	.	1	1	1	1	3	.	1	9
	<i>f</i>	.	.	.	.	.	1	.	.	.	.	.	.	1	4	6	3	5	5	25
Glaucoma	<i>m</i>	.	.	.	.	.	1	.	.	.	.	.	1	1	.	4	1	.	1	9
	<i>f</i>	.	.	.	.	.	.	1	.	.	.	.	1	.	4	6	1	.	.	13
Others	<i>m</i>	.	.	.	.	.	1	.	.	1	.	5	1	4	3	5	5	2	1	28
	<i>f</i>	1	.	.	1	.	.	.	.	.	.	.	2	4	3	11	8	3	5	38
Total		1	.	.	2	.	3	1	.	1	.	5	6	11	15	33	21	10	13	122

These figures include 13 cases (8 female, 5 male) transferred from the Partially Sighted Register

Classification according to age (at date of registration) of **partially sighted persons** registered in 1972

		0	1	2	3	4	5-10	11-15	16-20	21-29	30-39	40-49	50-59	60-64	65-69	70-79	80-84	85-89	90+	Total
Cataract	<i>m</i>	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	1
	<i>f</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	1	1	4
Glaucoma	<i>m</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	.	.	.	2
	<i>f</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Others	<i>m</i>	.	.	.	.	.	.	.	.	.	2	.	2	.	.	1	2	2	1	10
	<i>f</i>	.	.	.	.	.	.	.	.	.	.	.	.	1	2	3	1	1	.	8
Total		.	.	.	.	.	.	1	.	.	.	2	.	3	3	6	4	5	2	26

These figures include 1 female and 1 male transferred from the Blind Register

Follow-up of registered blind and partially sighted persons 1972

1 Number of cases registered during the year in respect of which section (D) of Form BD8 recommends:-		Cause of disability		
		Cataract	Glaucoma	Others
	<i>a</i> No treatment	21	22	66
	<i>b</i> Treatment (medical, surgical or optical)	9	1	9
2 Number of cases at 1 (<i>b</i>) above which on follow-up action have received treatment:		4	1	6

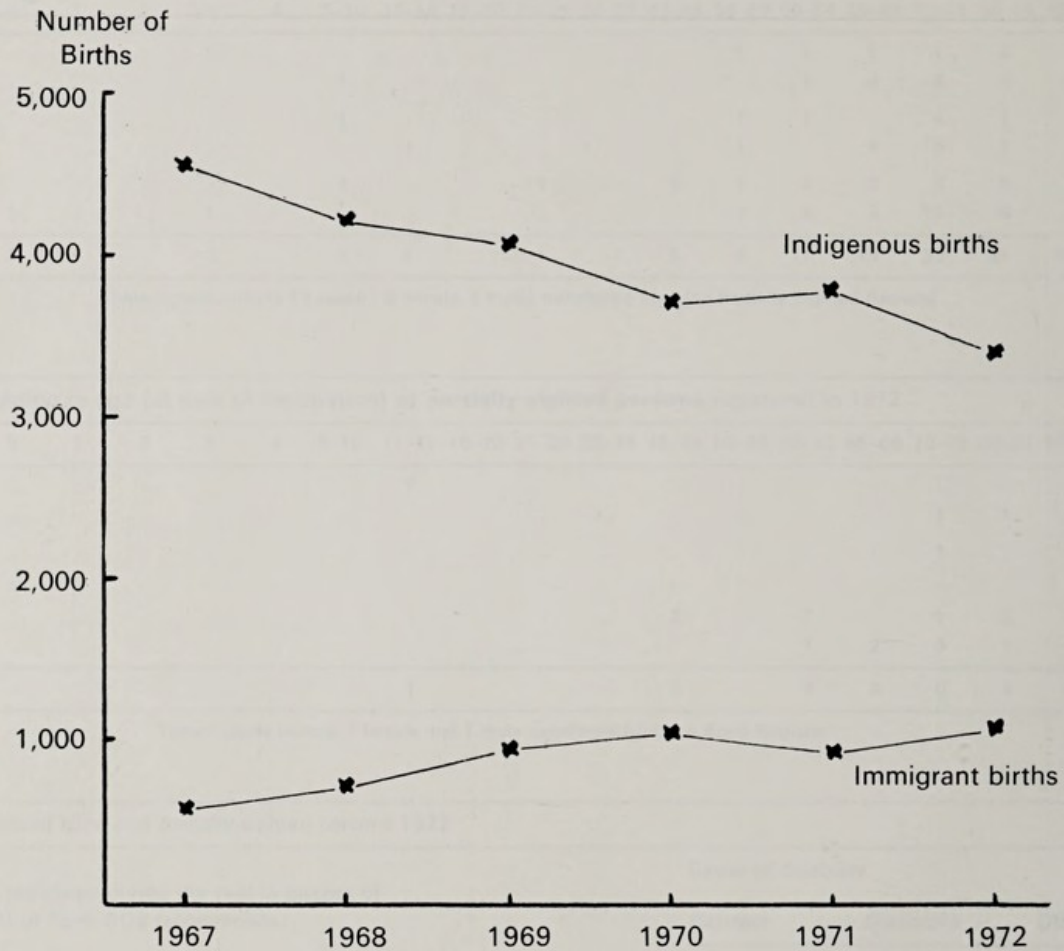
Care of Mothers and Young Children



Graph showing the number of births to parents of indigenous and immigrant origin from 1967-1973.

Although the total number of births has continued to fall in 1973, this has been entirely due to the reduction in births to parents of indigenous origin. The number of immigrant births has nearly doubled and now represents 33% of the total.

Births



Graph showing the numbers of births of City residents to parents of indigenous and of immigrant origin for the years 1967-1972.

Although the total number of births has continued to fall in 1972 this has been entirely due to the reduction in indigenous births, for over the past 5 years the

number of immigrant births has nearly doubled and now represents 22% of the total.

Infant deaths

Causes of death in infants born legitimately and illegitimately during 1972

		Legitimate										Illegitimate											
Age at death		Under 24 hours		1-6 days		7-28 days		1 m'th to under 1 year		Total legitimate		Under 24 hours		1-6 days		7-28 days		1 m'th to under 1 year		Total illegitimate		Total Infant deaths	
Cause of death		m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f		
Enteritis		.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	1	.	1	.	2
Acute upper respiratory infection		.	.	.	.	.	.	8	4	8	4	.	.	.	.	.	.	2	1	2	1	15
Acute tracheobronchitis, pneumonia		.	.	1	1	1	.	2	4	4	5	.	.	.	.	.	.	1	2	1	2	12
Maternal causes		2	2	.	1	.	1	.	.	2	4	.	1	.	.	.	.	.	.	1	.	7
Difficult labour, birth injury, disease of placenta		5	3	2	.	1	.	.	1	8	4	1	.	.	.	.	.	.	.	1	.	13
Anoxia, hypoxia (not elsewhere classified)		6	2	5	.	.	.	.	.	11	2	2	1	2	.	.	.	.	.	4	1	18
Other conditions of foetus and newborn (includes prematurity unqualified)		3	5	.	1	.	1	.	.	3	7	.	.	1	.	.	.	.	.	1	.	11
Congenital malformations		6	2	1	2	1	1	4	2	12	7	.	.	.	1	.	.	.	1	.	2	21	
All other causes		.	1	.	1	.	.	1	1	1	3	.	.	.	.	.	.	.	1	.	1	5
Totals		22	15	9	6	3	3	16	12	50	36	3	2	3	1	.	.	4	5	10	8	104	
Sudden unexpected deaths in infancy		.	.	.	.	1	.	2	1	3	1	.	.	.	.	.	.	.	1	.	1	5
Deaths associated with prematurity (B.W. less than 2,500 Gm)		30		8		3		3		44		3		4				3		10		54	

Infant birth and death statistics

Definitions:

Perinatal mortality rate – stillbirths and first week deaths per 1,000 births (still and live).

Post-neonatal mortality rate – deaths in infants aged between 4 weeks and 1 year per 1,000 live births.

The perinatal mortality rate is considered to be an index of medical care, whereas in the post-neonatal period, social factors predominate.

Perinatal mortality

	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963
<i>Perinatal mortality rate –</i>										
Leicester City	28.3	26.0	22.5	26.0	27.9	30.2	30.6	25.4	32.2	32.4
England & Wales	21.6	22.3	23.5	23.5	24.7	25.4	26.3	26.9	28.4	29.3

Causes of Perinatal Deaths (Stillbirths and First Week Deaths) Leicester City 1972

P1-4	Chronic circulatory and genito-urinary disease in mother	4
P12-17	Toxaemias of Pregnancy	8
P21-35	Difficult labour	7
P36-41	Other complications of pregnancy and childbirth	6
P42-46	Conditions of placenta	16
P47-49	Conditions of umbilical cord	4
P50-52	Birth injury without mention of cause	3
P53-56	Haemolytic disease of newborn	5
P57-60	Anoxic and hypoxic conditions not elsewhere classified	19
P61-68	Other conditions of foetus and newborn	25
P69-80	Congenital abnormalities	24
P92	Pneumonia	2
Total*		123
Perinatal mortality rate† for Leicester City 1972		28 per 1000
Perinatal mortality rate for England and Wales 1972		22 per 1000

* Uncorrected. —† Corrected.

The local perinatal mortality rate remains higher than the overall rate for England and Wales. The local

figures show a downward trend similar to the national picture until 1970, but the significance of the subsequent variations is not yet apparent.

The perinatal mortality rate for illegitimate births in Leicester was 43.3 compared with 26.0 for legitimate births (see comment under heading of 'Illegitimacy').

Post-neonatal mortality

	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963
<i>Post-neonatal mortality rate –</i>										
Leicester City	8.4	6.0	9.7	10.3	7.5	5.9	10.4	7.5	6.7	6.4
England & Wales	5.7	5.9	5.9	6.0	5.9	5.8	6.1	6.0	6.1	6.9 (peak)

Causes of Post Neonatal deaths (aged over 4 weeks and under 1 year) – Leicester City 1972

Late effects of difficult labour	1
Congenital abnormalities	7
Enteritis	2
Viral encephalitis	1
Acute upper respiratory tract infection	15
Acute Tracheo-bronchitis	7
Pneumonia	2
Endocrine	1
Road traffic accident	1
Total*	37
Post neonatal mortality rate† Leicester City 1972	8.4 per 1000
Post neonatal mortality rate for England and Wales, 1972	5.7 per 1000

* uncorrected. —† corrected.

There has been very little change in the post-neonatal mortality rate for England and Wales. In Leicester the rate has, if anything, got worse.

For illegitimate births the post-neonatal mortality rate was 13.6 compared with 7.6 for legitimate births (also see comment under 'Illegitimacy').

Congenital Malformations Detected at Birth – 1972

Notified Congenital Malformations in live and stillborn babies detected at birth in 1972

	Number of Malformations	Number of Babies	Rate per 1,000	Percentage with one or more malformations			
				One	Two	Three	Four or more
Live Born	97	70	15.9	72.9	20.0	2.9	4.3
Still Born	20	13	209.5	61.5	23.0	15.5	0.0
Live & Still Born	117	83	18.6	71.0	20.5	4.8	3.6

Specific Congenital Malformations in live & stillborn babies detected at birth – 1972

	Live Births	Stillbirths
<i>Central Nervous System</i>		
Anencephalus	1	6
Spina bifida or Hydrocephalus	9	8
Other	2	.
Ear	2	.
<i>Alimentary System</i>		
Cleft lip or cleft palate	11	.
Other	2	2
<i>Heart and Circulatory System</i>	1	.
<i>Urogenital System</i>		
Hypospadias	14	.
Other	5	.
<i>Musculo-skeletal System</i>		
Talipes	26	1
Other limb malformations	11	.
Other malformations of musculo-skeletal system	3	2
<i>Other Malformations</i>		
Exomphalos	1	.
Skin	3	.
Down's Syndrome (Mongolism)	1	.
Miscellaneous	5	1
Total	97	20

These figures should not be taken to represent the true incidence of all congenital malformations. Some, such as congenital heart disease, are difficult to detect at birth.

Handicapped children

Computerisation of Observation and Handicap Register

Arrangements were made in June for statistics on the Observation and Handicap Register to be transferred to the computer thus obviating the previous need for 36 column punched card equipment. This should result in statistical information being more easily available and in due course it will be possible to evaluate trends based on the Register.

In addition it will be possible to obtain more accurate information regarding the future demands likely to be made on the hospital and social services and in particular to give early warning to the Careers Advisory Service of handicapped children who may find difficulty in obtaining and/or retaining employment.

A full report on handicapped school children is given in the Annual Report of the Principal School Medical Officer.

Study of Facilities for Handicapped Children in other Countries

During the course of the year a visit was made to study the facilities available for handicapped children in Denmark and Sweden. In both countries it was apparent that considerable thought had been given to the provision of adequate specialised equipment and a high staff ratio in order that these unfortunate children could be helped to develop to their maximum potential. Particularly in Sweden we were impressed by the multi-disciplinary approach to assessment and the way in which for each child a carefully planned educational programme was developed. A great deal of effort was made to enable handicapped children to participate in classes of normal children whenever possible. This had a dual advantage. The handicapped child could, within the limitations of its disability, benefit from contact with normal children and the normal child develop-

ed a sense of community responsibility for his handicapped colleagues.

It is to be hoped that if the resources can be made available the valuable experience gained in Sweden can be applied for the benefit of children in Leicester.

Mentally handicapped

Nursery or play group placement is available for most of the pre-school severely handicapped children over the age of 3 years. 20 children attend 3 afternoons per week at a voluntary creche run by the Red Cross Society in their London Road Quarters. A variable number of part time places became available by the end of the year in Parkfield School, attendance is either two or three whole days a week depending on the available transport arrangements and the children are collected from their houses in specially adapted vehicles.

From 5 years of age places are found for full-time attendance in the following schools:

Glenfield House

20 of the most severely handicapped children attend this unit, mostly suffering from two or more different handicaps and half of whom are immobile. From September, 1972, two collecting vehicles have been provided which has reduced the time spent travelling to a reasonable amount. In this unit full nursing services are available and encouragement is focussed on social independence and learning the skills of walking and speech.

Glenfrith Hospital School

This modern school is situated in the grounds of the hospital and teaching is provided in very small classes for most of the children in the hospital wards as well as a number of day pupils from both County and City. An

extension was opened at the beginning of the September term to accommodate children who had not previously been able to profit from school attendance, most of whom were resident in the hospital. A number are however able to attend part time. We are now able to say that provision is there for all the children in the hospital to leave the wards for at least part of the day.

Emily Fortey

This school managed to contain 128 children until November, 1972, when the numbers could be reduced to a manageable 94 with the comparable reduction in the numbers in each class. This was achieved because of the opening of the following school.

Nether Hall

This modern purpose built school was unfortunately delayed by the building strike but finally opened its doors in November admitting within the first few weeks 89 children, a large number of whom had transferred from Emily Fortey and Parkfield Schools. After some preliminary adjustments to the modern open plan style of the building pupils and staff are settled down and are looking forward to the planting and landscaping of the grounds which will be started in the spring. The catchment area dividing these two schools has been roughly a line from North to South through the city.

Special Schools for E.S.N. Pupils

At the commencement of the year High Leas and Greenacres contained a total of 213 mildly handicapped children but in August a new school, Long Close, was opened. This has allowed the rationalisation of the division of the city into catchment areas with the transfer of some children from the other two schools and the admission of all the children who had been waiting for so long for a place.

Residential schools

Places are provided in residential schools for a few children who have a special need which we are unable to fill within the City boundary. One child receives Home Tuition.

Number of Handicapped Pre-School Children Surviving at end of 1972 (Preliminary figures only)

	Year of birth					Total
	1968	1969	1970	1971	1972	
Approximate Year of School Entry	1973	1974	1975	1976	1977	
Neural Tube Defects	5	7	8	4	4	28
Severely Subnormal	16	12	3	3	1	35
E.S.N.	5	4	2	3	.	14
Mongol	6	4	6	1	3	20
Psychiatric and Maladjusted	2	1	.	1	.	4
Epilepsy	20	16	3	3	.	42
Blind	2	1	.	.	1	4
Partially Sighted	4	3	.	2	2	11
Deaf	2	9	1	3	.	15
Partially Hearing	1	3	1	1	.	6
Cardiovascular	16	16	11	11	8	62
Asthma	15	5	11	.	.	31
Fibrocystic	2	4	.	1	.	7
Other Respiratory Disease	.	.	1	.	1	2
Endocrine and Metabolic	5	9	8	.	2	24
Speech, Language Disorders and Cleft Palate	2	1	.	.	.	3
Urogenital System	5	7	10	10	13	45
Cerebral Palsy	12	13	7	5	1	38
Orthopaedic and Locomotion	19	14	21	5	29	88
Miscellaneous	10	19	21	9	13	72
Totals	149	148	114	62	78	551

Those noted at birth to 6 days to be handicapped	1972
Year of birth	240
Total Number placed on Observation Register during	1972
	772
Total Number placed on Handicap Register during	1972
	409
Total Number of Cases on Observation Register	1,826
Total Number of Cases on Handicap Register	2,467

Development Clinics

Twice weekly assessment clinics were held throughout the year. Here the Senior Medical Officers are able to give a long interview in conjunction with their respective specialist health visitors. An unhurried hour of observation of their abilities in relation to play and stage of mental and physical development, supported by a full discussion with parents, enables an assessment to be made of the child's progress.

Referrals to the clinic come from local authority doctors, paediatricians, general practitioners and health visitors; also known moderately severely handicapped children are followed up, and their future educational needs considered. In this way reservations for special school places may be made ahead of expected entry, so enabling us to plan in advance for local needs and this gives an increased likelihood that vacancies will be available when they are needed. Some of these sessions are held in the children's homes when medical or social conditions suggest that it is in the child's best interest.

These clinics are a valuable help with parental support for the pre-school child with special problems.

Audiology

The service offered to the under 5's has continued during the year. A total of 368 appointments being given for the weekly Audiology Clinic which is staffed by 2 Medical Officers and 3 experienced Health Visitors. Unfortunately of the appointments offered only 266 children actually attended (174 new and 92 old cases) a failure rate of nearly one-third. It is gratifying that in addition to the referrals from Health Visitors and Child Health Clinic Doctors an increasing number of children are being referred by Family Doctors.

During the latter part of the year the city was without the services of the Peripatetic Teacher of the Deaf due to

the resignation of Mrs. A. E. Colledge on 28th August 1972. Work supervising auditory training and giving parental guidance being taken over temporarily by the Health Visitors. Her successor (Mrs. M. Graham) is due to commence duty early in the New Year.

Illegitimate births and death rates

Illegitimacy

Total number of Illegitimate Births registered in the City during 1972	690
Number of City Illegitimate Births registered in the City	530
Number of County Illegitimate Births registered in the City	160

City Illegitimate Births in age groups

	1972	1971	1970
14	3	3	.
15	9	9	12
16	36	31	27
17	44	53	45
18	56	45	46
19	52	33	32
20-24	143	158	164
25-29	97	94	84
30-34	46	50	63
35-39	35	31	28
40+	9	15	13

Total "corrected" illegitimate live births for Leicester City	1972	1971	1970
	588	587	629

There was a fall in the total number of illegitimate births in the city during 1972 but this did not keep pace with the fall in the total number of births, the illegitimate birth rate is therefore slightly higher than in 1971 and it remains above the national rate.

Illegitimacy is highest in the younger age groups, 38% of all illegitimate births occurring in mothers under 20 years old.

The death rate in infants born illegitimately is much higher than in legitimate births. It is particularly high in the illegitimate infants of mothers under 20 (even when

the high illegitimate birth rate in this group is taken into account). Thus, both the illegitimate perinatal mortality rate and the post-neonatal mortality rates are high (see above). Although the perinatal mortality rate is usually taken as an index of medical care, in this case it has clearly been influenced by social factors. These are usually related to the reluctance of the young person to disclose her pregnancy in the first instance and so not getting proper ante-natal care; secondly to the difficult circumstances in which many of them have to provide for their babies after birth.

Abortion

To understand the effect of the Abortion Act it is worth while making a comparison of both abortion and illegitimacy figures over the corresponding year when it becomes evident that despite the substantial increase in the numbers of abortions carried out, illegitimacy, especially in the 16–19 age group, has continued to increase.

Years	Illegitimacy			% increase		Abortion		% increase	
	1970	1971	1972	1970/71	1972/71	1970	1971	1972	1971/70
16	12	12	12	.	.	14	28	Not	100
16–19	150	162	188	8	16	96	150	yet	56
20–34	311	302	286	.	.	234	323	avail-	38
35–44	40	46	44	.	.	54	78	able	44
45+	1	.	.	1	1	2	5	.	.
Total	514	522	530			400	584		

The true picture of unwanted babies is probably more accurately portrayed by the following table. The figures are somewhat higher as they include the 'transfers in' supplied by the Registrar General.

What is the total cost of abortion in terms other than finance? In evidence supplied to the Lane Committee on the working of the Abortion Act, reported in the

Unwanted births

	1970	1971	1972
1 Illegitimate live births	629	587	530
2 Born in first year of marriage	Not known		
3 Fourth child and over (excluding 1)	416	387	Not yet
4 Mother over 40 (excluding 1 & 3)	45	46	available
	1090	1020	
Total live births	4862	4756	
Proportion unwanted per 100 births	22.4%	21.4%	

'British Medical Journal', Wynn and Wynn made the following comments:

"It would be wise for young women and their parents and future husbands to assume that induced abortion is neither safe nor simple. That it frequently has long term consequences, may affect subsequent children and make young single women less eligible for marriage."

They have shown by careful analysis of a prolonged follow-up of such cases that a morbidity of 30% may not be an over-estimate, for a previous abortion increases the chance of a subsequent perinatal death occurring by 50%, and there is a 40% increase in the risk of a premature birth. The risk of ectopic pregnancies and other gynaecological troubles is also increased.

In view of this evidence one must once again press for the expansion of the present provision for adequate health education, including advice on contraception. The Wynns point out that in more than half of the women seeking abortion they have used no other method of birth control. We should be prepared both to prevent unwanted births and also to prevent women being exposed to the risk of physical or mental ill-health as a result of undesirable operative procedures.

Leicester Diocesan Board of Social Work

Analysis of work done in 1972

<i>Casework figures 1972</i>	<i>City</i>	<i>County</i>	<i>Total</i>
<i>Short-term advice and enquiries</i>	75	31	106
<i>Long-term cases registered</i>			
pregnancies	103	85	188
other problems	18	2	20
Total	196	118	314
<i>1971 and previous years still active</i>			
pregnancies	35	29	64
other problems	57	20	77
Total caseload	288	167	455
<i>Babies born</i>			
1971 cases	27	14	41
1972 cases	81 ^x	63 [†]	144
Total	108	77	185
With mother in parental home	67 [†]	33 [*]	100
With mother in own home			
With mother in lodgings			
In temporary foster home	6	8	14
In Local Authority care	7	1	8
Placed with adopting parents	27 [*]	28 [*]	55
Stillborn	.	3	3
Died	1	4	5
Pregnancy terminated	1	1	2
Miscarriage	1	.	1
Unborn 31.12.72	23	20	43
Babies fostered during the year	40	32	72
Mother and Baby Home admissions	10	5	15
Grant-aid to fees from Trusts and L.A.	8	5	13
Putative fathers interviewed	53	42	95

(*Indicates twins. †Indicates 2 sets twins. x Indicates 3 sets twins).

Adoption

Adopters' Enquiries	525
Applications investigated (3 refused)	130
Babies offered for adoption	113
Withdrawn by mother before placement	8
Placed with prospective adopters (incl. 5 from 1971)	†105
Withdrawn by mother after placement	1
Withdrawn at adopter's request	1
Awaiting placement 31.12.72	4
Adoption Orders made	†98

(† Indicates 2 sets twins)

Age Groups		City	County	Total
<i>Natural Mothers</i>	Under 17	16	22	38
	17-20	47	47	94
	21-30	31	12	43
	31 plus	9	4	13
<i>Natural Fathers</i>	Under 17	4	3	7
	17-20	26	22	48
	21-30	52	43	95
	31 plus	10	8	18
	Not known	11	9	20
<i>Natural Mothers</i>	Single	85	78	163
	Married	2	3	5
	Separated	10	3	13
	Divorced/Widowed	6	1	7
<i>Natural Fathers</i>	Single	69	56	125
	Married	13	14	27
	Separated	9	7	16
	Divorced/Widowed	6	1	7
	Not known	6	7	13

Adoptions 1972

Babies placed include 2 sets of twins, i.e. 105 babies=103 placements

Normal Domicile	Natural Mothers	Adopters
Leicester	26	19
Leicestershire	31	48
Northampton	10	4
Northamptonshire	19	20
Peterborough	16	7
Rutland	1	4
Nottinghamshire	.	1

Family planning

I am indebted to Mrs. Kind for the following report:

Annual Report 1972

The city continued to use the Family Planning Association as its agents to provide family planning services. During the year the clinic moved from the old premises in East Street to the new Health Centre at St. Peter's, Sparkenhoe Street.

Services included all methods of birth control with the exception of vasectomy, and special sessions for marital difficulties and sub-fertility. It is hoped to open a vasectomy unit early in 1973.

The Family Planning Association received reimbursement for dealing with 790 medical cases.

In September a domiciliary service, using the Family Planning Association as agents, was started in the Braunstone area and 21 contacts had been made up to the end of the year. In November, birth control sessions were started at the Braunstone Infant Welfare Clinic.

Dental Report for 1972

R. H. Bettles, B.D.S., D.D.H. U.Birm., L.D.S., D.D.P.H.
R.C.S.Eng.

Maternity and Child Welfare

The level of work in 1972 was similar to that of the previous year with a small decrease in pre-school child work, a slightly larger number being examined; and a small increase in work for maternity patients, largely by an increase in the number of extractions and dentures.

It is noticeable that more pre-school children are seen where our staff have access to Maternity and Child Welfare clinics, and it is hoped that with dental units opening in new Health Centres greater progress may be made with this category of patient in the future.

Although this service forms only a small part of the Local Authority's dental services, a considerable amount of time is "lost" due to failed appointments. This is a particularly frustrating occurrence when the service finds it impossible to offer a comprehensive service to all the potential patients due to the large work load; and the problem can only be partly overcome by "over booking," since too long a waiting time immediately before treatment is also undesirable, especially with the very young child.

A more detailed report of the Dental Services forms part of the Annual Report of the Principal School Medical Officer.

Dental Services for Expectant and Nursing Mothers and Children under 5 years

Attendances and Treatment

Number of Visits for Treatment during year	Children 0-4 (incl.)	Expectant and Nursing Mothers
First visit	287	97
Subsequent visits	415	274
Total visits	702	371
Number of additional courses of treatment other than the first course commenced during year	25	2
Treatment provided during the year:		
Number of fillings	751	187
Teeth filled	593	157
Teeth extracted	407	221
General anaesthetics given	105	9
Emergency visits by patients	66	14
Patients X-rayed	6	11
Patients treated by scaling and/or removal of stains from the teeth (Prophylaxis)	68	58
Teeth otherwise conserved	48	.
Teeth root filled	.	1
Inlays	.	.
Crowns	.	.
Number of courses of treatment completed during the year	247	47
Prosthetics		
Patients supplied with F.U. or F.L. (First time)		14
Patients supplied with other dentures		8
Number of dentures supplied		40
Anaesthetics		
General anaesthetics administered by dental officers		1
Inspections		
Number of patients given first inspections during year	566	77
Number of patients who required treatment	296	75
Number of patients who were offered treatment	287	75
Number of patients re-inspected during year	30	6
Sessions		
Number of Dental Officer Sessions (i.e. equivalent complete half days) devoted to Maternity and Child Welfare Patients:		
For treatment		180
For Health Education		33

Nursing Services

Report for the year 1972

*Miss D. G. Hussey, R.S.C.N., S.R.N., S.C.M., Q.N.S.,
H.V., Dip.P.H.A.*

Director of Nursing Services

Introduction

On 1st April, 1972 the organisational plans prepared following the publication of the Mayston Report came to fruition.

Prior to this date the city had been divided into three divisions, but the management structure proposed required a reorganisation of the city into two halves; from the South-West along the railway line down Humberstone Road to Thurmaston Lane to the North-East. These two areas were then subdivided into two units.

The day to day administration of Nursing Services in each half became the responsibility of an Area Nursing Officer accountable to the Director of Nursing Services. She is supported by 1st Line Nursing Officers who have a functional responsibility for either District Nursing or Health Visiting within each unit.

Health Centres

St. Peter's Health Centre became operational on 24th April and the official opening was performed by Professor W. A. Cramond, Dean of the Faculty of Medicine at the University of Leicester, on 9th May.

New Walk District Nursing Centre was closed and St. Peter's became the Nursing Administrative Centre supplying services for half of the city's population.

Within this building lay the first positive steps towards integration.

All services, Dental, Family Planning, Local Health Department Nursing Services and seven General Practitioners responsible for approximately 17,000 population commenced working within one centre.

In co-operation with hospitals, Ear, Nose and Throat Specialists, Paediatricians and Gynaecological Consultants carried out sessions for the deaf and hard of hearing, the enuretic child and cytology examinations.

The Local Authority transferred Development Clinics, Child Health Sessions, Audiology examinations and Minor Ailments Clinics.

The initial attendance at G.P. Treatments Sessions staffed by attached District Nurses were minimal but as G.P.'s and staff became accustomed to their new work situation, co-operation increased and the links were re-inforced by a greater referral rate of patients.

Great interest in this centre has been shown and requests for visits to St. Peter's required strict programming to prevent disruption of the services provided to the public.

Careers Officers, School children, "Prepare to Nurse Students," Nursery Nurses Examination Board Students and Ward Sisters have visited in groups.

Rushey Mead

Rushey Mead Health Centre became operational in November 1972 and differed considerably from St. Peter's. From this one storey building a single group of General Practitioners (4 Doctors) operate and the attachment links already closely forged became re-inforced by the proximity of their working situation.

The provision of Health Centre buildings can only further the aims of providing a well informed, continuous service to the community. Staff and General Practitioners working within the same buildings can identify their individual roles and appreciate more easily each other's contribution in the provision of a community service.

Everyone working from Health Centres has accepted with enthusiasm the opportunities offered by the siting of complementary services within one building. Co-operation and goodwill between General Practitioners and staff has contributed to the success of Health Centres and the development of the services within each building.

Midwifery 1972

During the year there have been changes which have affected the working of the midwifery service. Notable among these, was the re-organisation of the Local Authority nursing management structure, in line with the proposals made by the Mayston Working Party Report (1969). This resulted in the appointment of two 1st Line Nursing Officers (Maternity), each being responsible for the day to day management of the Midwifery Service, in one half of the city. The new management structure should not only increase the management efficiency of the service, but should also achieve its prime objective of providing an improved service to the patient.

General Practitioner Attachment Scheme

Attachment of all full-time domiciliary midwives was commenced in February, 1972. Instead of working, as they had in the past, within a defined geographical district, the midwife became responsible for all maternity care of the patients within the practice to which she was attached.

The initial problems that arose were solved with the minimal amount of difficulties by understanding and co-operation on the part of the General Practitioner and Midwives together with the support of all who were connected with the transition.

The scheme is now fully operational. Interchange of information between Midwife and General Practitioner, combined ante and post natal clinics have resulted in closer working relationships and a higher standard of service to the patient.

Midwifery

Notification of intention to Practise	164
<i>Of the above:</i>	
Domiciliary Midwives	32
Employed in Private Nursing Homes	9
Employed in Maternity Hospitals	122
Emergency Notifications (Part III)	1

Ante-Natal Clinics

The statistical tables below indicate an anticipated reduction in patients' attendance at Local Authority ante-natal clinics following the introduction of Midwifery/General Practitioner Attachments. An extra column is included in the table this year, which demonstrates the involvement of midwives at General Practitioner Ante-Natal clinics.

Ante-Natal Clinics

	Number of Sessions	1st Visits	Re-visits	Total
1972	157	108	419	527
1971	201	386	957	1343
G.P. Ante-Natal Clinics 1972	447	1585	8266	9851

Midwives and General Practitioner Obstetricians

The following figures show the distribution of work between the domiciliary midwives in relation to the 602 deliveries attended during 1972.

Deliveries attended by a midwife

a	(i) Doctor not booked, but present	3
	(ii) Doctor not booked, not present	4
b	(i) Doctor booked and present	24
	(ii) Doctor booked, not present	571
Total		602

Application for maternity beds in hospital on sociological grounds

Total number of applicants	1118
Number recommended	970

Of the 970 patients recommended for hospital beds 961 were accepted. The figures given below indicate the reason why the remaining 9 patients did not receive a hospital bed.

Moved away from the area	1
Referred on medical grounds	3
Admitted as social emergency	1
Found not to be pregnant	2
Miscarried	1
Booked at private nursing home	1

Flying Squad

This was called on five occasions and all cases were transferred to hospital.

Patients confined in hospital

The planned early discharge scheme continued as before. The midwife saw all patients at least twice during the ante-natal period, but because of the General Practitioner attachment scheme the majority of patients were seen much more frequently. Following discharge from hospital, the midwife visited each mother and baby until the 10th day, when the patient was transferred to the care of the health visitor.

Summary of hospital discharges

Day of discharge	1	2	3	4	5	6	7	8	9	Total
No. of patients	16	160	677	170	165	202	1425	252	134	3201

Maternal Deaths

Four maternal deaths occurred in the City during 1972:

- 1 I(a) Acute myeloid leukaemia
 - II Urinary tract infection
- 2 Amitriptyline poisoning
- 3 I(a) Lymphosarcoma
- 4 I(a) Renal failure
 - (b) Pre eclampsia (severe)
 - II Hepatic failure

Staffing

The approved establishment remained at 39. At the end of 1971 there were 20 full time and 6 part-time midwives in post.

There were four appointments of full-time midwives, and one part-time midwife took up full-time duties. Five full-time midwives left the service. Of these, three retired, one moved from the area and one left for domestic reasons. One part-time midwife retired.

Summary of work done by domiciliary midwives

Staff	Cases	Ante natal	Visits Post natal	Socio- logical	Total Visits
Full time	589	8318	21769	2069	32156
Part time	13	561	4521	511	5593
Totals	602	8879	26290	2580	37749

There was a decrease of 205 in the number of domiciliary confinements. This reflects the National situation and indicates the trend towards hospital confinement. The birth rate for the City showed a decrease of 414 on the 1971 figures.

Training of Pupil Midwives

During 1972 forty-three pupil midwives received domiciliary training with an approved teaching midwife.

Confinements and visiting

Year	Place of Birth		Total	+	—	Early discharge patients	+	—	Early discharge visits	+	—	Total visits
	Hospital	Domiciliary										
1968	3998	1223	5221	—	102	3106	+	275	16452	+	2528	60294
1969	4124	1053	5177	—	44	3236	+	130	17683	+	1231	55995
1970	4011	914	4925	—	252	3262	+	26	18668	+	985	54506
1971	3980	807	4787	—	138	3175	—	87	16252	—	2416	49513
1972	3761	602	4363	—	424	3201	+	26	15420	—	832	37749

Obstetric Nurses

Twenty-three nurses undergoing the Obstetric Nurse Training Course at the Leicester Royal Infirmary Maternity Hospital spent a day on the district with a teaching midwife in order to gain an insight into domiciliary midwifery.

Maternities and Neo-Natal Deaths

	1970	1971	1972
Live births notified under Public Health Act, 1936	4865	4756	4385
Stillbirths notified under Public Health Act, 1936	59	62	62
Immigrant live births	1079	965	996
Immigrant stillbirths	12	21	12
Immigrant live births as % of total live births	22.17	20.29	22.82
% sociological bookings	49.1	23.5	22.03
Immigrant stillbirths as % of immigrant total births	1.10(1.23)*	2.13(1.07)*	1.19(1.44)*
Immigrant first week deaths as % of immigrant live births	0.46(1.27)**	0.52(1.58)**	1.51(1.45)**

* Figures in brackets indicate indigenous stillbirths as % of indigenous total births

** Figures in brackets indicate indigenous first week deaths as % of indigenous live births

Cervical Cytology 1972

Cervical cytology clinics continued at Midland House on two days per week until the opening of St. Peter's Health Centre, when they were transferred there.

These clinics are divided into a morning and an evening session, in order to facilitate the attendance of women who go out to work. Unfortunately far too many appointments are not kept, thus causing a wastage of valuable staff time and more important still, delaying appointments for other women on the waiting list.

In January the Department of Health and Social Security initiated a National Re-call Scheme (Circular 33/71) for all women aged 35 years and over, who had a negative test 5 years earlier. As indicated in the statistics 497 women were examined under the National Re-call Scheme. This further but worthwhile demand on the service, necessitated additional clinics being provided at certain intervals.

There is a continuing need to encourage women to avail themselves of this very important service, and to impress upon them the importance of early detection of any abnormalities, particularly, cancer of the cervix.

Cervical Cytology	1972	1971	1970	1969
No. of women requesting smear	603	679	1117	1245
No. of women attending under national recall	†497	.	.	.
Examined at St. Peter's Health Centre	*1435	*1228	*1231	1028
Examined at home	.	.	.	1
Number on waiting list	206	66	88	177
No abnormal cells	1414	1154	1197	937
Doubtful	2	2	1	7
Positive	6	1	2	4
Positive findings per 1000 examinations	4.1	0.8	1.6	3.7
Trichomonas	12	30	18	37
Monillia	.	14	7	6
Candida	1	.	.	.
Viral	0	.	.	.
Non-specific	20	.	.	.
Other findings	12	27	6	37
Total abnormal findings	51	72	33	84
Total abnormal findings per 1000 examinations	35.5	58.6	26.8	81.7

† National recall scheme introduced in 1972.

* Examinations higher than requests because of planned recalls.

Health Visiting Report

As a result of changes in correlation of statistics for the Department of Health a new format for the collection of information has had to be adopted and numerical comparison with previous years' figures cannot be made in certain categories.

During 1972 health visiting staff – who are operating with numbers well below establishment – have been subjected to many changes; the opening of Health Centres, organisational changes as a result of Mayston, and the attendance at a 3-day Management Appreciation Course. Despite this the visiting carried out has been maintained at a high standard.

Immigrant visiting highlighted dietary problems, presented limitation in communication because of language barriers, and created difficulties caused by the variety of culture patterns and religious beliefs encountered. The influx of Ugandan Asians which started in September exacerbated these problems but staff ensured that all newly arrived immigrants with known medical conditions or disabilities were seen and advised.

In November, the B.B.C. televising unit visited Leicester in order to collect material for their Panorama Programme on Asian immigrants. Two members of the health visiting staff participated in this programme.

New developments

Domiciliary Family Planning Service

A pilot scheme for the provision of a free domiciliary family planning service in the Braunstone district was commenced in September. The Family Planning Association acting on an agency basis for the Health Department provide the staff, and equipment and referrals are made by health visitors. The aim was to provide a service to a section of the community who

could not afford to make their own provision and who were either unwilling or unable to attend the clinic. Twenty-four referrals were made from September to December inclusive.

Mother and Baby Liaison, Towers Hospital

In the past, difficulties had arisen when mothers with young babies were admitted for treatment. A liaison scheme was devised and the hospitals notify the Areas when patients are admitted. The health visitor visits the ward immediately to guide and advise the Ward Sister on infant feeding.

Hospital Liaison Officer

On 1st May, a T.B./Geriatric Liaison Officer was appointed with responsibilities for establishing closer links with the Hospital and thus minimising the gaps in the service.

A well established geriatric link was already operational but the creation of this specific post enabled these links to be extended by the provision of information on home conditions at the time of combined ward rounds and the feed-back of information to the health visitor on patients discharged home.

The need for a closer relationship with the Chest Clinics and Hospital is of prime importance because of the resurgence of the tuberculosis problem over the past five years.

Patients can be seen by the Liaison Officer whilst they are in hospital and notification of proposed discharge home can be made in order to prevent any difficulties arising. Follow-up of discharge patients occurs promptly because earlier notification of discharge is now possible.

Pilot Scheme for Speech Therapy students

This pilot scheme provides knowledge in depth to first year Speech Therapy students on normal emotional and physical child development.

The health visitor selected suitable children for study after she had discussed and obtained the consent of the family concerned. An initial introduction and combined follow-up visit was made and the student was then allowed to continue on her own. Meetings were held at regular intervals between the health visitor and student speech therapist to eliminate problems and discuss child development in depth.

The scheme commenced in September involving twenty students, who will continue studying the individual child until the end of their training.

This is an ongoing commitment, as each September, a further twenty students will be absorbed within the scheme.

Computerisation of the Observation and Handicap Register commenced

This register first started in 1964, was adapted for computer analysis and became operational in July, 1972.

Health visitors and midwives are involved in supplying information on children considered to be at risk of developing physical or mental handicaps as well as those already diagnosed as handicapped.

The aims of the register are :-

To ensure that every service and support considered necessary and helpful (medically and socially), is available for each individual child requiring such help.

To supply statistical information and trends based on the register which will assist long term planning.

To provide monthly lists of appointments of children under five, due for medical assessment.

Health Education

A considerable amount of the time and staff available, have been spent in the preparation of young people to meet the future problems of healthy and happy living, in terms of the individual, the family, the community and at work in industry and commerce, and to try to equip them to make a rational and responsible choice of alternatives.

This has been done in :-

- Schools
- Further education establishments
- Youth clubs
- Apprentice schemes
- Factories and workshops

The effects of such health education cannot be evaluated in an account of numbers of sessions, numbers attending and subjects presented. We can never know how many girls have become better mothers because of our teaching in child care or how many boys have been persuaded to reject smoking, the misuse of alcohol or drugs, or even irresponsible sexual behaviour.

Teaching is carried out by the most gifted, knowledgeable and enthusiastic persons available. No effort is spared in thorough preparation of teaching staff, for the quality of teaching is more important than the quantity. We are fortunate in having many modern teaching aids.

It has been suggested that the deep involvement of the health education staff in health teaching in schools has prevented school teachers themselves from assuming their proper responsibilities. If this is so, our in-service courses for teachers, with appropriate and programmed withdrawal from the mainstream of health teaching in schools will enable us to concentrate our efforts more on teaching health to teachers and on

making materials and information and a wide range of other help available.

The largest proportion of the health education in the department will always be done on a personal one-to-one basis by the district nurses and midwives and health visitors in the home and the clinics ; by the school nurses and doctors in the schools ; by the doctors and dentists in the consulting rooms ; by the public health inspectors in shops, factories and canteens. Many of these will have been importuned for help. To others opportunities are taken as they arise. There is no doubt that the personal approach at the right moment is the most useful, and again its success cannot be measured by such yardsticks as how often, how much and how many.

The following is a report of our attempts to influence behaviour by group teaching. We have concentrated our efforts where it is likely they will be most productive ; in schools and in classes for expectant parents, including adopting parents.

Schools

Parentcraft courses were given in the majority of the girls' secondary modern schools, mainly to girls in the fourth year. Repeated visits to most schools were needed during the week in order to cover all the forms. The courses were sometimes part of the Duke of Edinburgh award scheme, or sometimes part of the certificate of secondary education courses, or for the City Health Department certificate.

In twelve secondary modern and three secondary grammar schools, renewed efforts to inform and influence girls and boys on general health and such social problems as smoking, the sexually transmitted diseases, the misuse of drugs and alcohol and the need for family planning have been made. This has augmented the teaching done by school staff throughout the school

curriculum and by school doctors and nurses when they see the children individually. It is possible that 80% of Leicester's girls have some teaching on, for instance, the venereal diseases before leaving school. A large amount is from health staff but increasingly from their own teachers.

Lectures on selected health subjects have been given to students at the polytechnic, the two colleges of further education and the two colleges of education. These establishments and the University have also been assisted with leaflets, posters and the loan of films and other teaching aids.

A twelve week course on child care was arranged for teachers to enable them to take over some of this teaching which can now be done more extensively during the extra year.

Antenatal classes

The teaching of expectant mothers is given high priority in the health education programme. Specially trained midwives and health visitors teach mothercraft and the physical and psychological preparation for labour. The number of sessions has been reduced because of the opening of the new maternity wing and the increase in hospital deliveries.

Three hundred and thirty-six mothers attended classes. There were 1,376 attendances altogether. Of these mothers 116 were booked for domiciliary delivery and 220 for hospital.

Adopting parents

Three courses during the year were designed to give parents help and confidence in the initial care of their babies.

Child Health Centres

Although most of the teaching is on a personal one-to-one basis an increase in group education has

occurred and where possible, although to a small extent, health visitors teach by films, slides and demonstration.

We have arranged a course for deaf mothers with films, slides and discussion on many topics including child care, family planning and first aid.

Cytology clinics

The teaching that could lead to early detection of breast cancer has continued. Women who attend for the cervical smear test at the health department are instructed by means of a one minute film on regular self examination of the breasts. 1,220 women were instructed this year. Facilities have been provided for the instruction of women at two places of employment and in doctors' surgeries. Many leaflets have been distributed.

Miscellaneous Health Education

Lectures and films and publicity material on such social problems as drug abuse, the sexually transmitted diseases and family limitation have been given to apprentice courses, women's organisations, day release students as part of their liberal studies, factories and other work places.

Hundreds of requests for information, display and teaching material have been met. Full use has been made of opportunities for teaching by leaflets and posters. Requests for help with projects and teaching schemes come in almost daily. Although this help is time consuming we can almost invariably give the assistance required.

Participation in the training programmes of student district nurses, student health visitors, pupil midwives, hospital students and student teachers, youth leaders and home help trainees has continued. All requests for talks from outside organisations have been met.

Asian Community

Shortage of time limits our group teaching in this direction. Circulation of leaflets continues and even increases. Many are distributed nationally. Advice and teaching materials have been given to many factories and other places of work concerning health and hygiene for Asian girls.

Staff Development

Mayston Management Structure

As part of the scheme to implement the recommendations of the 'Mayston' report a Management Appreciation Course of three days was devised to prepare fieldwork staff for their minor managerial role. During 1972, nine such courses were held and attended by 94 nursing staff and 15 clerical staff.

6 nursing officers also attended a four-week multi-disciplinary Middle Management course at the Leicester Polytechnic.

Management Services Courses

3 members of staff attended a two-day course in Computer education for Middle Management.

8 members of clerical staff attended a one-day course in Computer education for clerical users.

1 member of staff attended a five-day course in Recruitment and Selection.

2 members of staff attended a two-day course in Network Analysis and associated techniques.

6 members of staff attended a half-day seminar on Cost Benefit analysis.

In-Service training

Instruction in Screening tests for hearing was arranged for all newly qualified health visitors.

Instruction in Heaf Gun tests was given to 20 school/clinic nurses.

Other Courses

2 health visitors attended Fieldwork Instructor courses

7 district nurses attended refresher courses.

2 health visitors attended refresher courses.

5 midwives attended the statutory refresher courses.

Visitors to the Department

During the year, a total 117 student nurses from hospital made observation visits, spending a day with the district nurse and a day with the health visitor.

Survey

From October to December, a survey to assess the training needs of nursing services staff was carried out.

Health Visiting

		1972			1971	
	H/V's	Student	CN/A's	H/V's	Student	CN/A's
Number of first visits to children born 1972	4290	251	1833	4710	67	.
Number of re-visits to children born 1972	12257	805		11541	317	66
Number of visits to children born 68/71	36576	3516		37627	1355	272
Number of visits paid to Commonwealth immigrant mothers & young children (i.e. who have been in this country for less than 10 years)	6592*	686*	1466*	6235*	52*	.
Number of persons aged 5-16 inclusive seen as part of health visiting	1154	85	.	.	.	.
Number of persons aged 17-64 inclusive	3702	239	.	.	.	.
Number of persons aged 65 and over	4868	377	2036	4100	239	964
Number of persons who are mentally handicapped	463*	16*	.	.	.	.
Number of persons who are mentally ill	381*	5*	.	.	.	.
Number of households visited on account of Tuberculosis	840	139	701	.	.	.
Number of households visited on account of other infectious diseases	82	1	39	.	.	.
Number of households visited on account of any other reason	5284	309	.	.	.	.
Total of No Access Visits	15002	1836	752	16455	393	1458
Totals	84055	7558	5361			

* These visits are already included in other categories

Attendances at Clinics and other Sessions

		1972			1971	
	H/V's	Student	CN/A's	H/V's	Student	CN/A's
Child Health Clinics	2171	128	.	2445 $\frac{1}{2}$	12	3188
Screening Tests and Audiology Clinics	286	8	.	203 $\frac{3}{4}$	.	319
Hospital Sessions	749	.	.	619	.	11
Any Other Clinics	224	20	.	121	4	3195
Total Sessions for School Health Service	366	.	5782	.	.	.
Total Sessions for Nursing Services	19823	1308	697	.	.	.
Totals	23619	1464	6479			

Patients seen in G.P.'s Surgeries by Health Visitors

		1972
	Age Groups	
	Children 0-5	3505
	Patients 5-64	2056
	Patients 65 and over	601
		6162
No. seen at Sessions	Number seen at Vaccination/Immunisation Session	5495
	Number seen at "Well Baby" Clinic	3391
	Number seen at Cytology Clinic	63
	Number seen at other sessions e.g. post natal, ante-natal	742
	Total	9691

Child Health Clinics

Attendances by children

	Attendances	Sessions
1971	74811	1549
1972	67087	1443

Domestic Renal Haemodialysis for End Stage Chronic Kidney Disease

During 1972 a third patient in Leicester commenced home dialysis treatment.

Because of the disadvantages of adapting homes to allow the installation of an artificial kidney machine, Leicester City Health Department, with the help of a specialist joinery firm, developed an external sectional portable building to accommodate these patients.

For a terraced house, the components of this building are portable enough to be carried through a passageway into a back garden. The structure also complies with building regulations and the design is sufficiently versatile to allow rearrangement of the interior when the building is moved to another site. It also offers a high level of Thermal insulation.

District Nursing

New Developments

Computerisation

During the past eighteen months the formulation of a programme designed to provide computerised home nursing records has been in progress.

This complex scheme was devised so that implementation could be achieved in two phases. On 1st July, phase 1 – the introduction of a computer scheme to record all treatments carried out by District Nurses in Health Centres and General Practitioner Surgeries. The two main objectives of this phase have been achieved.

The first, of primary importance, was educational ; to

introduce in a simplified form a computerised system, thus enabling District Nurses to understand the basic principles of this method of recording.

The second was to correlate statistical information on increase in work loads, analysis of treatments carried out and recording of the amount of time spent in surgeries in an accurate manner. This reduced the amount of time spent by nursing staff on clerical procedures enabling them to increase the time spent on patient care.

Phase 2 will consist of the complete documentation of all Home Nursing Records and the weekly programming of the District Nursing visits. A pilot scheme is scheduled to commence in April, 1973.

On completion of Phase 2, management information will be readily available. An up-to-date and collated, disease treatment profile of cases nursed in the home can also be extracted.

Hospital Liaison Officer

On 1st February, a Hospital Liaison Officer was appointed to act as a link between the Leicester Royal Infirmary and Leicester General Hospital. The increased information which has been available has been a factor in dealing more effectively with the continuity of patient care.

Hospital Staff are much more aware of the community services available and the community care carried out. There has been a gradual increase in the number of cases referred by the Hospital.

Summary of Nursing Statistics

TABLE A

	1972	1971	Differences from 1971	
Number of cases treated at home by day	6772	6765	+ 7	+ 0.1%
Number included above who are also treated by night	271	208	+ 63	+ 30.3%
Number treated at Health Centres	1861	416	+ 1445	+ 347.3%
Number treated at G.P. surgery	10570	12997	- 2427	- 18.7%
Total number of cases treated	19203	20178	- 975	- 4.8%

Visits and Treatments Undertaken

TABLE B

Number of domiciliary visits by day	169343	168220	+ 1123	+ 0.7%
Number of treatments at Health Centres	7296	5062	+ 2234	+ 44.1%
Number of domiciliary visits by night	9354	8476	+ 878	+ 10.6%
Number of treatments at G.P. surgery	21288	22300	- 1012	- 4.5%
Total	207281	204058	+ 3223	+ 1.6%

Age Distribution of Cases

TABLE C

		Under 1 year	1-4	5-14	15-64	65-74	75+	All ages	Total
Nursed by day	<i>m</i>	45	161	258	908	621	710	2703	6772
	<i>f</i>	19	57	71	1335	923	1664	4069	
Nursed by night	<i>m</i>	.	1	2	33	37	38	111	271
	<i>f</i>	.	1	1	44	34	81	160	

TABLE D

	Under 5	5-64	65+	Total
Treated at centre	124	1294	248	1666
G.P. surgeries	828	8129	1608	10565

Number of Patients treated at Home, by duration of treatment

TABLE E

		Under 2 wks		2 wks-1 mth		1-3 mths		Over 3 mths	
		1972	1971	1972	1971	1972	1971	1972	1971
Under 65	<i>m</i>	801		276		148		162	
65-74		244		99		100		180	
75+		208		102		100		275	
Totals		1253	1299	477	493	348	454	617	646
Under 65	<i>f</i>	737		272		217		296	
65-74		227		120		150		418	
75+		359		207		241		833	
Totals		1323	1367	599	673	608	736	1547	1513
Grand Totals		2576	2666	1076	1166	956	1190	2164	2159

Patients aged 65 and over

TABLE F

	1972	1971	1970	1969	1968
Number of male patients over 65	1308	1288	1257	1031	1175
Number of female patients over 65	2555	2564	2497	2238	2088
Total	3863	3852	3754	3269	3263
Number of visits	122064	120113	117440	114603	116787

TABLE G

		65-74	75+
Number of patients	<i>m</i>	621	687
	<i>f</i>	916	1639
Number of day visits		42469	77186
Number of night visits		1457	952 2801

Distribution by Disease (Main diseases nursed)

TABLE H

	Male Total	-65	65-74	75+	Died	Visits	Female Total	-65	65-74	75+	Died	Visits
Cancer	223	63	89	71	121	5488	281	108	85	88	102	8903
Other tumours	68	52	14	2	2	1125	106	91	11	4	3	669
Tuberculosis	17	12	3	2	.	412	34	32	1	1	.	1180
Bronchitis/Respiratory	232	111	60	61	25	5053	193	78	41	74	25	3702
Diabetes	66	31	16	19	3	5076	114	40	33	41	4	14493
Anaemia	123	27	44	52	10	1969	457	159	134	174	17	8301
Cardiac	131	16	39	76	47	3275	177	21	43	113	35	7270
Digestive/Hernia	479	370	61	48	8	4990	395	217	73	105	12	4780
Cerebrovascular	235	35	99	101	69	7298	353	42	112	199	67	9873
Arthritis/Rheumatism	39	8	11	20	3	1092	263	56	71	138	17	12955
Generative Organs (Cir.)	310	234	39	37	7	2920	331	181	45	105	5	3431
Diseases of Ear & Eye	17	8	3	6	3	215	35	6	2	27	.	1941
Senility	63	1	11	51	15	1711	181	2	14	165	24	5777
Skin Disease	193	112	37	44	5	5101	325	119	87	119	13	11510
					Total	45725					Total	94755
Others	499	Male				13275		Female				24903
	832					Visits						

Home Circumstances of Patients

TABLE I

	-65		65-74		75+	
	<i>m</i>	<i>f</i>	<i>m</i>	<i>f</i>	<i>m</i>	<i>f</i>
Living alone	17	29	30	96	49	203
Housebound	435	582	322	460	342	909
Bedbound	136	131	137	154	211	349
						43

Registration of Nursing Homes

	Number of Homes	1972 Number of Beds provided		
		Maternity	Others	Total
Homes registered during year	.	.	.	.
Registrations withdrawn during year	.	.	.	.
Homes on register at end of year	10	18	257	275

	No. of beds
Ava Nursing Home	21
Central Nursing Home	15
Dane Hills Convent	44
Fernleigh Nursing Home	38
Leicester Clinic	32
St. Francis Private Nursing Home	24 + 18 Maternity
St. Benet's Nursing Home	25
Sundial Nursing Home	23
The Lawn Nursing Home	26
University Medical Centre	9

Registration of Nursing Agencies

Agencies registered during the year	Nil
Agencies on register at the end of year	2

Training School Report

District Nurse Training School

State Registered Nurses' Course in preparation for the National Certificate of District Nursing :

Eight students commenced training in September, 1971, in preparation for the examination held in January, 1972. All the nurses were successful.

Seven students commenced training in January, 1972, in preparation for the examination held in May, 1972. All the nurses were successful.

Nine students commenced training in September, 1972, in preparation for the examination to be held in January, 1973.

Students were seconded by this Authority and by Northampton County Borough.

State Enrolled Nurses' Course in preparation for the National Certificate of District Nursing (SEN) :

Four nurses commenced training in November, 1971, in preparation for the examination held in January, 1972. Three nurses were successful. One nurse withdrew from the course.

Four nurses commenced training in November, 1972, in preparation for the examination to be held in January, 1973.

Nurses were seconded by this Authority and by Northampton County Borough.

Leicester Royal Infirmary Integrated Course for Pupil Nurses :

Thirty-five pupils spent two days on the district during Introductory Blocks.

Twenty-two pupils spent two weeks on the district at the end of the first year of training.

Eight pupils completed six weeks District Nurse Training during the period November 1971 to January 1972, in preparation for the National Examination for

District Nurse Training (SEN) held in January, 1972. All the pupils were successful.

Six pupils completed the six weeks District Nurse Training Course in preparation for the examination held in May, 1972. Five pupils were successful.

Leicester General Hospital Integrated Course for Pupil Nurses :

Seventeen pupils spent two days on the district during the Introductory Blocks.

Course for District Nurse Practical Instructors :

A course designed to help experienced district nursing sisters and teaching midwives in their teaching role with nurses undertaking basic integrated and post basic training, was held and well attended.

Members of course from this Authority 13

Members from other Authorities 13

In Service Training for Nursing Auxiliaries

A two-day introductory course was held in September, 1972 at which four members of staff attended.

This course was followed by a two-day course on rehabilitation methods. Nine members of staff attended.

Visitors to Unit

Miss MacNamara and Miss Sommerville visited the Unit. Both were Health Visitor Tutor students from Bolton, for teaching practice.

Care and Aftercare

Compulsory Removal

The use of Section 47 of the National Assistance Act is reserved for the most desperately incapacitated and infirm people, either living in insanitary conditions or suffering from grave chronic disease, who are unable to care for themselves or to be cared for in their own homes. If they completely refuse admission they can be compelled under this section to go into a suitable home or hospital where they can receive adequate care.

In the course of 1972 five old ladies were taken to hospital and one was taken to an old peoples home under this act.

Chiropody Service

The scheme is provided for pensioners and certain handicapped persons through local chiropodists. An assessment is made in each case to determine need.

The number of treatments given continued to rise in 1972 and the number of patients on the books at 31st December rose from 2,664 in 1971 to 2,761 in 1972.

	1972	1971	1970	1969
New cases – domiciliary	270	260	247	263
Domiciliary treatments	7165	6591	6176	6040
New cases – others	247	299	275	254
Other treatments	6898	6652	5823	5561
Patients on books at 31.12.72	2761			

Laundry Service

The demands on the Laundry Service continued to increase during the year. As will be seen from the statistical table more people required the service on a long term basis. In September, a second van and driver was obtained, thus enabling the high standard of this very necessary and reliable service to be maintained.

The Laundry Service personnel take a kindly and sympathetic interest in the patients receiving the service and in view of the regular visits made, it is a method, particularly in the case of the elderly, of bringing to notice any change in conditions or minor crises which might arise.

Domiciliary Laundry Service	1972	1971
Number of cases brought forward	142	86
Number of new cases during year	308	222

Cases removed from Register	1972	1971
Died	145	90
Transferred to hospital	89	55
Service no longer required	47	23

Dressings Disposal Service

Number of cases brought forward	76	56
Number of new cases during year	96	79

Cases removed from Register

Died	43	26
Transferred to hospital	23	14
Service no longer required	30	11

Medical Equipment Loan

The number of issues to patients in the City increased by 30% during the year and there is now an almost daily collection and delivery service.

Our programme for 1972 had been to increase our personnel and improve facilities at our Headquarters. We tried to do both but with the increase in work we finished the year where we started still needing more staff and improved facilities.

As far as the department is concerned improvements in arrangements for the discharge of patients from hospital has helped us considerably. The understanding of our problems by the District Nursing Sisters and their continued co-operation is much appreciated.

City Ambulance Service

Report for the year 1972

J. McCafferty AIAO, Chief Ambulance Officer

The City Ambulance Service continued to provide a high level of service to the community during the year. As will be seen from the statistics, more people required the service on a long term basis in September, a second van and driver was assigned, thus enabling the high standard of service to be maintained. The very necessary and reliable service to be maintained.

The Laundry Service personnel take a family and sympathetic interest in the patients receiving the service and the view of the family visit made it a method of partnership in the care of the elderly or disabled to reduce any change in conditions or needs which might arise.

Domestically Laundry Service		1972	1971
Number of cases brought forward	142	99	
Number of cases completed	142	99	

Cases removed from Hospital		1972	1971
Number of cases brought forward	47	52	
Number of cases completed	47	52	

Domestically Laundry Service		1972	1971
Number of cases brought forward	16	20	
Number of cases completed	16	20	

Cases removed from Hospital		1972	1971
Number of cases brought forward	42	49	
Number of cases completed	42	49	

Medical Equipment Loan

The number of loans to patients in the City increased by 30% during the year and there is now an almost daily collection and delivery service.

Our programme for 1972 had been to increase our personnel and improve facilities at our Headquarters. We tried to do both but with the purpose to work we failed the year where we started with needing more staff and improved facilities.

As far as the department is concerned improvements in management for the delivery of patients from hospital has helped us considerably. The understanding of our problems by the District Nursing Service and their continued co-operation is much appreciated.

Calls

During the year 1972, the ambulance service travelled 463,462 miles and carried 127,231 patients.

New Vehicles

A new feature of the vehicle replacement programme was the introduction of five 13 seater Ford Transits which have a 50% increased seating capacity. Each vehicle is very well equipped and gives a smoother ride, which makes it ideal for the movement of large numbers of patients to and from Geriatric and Mental Health Care Day Units.

Radio Telephone Communications

The replacement of the Ambulance Service radio communication system was completed in December 1972. The new mobiles are multi-channel and are capable of working in conjunction with the County Ambulance Service. This means that both services are equipped and ready to operate under a unified control in 1974. There is also an Emergency Reserve Channel, installed with facilities for immediate use should a major disaster occur. It is tested regularly and is available for immediate use to whichever service requires it. This means that should a major disaster occur in Leicester, then the City Ambulance Service would control both services, and vice versa should the incident happen in the County.

Equipment

Every emergency vehicle now carries a portable aspirator which is specially designed for pharyngeal suction. It is very light and easy to operate, each cartridge lasts for half an hour. This unit replaces the fixed suction unit which worked from the engine manifold.

Training Equipment

The latest manikin has been added to our range of training equipment. It is a resuscitation recording model which indicates by a reading on a print-out whether the ambulanceman is effectively massaging the heart and ventilating the lungs. It is an excellent model and is used for assessing personnel during their In-Service training.

Training

Following the success of the pilot course as mentioned in the 1971 Annual Report, the Local Government Training Board selected the Chief Ambulance Officer and his deputy to run a short course in life saving techniques based on a programmed text which was issued to the students before attending our training school. It is hoped that this course will result in our methods of presentation being accepted by the L.G.T.B. as the format for future courses.

Productivity Scheme

A productivity scheme was introduced in September 1972 for ambulancemen and control room staff and it is hoped that it will be as successful as the scheme accepted by the workshop staff. The agreement is based on the following measures:

- (1) Agreed changes to working rotas.
- (2) A reduction in the number of employees.
- (3) Measures designed to improve control and utilisation of manpower and vehicles.

Central Heating

The Ambulance Station is now heated by a new automatic gas fired central heating system which replaces the original coal-coke boiler installations.

City Ambulance Service		Total Calls		Increase	Decrease		
	Patients carried	1972	1971				
	Outpatients	95937	97882		— 1945		
	Admission & Transfers	9381	8937	+ 444			
	Discharges & Convalescent	6140	6893		— 753		
	Maternity	2041	2248		— 207		
	Mental	282	276	+ 6			
	Infectious	60	61		— 1		
	Accident cases Road	1314	1351		— 37		
	Other	6714	6267	+ 447			
	Premature baby cot cases	22	51		— 29		
	Other Local Authorities	2	3		— 1		
	Patients Dead on arrival	147	132	+ 15			
	Abortive	3940	4005		— 65		
	Misc. services for which charges are made	519	1141		— 622		
	No. of other journeys made by personnel	732	829		— 97		
Total calls		127231	130076				
Total mileage		463462	461864				
Average miles per patient		3.64	3.55				
Number of patients conveyed by train		60	87				
Train mileage		7691	11237				
Average train miles per patient		128.18	129.16				
	1972	1971	1970	1969	1968	1967	1948
Total number of calls	127,231	130,076	127,144	121,082	115,907	117,431	36,661
Mileage by road	463,462	461,864	464,998	468,907	467,864	454,788	196,870
Average miles per patient	3.64	3.55	3.66	3.86	4.04	3.81	5.37
Patients conveyed by train	60	87	53	48	72	75	.
Number of miles by train	7,691	11,237	7,326	7,323	8,507	8,834	.
Average miles per patient by train	128.18	129.16	138.22	152.56	118.15	117.78	.

Immigrant Health

One of the basic techniques of Epidemiology is to divide communities into groups and to study disease patterns within these groups. If the studies show real differences between a particular group and the general population then these differences must be taken into consideration when planning the health care services. Health Studies within age groups are taken for granted and so are the resultant services such as child health clinics and geriatric care services.

The study of immigrant health is undertaken solely for these purposes. The results referred to in this report are presented for health care purposes and they should be read within this context. Results abstracted from the report could be misleading.

The responsibilities of the health services towards immigrants can be considered in three parts.

- 1 On arrival of an immigrant we are concerned mainly with detecting and preventing the spread of communicable disease.
- 2 The next stage is one of integration where the immigrant learns how to use the health and social services.
- 3 The third stage is one of long term planning where information on the health of the immigrant communities is studied, problems are identified and health care plans are made.

There is no doubt that the health care of immigrants presents many features that require special attention. For example, we know that a high proportion of the new cases of tuberculosis arises in immigrants. However, apart from a few isolated examples like these we have few hard data on which to identify problems. We do not even know accurately the total number of immigrants in Leicester let alone the size and structure of their families.

Obviously, for better planning we must have better information. Whilst there has been a continuing improvement in our use of available data no major advance will be made until two objections are overcome. Firstly, a system which ensures confidentiality of information about individuals (we are only interested in population and not in individuals) must not only be developed but the public must be convinced of its effectiveness. Secondly, the problems of the expense of such a system must be overcome. Such systems are being researched and developed (at a national level). In the meanwhile we must continue to improve our utilisation of the information that we do have available.

Ugandan Asians

The sudden influx of much larger numbers of Ugandan Asians than suggested by the estimates of the Ugandan Resettlement Board posed a number of problems for the Health Department to consider. How many would arrive? Where would they settle? What would be their physical and mental condition? A system of registration was introduced and careful cross-checking was established in order to prevent over enumeration. This included in all cases checking on passport numbers and other immigration documents. Although every effort was made to avoid over enumeration there were ample opportunities for immigrants to enter the City without registering and thus the numbers have continued to increase during the current year and the true numbers present in the City could be substantially higher than our records indicate.

The figures below refer to those who were registered by the Department and appear to have established a settled abode. A break-down by age groups indicate where pressure is likely to occur in existing services.

Age Group	August to December 1972	January to 18th May 1973
Pre-School Children	319	394
School Children	1004	1283
Working Age Group	2097	2482
Pensioners	127	154
Total (includes unknown)	3631	4410
Females 16-44 years	831 includes 36 known to be pregnant	969 includes 41 known to be pregnant

An analysis of the records up to 31st December, 1972 indicate that the 3,631 immigrants were distributed over 665 addresses. In effect they were 'additions' to already existing households. Is it unreasonable to expect that the average household could accept this additional burden for a prolonged period of time without the risk of detriment to their health and the creation of considerable stress within the family.

In the period up to 31st December 1972 there were 400 families to be accommodated where the size of the family was 4 or more and in over one quarter of these cases the family size was more than 7.

By May, 1973, the situation had further deteriorated, the number of known addresses had increased to 807 and nearly 500 of these family units consisted of 4 or more persons and approximately 140 of these family units consisted of 7 or more.

The large numbers involved precluded any routine medical check on the refugees as they arrived in the City. However, they had passed through Health Control checks at the airport and many had more extensive medical examinations at reception camps. Reports were forwarded to the Health Department and on the basis of these, Health Visitors saw selected cases in their homes.

Persons over 16 years old who had not been X-rayed since arrival were X-rayed at the Chest Clinic. So far, 7

cases of pulmonary tuberculosis have been diagnosed and a further 16 persons are under observation. Children applying for entry to school were examined at a special clinic (see Principal School Medical Officer's report).

Repeated movement of families from one address to another makes the problem of maintaining contact difficult, but as more and more visits are undertaken a clearer appreciation of the difficulties of these families is obtained. Language, Diet, Rickets, Anaemia and Tuberculosis are some of the problems with which we are faced. It is obvious, that in order to carry out an effective service, intensive visiting would be required to ascertain the problems and to provide a follow-up to ensure that remedial action is taken. But where do the staff come from? Should other areas of the city be denuded in order that these people can be provided with a service that is essential if their standard of health is to be raised to that of the indigenous population. It is indeed not surprising that all efforts to recruit additional staff have been to no avail. Why should staff be expected to 'volunteer' to work in such an area and under such conditions when they are offered the same pay to work in more congenial surrounds and under far less stress.

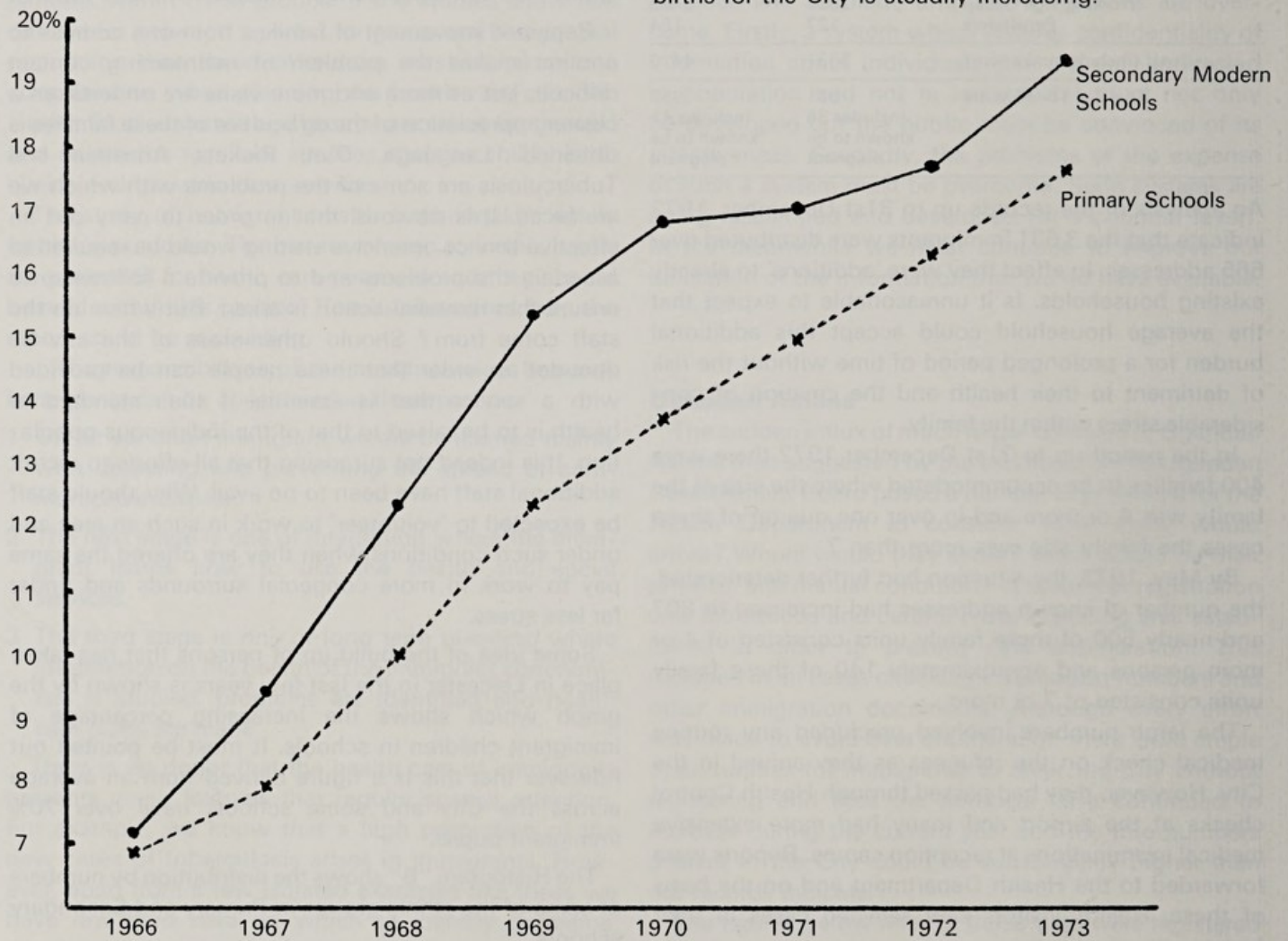
Some idea of the build up of persons that has taken place in Leicester in the last few years is shown by the graph which shows the increasing percentage of immigrant children in schools. It must be pointed out however that this is a figure derived from an average across the City and some schools have over 70% immigrant pupils.

The Histogram "B" shows the distribution by numbers of some of the ethnic groups in Primary and Secondary schools.

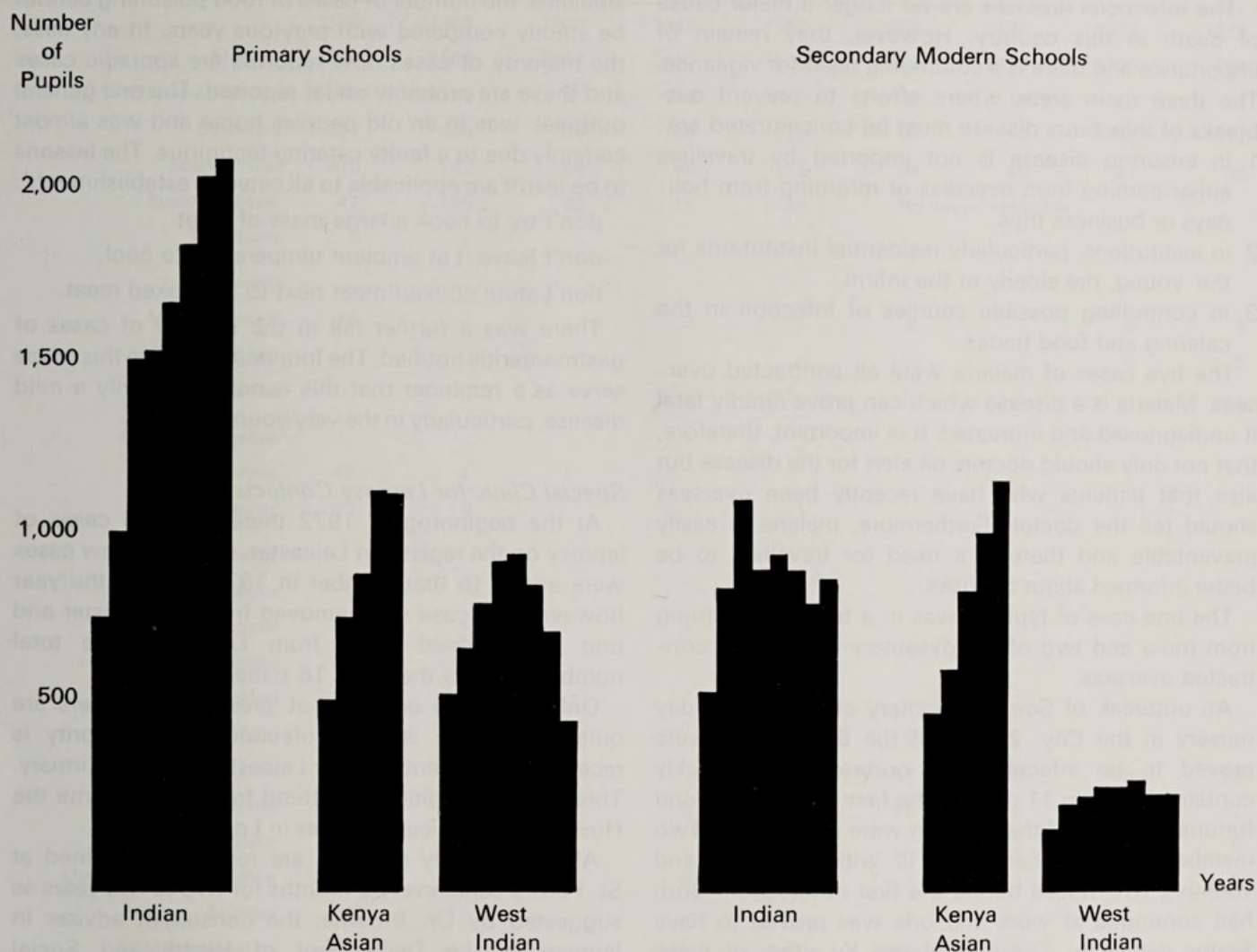
N.B. Figures for Ugandan Asians are not included as this information is not yet available for publication but

as indicated above there were approximately 1,000 children of school age registered between August and December, 1972.

A further graph on page 16 in the Midwifery Section indicates that in contrast to the decline in indigenous births both the numbers and percentage of immigrant births for the City is steadily increasing.



A. Percentage of Immigrant pupils in Primary and in Secondary Modern Schools in Leicester in January of each year 1966 to 1973.



B. Numbers of pupils of selected Immigrant groups in Primary schools and in Secondary Modern Schools in January of each year from 1966 to 1973 (except Kenya Asians: 1969 to 1973).

Infectious Diseases

The infectious diseases are no longer a major cause of death in this country. However, they remain of importance and there is a continuing need for vigilance. The three main areas where efforts to prevent outbreaks of infectious disease must be concentrated are:

- 1 in ensuring disease is not imported by travellers either coming from overseas or returning from holidays or business trips.
- 2 in institutions, particularly residential institutions for the young, the elderly or the infirm.
- 3 in controlling possible sources of infection in the catering and food trades.

The five cases of malaria were all contracted overseas. Malaria is a disease which can prove rapidly fatal if undiagnosed and untreated. It is important, therefore, that not only should doctors be alert for the disease but also that patients who have recently been overseas should tell the doctor. Furthermore, malaria is easily preventable and there is a need for travellers to be better informed about the risks.

The one case of typhoid was in a traveller returning from India and two of the dysentery cases were contracted overseas.

An outbreak of Sonne dysentery occurred in a day nursery in the City. 26 out of the 50 children were proved to be infected. The outbreak was quickly contained (within 11 days of the first notification) and fortunately none of the children were seriously ill. Two members of staff had been ill with diarrhoea and vomiting two weeks before the first notification. Both had continued at work and one was proven to have Sonne dysentery. The part played by either of these persons in the outbreak is not certain but what is certain is that neither should have continued at work until they had been investigated and proved to be clear of infection.

Due to a change in the method of compiling the statistics, the number of cases of food poisoning cannot be strictly compared with previous years. In any case, the majority of cases now reported are sporadic cases and these are probably under reported. The one general outbreak was in an old peoples home and was almost certainly due to a faulty catering technique. The lessons to be learnt are applicable to all catering establishments:

don't try to cook a large mass of meat.

don't leave it at ambient temperature to cool.

don't store cooked meat next to uncooked meat.

There was a further fall in the number of cases of gastroenteritis notified. The four deaths due to this cause serve as a reminder that this is not necessarily a mild disease, particularly in the very young.

Special Clinic for Leprosy Contacts

At the beginning of 1972 there were 16 cases of leprosy on the register in Leicester. Only two new cases were added to that number in 1972. During the year however one case was removed from the register and one case moved away from Leicester. The total number remains therefore 16 patients.

Only one case is active at present, the others are quiescent. None is now infectious. The majority is receiving treatment at the Leicester Royal Infirmary. Three people additionally attend from time to time the Hospital for Tropical Diseases in London.

All close family contacts are regularly examined at St. Peter's clinic every 3 months for two to five years as suggested by Dr. Browne, the consultant adviser in leprosy to the Department of Health and Social Security. None of the contacts contracted the disease.

As before all contacts requiring it received an anti-tuberculosis B.C.G. vaccination, which gives some protection against leprosy.

Infectious diseases notifications

	1950	1955	1960	1965	1968	1969	1970	1971	1972
Measles	1839	7168	2867	2411	1638	1254	2476	1722	283
Whooping Cough	969	1139	61	168	140	19	13	60	4
Dysentery	697	505	48	169	116	35	14	31	14
Scarlet Fever	478	147	99	66	118	89	40	47	30
Puerperal Fever	47	155	92	15	14	No longer notifiable			
Diphtheria	5	.	.	.	.	.	.	.	.
Meningitis									
Meningococcal	16	7	.	2	1	2	7	6	3
Other specified	.	.	.	.	.	11	2	6	5
Unspecified	.	.	.	.	1	7	1	.	.
<i>Poliomyelitis</i>									
Paralytic	42	4	1	.	.	.	.	.	.
Non-paralytic	37	9	.	.	.	.	.	.	.
<i>Encephalitis</i>									
Infectious	8	.	5	.	1	1	.	.	.
Post-infectious	.	1	.	1	.	.	.	.	.
Leptospirosis	.	.	.	.	.	.	.	.	.
Paratyphoid	.	.	1	.	1	.	.	.	.
Typhoid	.	.	.	.	.	3	1	4	1
Gastro-Enteritis	.	.	.	.	.	57	86	29	20
Food Poisoning	347	251	27	5	76	51	60	71	42
Malaria	.	2	.	.	1	1	2	.	5
Ophthalmia Neonatorum	2	3	11	6	1	3	3	1	1
Leprosy	.	.	.	.	.	1	2	1	3
Infective Hepatitis	.	.	.	299	244	664	561	146	126
Tuberculosis									
Pulmonary	.	213	158	124	94	108	128	122	99
Non-Pulmonary	.	26	26	33	37	73	62	64	62

Food poisoning 1972

	General outbreaks		Family outbreaks		Sporadic cases	Total	Total
	No. of separate outbreaks	No. of cases notified or ascertained	No. of separate outbreaks	No. of cases notified or ascertained	Notified or ascertained	No. of outbreaks and sporadic cases (columns 1, 3, 5)	No. of cases (columns 2, 4, 5)
Causative agents	1	2	3	4	5	6	7
S. Typhimurium	.	.	.	.	4	4	4
Other Salmonellae	.	.	.	.	8	8	8
CI Welchii	1	9	1	3	.	2	12
Cause Unknown	.	.	6	16	19	25	35
Total	1	9	7	19	31	39	59

Food poisoning due to Salmonellae other than Salmonella Typhimurium

Brandenberg	.	.	.	.	2	2	2
Stanleyville	.	.	.	.	1	1	1
Other Salmonellae	.	.	.	.	5	5	5

Infectious diseases Morbidity and Mortality

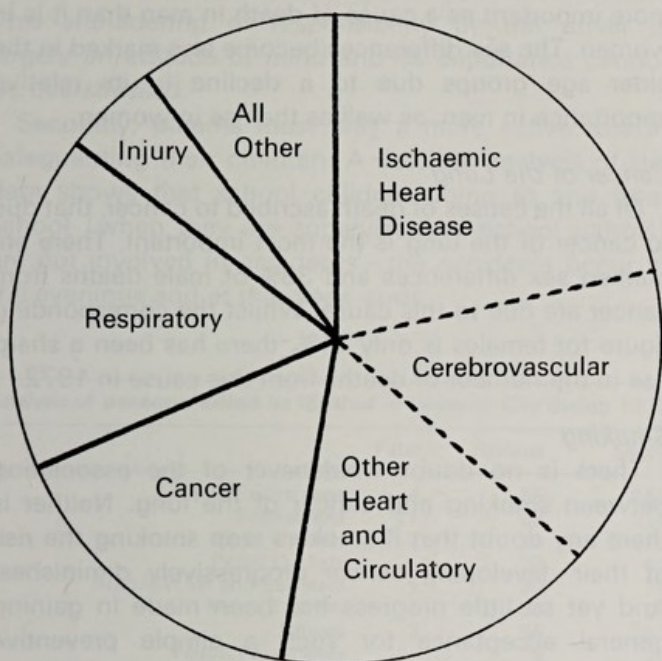
	Notifications		Deaths	
	1972	1971	1972	1971
Measles	283	1722	.	.
Scarlet Fever	30	47	.	.
Whooping Cough	4	60	.	1
Diphtheria	.	.	.	.
Meningitis	8	12	1	3
Acute Poliomyelitis	.	.	.	.
Encephalitis	.	.	2	1
Bacillary Dysentery	14	31	.	3
Typhoid Fever	1	4	.	.
Paratyphoid Fever	.	.	.	.
Infective Hepatitis	126	146	.	1
Ophthalmia Neonatorum	1	1	.	.
Leprosy	3	1	.	.
Gastro-Enteritis	20	29	4	5
Tuberculosis (see section on Tuberculosis)				

Leprosy cases and contacts

Cases	
No. of cases 1st January, 1972	16
(Tuberculoid 7, Lepromatous 2, Borderline 7)	
New notifications in 1972	2
Cases taken off register 1972	1
Moved away from Leicester	1
No. of cases 31st December, 1972	16
Contacts	
No. of contacts 1st January, 1972	46
New contacts	18
Removed from observation	14
No. of contacts 31st December, 1972	50
No. of sessions 1972	33
Total attendances 1972	164

Principal Causes of Death

The diagram illustrates the proportions of death due to the major causes. Diseases of the heart and circulatory system represent 51% of all deaths. Within this group coronary heart disease forms 22% of deaths from all causes and cerebrovascular disease forms 16%. There are no changes in these proportions compared with 1971 and no significant differences from the 1971 data for England and Wales.

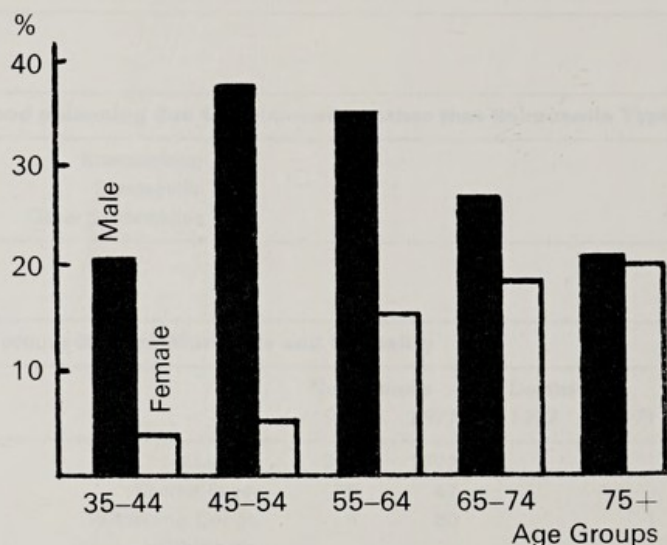


	No. deaths	% of total
Heart & Circulatory System		
Ischaemic Heart Disease	793	21.5
Cerebrovascular	571	15.5
Other	503	13.5
Cancer	688	19
Respiratory Disease	577	15.5
Injury	153	4
All other causes	389	11

Ischaemic Heart Disease in 1972

Sex	Age Group in Years				
	35-44	45-54	55-64	65-74	75+
Male	9 (21%)	45 (38%)	112 (35%)	159 (27%)	136 (21%)
Female	1 (4%)	4 (5.5%)	28 (16%)	81 (19%)	217 (20.5%)
Ratio, Male-Female	6.9:1	2.2:1	1.4:1	1.4:1	1:1

Table showing the numbers of persons in each age group who died of Ischaemic Heart Disease. In brackets, this number is expressed as a percentage of deaths of all causes within that age group.



Ischaemic Heart Disease as a percentage of all deaths in each age group.

There are significant sex differences for ischaemic heart disease, which is responsible for 25% of all deaths in males and 18% in females. Thus, ischaemic heart disease in women becomes progressively more important as a cause of death the older they get. This is particularly so over the age of 55 years. In men, ischaemic heart disease is an important cause of death as early as

the 35-44 year age group. It is of maximum importance in the 45-54 year age group when it is seven times more important as a cause of death in men than it is in women. The sex differences become less marked in the older age groups due to a decline in its relative importance in men, as well as the rise in women.

Cancer of the Lung

Of all the causes of death ascribed to cancer, that due to cancer of the lung is the most important. There are marked sex differences and 38% of male deaths from cancer are due to this cause. Whilst the corresponding figure for females is only 11%, there has been a sharp rise in the number of deaths from this cause in 1972.

Smoking

There is no doubt whatsoever of the association between smoking and cancer of the lung. Neither is there any doubt that if smokers stop smoking the risk of their developing cancer progressively diminishes. And yet so little progress has been made in gaining general acceptance for such a simple preventive measure.

Apart, however, from the role that smoking plays in the development of cancer of the lung, it is also associated with ischaemic heart disease and with chronic bronchitis.

Road Traffic Accidents

A high proportion of the fatal and serious accidents are to pedestrians and the majority of these occur in the age groups under 15 years and over 60 years.

Thus, in two groups of persons, children and the elderly, there is an increased risk of road accident. A major factor in both groups is their inability to react quickly and predictably to an emergency situation. This must be allowed for and the responsibility falls on two sectors of the community.

Firstly, drivers must be prepared to take all the action that is necessary to avoid an accident situation. This shouldering of responsibility by the driver is largely an attitude of mind and its importance cannot be overstressed.

Secondly, parents must play a more active role in safeguarding their children. A detailed analysis of the data shows that school children going to and from school (when they are supervised by school patrols) are not involved in accidents – the accidents occur in the evenings and at the week-ends.

Analysis of **persons killed or injured** in Leicester City during 1972

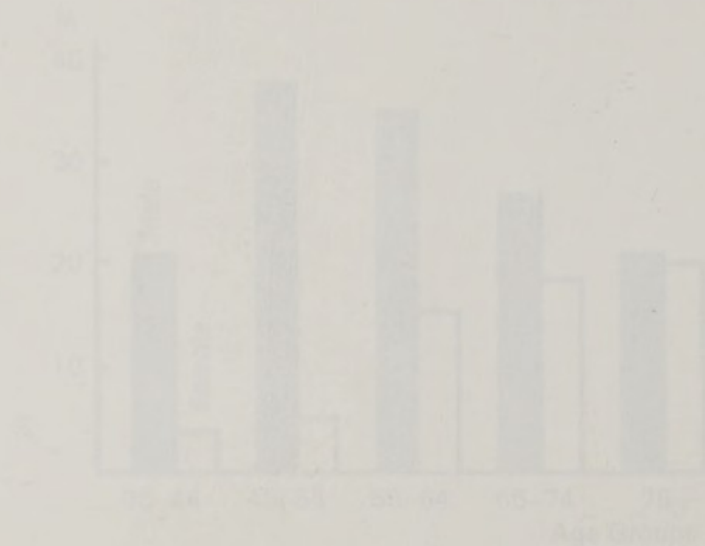
	Fatal	Serious	Slight
Child Pedestrians	4	68	250
Pedestrians	11	58	224
Child Cyclists	1	10	38
Pedal Cyclists	.	20	87
Auto/Cyclist and Scooters	1	30	78
Motor Cyclists	1	36	120
Drivers	3	56	293
Pillion Passengers	.	5	30
Sidecar Passengers	.	3	.
Public Service Vehicle passengers	1	7	47
Other passengers	5	41	296
Totals	27	334	1463
Total injury accidents recorded	1503		
Total casualties	1824		

Age groups of **pedestrians involved in road traffic accidents**

	Fatal	Serious	Slight	Total
0 – 4 yrs	2	12	40	54
5 – 9 yrs	1	37	127	165
10 – 14 yrs	1	19	83	103
15 – 59 yrs	3	36	159	198
60 – 90 yrs	8	22	65	95
Totals	15	126	474	615

Tuberculosis

Report on the Chest Clinic for 1972
by C M Connolly, MD, MRCP, DPH



Percentage of patients with tuberculosis by age group. Active cases are shown in dark bars, latent cases in light bars.

There was an increase in the number of patients with tuberculosis in 1972 compared with 1971. The number of active cases increased from 15 in 1971 to 21 in 1972. The number of latent cases increased from 10 in 1971 to 20 in 1972. The total number of cases increased from 25 in 1971 to 41 in 1972.

Report on the Chest Clinic for 1972 by C M Connolly, MD, MRCP, DPH. The number of patients with tuberculosis in 1972 was 41, compared with 25 in 1971. The number of active cases increased from 15 in 1971 to 21 in 1972. The number of latent cases increased from 10 in 1971 to 20 in 1972. The total number of cases increased from 25 in 1971 to 41 in 1972.

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205 new cases of tuberculosis were registered during the year as compared with 221 in 1971. These figures include the 'transfer in' cases who came to live in the City during the year.

	1972	1971	1970	1969
Pulmonary	139	153	151	136
Non-pulmonary	66	68	69	80
Total	205	221	220	216

The number of new cases in Asian immigrants was 83 pulmonary and 41 non-pulmonary in 1972 as against 89 pulmonary and 50 non-pulmonary in 1971. Excluding transfers and 'lost sight of' cases the pulmonary cases in Asians (83) accounted for 74.1% of the total of new pulmonary cases in the City and the non-pulmonary cases in Asians (41) accounted for 72% of the total non-pulmonary cases found during the year.

The number of **new cases** in Asians since 1968

	1972	1971	1970	1969	1968
Pulmonary	83	89	89	75	62
Non-pulmonary	41	50	55	52	35
Total	124	139	144	127	97

New cases including transfers in since 1966

	1972	1971	1970	1969	1968	1967	1966
Pulmonary	139	153	151	136	126	114	175
Non-pulmonary	66	68	69	80	49	44	37
Total	205	221	220	216	175	158	212

% **Distribution of cases** in immigrants for 1972

74.1% of total pulmonary cases
72% of total non-pulmonary cases
73% of total notifications

Sources of the cases of tuberculosis registered during 1972

	Pulmonary	Non-pulmonary	Total
Transferred in from other areas	25	9	34
Referred by General Practitioners	79	49	128
Referred by hospital doctors	7	5	12
Referred by Mass Radiography Unit	5	.	5
Discovered on Contact X-ray	14	.	14
School case finding scheme	1	.	1
Death adjustments	3	3	6
"Lost sight of" cases returned	2	.	2
New immigrants	3	.	3
Total	139	66	205

Sex and age groups of those notified during 1972		0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65+	Total
Pulmonary	males	1	3	2	9	11	14	12	4	8	7	71
	females	3	.	3	5	7	6	6	5	2	4	41
Non-pulmonary	males	.	2	4	1	1	5	6	3	4	4	30
	females	.	.	1	4	3	5	6	2	4	2	27

Sex and age groups of those transferred in from other areas and "lost sight of" cases returned		0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65+	Total
Pulmonary	males	1	.	.	.	5	2	4	.	2	.	14
	females	.	.	.	.	6	3	3	.	1	.	13
Non-pulmonary	males	.	.	.	2	1	.	1	.	.	.	4
	females	.	.	.	1	.	2	.	.	2	.	5

Contacts examined during past 4 years		1972	1971	1970	1969
Number of contacts examined		3150	2814	2062	2232
Number of contacts found to have tuberculosis		14	15	19	20

School case-finding scheme		1972	1971	1970	1969
Tuberculin positive school-children and their contacts, including school entrants, immigrants and school leavers		218	424	468	813
Number found to have tuberculosis		1	3	5	8

Radiological examination of expectant mothers		1972	1971	1970	1969
Number of expectant mothers x-rayed		1742	1642	1615	1363
Number found to have tuberculosis		.	5	1	1

B.C.G. Vaccinations		1972	1971	1970	1969
Number of B.C.G. Vaccinations		610	691	496	626

Deaths		
Deaths due to Pulmonary tuberculosis		9
Deaths due to Non-pulmonary tuberculosis		4

Number of deaths from tuberculosis in Leicester during the past five years	Phthisis		Other tuberculous diseases		Total tuberculous deaths	
	Deaths	Rate per 100,000 population	Deaths	Rate per 100,000 population	Deaths	Rate per 100,000 population
1972	9	3.2	4	1.4	13	4.6
1971	6	2.1	3	1.0	9	3.15
1970	6	2.15	3	1.0	9	3.2
1969	6	2.15	7	2.51	13	4.66
1968	6	2.1	3	1.0	9	3.2

The above figures for 1972 include 6 death adjustments.

Chronic cases	1972	1971	1970	1969	1968
Number of resistant cases	2	.	.	2	4

Recovered cases

During the year the names of 71 patients were removed from the tuberculosis register as having recovered. Of these 49 were pulmonary and 22 were non-pulmonary. Of the pulmonary cases 29 had tubercle bacilli in their sputum.

Clinical examinations	Men	Women	Children	Total
First examinations	2894	2264	296	5454
Re-examinations	1585	1045	263	2893

Radiological examinations	1972	1971	1970	1969
	14437	14295	14327	14057

Radiological examinations

General Practitioners in Leicester requested an opinion on 4448 patients, 3703 were referred for the first time and the remainder were cases who had been X-rayed before.

Analysis of cases on Chest Clinic register

	Diagnosis	Pulmonary			Non-Pulmonary			Total			Grand Totals
		Men	Women	Children	Men	Women	Children	Men	Women	Children	
A New cases examined clinically and/or radiologically	Definitely TB	59	26	8	26	28	7	85	54	15	154
	Diagnosis not completed and under observation							230	120	29	379
	Non-tuberculous							3014	4126	356	7496
B New contacts examined during the year	Definitely TB	4	5	5				4	5	5	14
	Diagnosis not completed and under observation							2	7	6	15
	Non-tuberculous							656	704	341	1701
C Cases written off Chest Clinic register	Recovered	30	19		9	10	3	39	29	3	71
	Non-tuberculous							3746	4876	730	9352
D Number of cases	Definitely TB	456	314	63	123	164	19	579	478	82	1139
	Diagnosis not completed and under observation							486	254	71	811

- 1 Number of cases on Clinic Register on 1st January 1972, including observation cases 1640
- 2 Number of cases transferred in from other areas, also "Lost sight of" cases returned 35
- 3 Number of cases transferred to other areas, cases not desiring further assistance under the scheme, cases "lost sight of" and cases where the diagnosis has not been established 39
- 4 Cases written off during the year as dead (all causes) 22
- 5 Number of attendances at the Clinic for all purposes 17427
- 6 Number of chest x-ray films taken during the year 14437
- 7 Number of persons receiving B C G vaccine at the Clinic during the year 610
- 8 Number x-rayed under the scheme for x-ray of pregnant women 1742

Leicester Area Mass Radiography Unit

Report on the surveys carried out in the City of Leicester, 1972.

I am indebted to Dr. E. M. Quinn, Medical Director, for the following report:

During 1972 18,959 persons were x-rayed in the City. (16,702 in 1971.)

In addition to public sessions, surveys were carried out at H.M. Prison, Welford Road; Glenfrith Hospital; Thorn Lighting Ltd.; British Shoe Corporation; A.E.I.; British United Shoe Machinery Co. Ltd.; N. Corah Ltd.; Wildt, Mellor Bromley; East Midlands Electricity Board; and the Central Electricity Generating Board.

8 cases (10 in 1971) of pulmonary tuberculosis requiring close supervision and treatment were discovered – 7 male and 1 female. Of these, 6 were Asian immigrants.

594 examinees were referred by General Practitioners (380 in 1971). 2 cases of pulmonary tuberculosis and 5 cases of malignant neoplasm were found in this group.

The group of schoolchildren with strongly positive skin tests yielded 2 cases of pulmonary tuberculosis – both Asian immigrants.

11 cases of malignant neoplasm were found (8 cases in 1971) – 6 male and 5 female.

Tables are attached giving details of those x-rayed.

Leicester Area Mass Radiography Unit

Leicester (City) 1972

Group	Initial X-ray		Total	TB close supervision		Rate per 1000	TB occasional supervision		Bronchiectasis	Cardiac		Pneumoconiosis	Malignant neoplasm		Non-malignant neoplasm		Sarcoid	
	m	f		m	f		m	f	m	f	m	f	m	f	m	f	m	f
Public sessions	2093	2132	4225	1	.	0.23	.	.	3	.	10	3	2	1	.	.	.	.
Doctor's patients	264	330	594	2	.	3.33	.	.	1	1	2	1	2	3	.	1	.	.
Organised groups	7597	5475	13072	2	1	0.23	.	.	6	.	13	3	2	1	.	.	1	.
Prisons	284	.	284	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Outward Bound	10	.	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Skin +ve	60	38	98	2	.	2.04	.	.	.	.	.	.	.	.	.	.	.	.
Mental Patients	376	258	634	.	.	.	1	.	3	.	1	1	.	.	.	.	.	.
Wayfarers	38	.	38	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Total	10722	8233	18955	7	1	0.42	1	.	13	1	26	8	6	5	.	1	1	.

Venereal Diseases

I am grateful to the Physician in Charge of the Treatment Centre for providing the information shown in the tables. The number of cases of syphilis seen at the Centre remains low and there has been a slight fall in the number of cases of gonorrhoea seen.

The graph shows that the fall in the total number of cases of gonorrhoea seen is due to a decrease in persons over 20 years of age but that there has been no corresponding fall in those under 20 years old. The proportion of females under 20 years of age is disturbingly high.

Mrs. Dight, Specialist Social Worker, provided the following report:

"The Social Work role is now much more integrated into the routine of the clinic and much less an optional extra. The medical staff have referred 230 patients for interview in the clinic after a positive diagnosis has been made to arrange ways and means of bringing their contact for treatment. The aim is to help them to do this themselves, so that a total involvement in the consequences of their actions can bring increased awareness of the importance of responsibility in personal relationships of which "seeing it through" is a valuable aspect. Only when these efforts fail is the task taken over. There were 34 such occasions when direct intervention was needed to bring patients for examination. 30 of these had gonorrhoea – 25 were females who would not have come otherwise, as they had no symptoms. These 30 produced 7 more cases who were positive and treated. The total visits done for this purpose and to bring defaulters were 285 in the city and 36 in the county. There were 157 other referrals for interviews in the clinic for supportive case work, maintaining attendance, accepting and working through painful situations. This usually involves an educational process as gaps in knowledge and understanding of sexually transmitted diseases and about personal relationships and birth control are still all too common place. At least 250

B.M.A. booklets on these matters were sold.

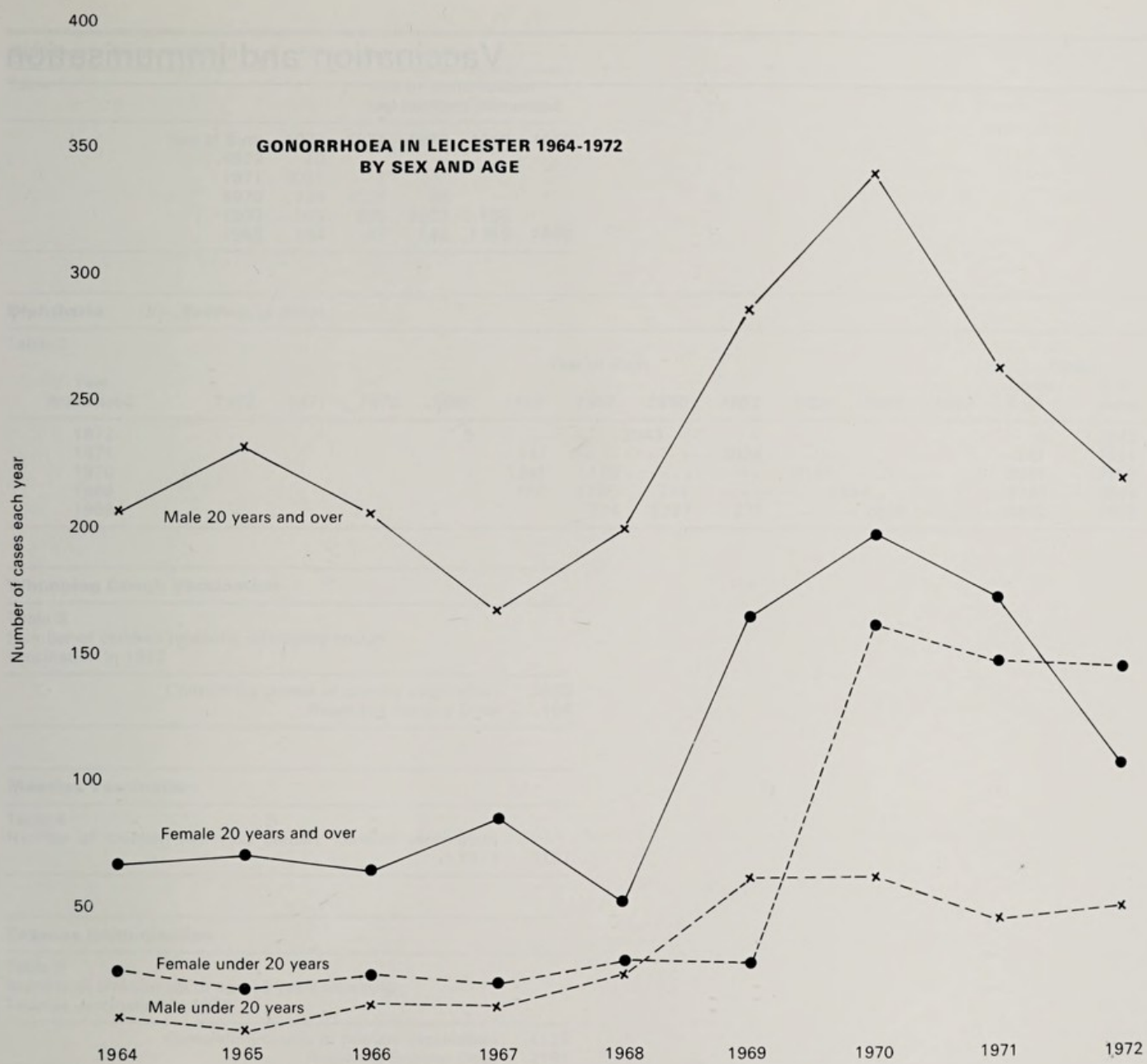
Closer links were forged with colleagues in allied fields when Dr. Reed included a contribution from me in his sessions with the Community Nurses and with a group of Probation Officers. Afterwards joint discussion took place on the social content and implications of the work. The establishment of these relationships between the Clinic and members of other community services will encourage early referral of those who need to come – the young and the vulnerable who are at risk – every adult must share in the concern for them if we are to answer the problem of how to foster caring relationships in a competitive and often uncaring society which de-values "persons" in favour of a success which is measured in terms of a man's ability to acquire more and more of everything, including sex.

Venereal Disease — new cases — City residents

	1968	1969	1970	1971	1972
<i>Syphilis</i>					
Local males	7	16	8	11	3
Immigrant males	4	1	2	2	1
Local females	1	14	6	5	1
Immigrant females	1	2	2	1	.
Total males	11	17	10	13	4
Total females	2	16	8	6	1
<i>Gonorrhea</i>					
Local males	121	201	210	188	158
Immigrant males	105	150	199	124	115
Local females	66	170	311	276	223
Immigrant females	19	25	52	48	33
Total males	226	351	409	312	273
Total females	85	195	363	324	256
% Total Gonorrhoea cases under 20	17.5%	16.8%	29.7%	30.8%	37.4%
<i>Homosexuals</i>					
<i>Syphilis</i>					
Local males	.	.	.	2	.
Immigrant males	.	.	.	1	.
<i>Gonorrhoea</i>					
Local males	.	33	23	19	13
Immigrant males	.	1	2	2	1
<i>Other Genital Infections</i>					
Male	.	.	.	552	676
Female	.	.	.	419	509

New cases treated at Leicester Royal Infirmary Special Clinic during 1972 (city and non-city residents).

<i>Age groups</i>	<i>Syphilis</i>			<i>Gonorrhoea</i>		
	Total	Male	Female	Total	Male	Female
under 16	.	.	.	6	.	6
16 & 17	.	.	.	66	19	47
18 & 19	1	1	.	110	39	71
20 - 24	2	2	.	248	129	119
Over 25	1	1	.	272	194	78
Total	4	4	.	702	381	321



Vaccination and Immunisation

Diphtheria Immunisation (a) Primary immunisation

Table 1		Year of immunisation and numbers immunised					
	Year of Birth	1972	1971	1970	1969	1968	
	1972	10					
	1971	3021	7				
	1970	739	3028	36			
	1969	105	606	2907	156		
	1968	194	47	149	1959	1669	

Diphtheria (b) Reinforcing doses

Year immunised	Year of Birth											Totals	
	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	Under 5 yrs	5-9 years
1972				5	-----	2043	-----					5	2043
1971					141	-----	3034	-----				141	3034
1970				1	1845	185	-----	3159	-----			2031	3159
1969					796	1755	241	-----	2594	-----		2792	2594
1968						774	1757	271	-----	2855	-----	2802	2855

Whooping Cough Vaccination

Table 3
Number of children receiving whooping cough vaccination in 1972

Completing course of primary vaccination	3665
Receiving Booster Dose	104

Measles Vaccination

Table 4
Number of children receiving primary measles vaccination in 1972 3137

Tetanus Immunisation

Table 5
Number of children up to age 16 years receiving Tetanus vaccination in 1972

Completing course of primary vaccination	4129
Receiving Booster Dose	2181

Poliomyelitis Vaccination

Table 6 *Number of doses of oral vaccine*

	0-4 years	5-9 years	10-15 years	Total
Third Dose (i.e. Primary course completed)	3768	463	88	4319
Fourth Dose (i.e. Booster Dose)	4	1896	60	1960

Smallpox Vaccination

Table 7 *Number of persons vaccinated against smallpox in 1972*

	Under 1 year	1 yr. & under 2	2-4 years	5-14 years	Total
Primary Vaccination	25	47	36	185	293
Re-Vaccination	2	2	16	355	375

Yellow Fever Vaccination – January 1972–December 1972

Table 8

Yellow Fever Vaccinations 1972	822
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Immunisation against Diphtheria, Whooping Cough (Pertussis), Tetanus, Poliomyelitis, Measles and Smallpox in 1972

Table 9

Immunisation Centre	Diph/Tet/Pert Primary Boost		Diph/Tet Primary Boost		Diphtheria Primary Boost		Tetanus Primary Boost		Poliomyelitis Primary Boost		Measles Primary	Rubella Primary	Smallpox Primary Boost	
General Practitioner	1876	—	53	1	—	1	—	8	1932	2	1570	397	293	375
Local Authority Clinic	1779	—	66	1	—	2	—	2	1836	2	1567	—	—	—
Infant School	19	104	156	1899	120	40	189	166	551	1956	—	2059	—	—
Senior School														
Others	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Table 10 **Children born in 1970**

	Whooping Cough	Diphtheria	Polio- myelitis
England	79	81	80
Leicester	75	76	76

The above figures show the percentages of children born during 1970 who have completed a primary course of vaccination at any time.

Tuberculosis . B C G vaccinations in 1972 carried out by School Health Service. (See also report of Consultant Chest Physician)

Table 11 B C G vaccinations of 13 year old pupils

Number of pupils tested	3636
Number of pupils who attended for a reading	3447
Number of pupils found to be negative	2548 = 85.76%
Number of pupils found to be positive	207 = 6.97%
Number of pupils found to be positive previously vaccinated	476
Number of pupils vaccinated	2702
Number of pupils found to be negative, not vaccinated due to eczema or other conditions	62

Table 12 B C G vaccinations of immigrant pupils of all ages - 1972

Number of pupils tested	1377
Number of pupils who attended for a reading	1292
Number of pupils found to be negative	361 = 55.11%
Number of pupils found to be positive	172 = 26.26%
Number of pupils found to be positive, previously vaccinated	637
Number of pupils vaccinated	469
Number of pupils found to be negative, not vaccinated	14

Table 13 Post B C G vaccination Skin Tests - 1972

Number of pupils retested (Pupils found to have no, or very small reaction on inspection following vaccination)	172
Number of pupils found to be positive	60 = 37.04%
Number of pupils found to be negative	102 = 62.96%
Absentees from reading	10
Number of pupils found to be negative, but not revaccinated	9
Number of pupils re-vaccinated	107

Public Health and Food Inspection Services

Report for the year 1972

C W Stacey, *DFC, FAPHI*, Chief Public Health Inspector

This is my first Annual Report on the work of the Environmental Health Services and for part of the year under review Mr. G. A. Hiller was your Chief Public Health Inspector. Mr. Hiller who retired in April 1972 had held this office since January 1953. A great deal of credit for the improvement in environmental conditions in the City in the past twenty years is due to his enthusiasm and the immense effort that he put into every aspect of the work. Clearance of unfit houses and the improvement of those remaining, cleaner air, higher standards of food hygiene and inspection, better working conditions in offices and shops and action on many environmental pollution problems are all matters in which Mr. Hiller can fairly claim to have made a major contribution. I feel that it is a privilege and certainly a challenge to succeed him.

With a shortage in the establishment of public health inspectors towards the end of the year, it was not possible to reach the work output and achievement of targets that had been hoped for. Nevertheless results in housing including the clearance of unfit houses and progress with general improvement areas, smoke control and meat inspection were satisfactory.

There is a national shortage of qualified public health inspectors, with the large cities suffering the most. In addition there is restricted movement of officers between local authorities with re-organisation in the offing. The only satisfactory answer to the general shortage is for more local authorities to undertake the training of students and for technical assistants to be employed to relieve public health inspectors of the more routine aspects of the work. Leicester has for many years had an establishment of six students who are now attending the University of Aston in Birmingham on a sandwich Course for a B.Sc.(Honours) Degree in Environmental Health. In addition technical assistants have been employed to assist the qualified inspectors. It is to be

hoped that the larger authorities on re-organisation will all have student training schemes so relieving the general shortage and the burden that has been carried for many years by a minority of authorities such as Leicester.

The management structure of the Department was changed on Mr. Hiller's retirement. The post of Deputy Chief Public Health Inspector was abolished and the four Divisional Public Health Inspectors given additional responsibilities and renamed Assistant Chief Public Health Inspectors. This restructuring has worked very well and I have every confidence that it will be the best system of management for the Department in the future.

The permanent site for itinerants was in an advanced state of construction at the end of the year. On completion Leicester will have complied with its obligations to establish a site for fifteen caravans under the Caravan Sites Act, 1968 and will be amongst the first authorities in the East Midlands to have done so.

Another matter worthy of special comment is the successful Exhibition on Safe Food, together with competitions for schools at the City of Leicester Show at Abbey Park. More complete details appear later on in this Report. The effort proved to be very worth while and the team of public health inspectors who gave a tremendous amount of their own time towards this project are to be commended.

In the establishment of Smoke Control Areas Leicester leads the field and the completion date of 1975 is at least four years in advance of similar authorities in the East Midlands.

Progress in the control of problems of multi-occupation of houses was expected to be made with the coming into force of the Registration Scheme on 1st April, 1972. Until August there was considerable headway with implementing the Scheme, but then the

influx of Uganda Asians caused disruption of the work. Public health inspectors and other staff were fully engaged in checking the overcrowding of houses to which Uganda Asians were reported to have gone.

Finally I wish to thank Dr. Moss for his support and understanding and also my own staff of public health inspectors, technical assistants, clerical staff and manual workers who in my first year of office have all combined to form, in spite of staff shortages, an enthusiastic and efficient team.

Housing

Unfit houses—Clearance Areas

During the year 26 clearance areas were reported to the Council through the Housing Committee involving 893 houses. The clearance programme will be completed in 1975, but after this there will be small areas of unfit houses that will have to be dealt with from time to time.

Repair and Maintenance

The Housing Finance Act 1972 contains a fundamental change in the procedure for altering tenancies from controlled to regulated. Tenancies will now become regulated on certain applicable dates depending on the rateable value of the property regardless of the amenities lacking or the state of repair. This has removed part of the incentive for owners to improve and repair dwellings with controlled tenancies. At a time when the trend is to encourage owners to improve properties, it is rather surprising that this Act contains legislation which may well slow down the voluntary improvement of dwellings.

The following table indicates the action that has been taken in respect of the issue of Qualification Certificates to landlords to increase their rents under the Housing Act, 1969.

Housing Act 1969

<i>Applications for qualification certificates</i>	
Houses where improvements required	189
Certificate of provisional approval issued	190
Qualification certificate issued	133
Houses where amenities already provided	253
Qualification certificates issued	158

House Improvement

Clarendon Park General Improvement Area

1,051 houses out of a total of 1,756 are now fully improved, leaving 705 to be dealt with. 265 of this number lack only an internal water closet. 210 tenants have continued to express no interest in the improvement of their houses. This is mainly due to advanced age or expected higher rents. It is likely that a further 250 tenanted houses will be improved with the aid of grants and this figure includes 38 dwellings where the tenants have asked the City Council to take statutory action against their landlord under Section 19, Housing Act 1964, which requires the provision of standard amenities, bath or shower, wash-hand basin, hot water system and internal water closet.

Narborough Road General Improvement Area

This area was declared a General Improvement Area in October 1972. There are 1,664 houses in this area and 850 of these are fully improved. The owners and occupiers of the remaining 814 that lack one or more of the standard amenities are being given information about grants.

General Improvement Area Programme

In addition to Clarendon Park and Narborough Road General Improvement Areas, there are a further 37 areas

within the city containing about 23,500 houses which would be suitable for General Improvement Area treatment. The Council have approved a report from the City Planning Officer and Chief Public Health Inspector that the "Greater Highfields" (East Park) area shall be dealt with in the years 1972-1981. A further 15 areas in the remaining parts of the City are programmed for the period 1972-1982, leaving 10 areas with no suggested priority.

In deciding the programme, priorities were given to areas which generally contain dwellings in the worst structural condition and in the greatest need of environmental improvement. It is likely that the programme may have to be amended in the light of new and changing information and the rate of progress of implementation.

The Department continues to be involved in securing the improvement of houses both inside and outside General Improvement Areas. The advantages of house improvement grants are brought to the attention of owners and tenants during general surveys. 213 tenanted houses were improved as a direct result of these activities.

Included in the total of 213 tenanted houses are 105 dwellings, the tenants of which had requested the Council to take action under Section 19, Housing Act 1964, to compel their landlords to improve the houses. 15 owners who did not wish to improve exercised their rights to ask the Council to purchase these houses.

Housing Act 1964—Section 19

Compulsory Improvement of Dwellings to provide Standard Amenities

Undertakings given	36
Improvement notices served	127
Improvement works completed	105
Purchase of houses	15

New House Building in Leicester

	1972	1971	1970	1969	1968
By Housing Committee	695	481	287	202	555
By Private Builders	366	376	535	505	455
By Housing Associations and Societies	87	57	—	—	—
	1148	914	822	707	1010

Since 1946 the Council has built 19,532 houses and flats.

Multiple Occupation

Registration

In order to achieve more effective control of multi-occupied houses, the Leicester (Registration of Houses in Multi-occupation) Informatory and Regulatory Scheme came into force on 1st April, 1972. This Scheme which applies to the whole of the city requires that properties occupied either by more than two households or apart from one household (if any) is occupied by more than four persons, be registered with the City Council.

Initially all properties to which the Scheme applies are registered under Part I of the Scheme for the number of households and persons occupying the property on 1st April, 1972. However, should a tenancy end the landlord is required to apply for registration under Part II of the Scheme before he can re-let. The Scheme allows for these applications (a) to be refused, in which case the accommodation cannot be re-let, (b) approved, subject to conditions in which case various works are required to make the property suitable for the number of households occupying it, or (c) approved, in which case the property fully complies with the requirements of the Housing Act 1961. Similarly, properties being converted to multiple-occupation for the first time have to be registered under Part II of the Scheme before they are let. These properties are only registered if they fully comply with the Department's requirements.

The success of a Scheme for the registration of houses in multiple-occupation is dependent on landlords being made aware of it. To this end a considerable amount of publicity was maintained during March and April, including notices in the local press, the use of local radio and the distribution and display of large, colourful posters designed to bring the essential details of the Scheme to the notice of the persons concerned. In addition local Estate Agents, Community Relations Organisations and Welfare groups were sent copies of the Scheme and all landlords of known houses in multiple-occupation, copies of the Scheme and application forms. When these application forms were returned, the properties were inspected, registration certificates issued and where necessary notices served under the Housing Act 1961 to make them suitable in all aspects for the number of lettings. In this way major improvements are being made in the standard of houses in multiple-occupation in the city.

At the end of the year some 736 houses had been registered under Parts I and II of the Scheme, leaving an estimated 300-400 houses still to be dealt with.

Non-Registerable Houses

In addition to the estimated figure of 1,100 houses that will require registration there are a further 1,200 houses approximately not included in the Scheme that are also subject to the control of the Housing Acts 1961-69. In general these are two storey terraced houses occupied by two households only. During the year it was not possible to carry out a comprehensive survey of these houses as the staff concerned were fully engaged on the Registration Scheme and dealing with the problems caused by the influx of Uganda Asians. However, in December a further Specialist Public Health Inspector was appointed to help with the control of houses in multiple-occupation and better progress is expected in 1973.

The Registration Scheme enabled details of the occupants of 3,262 lettings in 732 houses in multiple-occupation to be given to the Housing Department with the object of ensuring that tenants who wished to do so could apply for Council housing accommodation.

Accummulation of rubbish

One of the major problems in controlling the conditions in houses in multi-occupation is dealing with accumulations of refuse that appear in yards, common passages, open spaces and almost everywhere where there is a space for dumping. In co-operation with the City Engineer reasonable control is maintained, but the position is far from satisfactory. Complaints are dealt with as soon as possible, but accumulations of refuse cause friction between landlords and tenants and with members of the public who complain.

Multiple occupation

Number of notices served	478
Number of properties involved	323
<i>—The following improvements were required</i>	
Ventilated food stores	192
Improved ventilation	202
Hot/cold water supply	132
Bath/showers	89
Additional sinks	151
Artificial lighting points	26
Additional wash hand basins	17
Additional space heaters	5
Fire escapes/smoke stop arrangements	201
Additional cookers	104
Intervening ventilated space	25
Additional water closets	4

In addition, 53 Undertakings were accepted not to use parts of houses in multiple-occupation for human habitation where adequate provision had not been made for means of escape in case of fire.

Uganda Asians

The expulsion of Asians from Uganda by President Amin on 4th August, 1972 caused many problems for the city and this Department had its share. As has already been stated the implementation of the Registration Scheme was delayed as staff had to be deployed to investigate the conditions under which Uganda Asians were living.

Prior to this influx statutory overcrowding under the Housing Act 1957, with its low standard of allowing living rooms to be used for sleeping purposes and children under 10 years being counted as $\frac{1}{2}$ unit and those under 1 year not counted at all, was minimal. There was over occupation of some houses, but the arrival of the Uganda Asians caused many to become legally overcrowded.

At the end of the year 3,500 had arrived in the city and all houses to which they were reported to have gone were visited. Some 667 houses were involved and approximately 10% were above the limit of occupation allowed by the Housing Act 1957. The movement of families from one address to another was continuous and investigations and visits are still being carried out. There is no doubt that overcrowded conditions have been created in the city where none existed and over occupation of houses by large families has increased.

Property enquiries

8,092 enquiries were answered relating to the expectation of life and outstanding repair notices on dwelling houses which were changing ownership, offered to the Council for advance purchase, or subject of applications for improvement grants.

This is almost 1,300 more than last year.

Drainage sanitation and water supply

During the year the number of houses lacking a

separate internal water supply or a separate water closet was further reduced, viz:

houses without water supply	Nil
houses sharing water closets	141

These houses were in confirmed clearance areas.

In 280 cases renewal of sanitary appliances or drainage works were carried out in default of the owners. The total cost of these was £2,486.80.

City Drinking Water

During the year a total of 140 bacteriological samples of water was taken from a large selection of supply points; these included food shops, school kitchens, cafes, day nurseries, offices, slaughter houses and stand pipes in parks.

11 samples were found to have a higher bacterial content than expected and as a follow up the Water Department in several cases flushed and cleansed lengths of water mains and in addition water tanks at the Cattle Market were sterilised. Further samples showed that in all cases the water supply was satisfactory.

Swimming Pools

145 samples of bath water were examined during the year for chlorine content and bacterial count; these samples were taken from 7 Corporation indoor baths, 2 privately owned outdoor pools open to the public (of which one is now closed), 1 indoor pool for hotel residents and 4 indoor and 1 outdoor school swimming baths. In every case the samples taken at the Corporation baths were found to be satisfactory.

The water is tested at the side of the bath in all other pools; this enables advice to be given at once if the chlorine content and acidity is unsatisfactory and adjustments can be immediately made. If necessary a bacterial sample can also be taken to the City Analyst for examination.

Itinerants Caravan Site

In order to comply with the Caravan Sites Act 1968 the City Council have established a site for 15 caravans at Meynells Gorse off Hinckley Road.

It was ready for occupation in February 1973 and there was no difficulty in finding 15 suitable families who have been in Leicester and its immediate vicinity for many years. The site provides an access road together with hard standings for each caravan, its towing vehicle and scrap sorting area, there is an amenity block for each standing containing day room, toilet accommodation, washing facilities and small store. Hot water is supplied by electric storage heaters. The weekly rent is £3.50 for each standing, with an additional £1.00 for electricity which will be reviewed after the first year of operation.

A full-time warden for the site with experience in a Social Services Department has been appointed and he has already made useful contacts with the itinerants and their problems.

Now that the site has been provided the way is clear for the City Council to apply to the Secretary of State for the Environment for Leicester to be a designated area under the Caravan Sites Act 1968. If granted this could mean that any gipsy camping in the city other than the Meynells Gorse Site could be committing an offence and immediate steps could be taken to prosecute and by application to the Magistrates Court, effect removal.

Offices, Shops & Railway Premises Act 1963

Registration and Inspection

Due to staffing difficulties towards the end of the year, it was not possible to complete as many general inspections of premises as was achieved during 1971. Nevertheless over 60% of the total number of registered premises received at least one general inspection.

199 contraventions of the Act were noted and brought to the attention of the occupiers in writing. Compliance with the provisions of the Act by occupiers of registered premises is generally satisfactory and very few of the notified contraventions have not been remedied when the inspector makes a second visit.

Cleanliness	16
Temperature	45
Ventilation	14
Lighting	6
Sanitary Conveniences	19
Washing facilities	14
Supply of drinking water	1
Floors, passages and stairs	19
Protection of young persons working at dangerous parts of machinery	2
Prohibition of heavy work	1
First Aid, general provision and employees booklets	62
Total	199

Environmental Pollution

Domestic Smoke Control

The progress of the Smoke Control programme which suffered setbacks in 1970 as a result of shortages of smokeless fuels and again in 1971 as the result of objections to Nos. 28 and 29 Smoke Control Orders has now recovered its impetus. Numbers 28 and 29 Orders became operative on 1st July having been delayed by seven months. Number 30 Order became operative on 1st November, bringing the programme back to its original time schedule.

Leicester continues to be the pacemaker in domestic smoke control in the East Midlands. Nearly 73,000 premises are covered by operative smoke control areas and the target date of 1975 is four years in advance of any comparable authority in the area.

Industrial Smoke

506 observations were carried out on industrial premises. 10 statutory notifications were served in respect of contraventions of the Dark Smoke, (Permitted Periods) Regulations 1956. In addition, 80 informal notifications were given.

26 bonfires were observed and 6 informal cautions were issued to persons responsible for lighting fires. It was necessary to call the Fire Brigade on 8 occasions to bonfires which were in danger of getting out of control or the density of the smoke from which caused nuisance to nearby residents.

4 successful prosecutions were taken. 2 were in respect of dark smoke from an industrial chimney and 2 in respect of smoke from demolition sites. Fines totalling £115 were imposed by the magistrates.

The number of industrial bonfires observed is significantly less than in previous years. This is due in no small measure to the prompt and vigorous attention which is given to this very serious source of smoke pollution and to the policy of prosecuting offenders whenever action is warranted.

New Furnace Installations

59 notifications of intention to install fuel burning appliances were received. These involved the installation of 94 furnaces. Of these 30 were oil fired and 64 were fired by natural gas. No applications for coal burning plant were received, thus confirming a trend which was first noticed in 1971.

24 applications for approval of chimney heights were received and approved.

Grit and Dust

Three complaints of grit and dust emissions were received.

One of these involved the chimney of the Leicester

Royal Infirmary which on a number of occasions was responsible for blanketing the St. Andrews residential development with a thick deposit of grit, much to the consternation of the residents.

The inefficiency of the grit arrestment equipment has been a matter of concern to both the Health Department and the Hospital Authorities for some time and it was finally decided to convert the boiler plant to natural gas.

The conversion is now in its final stages and the St. Andrews residents will soon be relieved of the recurrent grit nuisance.

Noise

Classification of Complaints

	General industrial noises	34
	Commercial premises	18
	Construction, Demolition, Roadworks	5
	Other	31
	Total	88
Justified = 25	Not justified = 63	Total premises = 88

From the above table it will be seen that of the 88 complaints received 25 were justified. 1 statutory abatement notice was served and the remainder of the complaints were dealt with informally.

The investigation of these complaints required a total of 820 visits by public health inspectors, a significant proportion of them being made at night and during the early hours of the morning.

Deposits of Poisonous Wastes

The Deposit of Poisonous Wastes Act received the Royal Assent on 30th March. It is an offence for any person to deposit waste on land or allow it to be deposited if the waste is poisonous, noxious or polluting and it is likely to give rise to an environmental hazard.

As from 3rd August the Act requires any person who intends to remove poisonous wastes from any premises or who intends to deposit such waste on any land, to give three clear days notice of his intention to do so to the responsible authorities.

The 'responsible authorities' under the Act are the local authority and the river authority for the area from where the waste is to be removed and the local and river authorities for the area where it is to be deposited.

If the person on whose premises the waste is engages someone else to remove the waste for him, then that person must also be given a copy of the notification. Any person who receives poisonous waste for disposal, i.e. a tip operator, must satisfy himself that the appropriate notifications have been given before he allows the waste to be deposited on any land under his control.

Failure to comply with any of the above requirements could result in a fine of up to £400.

82 notifications of intention to remove poisonous wastes from premises in the city were received.

There are no tips in the city suitable for the deposit of poisonous wastes, so all such materials produced in Leicester are disposed of elsewhere. For the most part they are dealt with by commercial disposal firms who either own or have access to suitable tipping areas in various parts of the country.

The value of the notification procedure is that the Health Department is now made aware of the premises where hazardous waste materials are produced and can identify the processes likely to give rise to dangerous wastes.

Food

Consumer Protection

During the year a considerable amount of preparation work has been done in regard to the Labelling of Food Regulations, 1970, which came into force on January

1st, 1973; numerous enquiries have been made by packers, manufacturers, printers and the retail trade and a great deal of time has been spent in giving advice on these Regulations to those concerned.

From 1st January 1973, most pre-packed foods will need to show a statement of ingredients and in addition a large number of unwrapped foods will need to have a notice nearby stating the name of the goods and if they contain preservatives, artificial colour, artificial sweetening, or anti-oxidants.

During the year the Food Standards Committee issued a Report on the Date Marking of Food recommending that in three years time most perishable foods shall show a 'sell by' date if a short life food or a manufacturing or packing date if a long life food.

It is evident that opposition by the trade to this open coding is decreasing and a number of large stores and manufacturers are now selling goods showing a 'sell by' date.

Milk and Dairies

Approximately the same number of milk samples were taken during the year as the previous year; all samples were found to be satisfactory as regards chemical quality and efficiency of pasteurisation.

Two samples during the year failed the methylene blue test for keeping quality; these samples were from milk produced outside the city and the firm concerned no longer brings milk into Leicester.

A total of 505 samples were taken during the year and these included bottled and cartoned, pasteurised, sterilised, Channel Island and Ultra Heat Treated Milk.

Food & Drugs

During the year a total of 1,150 food samples were taken of which 66 or approximately 6% were found to be unsatisfactory; as in other years these samples were

taken from a wide range of types and brands of foods including new products as soon as they are found in the shops.

70 samples of drugs were taken of which 4 were found to be unsatisfactory. The percentage of unsatisfactory samples was slightly down on the previous year. When samples are found to be unsatisfactory the firm concerned is contacted whether it be the manufacturer, importer, packer or retailer and enquiries are pursued until the Department is satisfied future production will comply with legal requirements. Further details will be found in the City Analyst's section of the Report.

Food Complaints

There has been a further increase in the number of complaints brought to this Department regarding unsatisfactory foods and the total amounted to 353, an increase of nearly 50 over last year. In 9 cases it was considered that legal proceedings were justified and the following successful prosecutions were taken :

1. Mould in can of sliced beans
2. Mould in can of corned beef loaf
3. Wire in fish batter
4. Metal washer in pork pie
5. Cigarette filter tip in mince pie
6. Mouldy sausage rolls
7. Mouldy yoghurt
8. Slicing blade in loaf
9. Mouldy cornish pasty

All complaints however slight are investigated and if necessary enquiries are made commencing with conditions in the complainants house, then at the shop concerned, right through to the manufacturer.

The continuous increase in food complaints appears to be due to two factors :

1. The increased awareness of the public in matters relating to poor food quality and their willingness to

co-operate with the local authority to ensure that as far as possible similar complaints do not recur.

2. Although the first factor appears to be the main reason for this increase in complaints, there is increasing evidence that manufacturers rely too much on automation and the too easy assumption that as they produce a large quantity of a particular food there must of necessity be a number of complaints.

Details of Food Complaints

Bread	48
Milk	31
Flour confectionery	29
Meat pies and pasties	23
Cheese	19
Cooked meats	19
Fresh meat	17
Fish	14
Canned vegetables	13
Canned meat	13
Canned fruit	12
Bacon	9
Fresh chicken	9
Vegetables	7
Sausages	7
Butter	6
Potato crisps	3
Minced beef	3
Fresh fruit	2
Other foods	69
Total	353

Poultry Inspection

Daily inspection visits were made to the two preparation premises where poultry are regularly slaughtered. Obviously unfit birds are rejected by experienced staff and doubtful cases are left for the inspectors daily visit.

Joint inspections with the District Veterinary Officer of the Ministry of Agriculture, Fisheries and Food were

made to secure compliance with the Slaughter of Poultry (Humane Conditions) Regulations 1971.

Muslim Poultry Slaughterers

At the present time there are nine of the above establishments in the city which slaughter 1,500 birds per week. These premises are mainly situated in the Highfields and Belgrave areas.

Most of the establishments are ancillary to either grocery or butchery businesses.

The residential areas in which these shops are situated are not suitable for poultry slaughtering and complaints have been received during the year regarding noise, dirt and smell from the premises.

At the end of the year the Department in close liaison with the City Planning Department was endeavouring to have these premises moved to a more suitable area.

Regular visits are made while slaughtering is in progress to inspect the poultry and also to endeavour to see that reasonable standards of hygiene are maintained. Slaughtering is carried out at irregular intervals and this makes surveillance even more difficult.

Meat Inspection

Slaughtering

There are three licensed slaughterhouses at the Cattle Market at which slaughtering is limited to the periods 7 a.m. to 7 p.m. on Mondays to Fridays and 7 a.m. to 1 p.m. on Saturdays. There is one licensed slaughterhouse on the Thurmaston side of the city at which killing is permitted up to 8 p.m. on one evening each week. A 100% inspection was carried out on the 169,185 animals which were slaughtered and 57 tons of meat and offal were found to be unfit for human consumption.

Imported meat

During the year 173 containers of imported meat were examined in accordance with the provisions of the Imported Food Regulations 1968. The total weight of imported meat and offal found to be unfit for human consumption was 7 tons caused mainly by improper handling during transit.

Laboratory Investigations

Over 2,500 specimens were sent for laboratory examination to ascertain the incidence of *Trichinella Spiralis* in pigs. This is a parasite which can cause the disease known as Trichinosis in man. All the specimens proved negative. Towards the end of the year investigations were commenced in collaboration with the City Analyst's Department into the presence of heavy metals, i.e. arsenic, copper and lead in pigs livers.

Slaughterhouse Hygiene

A satisfactory standard of hygiene is maintained at all the slaughterhouses in the city. These premises are inspected several times a year by Officers of the Ministry of Agriculture, Fisheries and Food with whom a close liaison exists in all matters of mutual concern.

Schools

Meat, fish and vegetables are purchased under contract for school meals and 158 visits were made to ascertain whether or not the food supplied was satisfactory. Apart from a few minor discrepancies the supplies were in accordance with the terms of the contracts.

Educational Visits

Over 220 students from schools and colleges visited the Meat Inspection Office for lectures and demonstrations on meat hygiene. Appreciation must be expressed for the ever-ready willingness of the meat trade to co-

operate in these demonstrations, for which there is an increasing demand. These lectures are one more aspect of the trend towards improved standards of meat hygiene generally, as the need for the most scrupulous care to be taken in the handling of meat extends beyond the slaughterhouses and processing plants.

Emergency Slaughter

These are animals sent in to the abattoirs from farms for immediate slaughter because of illness or accident. The carcasses of these animals have to be subjected to a most careful and critical inspection as the consumption of their flesh may sometimes be harmful to man. This places a great responsibility on the inspectors. During the year 376 such animals were dealt with and 98 (26%) were totally rejected as being unfit for human consumption. This compares with a 0.2% rejection for normal animals.

Wholesale Markets

The Wholesale Fruit and Vegetable Market is visited daily and during the year 138 tons of produce were rejected. The new Wholesale Fish and Poultry Market opened during the year and is also visited daily.

Tribute must be paid to the traders in both Wholesale Markets for the high standard of cleanliness and for their ready co-operation with the Department in all matters concerned with food hygiene.

Food Hygiene

Catering Premises

New restaurants and other types of eating places continue to open in the city. Some very soon close and sometimes undergo rapid alterations and open under a different name and management. Leicester is very well served with a wide variety of cafes and restaurants catering for all tastes and all pockets. There are almost

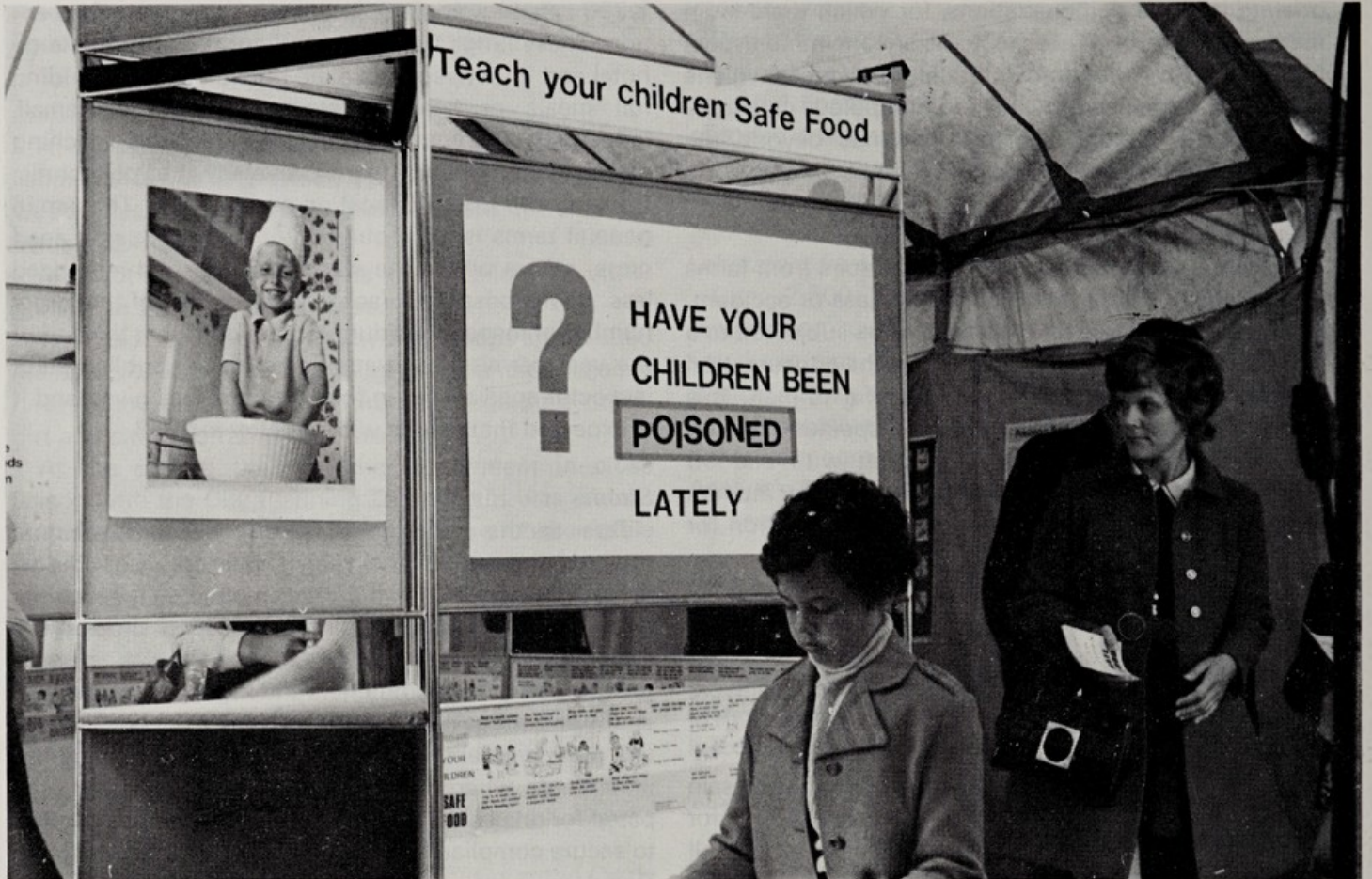
1,300 catering premises in the city that require inspection. These range from the small snack bar to the large hotel and in between there are public houses providing full meals or snacks, restaurants large and small, industrial and commercial canteens, hospitals, teaching establishments including the University, the Polytechnic, Colleges of Further Education and Schools. The aim in general terms is for a quarterly inspection, some need more, others where the standards are good may need less. It was possible to achieve about 65% of the target number of inspections during the year, but at the end of the year permission to appoint a further public health inspector specialising in food hygiene was given and it is expected that results will be better in 1973.

Shops

Due to the shortage of public health inspectors towards the end of the year it was only possible to achieve about 65% of the total number of inspections considered necessary for all types of food shops. Very little food, apart from fruit and vegetables, is sold unwrapped except in butchers and bakery confectionery shops and these need more frequent inspections. There are also problems with grocery shops operated by immigrants where bulk food such as cereals are prepared for retail sale. In these shops education is needed to secure compliance with the Food Hygiene (General) Regulations.

The enforcement of these Regulations together with higher standards obtained by means of the Offices, Shops and Railway Premises Act has meant a continuing general improvement in all types of food shops.

An interesting development during the year due to the high immigrant population of the Highfields, Spinney Hill, Belgrave and to a lesser extent the Narborough Road areas of the city, is the number of shops manufacturing and selling Asian sweetmeats. The development



Safe Food Exhibition, City of Leicester Show, Abbey Park

of this domestic industry has had to be given particular attention to ensure that food hygiene requirements are observed.

Food Hygiene (General) Regulations 1970

Premises covered by the Regulations		
Grocers and supermarkets	752	
Licensed premises	205	
Butchers shops	260	
Fruiterers and greengrocers shops	132	
Fishmongers and fried fish shops	116	
Bakeries	22	
Confectioners shops	325	
Hotels restaurants and cafes	447	
Factory canteens, school meals, preparation kitchens	710	
Food warehouses and factories	37	
Total		3006
Mobile Food Shops (Registered under Leicester Corporation Act 1968)		
Number registered	152	

Health Education

Once again there has been a pleasing increase in lectures and demonstrations to students at school. The expansion in this field during 1972 is continuing. It is felt that the public health inspector's practical approach in presenting the environmental health aspects of school examination syllabuses is greatly appreciated. Further additions to the Department's library of 35 mm. slides have been a great help in this respect.

It was most gratifying when sufficient students enrolled to support the Course in the Hygiene of Food Retailing and Catering at South Fields College. After a year's break, numbers justified the setting up of two separate classes each week when the Course re-opened in September.

It is always encouraging to be asked by industry to

talk about food hygiene to food workers. There has been the usual steady demand for talks of this sort. It is disappointing that the interest in this in-service training which the financial inducement offered in the early days of the Industrial Training Act has not continued.

Safe Food Campaign and Exhibition

"Teach your children Safe Food!" was the theme of the Department's Safe Food Project in 1972.

The campaign included competitions for school children based on a humorous illustration of "Fag Ash Fanny's filthy kitchen". For older students there was a contest to write a newspaper article about one of several food safety subjects. Eight thousand brochures entitled "Teach your Children Safe Food" were printed and distributed to children and a selection of Safe Food Advice Notes were prepared.

The interest shown in the senior competition by Mr. Douglas Goodlad, Editor of the Leicester Chronicle, was greatly appreciated. His newspaper gave preliminary coverage to the entire project and also printed the winning entries in the newspaper article competition.

The Department's exhibition at the City of Leicester Show was also based upon the theme of safe food and children. This display at Abbey Park was our first show exhibition for several years. Basic food hygiene lessons were presented in a lively illustrated form on static displays. In addition, there was a constant programme of colour slide shows backed by suitable commentaries and interspersed with music. The number of persons passing through the marquee, more than 10,000 in two days, bears witness to the great success of this venture.

A fitting climax to the years campaign was the presentation of prizes to competition winners. The Lord Mayor, Alderman S. Tomlinson entertained the prize winners to tea and presented their awards and this was greatly appreciated.



*Safe Food Exhibition
City of Leicester Show
Abbey Park*

Pest Control

Rats and Mice

3,428 complaints of rats and mice were received during the year. In addition to dealing with direct complaints the rodent control staff carry out surveys and treatment of water courses, allotments and agricultural holdings. Mice in commercial premises continues to be a difficult problem to deal with and very often the Department is only called in when the infestation is getting out of hand. The judicious use of control measures such as the old fashioned mouse traps would very often prevent a subsequent heavy infestation.

Leicester together with the other local authorities in the county and the National Farmers Association co-operated in a Rat Control Campaign during the year which culminated in 'baiting day' on 27th November. Publicity was given to this campaign by press and radio.

Pigeons

738 feral pigeons were destroyed using alpha chloralose as a narcotic followed by gassing of the doped birds by the fumes of carbon tetrachloride. These operations take place very early on Sunday mornings during the Spring and Summer and serve as a means of controlling the pigeon population in the city. An experimental method of using alpha chloralose and seconal was tried unsuccessfully during the year. This method was claimed to have the advantage of a quicker 'knock down' of the birds, but it was soon discovered that although it had this result, the affected pigeon in toppling over disturbed his companion eating the doped corn and they quickly flew away.

Stray Dogs

Attention was given during the year to the problems caused by dogs in the city. It was realised that as kennel accommodation owned by the R.S.P.C.A. was over-

loaded and new kennels were not yet available it was not feasible to consider appointing a full-time dog control officer of the Council.

As an experiment, therefore, and to try to control the reported packs of stray dogs that were causing a nuisance on certain housing estates and the problem generally, Mr. A. Voyce, the owner of the Leicestershire and Rutland Stray Dogs Sanctuary was appointed on a contract basis as from October, 1972. Mr. Voyce's procedure is to tour pre-selected areas of the city on four or five days each month. Most of the large estates have now been visited, some several times. In the three months of operation 31 stray dogs, i.e. those without any means of identification were collected and taken to the kennels at Frisby-on-the Wreake. 7 were subsequently claimed by the owners and the remainder kept for the statutory period of 28 days and were then disposed of by Mr. Voyce.

The effect of this campaign and the resultant publicity has been to reduce the number of dogs running about without collars and this has certainly helped with the overall problem.

Accidents	Class of premises	Offices	Retail Shops	Wholesale Shops and Warehouses	Catering Establishments and Canteens	Fuel Storage Depots	Total
	Number of accidents reported	9	23	29	4	2	67
	Number of accidents investigated	7	13	12	2	.	34
	<i>Causation</i>						
	Machinery	.	2	4	.	.	6
	Transport	.	1	4	.	.	5
	Falls of persons	6	14	10	1	1	32
	Stepping on or striking against object or person	.	.	2	.	.	2
	Handling goods	.	3	6	1	.	10
	Struck by falling object	.	.	2	1	.	3
	Fires and explosions	.	.	.	.	.	.
	Electricity	.	.	.	.	.	.
	Use of hand tools	.	3	.	.	.	3
	Not otherwise specified	3	.	1	1	1	6
	<i>Injuries sustained</i>						
	Fractures and dislocations	3	2	3	.	.	8
	Sprains and strains	3	9	10	2	.	24
	Internal injury	.	.	.	.	.	.
	Open wounds/surface injury	1	7	4	2	1	15
	Bruising and crushing	2	4	12	.	.	18
	Burns	.	.	.	.	1	1
	Multiple injuries	.	1	.	.	.	1
	<i>Action taken</i>						
	Prosecutions	.	.	.	.	.	.
	Formal warnings	.	.	.	.	.	.
	Informal advice	7	16	21	3	2	49
	None	2	7	8	1	.	18

Legal Proceedings							Fine	
Statutes under which proceedings instituted							Default or offence	£
Food and Drugs Act 1955, Section 2							Wire in batter	25.00
"	"	"	"	"	"	"	Mouldy yoghurt	10.00
"	"	"	"	"	"	"	Cigarette end in mince pie	50.00
"	"	"	"	"	"	"	Metal washer in pork pie	50.00
"	"	"	"	"	"	"	Part of slicing blade in loaf of bread	20.00
"	"	"	"	"	"	"	4 mouldy sausage rolls	50.00
"	"	"	"	"	"	"	Mouldy cornish pasty	20.00
"	"	"	"	"	"	"	Mouldy potted beef	15.00
"	"	"	"	"	"	Section 8	Mould in can of corned beef loaf	10.00
"	"	"	"	"	"	"	Mould in can of sliced green beans	10.00
Food Hygiene (Gen) Regulations, 1960							Dirty condition of premises	348.00
Food Hygiene (Markets, Stalls & Delivery Vehicles) Regs. 1966							Non display of name board	15.00
"	"	"	"	"	"	"	"	10.00
"	"	"	"	"	"	"	Smoking whilst handling food	20.00
"	"	"	"	"	"	"	"	15.00
Housing Act 1961							Overcrowded house in multiple occupation	50.00
Clean Air Act 1968							Emitting dark smoke from bonfires	50.00
"	"	"	"	"	"	"	"	50.00
"	"	"	"	"	"	"	Emitting dark smoke from boiler chimney	05.00
"	"	"	"	"	"	"	"	05.00
"	"	"	"	"	"	"	Emitting dark smoke from bonfires	50.00

Lectures 1972

Students	No. of lectures	Total students attending
Lectures on employers' premises		
Catering personnel	26	244
Other food personnel	5	64
Others	11	122
Lectures & Demonstrations to students undertaking further education		
Other food personnel	1	40
Other than food personnel	28	701
R.S.H. Certificate Course	30	457
Professional Trainees		
Student nurses	24	235
Student district nurses	6	107
Student health visitors	4	105
Others	2	55
Lectures & Demonstrations to School Pupils		
G.C.E., O & A level and C.S.E. Courses	63	1038
Others	12	595
Professional meetings and other outside organisations		
	12	650
Total	224	4413

General Sanitary Circumstances

Complaints received and recorded	
Housing defects	735
Blocked or defective drains and sewers	342
Defective water supply	17
Flood water in houses	55
Overcrowding	32
Caravans	5
Keeping of animals	37
Accumulation of offensive matter	305
Factory conditions	8
Smoke nuisances	94
Grit nuisances	3
Fumes and steam	22
Noise nuisances	88
Offensive odours	90
Food hygiene regulations	36
Insects, pests and wasps, etc.	598
Rats and mice	3428
Pigeons	34
Miscellaneous	130
Total	6059

Housing: Clearance areas reported to the Council through the Housing Committee

Area No.	Name	CO or CPO	No. of Houses	Other buildings
424	Catesby Street	CPO	411	.
425	Hinckley Road No. 7	CPO	2	.
426	Fitzroy Street	CPO	12	.
427	Cardinal Street	CPO	93	.
428	Maidstone Road	CPO	10	.
429	Aylestone Street No. 1	CPO	2	.
430	Aylestone Street No. 2	CPO	2	.
431	Elmdale Street No. 1	CPO	32	.
432	Elmdale Street No. 2	CPO	6	.
433	Vann Street	CPO	150	.
434	Shirley Street No. 1	CPO	3	.
435	Shirley Street No. 2	CPO	2	.
436	Shirley Street No. 3	CPO	1	.
437	Loughborough Road	CPO	5	.
438	Sussex Street	CPO	22	.
439	Kent Street No. 1	CPO	26	.
440	Kent Street No. 2	CPO	6	.
441	Cecil Gardens, Cecil Road	CPO	7	.
442	Garfield Cotts. Donnington St.	CPO	4	.
443	Garendon Street	CPO	2	.
444	Cromwell Road	CPO	46	.
445	Clifton Road	CPO	13	.
446	Saffron Lane	CPO	28	.
447	Cavendish Road No. 1	CO	4	.
448	Cavendish Road No. 2	CO	2	.
449	Halstead Street	CPO	2	.
		Totals	893	Nil

Slum clearance

	Representations		No. of houses	
	CO	C PO	in orders	Confirmed
1953	.	1	270	270
1954	.	5	670	664
1955	.	6	155	123
1956	14	7	577	282
1957	23	11	1076	896
1958	27	24	769	645
1959	2	11	1104	716
1960	4	19	519	1118
1961	3	4	576	344
1962	.	6	240	801
1963	1	3	456	247
1964	1	32	801	54
1965	1	9	954	1061
1966	10	5	452	676
1967	3	5	239	579
1968	5	22	518	277
1969	4	6	274	731
1970	2	14	478	365
1971	.	18	611	642
1972	2	24	893	355
	102	232	11632	10846

Unfit houses dealt with individually

Individual unfit houses 1953-1972

Act under which action taken	Houses represented to Health Committee	Houses on which Order made	Statutory U/T not to re-let	Houses vacated	Awaiting removal
<i>Housing Act 1957, Sect. 17 – demolition orders</i>	393	368	25	391	2
<i>Housing Act 1957, Sect. 17 – closing orders</i>	81	81	.	81	.
<i>Housing Financial Provisions Act, 1958</i>	102	102	.	102	.
<i>Voluntary undertakings</i>	.	.	24	24	.
<i>Housing Act 1957 – closure of rooms</i>	8	8	.	.	.

Synopsis of inspection work	Inspections
<i>Housing:</i>	
<i>Defects under Public Health Acts</i>	4707
<i>Under Housing Acts: Inspections</i>	6749
Improvements	8287
Overcrowding	1121
Land charge visits	1748
Houses in multiple occupation	6570
<i>Rent Act 1957: Certificates of disrepair</i>	10
<i>Drainage: Tests and inspections</i>	4130
<i>Infectious disease: Enquiries and disinfection</i>	503
<i>Infestation control: Rodent, insect and pigeon control</i>	1437
<i>Complaints (Nuisances) Ditches and watercourses</i>	30
Flooding	370
Keeping of animals	174
Offensive accumulations	1819
Offensive odours	422
Refuse tips	3
Factories	130
<i>Offices, Shops and Railway Premises Act, 1963</i>	2842
<i>Atmospheric Pollution and Noise:</i>	
Furnaces, boiler houses and chimneys	737
Smoke, fumes, dust and grit	758
Smoke control areas	8141
Noise	820
<i>Food Hygiene:</i>	
<i>Shops: Meat, fish, fruiterers, greengrocers and confectioners</i>	2417
Bakehouses	40
Fish frying premises	145
Food manufacturing premises	216
Food vendors' vehicles	175

Food warehouses	142
Ice cream premises	15
Poultry processing premises	868
Hotel and restaurant kitchens	1229
Public houses and clubs	515
Factory canteens	1008
<i>Markets: Retail</i>	273
Wholesale	760
Cold stores	1003
Dairies	215
Food vending machines	174
<i>Sampling visits: food, drugs, water, fertilisers, feeding stuffs, rag flock, swimming baths</i>	1947
<i>Food inspection: Complaints</i>	453
Unfit food	1014
<i>Other Registered and Licensed Premises:</i>	
Animal establishments	74
Knackers yard	12
Offensive trades	3
Canal boats	2
Pharmacy and Poisons Act, 1933	24
Hairdressers	105
Van dwellings	83
Meetings with owners and tradesmen	4074
<i>Health Education: Lectures etc.</i>	449
Schools	207
Other visits	698
<hr/>	
Total	69848
<hr/>	
<i>Notices served</i>	
Informal	1761
Formal	1193
<i>Complied with</i>	
Informal	1160
Formal	671
	97

Housing Statistics for year ended 31st December, 1972

(i) Unfit dwelling houses — inspection

1 a	Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	5598
b	Number of inspections made for the purpose	10428
2 a	Number of dwelling houses (included under sub-head 1 above) which were inspected and recorded under Housing Consolidated Regulations, 1925 and 1932	891
b	Number of inspections made for the purpose	2376
3	Number of dwelling houses found to be in a state so dangerous to health as to be unfit for human habitation	797
4	Number of dwelling houses (exclusive of those referred to under the preceding sub-heading) found to be not in all respects reasonably fit for human habitation	1567

(ii) Remedy of defects without service of Formal Notices

Number of defective dwelling houses rendered fit in consequence of informal action by local authority or its officers 894

(iii) Action under Statutory Powers

A Proceedings under Sections 9, 10 & 16 of the Housing Act 1957

1	Number of dwelling houses in respect of which notices were served requiring repairs	.
2	Number of dwelling houses which were rendered fit after service of formal notices:	.
a	By owners	.
b	By local authority in default of owners	.

B Proceedings under Public Health Acts

1	Number of dwelling houses in respect of which notices were served requiring defects to be remedied	569
2	Number of dwelling houses in which defects were remedied after service of formal notices:	
a	By owners	409
b	By local authority in default of owners	160

C Proceedings under Section 17 of the Housing Act 1957:

1	Number of dwelling houses in respect of which Demolition Orders were made	.
2	Number of dwelling houses demolished in pursuance of Demolition Orders	1
3	Number of houses dealt with under Housing Financial Provisions Act 1958	.

D Proceedings under Section 18 of the Housing Act 1957:

1	Number of separate tenements or underground rooms in respect of which Closing Orders were made	.
2	Number of separate tenements or underground rooms in respect of which Closing Orders were determined the tenement or room having been rendered fit	.
	Number of houses in respect of which Closing Orders were made under Section 17 of the Housing Act 1957	1
	Number of houses dealt with under Sections 12 to 16 of the Housing Act 1961 (Houses in Multiple Occupation)	323

Improvement Grants

	Standard grants			Discretionary grants		
	During year 1972	During year 1971	Since commencement of scheme	During year 1972	During year 1971	Since commencement of scheme
Applications received	702	790	9188	930	927	4574
Approved by Housing Committee	622	624	7468	885	603	3464
	£	£	£	£	£	£
Amount of grants paid on applications approved	39333	30645	505509	290481	91476	647939
Amount to be paid by the Council	9833	7661	126377	72620	22866	161984

(From Annual Report of Housing Committee)

Rent Act 1957 Applications for Certificates of Disrepair

Part 1 — Applications for Certificates of Disrepair

1 Number of applications for certificates	4
2 Number of decisions not to issue certificates	4
3 Number of decisions to issue certificates	
<i>a</i> in respect of some but not all defects	Nil
<i>b</i> in respect of all defects	Nil
4 Number of undertakings given by landlords under paragraph 5 of the First Schedule	Nil
5 Number of undertakings refused by Local Authority under proviso to paragraph 5 of the First Schedule	Nil
6 Number of certificates issued	Nil

Part II — Applications for cancellation of Certificates

7 Applications by landlords to Local Authority for cancellation of certificates	2
8 Objections by tenants to cancellation of certificates	Nil
9 Decisions by Local Authority to cancel in spite of tenants' objection	Nil
10 Certificates cancelled by Local Authority	2

Offices, Shops and Railway Premises Act 1963

Registration of general inspections

Class of premises	Number of premises registered during year end of year	Total number of registered premises at end of year	Number of reg. premises receiving a general inspection during year
Offices	105	1434	695
Retail shops	83	1800	1170
Wholesale shops, warehouses	30	326	162
Catering establishments open to the public, canteens	27	408	408
Fuel storage depots	3	4	4
Totals	248	3972	2439

Number of visits of all kinds by inspectors to registered premises 3488

Analysis of persons employed in registered premises by workplace

Class or workplace	Number of persons employed
Offices	14158
Retail shops	10900
Wholesale departments, warehouses	3816
Catering establishments open to the public	2323
Canteens	23
Fuel storage depots	11
Total	31231
Total males	18735
Total females	12496

Outwork (Sections 110 and 111)

Total number of outworkers in August 1972

Wearing apparel, making etc.	440
Boot and shoe manufacture	206
Elastic manufacturers	13
Total	659

Observations on the administration of the Factories Act, 1961 Part 1 of the Act

Inspections for the purpose of provisions as to health (inspections made by Public Health Inspectors)					
Premises	Number on Register	Inspections and re-inspections	Written notices	Occupiers prosecuted	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by the local authority	16	20	.	.	
(ii) Factories not included in (i) in which Section 7 is enforced by the local authority	2162	120	.	.	
(iii) Other premises in which Section 7 is enforced by the local authority (excluding out-workers premises)	.	.	.	.
Total	2178	140	.	.	

Factories – Cases in which defects were found

Particulars	Found	Remedied	Referred to H.M. Inspector	Number of cases in which prosecutions were instituted	
Want of cleanliness (Sect. 1)	4	2	.	.	
Overcrowding (Sect. 2)	.	.	.	.
Unreasonable temperature (Sect. 3)	.	.	.	.
Inadequate ventilation (Sect. 4)	.	.	.	.
Ineffective drainage of floors (Sect. 6)	.	.	.	.
Sanitary conveniences (Sect. 7) <i>a</i>) insufficient	4	3	1	.	
<i>b</i>) unsuitable or defective	6	4	1	.	
<i>c</i>) unsatisfactory labelling of accommodation (not including offences – out work)	.	.	.	.
Total	14	9	2	.	

Smoke Control Orders in force

Area No.	Area Name	Operative Date	Council Houses	Private dwellings	Other buildings
1	St. Matthew's	1 Sept. 1958	735	1	3
2	Central	1 Sept. 1958	.	45	504
3	Lee Street	1 Sept. 1960	34	93	346
4	Church Gate	1 Oct. 1961	.	98	321
5	Aerodrome		438	6	29
6	Lutterworth Road		1821	1032	61
7	Dane Hills	1 Oct. 1962	467	1443	32
8	New Parks	1 Oct. 1963	3570	118	19
9	Highcross Street			47	167
10	Braunstone West	1 Oct. 1964	2100	8	8
11	Granby			132	753
12	Willow Street		737	2	17
13	Tudor Road	1 Dec. 1964		1057	44
14	Braunstone Park	1 Dec. 1965	1150	6	5
15	Fosse	1 Dec. 1965		4513	89
16	Narborough Road	1 July 1967	1590	3430	68
17	Aylestone	1 Nov. 1967	100	3600	98
18	Beaumont Leys	1 Nov. 1967	2000	2875	121
19	Saffron 1	1 Nov. 1968	1448	5	10
20	West Knighton	1 Nov. 1968	5	1404	17
21	Aylestone Road	1 Nov. 1968	55	1165	115
22	Victoria Park	1 Nov. 1968	75	382	146
23	Abbey Park	1 Nov. 1968	40	956	297
24	Corporation Road	1 Nov. 1968	10	1667	121
25	Knighton	1 Nov. 1969	.	6061	23
26	Saffron 2	1 Nov. 1969	930	.	10
27	Belgrave & Rushey Fields	April 1971	687	7350	434
28	Stoneygate	1 July 1972	60	3351	101
29	Mayflower	1 July 1972	550	1580	33
30	Crown Hills	1 Nov. 1972	843	6323	585
Totals			19445	48750	4577

Smoke Control Orders (awaiting confirmation)

Area No.	Area Name	Operative Date	Council Houses	Private dwellings	Other buildings
31	Spinney Hill	1 Nov. 1973	1051	5330	239
32	Netherhall	1 Nov. 1973	1637	1083	41
33	West End	1 Nov. 1973	8	203	77

Smoke Control Orders (proposed)

Area No.	Area Name	Operative Date	Council Houses	Private dwellings	Other buildings
34	Spencefield Lane	1 Nov. 1974	961	2593	not yet determined
35	West Humberstone	1 Nov. 1974	579	1423	„
36	Thurncourt Road	1 Nov. 1975	1749	106	„
37	Thurmaston Lane	1 Nov. 1975	.	1203	
Totals			3289	5325	

Food and Drugs Act, 1955

Milk Sampling for chemical quality

Pasteurised Milk	327
Pasteurised Channel Island Milk	18
Sterilised Milk	110
Ultra Heat Treated	50
Total	505

Milk (Special Designation) Regulations 1963-1965

Pasteurised Milk (bottles and cartons)	269
Pasteurised Channel Island Milk (bottles)	18
Pasteurised Milk ($\frac{1}{2}$ pints from school supplies)	58
Sterilised Milk (bottles)	110
Ultra Heat Treated	50
Total	505

Bacteriological Examinations of milk bottles and churns

Rinses from churns and bottles were taken at regular intervals in order to assess the efficiency of the washing plant at the dairies.

Number of bottle rinses taken	212
Number unsatisfactory	3
Number of churn rinses taken	142
Number unsatisfactory	4

An unsatisfactory bottle has a count of more than 600 colonies and an unsatisfactory churn more than 250,000 colonies.

Examination of milk supplies for antibiotics

Number of samples taken	131
Number unsatisfactory	4

The unsatisfactory samples were followed up at the farms concerned; the farmers were informed that they should increase the period after treatment of the cows, during which milk shall be considered unfit and not delivered to the dairy.

Food and Drugs Act, 1955

Sampling of food and drugs other than milk

The following is a summary of samples submitted to the Public Analyst. Full details appear in the City Analyst's section of this Report.

Food samples - Formal	10
Food samples - Informal	1140
Number unsatisfactory	66
Drug samples - Formal	Nil
Drug samples - Informal	70
Number unsatisfactory	4

Total food and drug samples	1220
Total number unsatisfactory	70

Ice Cream Sampling

Bacteriological Examination

122 samples were submitted for bacteriological examination during 1972 of which 19 were unsatisfactory.

The unsatisfactory samples were followed up, advice given and satisfactory samples obtained.

Chemical Examination

Number of samples 9

All these were reported as conforming to the Food Standards (Ice Cream) Regulations, 1959.

Bacteriological Examination of Shellfish

Number of samples 87

The standard of the samples improved throughout the year.

Other Sampling

Fertilisers and Feeding Stuffs Act, 1926

Number of samples taken :

Fertiliser 43

Number unsatisfactory 13

Number of feeding stuff samples taken 9

Number unsatisfactory Nil

Total number of samples 52

Unsatisfactory 13

Full details appear in the City Analyst's section of this Report.

Food Hygiene (General) Regulations 1970

Deficiencies found:

Insufficient or unsatisfactory sanitary accommodation 14

Absence of notices re hand washing 53

Insufficient provision of sinks, wash-hand basins and hot water 127

Absence of clean towels 57

Insufficient accommodation for outdoor clothing —

Absence of protective clothing 14

Absence of first aid equipment 69

Dirty food rooms 24

Dirty equipment 78

Non-absorbent working surfaces 119

Defective surfaces to floor, walls etc. 251

Removal of refuse 83

Unsatisfactory lighting and ventilation 70

Food not protected from risk of contamination 65

Absence of food handling equipment 63

Miscellaneous 50

Total 1137

Summary of foodstuffs condemned 1972

	tons	cwt	qr	lb
Fish (excluding shellfish)	1	9	.	10
Crabs	.	1	.	.
Other shellfish	.	1	.	.
Fruit	77	.	1	9
Vegetables	120	6	3	1
Poultry	2	3	3	9
<i>Meat</i> English	26	9	1	3
Imported	5	18	3	10
<i>Offal</i> English	23	6	3	.
Imported	1	6	2	15

Other Foodstuffs

Meat	7230 cans
Fish	5956 cans
Fruit	11603 cans
Milk	4205 cans
Soup	481 lbs
Vegetables	18372 cans
Assorted frozen foods	8643 lbs
Flour confectionery	1815 lbs
Preserves	1580 lbs
Sauces and pickles	366 lbs
Meat products	58 lbs
Milk products	1584 lbs
Sugar and confectionery	170 lbs
Beverages	190 lbs
Baby foods	602 lbs
Pastry	132 lbs
Fats	115 lbs
Other foods	2045 lbs

Slaughtering of animals for food 1967-1972

	1972	Casualty animals carcases included in 1972 figures	1971	1970	1969	1968	1967
Cattle excluding cows	18932	15	18731	20650	19382	22652	25988
Cows	313	1	696	219	389	835	761
Calves	109	4	294	343	507	637	894
Sheep	59929	38	71068	78969	81533	100466	92671
Pigs	89902	318	81332	76799	85374	75382	63476
	169185	376	172121	176980	187185	199972	183790

Incidence of disease The following table summarises the quarterly returns to the Ministry of Agriculture, Fisheries and Food in connection with research and disease control carried out by the Animal Health Division.

Adult Cattle		Condemnations			
Numbered slaughtered 19245		Carcases		Offal	
		Total	Partial	Total	Partial
Actinobacillosis (-mycosis)	.	.	.	107	.
Bruising	.	7	.	12	.
Cysticercosis (C. Bovis)	.	.	.	.	.
a Rejected	.	.	.	8	.
b Refrigerated	8	.	.	8	.
Echinococcosis	.	.	.	6	.
Emaciation	1	.	1	.	.
Fascioliasis (fluke)	.	.	.	524	.
Hepatic abscess	.	.	.	682	.
Johne's disease	.	.	.	.	.
Mastitis	.	.	.	1	.
Peritonitis	.	.	.	.	.
Pneumonia and/or pleurisy	.	.	.	95	.
Septicaemic conditions/fever	12	.	12	.	.
Telangiectasis	.	.	.	5	.
Tuberculosis	.	.	.	2	.
Tumours	.	.	.	1	.
Other conditions	5	6	5	291	.

Calves		Condemnations			
Numbered slaughtered 109		Carcases		Offal	
		Total	Partial	Total	Partial
	Bruising	.	.	.	.
	Emaciation	.	.	.	.
	Immaturity	.	.	.	.
	Joint-ill or navel-ill	.	.	.	.
	Septicaemic conditions/fever	6	.	6	.
	Tuberculosis	.	.	.	.
	Other conditions	.	.	.	.

Pigs		Condemnations			
Number slaughtered 89,902		Carcases		Offal	
		Total	Partial	Total	Partial
Abscess	.	141	.	.	.
Arthritis	.	68	.	.	.
Ascariasis (Milk spot)	.	.	.	1216	.
Bruising	4	87	4	2	.
Echinococcosis	.	.	.	.	.
Emaciation	6	.	6	.	.
Jaundice	6	.	6	.	.
Pneumonia and/or pleurisy	.	.	.	654	.
Pyæmia	121	.	121	.	.
Septicaemic conditions/fever	170	.	170	.	.
Swine erysipelas	6	.	6	.	.
Tuberculosis	1	.	1	6	.
Tumours	3	.	3	.	.
Other conditions	16	.	16	.	.

Sheep		Condemnations			
Number slaughtered 59,929		Carcases		Offal	
		Total	Partial	Total	Partial
Abscess	1	3	1	1	.
Arthritis	.	.	.	.	.
Bruising	1	.	1	.	.
Cysticerous ovis	4	.	4	.	.
Echinococcosis	.	.	.	236	.
Emaciation	11	.	11	.	.
Fasioliasis (fluke)	.	.	.	510	.
Jaundice	.	.	.	.	.
Pneumonia and/or pleurisy	.	.	.	75	.
Pyæmia	2	.	2	.	.
Septicaemic conditions/fever	27	.	27	.	.
Tumours	3	.	3	.	.
Other conditions	4	.	4	.	.

Other premises subject to inspection

Knackers' yard	1
<i>Offensive trades a</i> Hides & skins	1
<i>b</i> Tripe dressers	1
Pet shops	25
Animal boarding establishments	2
Riding establishments	1
Hairdressing premises	400
Part II poisons	119

Ministry of Agriculture, Fisheries and Food Prevention of Damage by Pests Act, 1949

Report for 12 months ended 31st December, 1972

Type of property: non-agricultural properties other than sewers

1	Number of properties in district	112271
2	<i>a</i> Total number of properties (including nearby premises) inspected following notification	3754
	<i>b</i> Number infested by (i) Rats	1384
	(ii) Mice	1846
3	<i>a</i> Total number of properties inspected for rats and/or mice for reasons other than notification	6521
	<i>b</i> Number infested by (i) Rats	10
	(ii) Mice	203
	Number of wasps nests destroyed	137
	Number of feral pigeons destroyed	738

City Analyst

Report for the year 1972

E R Pike, *BSc, MChemA, MPhA, MPS, FIFST, FRIC*

I have the honour to submit my twelfth annual report on the work carried out in the laboratories of the City Analyst during 1972. It is a somewhat chastening thought to realise that this could well be the last annual report produced upon the work of this department to be presented to the Health Department of the City of Leicester, for after April 1st, 1974, the responsibility for employment of the Public Analyst becomes a County responsibility, and indeed, there will be no City of Leicester Health Department after that date to receive the report; such are the repercussions of local-government reorganisation! It would, therefore, seem appropriate to place upon record a brief summary of the development of the City Analyst's Department.

It was upon the 1st of January, 1873, that the Council considered a circular from the Local Government Board enquiring whether Leicester would appoint a Public Analyst. Subsequently, on the 30th September, 1873, Mr. Joseph Young, a pharmaceutical chemist, was appointed for a period of one year. It is interesting to note that the Local Government Board, in acknowledging the appointment of Mr. Young, noted that he was also a practising pharmacist and pointed out that he should analyse drug samples obtained from himself or other chemists. The Board was not happy regarding the appointment and enquired if the Council could find someone else!

The terms of the appointment were re-considered upon 22nd October, 1874, and on the 1st January, 1875, Dr. Henry Meadows of Leicester was appointed. He was re-appointed annually until 1879, when the post was made permanent during the Corporation's pleasure. Dr. Meadows retired in 1885.

His successor, Dr. Henry Tomkins, B.Sc., was appointed Medical Officer of Health and Public Analyst on 28th July, 1885, and held these offices until his death on 27th March, 1892.

Dr. Joseph Priestly succeeded to the joint office upon 28th June, 1892, and resigned on the 4th July, 1895, when he went to Lambeth as M.O.H. His successor, Dr. Henry George Hawkins Monk left the post of M.O.H. at Scarborough, to come to Leicester as M.O.H. and Public Analyst on 24th September, 1895, resigning upon 22nd March, 1901, when he went as Medical Officer of Health to Kimberley, S. Africa.

Dr. Killick Millard then came to Leicester from Burton-on-Trent to take up the joint appointment on 21st May, 1901. He retained both positions until pressure of work and increasing duties brought upon Public Analysts by national legislation, caused separation of the two offices, and Mr. Samuel Francis Burford was appointed Public Analyst upon 29th July, 1913.

Upon Mr. Burford's retirement, his assistant, Mr. Frederick Cecil Bullock, was appointed Public Analyst as from 1st July, 1929, and held the appointment until his retirement on 11th February, 1962. During Mr. Bullock's service, the laboratory established at Grey Friars was removed to No. 7, Salisbury Road. In March, 1966, the laboratory removed yet again to its present specially built premises at Wanlip.

It is interesting to investigate, not only bygone Public Analysts of Leicester, all apparently characters in their own manner, but also the development of the work of the laboratory. From 1913 to 1922 the average number of samples examined was 366 annually, of which 60% were milk samples – this report deals with a total of 11,952 samples. Milk samples for compositional analysis amounted to 4.2% of the total, whilst total examinations concerning milk amounted to only 12.5% of the work-load.

From 1913 to 1924, Mr. F. S. Burford provided his own laboratory, housed in the Corporation Buildings situated at the corner of Horsefair Street and the Market Place, and only recently demolished. In 1924 the

Corporation provided accommodation and equipment at Grey Friars for Mr. Burford, at a total cost of £1,372, and the annual cost of the service was estimated at £1,200. In the report advocating the establishment of this laboratory, Dr. Millard quoted a passage from Mr. Burford's report as follows:-

"The work of the Public Analyst tends constantly to become more extensive and exacting. Ordinary tests for gross adulteration are becoming of less importance, and contamination of food by traces of poisonous metals, or the addition of preservatives, or admixture with inferior qualities, or the use of exhausted materials as diluents call for further and sometimes much more complicated tests."

In 1923 when Mr. Burford penned this passage, he could not have realised how right he was, but could he have visualised that the complicated tests he prophesied would require instruments each more costly than his entire laboratory! His concern regarding toxic metals is quite relevant today only more so, indeed, much more so. Mr. Burford would not have realised the extent of lead pollution let alone the present day concern regarding cadmium, mercury, and the many other trace elements which are today viewed with some concern. In his reference to the tests becoming more exacting, could he have foreseen that we should have been detecting mercury and pesticide residues in quantities as little as 5 nanograms (a nanogram is one thousandth of a millionth of a gram). In 1923, the detection of a milligram of mercury would be regarded with satisfaction and the sophisticated gas chromatographic means of detection of organo-chlorine pesticides was not even dreamed of. Of course, the installation of an Atomic Absorption Spectrophotometer at the beginning of 1971 did much to ease our work in the detection of trace metals, and with our greater concern regarding toxic

metals has repaid, even at this date, every penny of the £2,000 expended upon this instrument.

Another very pertinent comment in Dr. Millard's report which is as applicable today as it was in 1923, states:- "The analysis of one sample of an exceptional nature, conscientiously carried through, may equally take as much time as the examination of very many samples of a routine nature". This is a point I have stressed in many of my past reports, and it is interesting that even in 1923 it was realised by the knowledgeable that the value and productivity of a laboratory cannot be judged by numbers of samples alone.

At the beginning of this report, I have mentioned the re-organisation of Local Government which will place the responsibility of food and drugs upon the County Authority and not upon the District Authorities. Thus the County will appoint its Public Analyst, and at this stage it can only be assumed that the laboratory will be a department under the administration of the new County. Its functions will be to carry out analyses of samples taken under the Food and Drugs Act, 1955, and the relevant regulations made under this Act. Samples taken under the Consumer Protection Acts and Trade Description Act, 1968, and the many other Acts and Regulations requiring such services, will be examined. In addition, the laboratory should also provide scientific services and advice to all departments of the County and its Districts. It is because of the demand for such scientific services, more than just the performance of an analysis that the name 'City Analyst or County Analyst' is now considered inappropriate by some authorities, and the title 'Public Analyst and Scientific Adviser' has been adopted.

Again it is with satisfaction that I report that there have been no changes in technical or office staff during 1972, and I must pay tribute to the able and willing services which each, without exception, has given

throughout the year ; a year which has not been without its difficulties and pressures of work necessitating at times, the working of a reasonable amount of overtime. Unfortunately, it is doubtful if 1973 will pass with no staff changes, the advent of local government re-organisation has created a certain amount of apprehension amongst the staff, some of whom are actively seeking posts with seeming greater stability. This is an understandable state of affairs until the future of this laboratory is precisely defined, and the fact that Miss Graham and myself will have the distinction of being the last Deputy City Analyst and City Analyst respectively, does not carry with it any reassurance for the future.

The work of the laboratory has been dominated by soil analysis undertaken on behalf of the Beaumont Leys Development. In spite of this heavy work load, however, normal sample analysis was carried out as indicated in the summary below :-

Samples submitted under The Food and Drugs Act, 1955

(a) Submitted by City of Leicester Public Health Inspectors :		
(i)	Milks for compositional analysis	505
(ii)	Milks for the presence of antibiotics	131
(iii)	Milks for the efficiency of heat treatment	505
(iv)	Milks for keeping quality	355
(v)	Foods (other than milk)	1158
(vi)	Drugs	71
(vii)	Shellfish for bacteriological quality	57
(viii)	Bacteriological examinations (Water, Churn and Bottle Rinses, Foods for efficiency of heat treatment)	1241
(b)	Foods and Drugs submitted by Private Persons	36

Samples submitted under the Fertiliser and Feeding Stuffs Act, 1926

51

Samples submitted by the Public Protection Dept., under The Trade Descriptions Act, 1968

101

Blood and Urine samples examined in connection with the Road Traffic Act, 1972

231

Miscellaneous Samples :

(i)	Atmospheric Pollution samples	2443
(ii)	Miscellaneous samples examined for the Health Dept.	825
(iii)	Soil samples examined from Beaumont Leys Farm	2571
(iv)	Edible plants examined from Beaumont Leys Farm	104
(v)	Samples examined from Corporation Departments other than the Health and Public Protection Depts.	172
(vi)	Samples examined for other Local Authorities	745
(vii)	Samples examined for private persons (other than Road Traffic Act, 1972, samples)	650

Total 11952

Looking back over 1972, the work seems to have been dominated by concern over traces of toxic metals. Some 37,450 determinations were carried out on Beaumont Leys samples and, of course, emphasis was placed upon trace metal contents of other foods. In this connection, I must record my thanks to all members of the Inspectorate staff, and especially to Mr. J. P. Hawksley, who have been very helpful in procuring specific samples relative to the investigations being carried out. The co-operation of members of the City Estates Department in connection with the Beaumont Leys work, was a great help in the smooth running of the project which enabled the final report to be completed in November, 1972, my thanks to all concerned is hereby recorded. Finally, I thank the Chairman, Members of the Health Committee, and the Medical Officer of Health for their interest and encouragement in the activities of the Department.

Legal

Legislation introduced in 1972 affecting the work of the City Analyst.

After a comparative lull during 1971, the revision and introduction of new legislation quickened in pace and volume during 1972, a prelude perhaps to even greater activity for there will now be need to align our regulations to dovetail into those other Common Market countries now that our membership of the E.E.C. is a fact.

The Labelling of Food (Amendment) Regulations, 1972

Proposals to amend the Labelling of Food Order, 1970, which came into force upon 1st January, 1973, were made during May, 1972. Subsequently, the Labelling of Food (Amendment) Regulations, 1972, were laid before Parliament on the 18th October, 1972. These amendments were enforced as from 8th November, 1972, with certain amendments relating to the sale of soft drinks from vending machines which come into

force upon 5th January, 1976. These latter amendments being in fact amendments to the Soft Drinks Regulations, 1964, The regulations :-

- (a) Amend the definitions of 'flour confectionery', 'intoxicating liquor' and 'pre-packed' in the 1970 Regulations, and add a definition of the word 'mineral'.
- (b) Amend the provisions relating to appropriate designations and to names of ingredients used adjectively in such designations.
Designations of species of fish are also amended, thus the term 'Queen Fish' is no longer an appropriate designation.
- (c) A new regulation substitutes that governing the labelling of dry mixes.
- (d) The restrictions imposed upon claims that a food is a source of protein is amended.
- (e) A new regulation is substituted for the one governing claims relating to the presence of vitamins and minerals.

The Lead in Food (Amendment) Regulations, 1972

These Regulations resulted from proposals circulated in May, and lay down a statutory limit of 0.5 parts per million for the lead content of food specially prepared for consumption by babies and young children. The Regulations come into force on January 1st, 1973. The normal permissible maximum lead content of food is 2 parts per million.

The Bread and Flour (Amendment) Regulations, 1972

The Regulations came into operation upon the 1st November, 1972, and amend the Bread and Flour Regulations, 1963.

The Regulations extend the list of bleaching and improving agents which may be present in flour to include azodicarbonamide, L-cysteine hydrochloride, and L-cysteine hydrochloride monohydrate.

They amend the specified forms in which the nutrients chalk, iron, vitamin B₁, and nicotinic acid or nicotinamide are required to be added to flour.

Food Standards Committee Report on Vinegars

This report issued on January, 17th, 1972, recommended that:-

- (a) There should be a definition of 'vinegar' with related definitions and appropriate designations for the most important vinegars, i.e. 'malt', 'spirit' and a new vinegar 'grain vinegar'.
- (b) No vinegar should be allowed to be described as 'vinegar' without an appropriate qualifying designation.

Review of Mineral Hydrocarbons in Food Regulations, 1966

These Regulations which have been in operation since 1966 are due for revision. Invitations were extended upon April 24th, 1972, to any person interested to make representations to the Food Additives and Contaminants Committee.

Report on Offals in Meat Products (Issued May 12th, 1972)

The main recommendations of the Report are:-

- (a) Only permitted offal, including heart, kidney and liver, should, as at present, be allowed to be used in uncooked meat products, but any offal, including permitted offal and other offal such as brain and feet, may be used in cooked heat-processed products.
- (b) The consumer should be informed of the presence of offal in the list of ingredients on the label or, where appropriate, by a declaration or a ticket. A new generic term 'offal' is recommended.

- (c) The Offals in Meat Products Order, 1953, should be replaced by new regulations based upon the Committee's recommendations and appropriate amendments made to existing regulations.

The report does not apply to offal sold as such, and the publication of the report does not commit the Minister, and due consideration is to be given to any representations made by interests concerned. Any future amendments to regulations will take into account the laws and practices of the European Economic Community.

Report on Liquid Freezants of Food (Issued 8th June, 1972)

Food freezants are not at present controlled by any specific regulations. In the absence of such specific control, their use is subject to the general provisions of the Food and Drugs Act, 1955. Section 1 of the Act provides that it is an offence to add any substance to food, use any substance as an ingredient in the preparation of food, abstract any constituent from food, or subject any food to any process or treatment so as to render the food injurious to health, and to sell food so rendered injurious. Section 2 prohibits the sale to the prejudice of the purchaser of food which is not of the nature, substance or quality demanded: and Section 8 prohibits the sale of food which is unfit for human consumption.

The report recommends that the use of nitrogen and carbon dioxide should be permitted as liquid freezants of food. The use of diclorodifluoro-methane as a food freezant was also considered, but did not recommend that the use of this substance should be generally permitted. As is usual in these reports, representations from interested parties were invited.

Food Standards Committee Report on the Date-Marking of Food

The Food Standards Committee Report on the Date-Marking of Food was published on 5th July, 1972. The Committee recognizes the right of the consumer to be able to purchase food in as fresh a condition as is technically possible, and to know that he is doing so. It concludes that new legislation will be required to increase the protection of the consumer, to assist the retail trade and to aid in the enforcement of the law, and recommends that a comprehensive system of open date-marking of pre-packed foods should be introduced. Regulations should come into effect three years from now to allow a period for full discussion of the detailed proposals and the necessary changes in practices and packaging machinery. There would be a few exemptions such as pre-packed fresh fruit and vegetables.

For the purposes of open date-marking, foods would be divided into two main groups, *short-life foods* about which there has been most public concern and *long-life foods*. *Short-life foods* would be those which the manufacturer considered should be sold within three months, taking into account the time needed by the purchaser to keep them at home. These foods would be required to show a 'sell-by' date conspicuously on the label where it could be seen readily by the purchaser and by the retailer. The marking would show the day, month and year in a prescribed form, e.g., 'sell by 02 SEP 72'. The date would assist in stock rotation, and give reassurance to the consumer about the freshness of foods on display. Foods subjected to special processes, e.g., vacuum packing, could be marked with an 'open by' date as an alternative to the 'sell by' date.

For *long-life* foods the Committee recommends a date of manufacture, or of pre-packing, which could be used for stock rotation and which would show the age of individual packages. This date would be shown legibly

anywhere on the label or container in a prescribed form representing the month and year.

The manufacturer, or the packer on the manufacturer's advice, would be responsible for choosing which date to apply.

The regulations would be made under the Food and Drugs Act and its general provisions would continue to apply fully to the condition of the foods when sold. It would not be made an offence to sell food after a 'sell by' date.

Food Additives and Contaminants Committee Report on the Review of the Preservatives in Food Regulations, 1962

This very comprehensive report extending to some 89 pages was published upon 7th July, 1973, recommends that the system of control imposed by the Preservatives in Food Regulations, 1962, over preservatives and the foods in which they may be used should continue, with certain modifications. Certain definitions are re-defined and it is recommended that the term 'preservative' should be re-defined in a manner similar to that used in the European Economic Community's Directive on Preservatives.

A great defect in the operation of the Preservatives in Food Regulations, 1962, is that it is a defence to prove that the presence in any food of a preservative other than a permitted preservative, or the presence of a permitted preservative in a food other than a specified food, is solely due to the use of that preservative in food storage as an acaricide, fungicide, insecticide or rodenticide for the protection of the food whilst in storage. The report accepts that at present there are no practical alternatives to this defence, in the regulations which depend upon the voluntary Pesticides Safety Precautions Scheme, but considers that control over these residues would be improved if it were possible for

the substances to which the defence applied to be identified more specifically. In this connection also it was recommended that the definitions of 'storage' should be amended to take into account the latest developments of food transportation and storage practices, including air transport, containerisation and refrigeration.

Consideration was also given to foods which should contain no added preservative. The Committee were of the opinion that there were no grounds for permitting a preservative in margarine, shortening, low-fat spreads or other similar low-fat products, nor in fish preserves, fish semi-preserves or marinated or similar cold processed packaged fish or meat. The absence of preservative in sauerkraut, or solutions of saccharine, was not considered to prevent satisfactory marketing of these products. It was also stated that the calculated average daily intake, and the intake from minced meat, could be considerable since it forms a significant item in some diets. It was, therefore, recommended that the provision in the Scottish Regulations whereby the addition of up to 450 p.p.m. of sulphur dioxide to butchers' minced meat is permitted in the summer months (i.e. June to September) be withdrawn. A further factor in this consideration was that the use of a preservative can mask poor quality meat and make it look more attractive, and it can mask poor hygiene and the evidence of putrefaction. Having come to this conclusion, it is strange that the permitted addition of the same quantity of sulphur dioxide to sausages was not commented upon in the report. I am personally of the opinion that the consumption of sausages is greater than that of minced meat – certainly in the Midlands, if not in Scotland.

The use of certain antibiotics already permitted is reconsidered, and it is recommended that the permitted use of Tetracyclines in fish (now little used) should now

be withdrawn. Representations were received for the extended use of niacin already permitted in cheese, clotted cream and canned food, but the extended use of this antibiotic in cream was not considered necessary and recommendations were made accordingly.

The use of Nystatin on bananas to control rot was considered, and withdrawal of its use was recommended since it was considered that Thiobendazole was a more effective fungicide and likely to replace nystatin.

Applications for preservatives not currently permitted which were rejected, included the antibiotic pimaricin which was requested for the control of mould growth on cheese rind. Others included Octyl gallate as a beer preservative, Formic Acid in soft drinks, Hexa methylenetetramine in fish preserves, Nordihydroguaiaretic acid, Metatartaric acid, a mixture of fumeric acid and sodium benzoate for fish preservation, benzoyl peroxide as a bleaching agent in blue cheese and Diethyl pyrocarbonate as an anti-microbial agent in wines, beers, cider, perry, fruit juices and soft drinks.

Extended use of some preservatives was accepted. These included Sorbic Acid, Sulphur dioxide, benzoic acid, para-hydroxy benzoates, propionic acid, diphenyl. The use of copper carbonate on the paper wrappings of peas was not now used, and it was therefore recommended that revision for its use should be discontinued.

The use of thiobendazole on banana skins and on citrus fruits was accepted, and a permissible maximum of 6 parts per million based on the weight of the whole fruit was provisionally recommended. It must be remembered that considerable correspondence in the local press resulted during 1971, as a result of the discovery of the disclosure of preservatives on oranges by labels in the French and German languages. In the laboratory the presence of thiobendazole was detected, but although thiobendazole is a non-permitted preservative, it is a defence to prove that its presence is a

result of its use in storage! This recommendation would regularise such incidences, which otherwise make nonsense of the Preservatives Regulations.

The Report dealt at length with the use of nitrate and nitrite in meat products. Much concern was shown regarding the formation of nitrosamines and their carcinogenic effect on animals. This concern led to the recommendation that steps should be taken to reduce the use of nitrate and nitrite in cured meats, and to examine the feasibility of the total elimination of these substances. New limits should be considered in two years time.

Supplementary Report on Emulsifiers and Stabilisers in Food (Sept. 5th, 1972)

This supplement to the Report issued in 1970, reviews certain subjects in the light of further advice provided by the Pharmacology Sub-Committee. Subjects dealt with include:-

(a) Starches (including modified starches).

It is proposed to issue a further Supplementary Report on starches when an evaluation by the Pharmacology Sub-Committee is complete. In the meantime, the existing exemption from the Emulsifiers and Stabilisers in Food Regulations, 1962, for starches is accepted, but it is expected that starches shall be dealt with by a separate instrument in line with E.E.C. regulations.

(b) Surface-active agents.

Sorbitan and polyethylene sorbitan esters of fatty acids and di-octyl sodium sulphosuccinate were recommended as unacceptable for use in food in the 1970 report. Since that time, however, further toxicological information has been submitted, and these restrictions would appear to be no longer necessary, and recommendations have therefore been made accordingly.

(c) Substances considered but not recommended in the earlier Report. These substances included (i) Citroglycerides, (ii) Propylene glycol esters of fatty acids and lactic acid, (iii) Sucrose esters of fatty acids, (iv) Sucroglycerides, (v) The sodium and calcium salts of stearyl-2-lactylic acid.

All the substances have now been accepted by the Pharmacology Sub-Committee as being at least provisionally acceptable in food, and recommendations as regards their use in food have been made accordingly.

(d) Tin-Greasing Emulsions

Under present regulations, food may contain an emulsifier or stabiliser which is not on the permitted list if it is present solely because of its use in a tin-greasing emulsion during the preparation of food. The report considers that this dispensation should be revoked, and that only permitted emulsifiers and stabilisers be permitted for tin-greasing emulsions. In the light of recent pharmacological evidence, it is recommended that oxidatively polymerised soya bean oil and polyglycerol esters of dimerised fatty acids or soya bean oil be permitted providing that the 'carry over' into the food shall not exceed 50 p.p.m. and 20 p.p.m. respectively.

(e) Among the substances considered were Furcelleran, Xanthan gum, Sodium lauryl sulphate, polyoxyethylene (20) sorbitan tristoerate, polyoxyethylene (20) sorbitan mono oleate and polyglycerol esters of poly condensed fatty acids of castor oil. Of these substances, only Sodium lauryl sulphate was rejected.

Antioxidants in Food, Review of Regulations (May 18th, 1972)

Antioxidants are substances used principally in fats and oils to retard or prevent the development of rancidity

or flavour deterioration due to oxidation. The antioxidants permitted in foods are laid down in the Anti-oxidants in Food Regulations, 1966, which prescribes the kinds and amounts which may be added to specific foods. The use of butylated hydroxy toluene was reviewed in 1971, but no changes in its use were recommended. Representations are therefore invited for a full review of antioxidants which no doubt will be reviewed with regard to the E.E.C. Directive on Anti-oxidants. This Directive lists permitted antioxidants, but does not control the foods in which they may be added, this being left to the discretion of the individual member states.

Proposals for Regulations to Amend the Skimmed Milk with Non-Milk Fat Regulations, 1960, (October 1st, 1972)

These amendments merely accepted a change of name for a manufacturer's product.

Proposed Colouring Matter in Food Regulations, September 28th, 1972

The proposals include:-

- 1 A revised list of permitted colouring matters, including the replacement of seven currently permitted colours by six new ones, plus three for limited use only.
- 2 The use of methyl violet, will be restricted to the marking of the skins of citrus fruit, and to the marking of raw and unprocessed meat; the use of burnt umber and pigment rubine will be restricted to certain cheese rinds.
- 3 The introduction of a list of permitted diluents and statutory specifications of purity for those diluents and for all the permitted colours.
- 4 Modifications of the regulations governing the permitted colouring matter that may be used in certain specified cheeses.

5 New labelling requirements for permitted colouring matters sold as such.

The revised regulations are expected to come into force by the 1st June, 1974, and will bring the colours permitted in the U.K. into line with those of the E.E.C.

The Milk (Special Designation) Regulations, 1963, Amendment Regulations, 1972

These regulations laid before Parliament on 2nd August, amend the Milk (Special Designation) Regulations, 1963, to allow the sale of ultra-heat treated milk produced by the direct application of steam. Additional conditions are laid down which must be observed when milk is ultra-heat treated by this method. In particular, the milk must not be changed in composition during the process.

The Regulations came into operation on 1st October, 1972.

Review of Yogurt, other Cultured Milks, and Cream and Milk Desserts

Comments are invited from interested parties concerning these products. The Food Standards Committee has been asked to review yogurt, other cultured milks, cream desserts and milk desserts. The review is to be carried out in three stages. Firstly, the Committee will consider whether regulations are necessary for yogurt and is to pay particular attention to:-

- (a) Classification of yogurt according to fat content.
- (b) The type and level of fruit and other foodstuffs added to yogurt.
- (c) The use of flavouring.
- (d) The need for additives.
- (e) The description and labelling of yogurt.
- (f) Heat-treated yogurt.

In the second and third stages of the review, the Committee will consider whether regulations are necessary for other cultured milks, cream desserts, and milk desserts, and, if so, what provisions should be included about composition, description, labelling and advertising. The review of cream and milk desserts will embrace all desserts which are ready to eat and whose main ingredient is derived from cream or milk.

The Cooking Utensils (Safety) Regulations, 1972

These Regulations were laid before Parliament upon 21st December, 1972, and come into operation upon 1st April, 1973.

The Regulations restrict the lead content of any tin or metallic coating used on kitchen utensils to not more than 2,000 parts per million.

Deposit of Poisonous Waste Act, 1972

Regulations made under this Act came into operation upon 3rd August, 1972. The Act makes it an offence to deposit waste upon land when that waste is poisonous, noxious or polluting, and its presence is liable to produce an environment hazard.

Notification of intent to deposit waste is required, to the responsible authorities before removing or depositing waste. Local Authorities are made responsible for the administration of the Act.

The Regulations classify types which qualify for exemption from the duty to notify responsible authorities before removing or depositing waste if it does not contain any hazardous quantity of any poisonous, noxious or polluting substance. This category includes such items as house and trade refuse, building waste, mining waste, and waste consisting of paper, plastics and various metals and a range of other natural substances.

The Road Traffic Act, 1972

Breathalyser Blood and Urine samples hitherto taken under the Road Safety Act, 1967, are now taken under the Road Traffic Act, 1972.

Milk

It is with some pleasure that we report for the second year running that no watered milk samples were found. This can no doubt be attributed to the vigilance of all concerned in the processing and sale of milk in the city.

505 samples were submitted during the year for the assessment of keeping quality, the efficiency of heat treatment, and for compositional analysis. The average composition of milk during the year (excluding Channel Island) as compared with previous years is shown in the table below :

Annual Average Composition of Milk

<i>Year</i>	<i>Fat %</i>	<i>Solids-not-fat %</i>	<i>No. of samples</i>
1964	3.71	8.72	985
1965	3.73	8.71	1005
1966	3.72	8.67	1038
1967	3.69	8.60	1007
1968	3.64	8.64	622
1969	3.72	8.71	552
1970	3.67	8.67	600
1971	3.68	8.77	476
1972	3.72	8.72	505

The quality of the Channel Island milk sold in the city continued to be high, and the average composition for 1972 was 4.72% fat and 9.01% solids-not-fat.

Heat Treatment of Milk

Three forms of heat treatment are in common use for the processing of raw milk prior to sale. These are 'pasteurisation', 'sterilisation' and 'ultra-heat treatment'. All milk, with the exception of 'Farm Bottled' milk, must undergo one of these treatments.

345 samples of pasteurised milk were submitted during the year for 'phosphatase testing', to assess the efficiency of the heat treatment; all these were satisfactory. 343 of these also passed the methylene blue test for keeping quality. 2 pasteurised milks failed this test; both of these milks were from a dairy outside the city. We are now led to understand that milk from this dairy is no longer sold within the City of Leicester.

110 samples of sterilised milk were submitted for 'turbidity testing' and all were satisfactory. In addition, 50 samples of ultra-heat treated (U.H.T.) milk were submitted for bacterial colony count. All these were also satisfactory.

Antibiotics in Milk

Regular testing for the presence of antibiotics in milk is carried out in order to safeguard the public from receiving small doses of penicillin, which could set up severe reactions in those allergic to this antibiotic. Also repeated intake of small doses of penicillin could result in resistant strains of bacteria which might prove difficult to treat in possible subsequent illness. Penicillin is quite commonly used by veterinary surgeons for the treatment of mastitis and other diseases in cattle.

131 samples were submitted for testing during the year, and antibiotics or other inhibitory substances were found in 5 of these. 4 of these proved to be penicillin, and several of these were found to arise from the administration of long-lasting penicillin preparations. The milk had been withheld from sale for the recommended time, but this was obviously insufficient. The fifth case was discovered to be caused by the use of an iodine-based disinfectant which the farmer had used on the cows' teats. This, being bactericide, interfered with the growth of the organisms used to detect penicillin and gave an 'apparent penicillin' reaction. Trials with a

sample of the disinfectant in the laboratory produced similar effects.

Bacteriological Examinations

Churn Rinses and Milk Bottles

Washed churns and milk bottles are examined regularly to check their bacteriological state. It is obviously necessary that churns and bottles in which milk is packed must be clean, otherwise the production of clean milk will be impossible.

140 samples of rinsings from cleaned churns were submitted for bacteriological examination. 4 were found to be 'unsatisfactory', 3 of them due to the presence of coliform organisms, and 2 were classified as 'fairly satisfactory'.

216 bottles were similarly examined, and 5 were found to be unsatisfactory. Four of these contained coliform organisms, and one of the four, *E. coli*. Two bottles were classified as 'fairly satisfactory'.

The proportion of unclean churns was approximately 4%, and that for unclean bottles, approximately 2.5%. This compares favourably with the 1971 figures of 7% and 6.2% respectively.

Shellfish

Mussels are regularly examined during the season for the presence of faecal-type coliform organisms. It is undesirable that foods which may well be consumed raw, shall be sold if contaminated with sewage which may also carry pathogenic organisms.

57 samples of mussels were examined during the year and 5 of these were found to be Grade II (6-15 *E. coli* per ml. of flesh) and 6 Grade III (more than 16 *E. coli* per ml.). The remaining samples were reported as Grade I.

Water

It is the responsibility of the occupier of any building to ensure that any storage tank used for water on his premises is kept clean and free from contamination. Contamination is readily shown by the deterioration of the bacteriological quality of the water. An example of how easily contamination can occur, even in a regularly checked supply was provided by the storage tank in the laboratory buildings at Wanlip, which is tested daily by this department. The sudden appearance of faecal coliform organisms in the water drawn from this tank necessitated its cleaning, and the resultant explorations yielded two dead starlings and a quantity of straw! Fortunately, in this case the contamination was discovered rapidly and there is a mains supply for drinking, which is also routinely checked. In all, 502 samples from these two sources were examined during the year.

140 routine samples were submitted by the Public Health Inspectors during 1972, from cafes, day nurseries, food-processing premises and other similar establishments. 12 of these were found to be unsatisfactory, 8 because of an excess of presumptive coliform organisms in the sample, 4 because of the presence of *E. coli*. 2 of the samples were failed on both counts. This means that 8.6% of the samples were of unsatisfactory bacteriological quality.

In addition 2 well waters were submitted by the Health Department, and both proved to be unsatisfactory as potable sources.

Pasteurised Foods (other than milk)

(a) Pasteurised Egg

34 samples were submitted during the year, of which only one was unsatisfactory. This is a considerable improvement over last year's figures. In 1971, 15% of

the samples were rejected, while only 3% were unsatisfactory in 1972.

(b) Ice Cream

Ice cream is tested for efficiency of heat treatment by a modified form of the 'methylene blue' test for milk. There are four grades which depend on the length of time a sample takes to decolourise methylene blue. The lower two grades (i.e. III and IV) are regarded as unsatisfactory.

122 samples were submitted during the year, and the results are given below:-

Grade I	89
Grade II	13
Grade III	10
Grade IV	10

This is a rejection rate of 16%, which is a distinct improvement on 1971, when 42% of samples proved unsatisfactory. However, the number of unsatisfactory samples is still too high for complacency.

(c) Cream

During the year it was realised that cream was no longer being tested by the Public Health Laboratory for its general bacteriological quality. Samples were therefore examined in this laboratory by the method recommended in the M.A.F.F. Circular, F.S.H. 2 - 71, 'The Bacteriological Examination of Fresh Cream'. This is a similar method to that employed for ice cream.

25 samples of pasteurised cream were submitted for testing. Of these, 8 were found to be unsatisfactory, and 5 were described as 'fairly satisfactory'. Two of the samples were considered to be wrongly described as 'pasteurised'.

The high rate of unsatisfactory samples (32% were rejected) is a matter that is causing some concern, in spite of the small numbers of samples examined, and a close watch will be kept on this commodity in 1973.

Swimming Bath Waters

71 samples were received during the year, all taken from City of Leicester swimming baths. All were bacteriologically satisfactory and correctly treated. No school bath samples were received this year, testing of these being carried out by the Public Health Inspector except in cases of definite mis-treatment, when assistance from the laboratory is provided.

Food and Drugs Analysed During 1972
Foods Analysed

Sample	No. of samples Received				No. of samples Rejected			
	Formal	Informal	Private	Total	Formal	Informal	Private	Total
<i>Dairy Products</i>								
Milk (Compositional)	.	504	1	505	.	.	.	.
Milk Antibiotics	.	131	.	131	.	.	.	.
Milks Miscellaneous (Dried, Condensed, etc.)	.	19	2	21	.	.	.	.
Butter	.	11	1	12	.	.	.	.
Buttermilk	.	2	.	2	.	.	.	.
Cheese and Cheese Spread	.	22	2	24	.	2	1	3
Miscellaneous Cheese Mixes	.	2	.	2	.	.	.	.
Cream	1	42	.	43	1	6	.	7
Ghee	.	1	.	1	.	.	.	.
Ice Cream (Bac)	.	122	.	122	.	.	.	.
Ice Cream (Chem)	.	10	.	10	.	.	.	.
Ice Cream Powder	.	3	.	3	.	.	.	.
Margarine	.	5	.	5	.	.	.	.
Milk Desserts	.	14	.	14	.	2	.	2
Yogurt	.	8	.	8	.	7	.	7
<i>Cereal Products</i>								
Baby Cereals	.	3	.	3	.	.	.	.
Biscuits	.	9	.	9	.	.	.	.
Blancmange Powders, etc.	.	16	.	16	.	.	.	.
Bread and Bread Mixes, etc.	.	3	1	4	.	.	1	1
Cake and Cake Mixes	.	9	.	9	.	.	.	.
Cereals	.	57	1	58	.	3	.	3
Dessert Mixes	.	20	.	20	.	.	.	.
Diet Foods	.	9	.	9	.	.	.	.
Flour	.	9	.	9	.	.	.	.
Pasta	.	14	.	14	.	.	.	.
Pudding & Pudding Mixes	.	30	.	30	.	.	.	.
Sauce Mixes	.	3	.	3	.	.	.	.
<i>Meat & Meat Products</i>								
Cooked Meats	1	40	4	45	.	1	2	3
Dripping	.	3	.	3	.	.	.	.
Fresh Meat	.	9	.	9	.	.	.	.
Gravy Products	.	9	1	10	.	.	.	.
Meat Pastes	.	8	.	8	.	.	.	.
Meat Pies	.	26	.	26	.	.	.	.
Minced Meat	.	8	.	8	.	.	.	.
Miscellaneous Canned Meats, etc.	.	32	.	32	.	1	.	1
Sausages & Sausage Meat	.	41	.	41	.	14	.	14
Sausage Rolls	.	16	.	16	.	.	.	.
Suet	.	13	.	13	.	.	.	.
<i>Fruit & Fruit Products</i>								
Almonds (Ground) etc.	.	16	.	16	.	.	.	.
Conserve, Jams, etc.	.	23	.	23	.	.	.	.
Desserts (Fruit)	.	6	.	6	.	.	.	.
Fruit (Canned)	.	25	1	26	.	.	.	.
Fruit (Dried)	.	28	.	28	.	.	.	.
Fruit Juice & Syrup	.	21	.	21	.	1	.	1
Pie Fillings	.	12	.	12	.	.	.	.
Totals C/Fwd.	2	1414	14	1430	1	37	4	42

Foods Analysed (continued)

Sample	No. of samples Received				No. of samples Rejected			
	Formal	Informal	Private	Total	Formal	Informal	Private	Total
Totals B/Fwd.	2	1414	14	1430	1	37	4	42
<i>Vegetable Products</i>								
Crisps	.	8	.	8	.	.	.	.
Canned Vegetables	.	95	2	97	.	4	.	4
Dried Vegetables	.	22	.	22	.	1	.	1
Fresh Vegetables	.	5	.	5	.	.	.	.
Purees & Juices	.	13	.	13	.	.	.	.
Soup	.	26	.	26	.	.	.	.
<i>Sugar & Sugar Products</i>								
Cake Decorations	.	2	1	3	.	.	.	.
Honey, etc.	.	10	.	10	.	.	.	.
Jellies	.	13	.	13	.	.	.	.
Sauces	.	2	.	2	.	.	.	.
Sugar	.	7	.	7	.	1	.	1
Sweets & Chocolates	.	18	.	18	.	.	1	1
Treacle & Golden Syrup	.	2	.	2	.	.	.	.
<i>Soft Drinks & Lollies</i>								
Frozen Drinks	.	1	.	1	.	.	.	.
Fruit Juices & Syrups	1	15	.	16	1	3	.	4
Soft Drinks	.	47	2	49	.	.	1	1
<i>Beverages</i>								
Coffee	.	12	2	14	.	.	.	.
Drinking Chocolate	.	8	.	8	.	.	.	.
Malt Drinks	.	11	.	11	.	.	.	.
Tea	.	11	.	11	.	.	.	.
<i>Spices & Flavourings, etc.</i>								
Colourings	.	3	.	3	.	.	.	.
Flavourings	.	5	.	5	.	.	.	.
Gelatine Products	.	5	.	5	.	.	.	.
Seasonings	.	17	.	17	.	3	.	3
Spices	.	13	.	13	.	.	.	.
<i>Fermentation Products</i>								
Sauces, Mayonnaise, etc.	.	35	.	35	.	2	.	2
Vinegars	.	9	.	9	.	.	.	.
Wines & Spirits	6	5	2	13	.	.	.	.
<i>Fish & Fish Products</i>								
Canned Fish	.	7	.	7	.	.	.	.
Fish	.	11	2	13	.	1	2	3
Fish Paste	.	6	.	6	.	.	.	.
Miscellaneous Fish Products	.	6	.	6	.	.	.	.
Shellfish	.	58	.	58	.	9	.	9
<i>Poultry & Poultry Products</i>								
Eggs (Fresh)	.	1	.	1	.	.	.	.
Eggs (Pasteurised)	.	34	.	34	.	.	.	.
Miscellaneous Poultry Products	.	8	2	10	.	.	.	.
<i>Oils & Fats</i>								
Cooking Oil	.	9	.	9	.	.	.	.
Lard	.	7	.	7	.	.	.	.
Margarine	.	7	.	7	.	.	.	.
Peanut Butter	.	1	.	1	.	.	.	.
Totals :	9	1989	27	2025	2	61	8	71

Drugs Analysed

Sample	No. of samples Received				No. of samples Rejected			
	Formal	Informal	Private	Total	Formal	Informal	Private	Total
Aspirin	.	3	.	3	.	.	.	.
Calamine Lotion	.	3	.	3	.	.	.	.
Camphorated Oil	.	3	.	3	.	.	.	.
Chemicals	.	.	2	2	.	.	.	.
Cough Tablets	.	3	.	3	.	.	.	.
Cream of Tartar	.	4	.	4	.	.	.	.
Eye Drops & Lotion	.	4	.	4	.	.	.	.
Friars Balsam	.	3	.	3	.	.	.	.
Fuller's Earth	.	3	.	3	.	.	.	.
Gee's Linctus	.	4	.	4	.	1	.	1
Glycerine, Lemon & Honey	.	3	.	3	.	.	.	.
Health Salts	.	5	.	5	.	.	.	.
Herbal Remedies	1	3	.	4	.	1	.	1
Hydrogen Peroxide	.	3	.	3	.	.	.	.
Indian Brandee	.	4	.	4	.	.	.	.
Iron Tablets, etc.	.	4	.	4	.	1	.	1
Malt Extract	.	3	.	3	.	.	.	.
Rheumatism Remedy, etc.	.	3	.	3	.	.	.	.
Sodium Hypochlorite Capsules	.	.	1	1	.	.	.	.
Sulphur Tablets	.	3	.	3	.	.	.	.
Tincture of Myrrh	.	3	.	3	.	.	.	.
Toothpaste	.	4	.	4	.	.	.	.
Witch Hazel	.	3	.	3	.	.	.	.
Total Drugs	1	71	3	75	.	3	.	3

Food Samples other than Milk reported 'Not Genuine'

Sample No.	Article	Formal Informal or Private	Nature of Offence
79	Cheese (Stilton)	Informal	Labelled 'Stilton' should be labelled 'Blue Stilton' Cheese
80	Cheese (Stilton)	Informal	Labelled 'Stilton' should be labelled 'White Stilton' Cheese
59	Cheese	Private	Heavy mite infestation
1155	Double Cream	Informal	Insufficiently labelled
1157	Double Cream	Informal	2.5% deficient of minimum fat content
1158	Devon Cream (Past.)	Informal	Incorrectly described as 'pasteurised'
1213	Devon Cream (Past.)	Informal	Incorrectly described as 'pasteurised'
1621	Double Cream	Informal	18.5% deficient of the minimum fat content
1767	Double Cream	Informal	9% deficient of the minimum fat content.
2862	Double Cream	Formal	3.5% deficient of the minimum fat content
112	Custard (Canned)	Informal	Unattractive greyish colour: not of the quality expected
113	Custard (Canned)	Informal	Unattractive greyish colour: not of the quality expected
185	Yogurt	Informal	Contained only 1% fat; should have contained at least 2.5% fat
366	Yogurt – Real fruit	Informal	Incorrectly described as 'Real Fruit Yogurt', should be designated 'Real Fruit Low Fat Yogurt'
–371			
PA.30	Bread with foreign matter	Private	Contained poppy seeds – no health hazard, but not of the quality desired
155	Cream of Wheat	Informal	Declared average contents differed from contents found
197	Tapioca	Informal	Contained a beetle
1788	Mixed Cereal	Informal	Contained 1 E. coli per gram
338	Brawn	Informal	Contained only 48.1% meat
PA.12	Corned Beef with foreign matter	Private	Contained part of an insect
1803	Beefburgers	Private	10% deficient of the minimum meat content for meat with cereal
517	Spring Rolls	Informal	Had a slightly offensive odour which might not be acceptable to a person of a sensitive palate The following samples contained undeclared Sulphur Dioxide as stated :-
63	Pork Sausage	Informal	240 p.p.m.
268	Pork Sausage	Informal	208 p.p.m.
436	Pork Sausage	Informal	184 p.p.m.
538	Pork Sausage	Informal	180 p.p.m.
539	Pork Sausage	Informal	160 p.p.m.
1131	Pork Sausage	Informal	240 p.p.m.
1569	Pork Sausage	Informal	430 p.p.m.
1570	Pork Sausage	Informal	160 p.p.m.
1852	Pork Sausage Meat	Informal	140 p.p.m.
1845	Pork Sausage Meat	Informal	156 p.p.m.
1047	Hot Dog Sausages	Informal	Sample had the taste and appearance of Frankfurters but contained only 53.5% meat. 24% deficient of minimum meat content
1345	Pork Sausage Meat	Informal	5% deficient of minimum meat content
1344	Pork Sausage Meat	Informal	5.5% deficient of the minimum percentage of lean meat
1568	Pork Sausage	Informal	5% deficient of the minimum meat content
201	Pineapple Flavoured Syrup	Informal	Fermenting. Not of the quality desired
401	Quick Dried Mixed Vegetables	Informal	Contained 1.7% dehydrated cabbage which was not included on the label
380	Canned Mixed Vegetables	Informal	Contained processed peas in excessive amount
378	Canned Mixed Vegetables	Informal	Contained an excess of peas.

Food Samples other than Milk reported 'Not Genuine' (continued)

Sample No.	Article	Formal, Informal or Private	Nature of Offence
1536	Canned Mixed Vegetables	Informal	Contained 45.5% carrot, did not comply with L.A.J.A.C. Code of Practice
1580	Baked Beans with two Baconburgers	Informal	65% deficient of the required minimum content of bacon-burgers
912	Sweetener (Slimming Preparation)	Informal	Uneven distribution of saccharin would lead to the claim of twice as sweet as sugar not being substantiated
PA.63	Sweets	Private	Contained a fragment of partially charred laminated material
544	Strawberry Syrup	Informal	Visibly fermenting, 0.58% alcohol found
543	Pineapple Syrup	Informal	Visibly fermenting, 0.32% alcohol found. Contained an unidentified non-permitted red dye
49	Coca Cola	Private	Contained 4 p.p.m. Iron
1165	Grapefruit Juice	Informal	Contained approximately 5% fruit juice
2861	Grapefruit Juice	Formal	Contained not more than 6% grapefruit juice
756	Beef Stew Seasoning Mix	Informal	Misleading labelling
1100	Black Pepper	Informal	50 organisms of Escherichia coli present
1101	Black Pepper	Informal	35 organisms of Escherichia coli present
10	Egg-Rich Mayonnaise	Informal	An excess of only 0.2% egg-yolk solids insufficient to justify the description 'Egg-Rich Mayonnaise'
1587	Sweet & Sour Sauce	Informal	Contained 3.2 p.p.m. lead
PA.27	Fried Fish	Private	Presence of dye rendered the sample not of the quality demanded
PA.28	Fresh Fish	Private	Presence of dye rendered the sample not of the quality demanded
1470	Scampi in Breadcrumbs	Informal	Contained only 42.6% Scampi instead of 65%
			Average No. Coli per ml. of flesh
69	Mussels	Informal	6
191	Mussels	Informal	19
192	Mussels	Informal	49
241	Mussels	Informal	7
1523	Mussels	Informal	30
1481	Mussels	Informal	8
1629	Mussels	Informal	42
1676	Mussels	Informal	11
1867	Mussels	Informal	6

Drug Samples reported 'Not Genuine'

Sample No.	Article	Formal, Informal or Private	Nature of Offence
1196	Gee's Linctus	Informal	6% deficient of minimum alcohol content
1186	Rheumatism Remedy	Informal	65% deficient in the declared dosage of sulphur
1197	Iron Jelloids	Informal	Contained an excess of 112% copper carbonate to amount declared

Additives and Preservatives in Food

A considerable number of substances are permitted in foods for the purposes of colouring, flavouring, stabilising and preserving. In most cases, their presence must be declared in the required list of ingredients. There are, however, foods which are exempted from carrying a list of ingredients, at least up to January, 1973, when the new Labelling of Food Regulations, 1970, come into force. Some of these products are permitted to contain preservatives, but their presence must be declared. The most notable example of this class must be sausages, and during the year ten samples were received containing undisclosed preservative.

The presence of colour in a foodstuff is usually considered to enhance the appearance, however, the same could not be said of a sample of frozen fish portions received as a complaint from a fish fryer in the city. His customers complained that their fish was blue. Small specks of blue colouring matter were found on the frozen fish and on thawing these spread widely in the flesh, giving rise to patches of blue colouration. Though this was in fact due to specks of harmless dye, it was certainly unattractive, and it was considered that the fish was not of the quality demanded.

There is a list of permitted colours for use in foodstuffs, and foods containing colours other than those are legally unfit for human consumption. Only one non-permitted colour was found during the year, a red dye in a sample of Strawberry Syrup. This was unfortunately unidentifiable. The problem of identifying non-permitted colouring matter is quite difficult; it is a comparatively simple matter to ascertain whether or not an added dye is one of the permitted ones, as standard dyes are readily available for comparison. When it comes to non-permitted dyes, however, the field is considerably widened and the availability of comparison dyes is less certain. This laboratory possesses a fairly wide selection

of colouring matters which are not permitted in foods, but such a collection can never be called comprehensive.

Foreign Matter in Foods

The definition of foreign matter in food is two-fold. Firstly, there is the case where the 'foreign body' is obviously visible; this class includes insects, mould and fragments of metal or other substances. Secondly, there are the 'contaminants', which include toxic metals, objectionable bacteria, and pesticide residues.

True 'foreign bodies' are not invariably submitted to the laboratory as samples. Mouldy food, for example, can be dealt with by the Food Inspector without submission to the Analyst, unless the identification of the mould is of importance.

The principal cases of foreign matter are summarised below :-

A sample of corned beef submitted as a complaint, was found to contain part of an insect; and tapioca submitted as a routine sample contained a beetle.

Two samples of dried apricots were found to be infested with mites, unfortunately a rather common problem with this commodity, owing to its rather high moisture content.

A sample of cheese submitted as a complaint, was so heavily infested with mites that one felt it could almost have come to the laboratory under its own power! It was certified as unfit for human consumption.

Other Foreign Bodies

A loaf of bread was submitted which contained small round objects, identified as poppy seeds. These are quite widely used as a spice in Austrian and Jewish cookery, but in this case it was considered they rendered the sample not of the quality desired.

A bottle of sweetened, concentrated orange juice contained grease in the neck of the bottle which was undesirable, and thus rendered the product not of the quality desired.

A sample of sweets submitted in a bag, also contained in the bag a fragment of partially charred laminated material. Although undesirable, it was difficult to ascertain when the objectionable matter became mixed with the sweets.

An interesting illustration of the sensitivity of the human palate was provided by a sample of Coca-Cola submitted as having a metallic taste. Tasting in the laboratory confirmed this, and tests were made for iron. The sample was found to contain 4 parts of iron per million parts of Coca-Cola, and comparison of this figure with that from normal samples of 'Coke' confirmed that this very small quantity was in fact sufficient to cause the metallic taste.

A sample of canned sweet-and-sour sauce was found to contain 3.2 parts per million of lead, when the acceptable maximum is 2 parts per million.

Joint Survey of Pesticide Residues in Foodstuffs sold in England and Wales (Third Year)

This laboratory did not take part in the first two years of this survey, which was organised jointly by the County Councils Association, the Association of Municipal Corporations, the Urban District Councils Association, and the Association of Public Analysts, in 1966-68. When the third year was proposed, this laboratory was included at the suggestion of the Chief Public Health Inspector.

In the survey each participating authority was issued with a list of the foodstuffs which they were to examine during the year. This sampling was worked out for the whole country, and the participating authorities had no

say in the commodities sampled; the rate of sampling being adjusted to the population density of the area.

In connection with this survey, eight samples of foodstuffs were submitted for analysis for pesticide residue. No residues higher than the minimum for reporting were found.

Compositional Irregularities

Fruit and Vegetable Products

One of the most confusing points in reporting compositional irregularities in foodstuffs is the distinction required by the Food & Drugs Act between 'nature', 'substance' and 'quality'. The usual interpretation of these terms is that 'nature' is the actual identity of the food, for example if one were sold oranges instead of grapefruit, these would be 'not of the nature demanded'; 'substance' is the form of the food, for example, the sale of apple juice when cider was demanded, or cottage cheese when cream cheese was demanded; and 'quality' is the condition of the food, for example, the presence of foreign matter would be 'not of the quality demanded'.

The most seriously defective samples received during the year were two samples described as grapefruit juice. On analysis these proved to be fluids containing, at the most, 6 per cent of grapefruit juice, with added sugar to a level normal for natural grapefruit juice. Obviously, a product described as grapefruit juice should consist of 100 per cent grapefruit juice without any additions, whereas these samples were patently adulterated. A more correct description would have been 'grapefruit drink' or 'grapefruit crush'. These two samples were certified as not of the substance demanded.

Two samples of 'Limey-Lemon Syrup' were submitted; these bore a declaration 'contains 40 per cent fresh lemon juice'. Unfortunately, in both cases just over

25 per cent was found, a percentage which, in fact, complies with the Soft Drinks Regulations for this type of product. However, as the makers had declared the presence of 40 per cent lemon juice, rejection of the product was necessary.

Probably not many people realise that there are unofficial standards for canned mixed vegetables, which lay down the proportions of vegetables which should be present in these products. Four samples of canned mixed vegetables were rejected during the year due to improper composition.

Two fruit flavoured syrups declared as having a true Jamaican taste were submitted. Both were found to be visibly fermenting, and 0.3 per cent. and 0.6 per cent of alcohol respectively was detected in the samples. Both the samples were rejected as not of the quality demanded.

Meat Products

A sample of brawn was submitted and found to contain only 48 per cent of meat rather than the 60 per cent which is the minimum for brawn in the Sausage and Other Meat Products Regulations, 1967.

Four samples of pork sausage meat and pork sausages were found to be deficient in meat content. Pork sausage or sausage meat must contain at least 65 per cent of total meat, of which not less than half must be lean meat. This provision is to guard against 'sausages' containing only rusk and fat!

One of the problems in Public Analysts' laboratories is the interpretation of the welter of voluminous and oft-times barely comprehensible regulations, which one must plough through in search of particular information, sometimes in vain. One instance of this was an attempt to find an answer to the question, 'What is a beefburger?' (or a ham-burger, for that matter). The only answer that could be found was, in fact, in the Canned Meat

Regulations, where it is discovered that a beefburger is a synonym for meat with cereal, and therefore must contain 80 per cent of meat. One sample of beefburgers which contained only 71 per cent of beef was therefore rejected, due to a lack of meat content.

Diary Products (other than Milk)

Two samples of canned custard were submitted which, while perfectly acceptable in composition, were of an unattractive greyish colour, which rendered them, in our opinion, not of the quality expected.

A sample of 'Lactic Soft Cheese', submitted as a complaint because of the swollen condition of the plastic container, was found to contain 0.5 per cent of alcohol. Yeasts were also found in the cheese and it had obviously fermented in the container.

Four samples of double cream were submitted and found to contain less than the prescribed minimum of 48 per cent fat for double cream. The deficiencies ranged from 2.5 per cent to 18.5 per cent of the minimum required.

Other Foods

A sample of 'Cream of Wheat', an American product resembling semolina but containing added minerals, was submitted. It was found to be deficient in the declared quantities of iron, phosphorous and calcium. The declaration was in the form of 'average content per ounce', and it was considered that the variation from an average content should not exceed 10 per cent either way.

A sample of 'Egg-rich Mayonnaise' turned out to contain 0.2 per cent more egg yolk solids than the minimum prescribed for Salad cream and mayonnaise. It was felt that so small an excess did not justify the description 'Egg-Rich'.

Labelling Irregularities

A sample was submitted which was prominently labelled 'Make a Steak and Kidney Pie', with the words 'Add Meat' below in a less prominent type. The packet was also adorned with a picture of a steak and kidney pie, with meat prominently displayed. It was felt that while the wording on the packet was technically correct, upon close examination, the overall impression was misleading.

The same principle applied to a sample of 'Beef Stew Seasoning Mix' where the words 'Beef Stew' were much more prominent than 'seasoning mix' and, in combination with a most appetising picture of a meat stew, were felt to give a false impression.

A matter upon which this laboratory might be felt to be peculiarly sensitive, situated as we are almost in the Stilton Cheese-making area, came to light with the submission of three samples of 'Stilton Cheese'. Two of these were obviously White Stilton and the third was Blue Stilton. In view of the fact that the Cheese Regulations, 1970, prescribe differing standards for Blue and White Stilton Cheese, it was thought that the unqualified description 'Stilton Cheese' was misleading and the samples were accordingly rejected.

Microbiological evidence for the presence of faecal contamination of Dried Vegetable Products

The native habitat for the bacterium *Escherichia coli* is the enteric tract of man and other warm blooded animals. Presence of this organism is generally considered to indicate pollution of direct or indirect faecal origin. It has been long used as an indicator of faecal matter in water, apparently first suggested as long ago as 1892 by Schardinger.

The coliform bacteria consist of *E. coli* and other closely related species which also have been used as a

group, to indicate unsatisfactory process and sanitation in food and food products.

The reason that coliform bacteria and the more specific *E. coli* are used as an indicator organisms is that they possess the characters needed to demonstrate the possible presence of enteric pathogens. These characters include being present, (*E. coli* at least) in the gastro intestinal tract in large numbers, therefore it can be detected with ease at great dilution; also they possess a high resistance to the extra-enteral environment and can be detected after considerable lapses of time.

In themselves, *E. coli* and other coliform organisms are not usually pathogenic, although some serologically identifiable strains of *E. coli* are known to cause infantile diarrhoea, which may be fatal. Their importance lies as being indicators of faecal contamination and therefore to demonstrate the possible presence of the enteropathogenic diseases such as typhoid, other salmonellae, shigellae, vibrios, entamoebae, various other zoonotic parasites and enteric viruses, most of which are only spasmodically found in faeces and often are difficult and expensive to demonstrate.

Although coliforms and *E. coli* have been used as a test for water quality for a long time, it does not mean that the presence of such organisms found in food have the same significance. Even if a risk is present in expecting the same performance when a procedure from one type of product is transferred to another, the coliform/*E. coli* index has found wide use in assessing sanitary quality in foods. In the U.S.A. coliform standards have been established for some foods and recommended for a large number of others.

It was with these thoughts in mind that the examination of dried vegetable products including herbs, spices and compound foodstuffs in which the above products were constituents, was started.

Several methods have been used in an attempt to ascertain the true coliform/E. coli content of these products. The one which was chosen by the laboratory was the Most Probable Number (MPN) technique, as much for the proven reliability and cheapness of apparatus as any other factor.

The results which were obtained from dried herbs, spices and their products, were somewhat surprising, fairly high counts of coliforms and occasional detection of high numbers of E. coli being obtained.

Coliform and E. coli content of dried foodstuffs containing herbs and spices

Product	Samples Tested	Samples in which coliforms detected	Mean MPN coliforms/g.	Samples in which E. coli detected	Mean MPN E. coli/g.
Thyme	10	10	1800+	7	20
Rosemary	5	5	1192	3	12
Onion, powdered	1	1	1800+	1	1
Onion, flaked, sliced	2	2	7	0	0
Pepper, ground white	5	5	957	5	2
Pepper, ground black	3	3	890	3	30
Parsley	3	3	25	0	0
Cloves, powdered	3	0	0	0	0
Cloves, whole	1	1	1	0	0
Orange peel	1	0	0	0	0
Oregano	1	1	13	0	0
Basil	2	2	918	2	26
Sage	1	1	250	1	25
Mint	1	1	250	1	5
Chilli, powdered	1	0	0	0	0
Paprika, powdered	2	2	1075	0	0
Horseradish	1	1	225	0	0
Asafoetida	1	1	1	0	0
Stuffings	7	7	79	0	0
Sauce mixes	4	2	1	0	0
Total	55	48	702	23	8
Total %	100	87.3	.	41.8	.

From the above Table it would appear, though sample numbers are small, that the faecal contamination in stuffings and sauce mixes is not a major problem, the coliform content being under 100/g. and no *E. coli* were detected. Other products too, parsley, flaked and sliced onion, orange peel, oregano, powdered chilli and asafoetida can be grouped into this category.

Cloves came under a different grouping, in that it is well-known that they contain a bacteriocidal agent called eugenol which reduces the bacteria contamination. Horseradish too, contains a compound allyl isothiocyanate, which is active against bacteria in a similar sort of way.

The rest of the herbs and spices have high numbers of coliform organisms and significant amounts of *E. coli*, suggesting that faecal contamination has occurred. It will be noticed from the Table above that the ground white pepper has a similar coliform count to that of black pepper, but that the content of *E. coli* is considerably lower. This may be correlated to the mode of production. White pepper is derived from the same plant as black pepper, but instead of the berries being picked green and dried in the sun, they are allowed to ripen. The skin is removed by fermentation (an environment in itself unsuitable and hostile to *E. coli*) and the peppercorn dried and ground.

The fact that further processing may add considerably to the bacteria flora can be readily shown by comparing the flaked and sliced onion with the powdered product. It may be that the processing procedure, from the hygienic aspect, leaves something to be desired; the increasing of the surface area of the product is also a contributory factor.

The last group of herbs to be discussed consists of thyme, rosemary, sage, basil and mint, all of which belong to a natural family of plants called the Labiatae, characterised by, amongst other things, having hairy

leaves. As mentioned above, the increasing of the surface area has the effect of potentially increasing the area for bacteria contamination. The high coliform and *E. coli* count of these herbs is undoubtedly due to many factors; the increased surface area of the leaves and their growth habit, being always close to the surface of the earth, would result in soil contamination.

During the production of the herbs, from the growing plants to the final product to be marketed, it would seem that little or nothing is done to lower the bacterial load. The process of drying may destroy some micro-organisms but many – apparently including some coliforms and *E. coli* – are resistant.

The question that now arises is having found relatively high amounts of indicator organisms in at least some of the food products, what is the significance of their presence. The first point is that at some time in its history, either pre or post processing, the food to be consumed has been in, direct or indirect contact with faecal matter. This is at least undesirable and aesthetically distasteful, and at most indicative of potential contamination by enteric pathogenic organisms.

It has been suggested by some authors that dried foods should have a coliform count of zero or very close to it. We have shown in the laboratory that a certain brand of rosemary, which was by far the most expensive of the samples submitted, had a very low coliform count, no *E. coli* and very little extraneous matter, whereas cheaper brands had high numbers of coliforms and *E. coli* and significant amounts of extraneous matter. It would appear that lower counts can be achieved with a little more attention paid to processing, although this will undoubtedly put up the price of the retailed product.

Although surprisingly high counts of coliforms and *E. coli* have been found in this survey, it must be remembered that these bacteria are not particularly hardy and are killed quickly if food is well cooked. Their

presence then becomes only of academic interest.

Samples taken under the Consumer Protection and Trade Description Acts. etc.

Samples were submitted for examination under this legislation by the City of Leicester Chief Public Protection Officer, and also by the County Consumer Protection Officer.

The City Public Protection Officer submitted the following samples:-

35 samples of petrol were examined for verification of their 'star rating' (octane number), 4 being found to be below the stated rating.

A sample of two-stroke fuel, declared at 32:1 petrol:oil, was examined and found to be 27:1 petrol:oil.

A sample of lubricating oil from a car sump was submitted in connection with a complaint of inadequate servicing by a garage. Examination of the oil failed to produce any concrete evidence of its not being fresh oil which had been in a car engine.

3 samples of liquid described as 'Battery Topping Up' mixture were submitted. 2 were found to consist essentially of distilled water, and the third was a dilute solution of sulphuric acid. None of these were thought to be detrimental to a battery when used for topping-up.

23 samples of toys were submitted for examination. Three of these samples were not, in fact, covered by the Toys (Safety) Regulations; one was a 'Bubble Kit' alleged to have caused a rash, and was found to consist of a solution of an anionic detergent which could have caused an allergic reaction. The other two toys were a piece of plastic from an assembly kit which was thought to have caused sickness after sucking, and a pot of blue poster paint. The paint contained virtually no toxic metal at all. Some acid-soluble zinc was found in the plastic. Zinc is well known as an emetic, and it was thought that the quantity of soluble zinc in the plastic might be

enough to cause sickness if the article was very thoroughly sucked.

Of the other toys submitted, only two cases gave rise to any cause for complaint; wooden bricks were coloured with water-soluble, non-permitted dyes, whereas it was felt that only permitted food colours should be employed for this purpose. The second case concerned toys imported from Europe. One of these, a train, included paint of six colours and three of these contained well over the permitted quantities of lead and chromium. The other was an aeroplane, the red paint on which also contained considerably more than the maximum permitted lead level.

Thirty-eight other samples were received during the year. These were of varied type and were mostly the subject of consumer complaint.

A sample of an antiseptic cream for facial use was submitted with a complaint that it had caused a rash, when the preparation was described as non-irritant. The active principle of the cream was chlorhexidine, a substance which is generally considered non-irritant, but which has been known to give rise to occasional allergic skin reactions. It was felt that the complainant was probably allergic to this substance.

A sample of 'leather' from a three-piece suite was found to be a vinyl-type material, and it was thought to be misleading to imply that the material was leather.

A set of cutlery, advertised as Swedish stainless steel, which was purchased through a mail-order advertisement in a newspaper, turned out to consist of knives with stainless steel blades, together with spoons and forks of iron plated with chromium and soft enough to bend in the hands! These articles were in fact marked 'High Chrome Plate', and analysis showed the percentage of chromium to be consistent with this description. The percentage of chromium in the knife blades was consistent with their being stainless steel.

Twelve samples of tinned tomatoes were submitted by Public Protection for an estimation of the original weight of tomatoes, as the drained weight was found to be below that declared on the tin. In all cases, the original weight was in accordance with the weight of tomatoes declared.

Two omelette pans of enamelled cast-iron were submitted for the estimation of soluble lead and cadmium in the glaze. These samples may well be the forerunners of quite a lot of similar objects, as a good deal of publicity has been given to this matter in the Press recently.

The County Public Control Officer submitted 110 samples of petrol for verification of their star ratings. All the routine samples were consistent with their declared star rating. One sample submitted as a complaint contained a quantity of particulate material and some micro-organisms. The presence of this solid matter, not the nature of the fuel, was felt to be the cause of a blockage thus causing the alleged engine failure.

Two samples of paraffin were also submitted in order to check their compliance with B.S.2869. Both samples were found to comply with the requirements of Class C.2 fuels in the above British Standard.

Six samples were submitted under the Toys (Safety) Regulations, one of these, a toy car, contained six times the permitted maximum lead content, (i.e. 3%).

Four further samples were submitted under the Trade Descriptions Act as consumer complaints. One of these was a sample of toothpaste alleged to have caused mouth ulcers. Examination of the complaint sample as compared with other brands of toothpaste showed that the abrasive was of a different kind and it was felt that the different nature of the particles might have given rise to scratching of the gums.

Pharmacy and Poisons Act

Four samples were submitted by the County under this Act. Two of these were not subject to the Act, while the other two contained minor labelling infringements.

Fertilisers and Feeding Stuffs Regulations

Fifty-one samples were submitted during the year consisting of nine feeding stuffs, all of which were satisfactory, and forty-two fertilisers, of which twelve were rejected, making a total rejection rate of 24%, a slightly lower figure than that of 1971. Details are shown in the Table overleaf:-

Fertilisers

Type	No. submitted	No. rejected	Ref. No.	Remarks
Basic Slag	2	1	40	Deficient in Fineness of grinding
Dried Blood	3	2	3	Deficient in Nitrogen
			18	Excess of Nitrogen
Superphosphate	3	2	4	Excess of soluble phosphoric acid
			19	Excess of soluble phosphoric acid
Bonemeal	5	2	45	Excess of Nitrogen
			52	Deficient in Nitrogen. Infested with beetles
Sulphate of Ammonia	1	.	.	.
Nitrate of Soda	1	.	.	.
Hoof and Horn	2	.	.	.
Fish Manure	2	2	42	Excess Nitrogen. Incorrectly labelled
			51	Incorrectly described as 'Fish Manure'
<i>Solid Compound Fertilisers</i>				
Fish Blood, Bone	2	2	2	Excess of Nitrogen, insoluble phosphoric acid and potash
			17	Excess of Nitrogen
General	7	1	31	Incorrect declaration
Rose	3	.	.	.
Foliar Feed	1	.	.	.
<i>Liquid Compound Fertilisers</i>				
General	7	.	.	.
Tomato	3	.	.	.
Total Fertilisers	42	12	.	.

Feeding Stuffs

Type	No. submitted	No. rejected	Ref. No.	Remarks
Poultry Foods	5	.	.	All feeding stuffs submitted were satisfactory
Pig Foods	4	.	.	
Total Feeding Stuffs	9	.		

The Fertilisers and Feeding Stuffs Regulations lay down limits of variation for declared constituents and we are obliged to reject any sample which falls outside these limits, whether or not the purchaser would be prejudiced by this variation.

We must expect considerable changes in the law regarding fertilisers and feeding stuffs in the not too distant future as new regulations will no doubt be modified to harmonise with the requirements of the European Economic Community. The tendency in Europe is towards a limit of variation which is very close below the declared figure and has no upper limit. This, of course, would eliminate rejection of samples containing an excess of declared ingredient.

Miscellaneous Samples

Probably one of the most interesting samples submitted during the year was a gorilla purchased from a local zoo, which was suspected of causing sore eyes and nausea of the persons coming into contact with it. The gorilla was purchased for a young boy who, in his playfulness, tore off one arm which was sewn on again by his mother. Both suffered from an extremely painful condition of the eyes, nausea and other distressing conditions resulting in submission of the gorilla to the laboratory for examination. Initially, I must admit we felt a little apprehensive at the connection between the gorilla and the allegations, and it was difficult at first to know how to deal with the situation. However, the torn arm was amputated and subjected to extraction with a volatile organic solvent with rather surprising results. Perhaps I should make it clear that the gorilla was a plastic toy made of very pliable plastic, and imported from Hong Kong. The extracted 'blood' amounted to more than 70% of the article and was of the nature of a mobile liquid which was identified by means of its infra-red characteristics as di (2 ethyl hexyl) phthalate. This

was the plasticiser used to produce the pliable nature required, the basic plastic being P.V.C. (Poly vinyl chloride). What was surprising was the amount of liquid plasticiser bound by such a small quantity of plastic matter. Now phthalates are used as fly-repellents and are noted for causing eye-irritation. Obviously, the excessive use of this plasticiser resulted in a certain quantity being unbound by the plastic, and would be transferred to the hands of the child playing with the toy. Naturally, contact with the eyes was inevitable, resulting in the painful consequences complained of. Further samples were submitted from the zoo, resulting in similar analytical findings. The zoo in question, was most co-operative and removed the offending articles from sale.

Plastic sheeting used for covering road-salt heaps was submitted for an assessment of its quality. The allegation that it cracked along the original folds in the sheets was proved. A sample ruled with a squared pattern and subjected to Ultra-Violet light was seen to shrink in one direction, indicating that the sheeting had been subjected to uni-directional stress in its manufacture. Such stress would give rise to the faults complained of, indicating that the material was of indifferent quality.

I believe the scare originated in Bristol. All at once women became scared of their 'hippy' bead necklaces, sensational headlines abounded in the national and local presses, such as 'One bite can kill - Beads deadlier than Dracula', and the laboratory became inundated with strings of tropical seeds used and treasured as exotic necklaces.

So many strings were submitted there was sufficient to adorn all members of the laboratory staff for a 'hippy' war-dance. For a time there were frantic phone calls enquiring about the safety of the beads and necklaces, even those once used as teething rings were submitted

with the deference accorded to a deadly poison. All this apprehension was due to the recognition of the poisonous seeds of a small climbing plant, (*Abrus precatorius* (Linn)) which belongs to the pea or leguminous family, being sold strung together as necklaces. It is a native plant of India and is now common in Brazil, the West Indies and other tropical countries. *Abrus* seeds, although rejoicing under such exotic names as jequirity seeds, jumble beads, prayer beads, ladybird beads, rosary peas, cocks eye, is very poisonous and has been used in India to give to condemned criminals as a 'do-it-yourself' executioner. The seeds were also used by Indian goldsmiths and jewellers as a standard weight, for on average it varies little from 112 mg.

The seeds are ovoid or sub-globular in shape and vary from 5 to 8 mm. in length, and from 4 to 5 mm. in breadth. They are hard with a smooth, glossy surface and of a bright scarlet-red colour with a black patch at the hilum. Other varieties of *Abrus* occur which are white or yellow, and there is a variety which is entirely black.

Abrus contains two poisonous proteins, a paraglobulin and a phytoalbuminose, a mixture of the substances being known as 'Abrin'. The lethal dose of abrin for humans is 0.5 mg. and was formerly used in the treatment of certain chronic eye diseases. The toxic effect is destroyed by heating to 85°C.

Among seeds which can be mistaken for *Abrus precatorius* are those of *Ormosia* and *Rhynchosia pyramidalis*. Both these seeds contain alkaloids, and it is wise to regard them as potentially toxic.

During our investigations it was noted that many of the necklaces contained Castor Oil Seeds (*Ricinus communis*). These seeds can also be regarded as being of equivalent toxicity to *Abrus* seeds, the consumption

of two or three castor oil seeds having been known to prove fatal.

However, looking back on this whole affair and at the glare of publicity this matter attained, one wonders if it was disproportionate when seeds of equal toxicity, such as laburnum, are available in most domestic gardens, and one can buy horrid chemicals with little trouble at the supermarket or hardware store.

The Beaumont Leys Project

This project has been the subject of its own extensive report already considered by the Health Department and submitted to the Department of Health and Social Security for assessment. The investigation concerned the determination of the levels of heavy metals over the 2,000 acres of this old sewage works. Estimations for the total and 'available' concentrations of lead, cadmium, zinc, copper, nickel and chromium were carried out with additional determinations for mercury and arsenic contents. This project constituted a colossal undertaking for the department, some 37,450 metal determinations being carried out, for which work we were glad of the help of two students engaged as temporary laboratory assistants.

The investigation was organised as follows,

- 1 Determinations were carried out at a minimum rate of one sample per acre for the metals as indicated above.
- 2 At twelve selected sites, samples were obtained at intervals of 2 ft. down to a depth of 6 ft., and similar metal determinations executed.
- 3 Comparison samples were obtained from various gardens and allotments in the City.
- 4 Produce grown on the site, or on soil taken from the site, was examined for the uptake of toxic metals.

In the course of this work, the so-called 'Available' metal contents were determined. This 'Available' content is an attempt to determine the amount of metal available to plant life by the application of an empirical but standardised test to determine the metal rendered soluble by a simulation of conditions prevailing at the rootlets of a plant. Comparison of the ratios of these results with the total metals extracted from the soil proved to be interesting as shown in the following Table.

Metal	Approximate proportion of total metal rendered 'Available' to plant life (expressed as % of total)
Lead	1.0
Cadmium	Up to 30%
Zinc	Up to 30%
Copper	Approx. 10%
Nickel	Up to 25%
Chromium	Up to 5%

Assessment of the heavy metal contents of the soil from this aspect probably indicates a truer appreciation of the actual hazard present, and indeed provides a happier picture of the situation for one of the most toxic of metals – lead, only yields one hundredth of the amount present in a form possibly absorbable by plant growth.

Analysis of core samples down to a depth of 6 feet indicated that the pollution was held in the top 2 feet of soil, and was apparently not trans-located to any appreciable extent. From the results 'Contour' maps of the metal contents of the soil were prepared which showed that, in general, the greatest contents of toxic metals occurred in the area used for sludge-spreading, whilst the area used for effluent irrigation contained toxic metal contents of a lower order. As a general guide, the following Table gives the approximate range of metal contents in the areas used for effluent irrigation

and sludge spreading respectively, in parts per million by weight.

Metal (in p.p.m.)	Effluent Irrigation Area	Sludged Area
Lead	0 - 500	250 - 1500
Cadmium	0 - 10	0 - 40
Arsenic	0 - 30	0 - 50
Mercury	0 - 5	0 - 15
Zinc	0 - 500	0 - 2000
Copper	0 - 250	0 - 1000
Nickel	0 - 200	0 - 400
Chromium	0 - 500	0 - 1000

In the assessment of these statistics it must be appreciated that the maximum figures stated for both areas may occur only in relatively restricted areas, and even in the area allocated for and used for spreading sludge, there are areas with practically no contamination at all. For a more accurate appreciation of the spread of metal contamination, the reader is advised to refer to the detailed report on this topic.

Only in the case of nickel was the subsoil found to contain more nickel than the surface soil, all other metals appeared to be firmly held in water insoluble form in the top 2 feet of soil. This apparent anomaly with respect to nickel has not yet been fully explained.

A total of 104 specimens of vegetable crops, specially grown on allotment plots at Beaumont Leys or grown in soil taken from the area, were examined specifically for the uptake of toxic metals. (i.e. Lead, Cadmium, Mercury, Arsenic, Zinc, Copper, Nickel and Chromium.) In no instance was there any excessive amount detected. Only in the case of radishes and lettuce was there an indication that these vegetables tend to accumulate zinc when grown on zinc-rich soils. Nevertheless, in no case did the zinc content exceed the recommended permitted maximum 50 p.p.m.

In the final appraisal of the report by the Department of Health and Social Security it was stated,

"Members (of the Physical Environment Sub-Committee) agreed that this is the sort of problem that requires much more research. Pending the results of such research, it would seem prudent in the interim to take certain precautions. As far as the central area which had been used for sludge spreading is concerned, the Sub-Committee saw no reason why building should be restricted, but they recommend the removal of the top two feet of any soil which would be left exposed when building operations have been completed". "With regard to the peripheral areas, the levels of contamination are such that the Sub-Committee could proceed without any precautions being taken."

The Road Traffic Act, 1972

Breathalyser samples previously sampled under The

Road Safety Act, 1967, are now taken under The Road Traffic Act, 1972. Persons apprehended under these Acts are required to provide a specimen of blood or urine, a third portion of which is then handed back to the donor for private analysis if they so wish. This laboratory provides a service whereby such persons may, on payment of the appropriate fee, obtain an independent assessment of the alcohol content of such samples. During 1972, 216 samples of blood and 15 samples of urine were analysed. A further 34 samples were received but upon intimation that it was necessary to pay for the analysis, the request for analysis was withdrawn.

The Road Traffic Act, 1972, prescribes a maximum of 80 mg. of alcohol per 100 mls. of blood and 107 mg. of alcohol per 100 mls. of urine. The levels of alcohol found in the samples are summarised together with comparisons for previous years.

Blood Samples analysed during	1972	1971	1970	1969
<i>Number analysed</i>	216	177	114	75
% with alcohol below 80 mg./100 ml.	33	30	27	32
% with alcohol between 80-100 mg./100 ml.	12	11	8	7
% with alcohol between 100-150 mg./100 ml.	23	24	24	26
% with alcohol between 150-200 mg./100 ml.	19	20	20	23
% with alcohol between 200-250 mg./100 ml.	7	11	11	8
% with alcohol between 250-300 mg./100 ml.	3	3	7	3
% with alcohol above 300 mg./100 ml.	3	1	3	1

Urine Samples

<i>Number analysed</i>	15	7	10	5
% below 107 mg. alcohol per 100 mls.	47	0	20	20
% between 107-150 mg. alcohol/100 mls.	27	25	0	0
% between 150-200 mg. alcohol/100 mls.	7	50	10	20
% between 200-250 mg. alcohol/100 mls.	19	25	40	40
% between 250-300 mg. alcohol/100 mls.	0	0	30	0
% above 300 mg. alcohol/100 mls.	0	0	0	20

Atmospheric Pollution

Daily readings of smoke and sulphur dioxide continued at four sites in the city. During the year the Water Department offices at Nedham Street closed and we were obliged to remove the apparatus which had been kept there since 1961. We are grateful to the Water Department for their constant co-operation throughout this period. We have been able to negotiate a new site for the meter at the Weighbridge in Syston Street, with the co-operation of the Public Protection Department,

to whom our thanks are due. We are also grateful to the City Engineers and the Librarian at Southfields, for their continued co-operation in the maintenance of the meters at Grey Friars and the library. The Smoke Control Department continue to co-operate with us in the maintenance of the Midland House meter, and we thank them for this valuable assistance.

The annual average figures are given in the Table below :-

	Site	Nedham Street (2 months)	Syston Street (5 months)	Grey Friars	Southfields	Wanlip	Midland House
Average Smoke Concentration (micrograms/metre ³)	1972	(66)	40	48	33	27	47
	1971	45	.	51	51	35	53
Average Sulphur Dioxide Concentration (micrograms/metre ³)	1972	(134)	101	140	75	45	103
	1971	123	.	152	75	39	117

The apparent rise in the average for Nedham Street should be discounted. The average is for only two months, January and February, which are always among the highest of the year.

In general, the situation is more or less the same as in 1971 ; in some instances it is marginally improved.

The monitoring of tar, soot, ash and soluble deposit continued at the three sites, the Town Hall, the Emily Fortey School and the City General Hospital. We thank those who allow us to maintain these sites.

The yearly averages are given in the Table below :-

Deposited Matter

	Town Hall		Emily Fortey		City General	
<i>Tons – sq. mile per month</i>	1971	1972	1971	1972	1971	1972
Tar	0.04	0.04	0.02	0.02	0.02	0.03
Ash	2.41	2.75	1.21	1.37	1.73	2.31
Soot	7.66	7.87	2.67	2.50	4.64	8.86
Soluble Deposit	5.01	4.45	3.59	3.27	3.87	3.96
Total Deposit	15.12	15.12	7.49	7.16	10.26	15.14

Miscellaneous Samples examined for Corporation Departments

<i>Health Department</i>			
Atmospheric Pollution Samples	2443		
City Supply Waters (Bacteriological)	650		
Swimming Bath Waters	94		
Waters (effluents, leakage water, etc.)	44		
Miscellaneous Samples	37	3268	
<i>Public Protection Department</i>			
Toys, Paints, Plastic	23		
Polish, Cleaning Materials, etc.	7		
Pots, Pans, Cutlery	4		
Foods and Drugs	13		
Petrols, etc.	37		
Miscellaneous	17	101	
<i>City Fire Brigade</i>			
Inflammable liquids, Insulating material	5	5	
<i>Social Services Dept.</i>			
Boiler Waters	97	97	
<i>Central Purchasing Dept.</i>			
Preserves	9		
Dried Milk	4		
Cleaning Materials	18		
Antifreeze	6		
Toilet Rolls	14	51	
<i>City Estates Dept.</i>			
Soils from Beaumont Leys, etc.	2571		
Vegetables from Beaumont Leys, etc.	104	2675	
<i>Housing Dept.</i>			
Waters, etc.	3	3	
<i>City Engineers Dept.</i>			
Waters, Building Materials, etc.	10	10	
<i>Water Dept.</i>			
Effluents, etc.	6	6	

Samples examined for other Local Authorities

Ashby-de-la-Zouch U.D.C.	19
Ashby-de-la-Zouch R.D.C.	2
Barrow-upon-Soar R.D.C.	9
Billesdon R.D.C.	45
Blaby R.D.C.	6
Castle Donington R.D.C.	4
Coalville U.D.C.	13
Hinckley U.D.C.	177
Leicestershire County Council	157
Leicester & Rutland Constabulary	3
Lindsey C.C.	16
Loughborough B.C.	45
Lutterworth R.D.C.	3
Market Bosworth R.D.C.	22
Melton & Belvoir R.D.C.	10
Melton Mowbray U.D.C.	1
Northampton R.D.C.	1
North West Leicestershire Water Board	194
Oadby U.D.C.	1
Wigston U.D.C.	1
West Kesteven R.D.C.	16
	745

Consulting Service

<i>Food and Drug Samples</i>			
Flour Confectionery & Baker's Materials	17		
Meat and Fish Products	29		
Milk Products	42		
Beverages, Spirits, Soft Drinks	3		
Fruit & Vegetables	4		
Pickles, Sauces	5		
Drugs, medical sundries, etc.	27	127	
<i>Miscellaneous Samples</i>			
Bloods & Urines for alcohol	231		
Bloods for Toxic metals	6		
Cements, concretes, building materials	109		
Clothing, Fabrics, Man-made fibres	35		
Fertilisers and Feeding Stuffs	5		
Industrial Chemicals	28		
Metals	8		
Paint, Lacquers, Cleaning Materials	34		
Petrol, Fuels, Oils, etc.	18		
Waters. Effluents, etc.	280	754	
		881	

1. The number of the bill is 1000.

continued on next page

Table 1. Number of routine samples of raw and final waters examined during the year ended 31st December, 1972.

Source of Sample			
Waters before and during treatment	Bacterio-		
	Chemical	logical	Biological
Swithland Reservoir	48	49	44
Cropston Reservoir	59	59	77
Waters in supply			
River Dove Water Board Aqueduct	52	53	.
Derwent Valley Water Board Aqueducts	102	101	.
Hallgates Filter Station	99	98	.
Service Reservoirs (All Districts)	329	328	.
Totals	689	688	121

I am indebted to Mr. J. W. Seddon, B.Sc., C.Eng., F.I.C.E., M.I.Mech.E., M.I.W.E., Water Engineer, for the following report on the work of his Department during 1972.

- 1 a The water supply of the area has been generally satisfactory in
(i) quality, and (ii) quantity;
- b Pyrethrin was applied at a dose rate of 0.01 mg. per litre for one week in November in order to remove *Asellus Aquaticus* from the distribution system. Systematic cleansing of mains and service reservoirs was undertaken throughout the year to remove accumulated deposits and to satisfy consumers' complaints of discoloured water.
- c At 31.3.72 the number of dwelling houses supplied in the City of Leicester was 96,109 and the population was 282,000. Houses supplied by standpipes are not recorded separately but as far as is known there are none.
- d Fluoride analyses were not done on the Department's sources. None of the sources supplying the city is yet fluoridated.
- 2 a Details of bacteriological and chemical examinations of raw and treated waters are given in the enclosed summary of water examinations for 1972. Chemical analyses had to be severely curtailed in 1972 owing to staffing difficulties.
- b No instance of plumbo-solvency was reported.

WATER SUPPLIES

Table 2 Summary of bacteriological examinations

Water before treatment Frequency distribution

Source	No. of Samples	Presumptive Coliform organisms MPN per 100 ml					Presumptive Esch. Coli, type 1 MPN per 100 ml					No. of Samples	Agar plate count per ml (24 h at 37 °C)			
		0	1-9	10-99	100+	1000+	0	1-9	10-99	100+	1000+		0-9	10-99	100+	1000+
Swithland Impounding Reservoir	49	5	8	10	20	6	6	9	8	21	5	49	23	24	2	.
Cropston Impounding Reservoir	59	2	15	5	22	15	4	14	4	24	13	59	16	35	8	.

Table 3 Summary of bacteriological examinations

Water in supply Frequency distribution

Source	No. of Samples	Coliform organisms MPN per 100 ml				Esch. Coli Type 1 MPN per 100 ml				No. of Samples	Agar plate count per ml (24 h at 37 °C)		
		0	1-2	3-10	10+	0	1-2	3-10	10+		0-9	10-99	100+
Dove Treated water aqueduct at Hallgates	53	53	.	.	.	53	.	.	.	53	42	11	.
Derwent Treated water aqueduct at Hallgates	100	100	.	.	.	100	.	.	.	100	100	.	.
Hallgates Final water at Works	97	97	.	.	.	97	.	.	.	97	86	11	.
Hallgates No. 4 Reservoirs Blended supply to City	150	150	.	.	.	150	.	.	.	150	141	9	.

Table 4 **Average chemical analyses of waters in supply 1972**

Results in parts per million (mg. per litre)

Source	No. of Samples	pH value	Turbidity (EBC Units)	Total Hardness	Chloride as Cl	Iron as FE	Manganese as Mn	Aluminium as Al	Free Chlorine	Total Chlorine
Dove Aqueduct, Hallgates	52	7.8	0.03	.	.	0.03	.	.	0.1	0.35
Derwent Aqueduct, Hallgates	101	9.05	0.05	.	.	0.03	0.04	0.07	0.0	0.05
Hallgates Final Water	98	7.25	0.07	.	.	0.03	0.01	0.12	3.4	4.1
Hallgates No. 4 Reservoir (Blended supply to Leicester)	150	7.75	0.04	166	26	0.02	0.02	0.05	0.3	0.45

The sewerage system generally continued to operate satisfactorily. In order to enable further development to proceed to connect discharges and to relieve flooding the under-mentioned capital programme sewer schemes were completed or in progress:

147	147,000	147,000	147,000
148	148,000	148,000	148,000
149	149,000	149,000	149,000
150	150,000	150,000	150,000
151	151,000	151,000	151,000
152	152,000	152,000	152,000
153	153,000	153,000	153,000
154	154,000	154,000	154,000
155	155,000	155,000	155,000
156	156,000	156,000	156,000
157	157,000	157,000	157,000
158	158,000	158,000	158,000
159	159,000	159,000	159,000
160	160,000	160,000	160,000
161	161,000	161,000	161,000
162	162,000	162,000	162,000
163	163,000	163,000	163,000
164	164,000	164,000	164,000
165	165,000	165,000	165,000
166	166,000	166,000	166,000
167	167,000	167,000	167,000
168	168,000	168,000	168,000
169	169,000	169,000	169,000
170	170,000	170,000	170,000
171	171,000	171,000	171,000
172	172,000	172,000	172,000
173	173,000	173,000	173,000
174	174,000	174,000	174,000
175	175,000	175,000	175,000
176	176,000	176,000	176,000
177	177,000	177,000	177,000
178	178,000	178,000	178,000
179	179,000	179,000	179,000
180	180,000	180,000	180,000
181	181,000	181,000	181,000
182	182,000	182,000	182,000
183	183,000	183,000	183,000
184	184,000	184,000	184,000
185	185,000	185,000	185,000
186	186,000	186,000	186,000
187	187,000	187,000	187,000
188	188,000	188,000	188,000
189	189,000	189,000	189,000
190	190,000	190,000	190,000
191	191,000	191,000	191,000
192	192,000	192,000	192,000
193	193,000	193,000	193,000
194	194,000	194,000	194,000
195	195,000	195,000	195,000
196	196,000	196,000	196,000
197	197,000	197,000	197,000
198	198,000	198,000	198,000
199	199,000	199,000	199,000
200	200,000	200,000	200,000

In addition to the above schemes a number of smaller improvement schemes were completed. The expenditure does not include weekend and night improvements under construction.

Due to an unexpected fall sewer in the Epsom Road area a scheme costing £121,000 is due to commence in April 1973 and construction work will last 12 months. Some instances of pollution occurred. These were investigated and measures applied to prevent recurrence where possible. Where circumstances were involved, investigation was carried out in conjunction with the Local River Authority.

The sewage treatment and waste disposal plant at Welling continues to function satisfactorily and the effluent produced complies fully with current standards. Construction of a third stage treatment plant is expected to commence on the Welling Disposal Works in April 1973. The plant will take the form of an effluent treatment process and will enable effluent to be pumped within the local authority's existing treatment conditions which come into force on 1st September 1975.

I am indebted to Mr. W. R. Shirrefs, T.D., M.I.C.E., M.I.Mun.E., A.M.P.T.I. for the following statement on sewage disposal.

The sewerage system generally continued to operate satisfactorily.

In order to enable further development to proceed, to correct deficiencies and to alleviate flooding, the under-mentioned capital programme sewer schemes were completed or in progress :-

(a)	Hammercliffe Road Foul Water Sewer	£92,000
(b)	Gipsy Lane/Catherine Street Surface Water Sewer	£152,000
(c)	Ambassador Road Surface Water Sewer	£55,000
(d)	Carisbrooke Road/Shanklin Drive — Drainage Improvement	£24,000
(e)	Clarendon Park Road Area Surface Water Sewer	£35,000
Total		£358,000

In addition to the above schemes a number of smaller improvement schemes were completed. This expenditure does not include washland and brook improvements under construction.

Due to an overloaded foul sewer in the Barkby Road area, a scheme costing £182,000 is due to commence in April 1973 and construction work will last 12 months.

Some instances of pollution occurred. These were investigated and measures applied to prevent recurrence where possible. Where watercourses were involved, investigation was carried out in conjunction with the Trent River Authority.

The sewage treatment and waste disposal plant at Wanlip continues to function satisfactorily and the effluent produced complies fully with current standards. Construction of a third stage treatment plant is scheduled to commence on site at the Wanlip Disposal Works in April 1973. The plant will take the form of an effluent nitrification process and will enable effluent standards to be brought within the Trent River Authority revised consent conditions which come into force on 1st September, 1975.

Register for the following information:

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Cremation

I am indebted to Mr. D. G. Clarke, Superintendent Registrar for the following information:

	1972	1971	1970	1969	1968
Yearly figures of cremations at the Leicester Crematorium	3396	3190	3110	3148	3071
Registration area of Cremations					
City residents	2307	2202	2140	2182	2088
Non-city residents	1089	988	970	966	983

Re-housing on medical grounds

A total of 173 applications were considered during the year. In the earlier part of the year, because of the acute housing shortage, a new regulation was introduced by the Housing Department. This virtually debarred an owner-occupier from being considered for Corporation property. It was therefore expected that there would be an increase in the numbers requesting allocation of Corporation property on medical grounds.

In point of fact, the overall number of applications was slightly lower than in 1971 – probably due to the fact that the extensive rebuilding programme for the City has obviated the need for many of those living in areas of slum clearance to apply for medical priority.

Of the applications received, 60 were submitted to the Housing Committee who approved 56 for priority re-housing. 17 of these were re-housed by the end of 1972, 7 within the first few weeks of the New Year, one refused an offer of accommodation, one deferred placement, one is waiting for a specific area and one has died.

We have found that, because of the increase in numbers of owner-occupier applicants, a considerable delay in re-housing has occurred. This is due to the inevitable time-consuming process of negotiations in the purchase of their property prior to consideration for Council accommodation.

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Applications received during 1971 and 1972

	Total number	Number of cases considered by Housing Committee	Number of cases approved by Housing Committee	Number re-housed
1971	180	31	26	18
1972	173+	60	56	17*

*This figure includes 1 application approved in 1971.

+ This figure includes 33 applications from owner/occupiers.

Superannuation Medical Examination

	1972	1971
Number of Questionnaires submitted	1147	1066
Candidates medically examined	244	155
Failed	8	11
Deferred	40	21

Application for Driving Licences

Investigations are undertaken in this Department for the purpose of granting driving licences to persons who admit to any defects under the section headed 'Health' (on the new style application forms). Epileptics may be issued with a 3-year licence if they do not need medication or a 1-year licence if medication is necessary.

	Epileptic	Others	Total
Applications	56	8	64
Refused	14	3	17
Granted for three years	7	5	12
Granted for one year	34	.	34
Still under investigation	1	.	1

The number of applications from epileptics remains similar to last year, but the increase in those investigated for other disabilities may be due to the introduction of a new style of application form towards the end of 1972 containing a rather more searching section on health.

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