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STAFFORDSHIRE COUNTY COUNCIL

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

G. RAMAGE, M.A. (Admin.) M.D.

For the Year 1969

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CONTENTS

STAFFORDSHIRE COUNTY COUNCIL

Annual Report of Medical Officer of Health

FOREWORD

Writing the foreword almost in the autumn, there is a temptation to comment on recent legislation and the prospects of further legislation profoundly affecting the Health Department of the County Council, and indeed the whole health service. But it is important to place first the work which the Department is now providing and which under whatever new form of organisation must continue to be provided for the public.

A glance at the table showing the chief causes of death on page 21 is an immediate reminder of some of the important problems which face the Health Department, along with the other medical services. Of a total number of deaths recorded from all causes, namely, approximately 7,000, more than half were due to diseases of the heart and the blood vessels, about a fifth due to cancer, and the third largest cause was due to diseases of the lungs. It is perhaps a sign of the times that accidents, both home and road combined, are now the fourth largest cause of deaths.

The increased mortality from heart and circulatory diseases starts to show itself in the age range of 35 upwards, and there are no medicines which will prevent their onset. Although the causes of diseases of the circulation are not clearly defined, sufficient evidence exists to show that the manner of living has a considerable influence on the high proportion of these. Except that a wider range of clinical treatment is available and a few definite causes of cancer are known, any substantial reduction in the death rate will only be achieved by altering people's habits. The effect of cigarette smoking is now widely known, though regrettably health hazard warnings are not always followed. It is interesting to note from the statistics given on pages 16 and 17 that while the incidence of lung cancer has again risen slightly this year, the number of deaths from all forms of cancer showed a decrease of forty-four from the figure for the previous year. Forty-three of these deaths are reductions in the incidence of breast cancer, and cancer of the uterus. As the total number of these two cancers amounted to 140, a difference of 40 from the previous year, it is significant, and possibly is associated with the campaign to encourage all women to have the examinations which can detect these cancers in the early stages.

The incidence of accidents on the road are not subject to control from a Health Department, although considerable work is done in the hope of preventing home accidents. It is generally known that a high proportion of accidents are due to the behaviour of the drivers of vehicles, and not defects of vehicles, and therefore if all drivers could be pursuaded to drive safely, lives again could be saved.

These statistics are mentioned to show that nowadays progress towards reduction in the death rate must come largely by means of health education in the public. There is little concrete evidence in the forms of

buildings or other constructions that can be brought forward to emphasise the primary importance at the present time of widespread effective health education and so this aspect of the department's work tends to receive less financial support than is needed. Apart from the increased happiness that better health brings to the individual, in the long term money spent on health education will be saved on the provision for sickness. It is not enough to inform people what they should or should not do, they must be brought to adopt a healthier way of living.

A relatively new feature of the report has been the reporting of the adaptations of homes for the installation of artificial kidney machines. Advances in treatment now make it possible to keep in reasonable health persons suffering from chronic renal failure either permanently or pending the time when a replacement kidney can be provided. The unit is supplied by the hospital authorities, and the cost of installation falls upon the local authority, with the patient contributing if appropriate. This is a service which is likely to increase, dependent, to a large extent, on the facilities available in the hospital authorities, and there is no doubt that the service will increase at a steady rate.

Another preventive service continues to work effectively, namely, the children "at risk" register, and it will be seen that in 1969, 1,700 new cases were added to this register, and 1,000 cases removed having been found to be making normal progress and development. A proportion of these children with more serious defects are referred to the School Health and Mental Health sections at the age of two, so that special attention can be given to their education.

The Maternity and Child Health clinic work has continued without any notable change, except the number of mothers' clubs continues to grow which is evidence of their value, particularly to young mothers.

Unfortunately, during the year no new buildings were started, though the new Ambulance Station at Stafford was completed and opened. This station provides not only for the vehicles operating from Stafford, but the training centre and a Control Room which serves the whole of the County. At the time of the opening there were great difficulties in operating the new Control Room, as the opening date coincided with some staffing difficulties, and the telecommunications were not complete. After these difficulties had passed a little time was required for the new staff to learn both the routine of directing ambulances and the geography of the County, but at the present time there is every indication that the increased efficiency intended by the centralisation of the Ambulance Control is now being attained.

At the beginning of the year the new administrative arrangements for the Nursing Services of the County came into operation. For the first time provision was made for a Chief Nursing Officer and a Deputy Chief Nursing Officer and they commenced duty in January. At the same time the nursing areas were re-arranged from four to three, so the same number of supervisory posts were maintained but by the appointment of a Chief Nursing Officer, a greater degree of unity over the County will be possible. With regard to nursing staff, the position of recruitment of Health Visitors continues to be satisfactory after many years of continuing difficulty and this is largely due to the existence of the Keele University training scheme. Ten students were recruited from this source and three from courses outside the County. The continuing increase in staff has made it possible

to attach Health Visitors to a number of practices, and so increase the efficiency of their work, and provide them with a greater interest.

The two Health Centres provided at Rugeley and Tamworth worked efficiently during the year, and their multiple services provided for the public are much appreciated. Indeed the Health Centre at Rugeley was found to be overloaded during the year, and there is considerable pressure for its enlargement. The Health Centre at Tamworth, built up during the year to a high degree of efficiency, has attracted much interest from other authorities who thought it worthwhile to visit and investigate the method of running.

Another increase and slight change in the service during the year was the scheme, to be adopted early in 1970, for the routine medical examinations of County employees required to hold Heavy Goods Vehicle Licences. In addition, doubtful medical conditions submitted by any driver in the County are referred in increased numbers for medical opinion. The work relating to this and other aspects of medical assessment are set out on pages 70 to 72, and it will be seen that these duties now form an important branch of the department's services.

The Family Planning Service continued to develop, and the County has continued its policy of providing their service through the Family Planning Association. During the year new clinics were opened at Tamworth, in the Health Centre, and at Heath House clinic, Uttoxeter, and additional sessions were arranged at some of the existing clinics. The domiciliary service operated by the Staffordshire branch started in June, and by the end of the year had seen 37 patients. This is an aspect of the work of the Family Planning Association of particular interest to the Health Committee, because by this means women who are in great need of the service that either lack the opportunity or the initiative to attend a clinic can be reached. It is expected that the domiciliary service will play a larger part in family planning in future years.

In commencing this foreword reference was made to the large amount of work involved in the recent discussions and changes affecting the Health Department, and the extra work and the uncertainties that these have brought had a discouraging effect on all grades of staff, and I am glad to record that this has not reduced the amount or the quality of work which they have achieved during the year. It is greatly to be hoped that the uncertainties now existing will be removed in the very near future, and the usual acknowledgment of the work done by the staff has a special significance this year. It is a pleasure each year to acknowledge the help and co-operation freely accorded by other departments and the consideration and support given by the Health Committee.

G. RAMAGE,

County Medical Officer of Health.

SECTION I

COMMITTEES

STAFF

COMMITTEES

The Committee of the County Council concerned with local health services is the Health Committee.

The County Medical Officer also acts as medical adviser to all Committees of the County Council including the Education Committee, Welfare Services Committee and Children's Committee.

HEALTH COMMITTEE

as at 31*st December,* 1969

Chairman — COUNCILLOR MISS G. JOULES

Vice-Chairman — COUNCILLOR R. F. WRIGHT, Esq.

Ex-Officio Members—

Alderman	F. J. OXFORD	*Chairman of the County Council*
,,	H. J. HALL	*Vice-Chairman of the County Council*
Councillor	A. L. GARRATT	*Chairman of the Finance Committee*
,,	G. H. HARRIS	*Vice-Chairman of the Finance Committee*

Alderman	Mrs. H. M. GARDNER	Councillor	B. A. GARMAN, T.D.
,,	G. McEVOY	,,	G. H. HARRIS
,,	F. N. SALMON	,,	J. JOHNSON
,,	W. F. TRACY	,,	P. E. McELLIN
		,,	A. NEEDHAM
		,,	W. NEWBURY
Councillor	Mrs. L. M. BARKER	,,	J. R. PAUL, M.B.E., M.C.
,,	J. J. BEECH	,,	G. A. POOLE
,,	E. H. BEET	,,	M. W. ROBSON
,,	Mrs. D. M. BIGHAM	,,	F. W. SAVILL
,,	T. CAWLEY	,,	J. T. STANFORD
,,	S. W. CLARKE	,,	Mrs. M. J. STUBBS
,,	C. R. CRITCHLOW	,,	H. T. WALTON
,,	H. DEAKIN	,,	A. G. WYATT

HEALTH DEPARTMENT STAFF

(A) MEDICAL

County Medical Officer of Health

G. RAMAGE, M.A. (Admin.), M.D., CH.B., B.SC., M.R.C.S., L.R.C.P., D.P.H.
Health Department, County Buildings, Stafford.

Deputy County Medical Officer of Health

H. H. JOHN, M.A., M.B., B.CHIR., M.R.C.S., L.R.C.P., D.P.H., D.C.H., D.OBST., R.C.O.G.

Principal Medical Officer for Maternity and Child Welfare

MAIRIDH A. M. N. GILLATT, M.B., CH.B., D.P.H., D.R.C.O.G.

Principal Medical Officer for Mental Health

W. JOHNSON, M.R.C.S., L.R.C.P.

Medical Officers to Area Health Committees

SHEILA M. DURKIN, M.B., CH.B., D.P.H.
C. E. JAMISON, M.B., B.CH., B.A.O., D.P.H.
W. D. H. McFARLAND, M.B., B.CH., B.A.O., D.P.H.
J. TOLLAND, L.R.C.P., L.R.C.S., L.R.F.P.S., D.P.H.
E. H. TOMLIN, M.D., CH.B., D.P.H.
R. WEBSTER, M.B., CH.B., D.T.M. & H., D.P.H.

(B) OTHER MEDICAL

A. BLENCH, L.R.C.P., L.R.C.S., L.R.F.P.S., D.P.H.
Senior Administrative Medical Officer for Schools

H. E. WILSON, M.B., CH.B., D.O., D.P.H.
Senior Medical Officer

Medical Officers holding joint M. & C.W. appointments

M. L. BURR, M.B., B.S., D.OBST., R.C.O.G., D.P.H.
C. M. DAVID, M.B., CH.B., D.P.H.
A. G. THOMSON, M.B., CH.B., D.P.H.
J. TOLLAND, L.R.C.P., L.R.C.S., L.R.F.P.S., D.P.H.
E. .E. H. TOMLIN, M.D., CH.B., D.P.H.

Senior Clinical Medical Officers (Whole-time)

AGNES W. E. BLACK, M.B., B.CH., B.A.O., D.P.H.
BESSIE W. GOODWILL, M.B., CH.B., M.R.C.S., L.R.C.P.
HAZEL R. MEACOCK, M.B., CH.B., D.C.H., D.P.H.
R. WHARTON, M.B., CH.B.
HENRIETTA WILSON, B.A., M.B., B.CHIR.

Whole-time Medical Officers

CYNTHIA J. BLADON, M.B., CH.B., D.P.H.
PEARL I. BLENCH, L.R.C.P., L.R.C.S., L.R.F.P.S.
NORAH M. CLARKE, M.B., CH.B.

Part-time Medical Officers

M. ALLAN, M.B., CH.B., D.P.H.
MARGARET BAMBER, M.B., B.CH., B.A.O., D.P.H.
PATRICIA BASS, L.R.C.P., L.R.C.S., D.OBST., R.C.O.G.
GERTRUDE M. LANGTON, L.R.C.P., M.R.C.S., M.B.B.S.
ROSE MACAULIFFE, M.B., B.CH., B.A.O.

MARGARET OSBORNE, M.B., CH.B.
ELEANOR PRENDIVILLE, L.R.C.P.I., L.R.C.S.I., L.M., D.P.H.
ZOE RICHARDSON, M.B., B.CH., B.A.O.
E. SMITH, M.B., CH.B.
PATRICIA TYLER, M.B., B.CH.
LUCY WILKIN, M.B., B.CH., B.A.O.
JOAN WRIGHT, M.R.C.S., L.R.C.P.
CHRISTINE WILLCOCK, M.B., B.S., M.R.C.S., L.R.C.P.

General Practitioners (Part-Time Sessional)

ROSEMARY BAILY, M.B., B.S.
B. J. BARTLEY, M.B., B.S., M.R.C.S., L.R.C.P.
R. BROWN, M.B., CH.B.
A. H. CHESHIRE, M.B., B.S.L., M.R.C.S., L.R.C.P.
DOROTHY A. FOSTER, M.B., B.CH., B.A.O.
MARY KENDALL, M.B., CH.B.
A. M. MACKAY, M.B., CH.B.
T. R. O'DEMPSEY, M.B., B.CH.
M. RABY, M.B., CH.B., D.OBST., R.C.O.G.
MYRTLE E. SUMMERLEY, M.B., B.CH., D.C.H., CH.B.
K. WATWOOD, M.B., CH.B., L.R.C.P., L.R.C.S.

B.C.G.

A. LEEDHAM, M.R.C.S., L.R.C.P.
MARGARET GRIFFITHS, M.D., M.B., CH.B., M.R.C.P. (left 31-7-69)

(C) OTHER PROFESSIONAL

County Dental Officer
W. McKAY, L.D.S., R.C.S.(EDIN.)

County Analyst
R. S. HATFULL, F.R.I.C., F.R.S.H.

County Health Inspector
H. PREST, M.I.P.H.E., M.A.P.H.I.

(D) SENIOR ADMINISTRATIVE STAFF

Chief Administrative Assistant
E. E. EVANS

Chief Clerk
N. F. GREENWOOD

(E) OTHER STAFF

County Ambulance Officer
R. G. YATES, F.I.A.O., F.I.C.A.P.

Chief Chiropodist
M. E. ABLOTT, M.CH.S., S.R.CH.

Health Education Officer
A. WARD, S.R.N., B.T.A., DIP.H.ED.

SECTION II

STATISTICAL AND GENERAL INFORMATION

STATISTICS RELATING TO ADMINISTRATIVE COUNTY

EXTRACT FROM VITAL STATISTICS FOR 1969

AREA AND POPULATION

STATISTICS RELATING TO:—

CANCER

TUBERCULOSIS

CHIEF CAUSES OF DEATH

BIRTHS

DEATHS

GENERAL TABLES

STATISTICS

Area of Administrative County (1966) .. ..(acres)	657,200
Estimated Home Population of Area 1969 (primarily for Calculation of Birth- and Death-rates or incidence of Notifiable Diseases)	721,850
Rateable Value at 1st April, 1969 .. .. (General County Purposes)	£25,306,225
Estimated net product of penny rate, 1969-70	£105,051

EXTRACT FROM VITAL STATISTICS FOR 1969

Live Births:	
Number	14,029
Rate per 1,000 population	19.4
Illigitimate Live Births (per cent of total live births)	5
Stillbirths:	
Number	170
Rate per 1,000 total live and still births	12
Total Live and Still Births	14,199
Infant Deaths (deaths under one year)	232
Infant Mortality Rates:	
Total infant deaths per 1,000 total live births ..	17
Legitimate infant deaths per 1,000 legitimate live births	15
Illegitimate infant deaths per 1,000 illegitimate live births	44
Neo-natal Mortality Rate (deaths under four weeks per 1,000 total live births)	11
Early Neo-natal Mortality Rate (deaths under one week per 1,000 total live births)	10
Perinatal Mortality Rate (still births and deaths under one week combined per 1,000 total live and still births) ..	22
Maternal Mortality (including abortion):	
Number of deaths	1
Rate per 1,000 total live and still births	0.07

OTHER EXTRACTS FROM VITAL STATISTICS OF THE YEAR

Deaths (all ages)	7,069
Death Rate	9.8
Deaths from Cancer (all ages) (excluding leukaemia) ..	1,207

For comparison purposes, similar statistics are given for England and Wales in the following table:

VITAL STATISTICS — 1969

ENGLAND AND WALES — PERSONS

Estimated Mid-Year Home Population 48,826,800

(*provisional data*)

	Number	Rate	
Live Births	797,542*	16.3	per 1,000 population
Stillbirths	10,662	13.0	per 1,000 total births
Deaths	579,463	11.9	per 1,000 population
Infant Mortality (deaths under 1 yr. of age)	14,397	18.0	per 1,000 live births
Neonatal Mortality (deaths under 4 wks. of age)	9,603	12.0	per 1,000 live births
Early Neonatal Mortality (deaths under 1 wk. of age)	8,232	10.0	per 1,000 live births
Perinatal Mortality (stillbirths and deaths under 1 wk. of age)	18,894	23.0	per 1,000 total births

* Estimated.

AREA AND POPULATION

The administrative county of Staffordshire covers an area of 657,200 acres (266,000 hectares) and contains within its 22 local authorities a population of 721,850 (1969). The population of these authorities are:

Municipal Boroughs:

Lichfield	22,930
Newcastle-under-Lyme	76,570
Stafford	54,200
Tamworth	37,360

Urban Districts:

Aldridge—Brownhills	87,530
Biddulph	16,770
Cannock	54,540
Kidsgrove	22,580
Leek	19,180
Rugeley	19,320
Stone	10,810
Uttoxeter	8,980

Rural Districts:

Cannock	42,670
Cheadle	40,150
Leek	13,500
Lichfield	55,100
Newcastle-under-Lyme	20,260
Seisdon	39,200
Stafford	23,220
Stone	20,560
Tutbury	24,810
Uttoxeter	11,610

Staffordshire embraces a wide variety of physical and economic features all of which combine to give the County its diverse nature. The topography of the County extends from the high millstone grit, sandstone and limestone areas in the north-east across the low-lying valleys of the Trent and its tributaries, and gently rises again to the south-west. Economically and physically the County can be split into four major areas.

1. The north-eastern uplands. This district contains the highest areas of Staffordshire. Its agricultural economy is dictated by the physical features of the area and extensive stock-breeding is the major type of farming. Leek is the major centre of the area, acting as its market town and providing other employment in its textile industry.

2. North and North-West Staffordshire. This area, surrounding the Potteries conurbation, is intimately related with the North Staffordshire Coalfield and the Pottery Industry. The area consists for the most part of nineteenth century industrial towns and villages, some of which combined in 1910 to form what is now the City of Stoke-on-Trent. Despite redevelopment and new industries the area still retains much of its early industrial atmosphere.

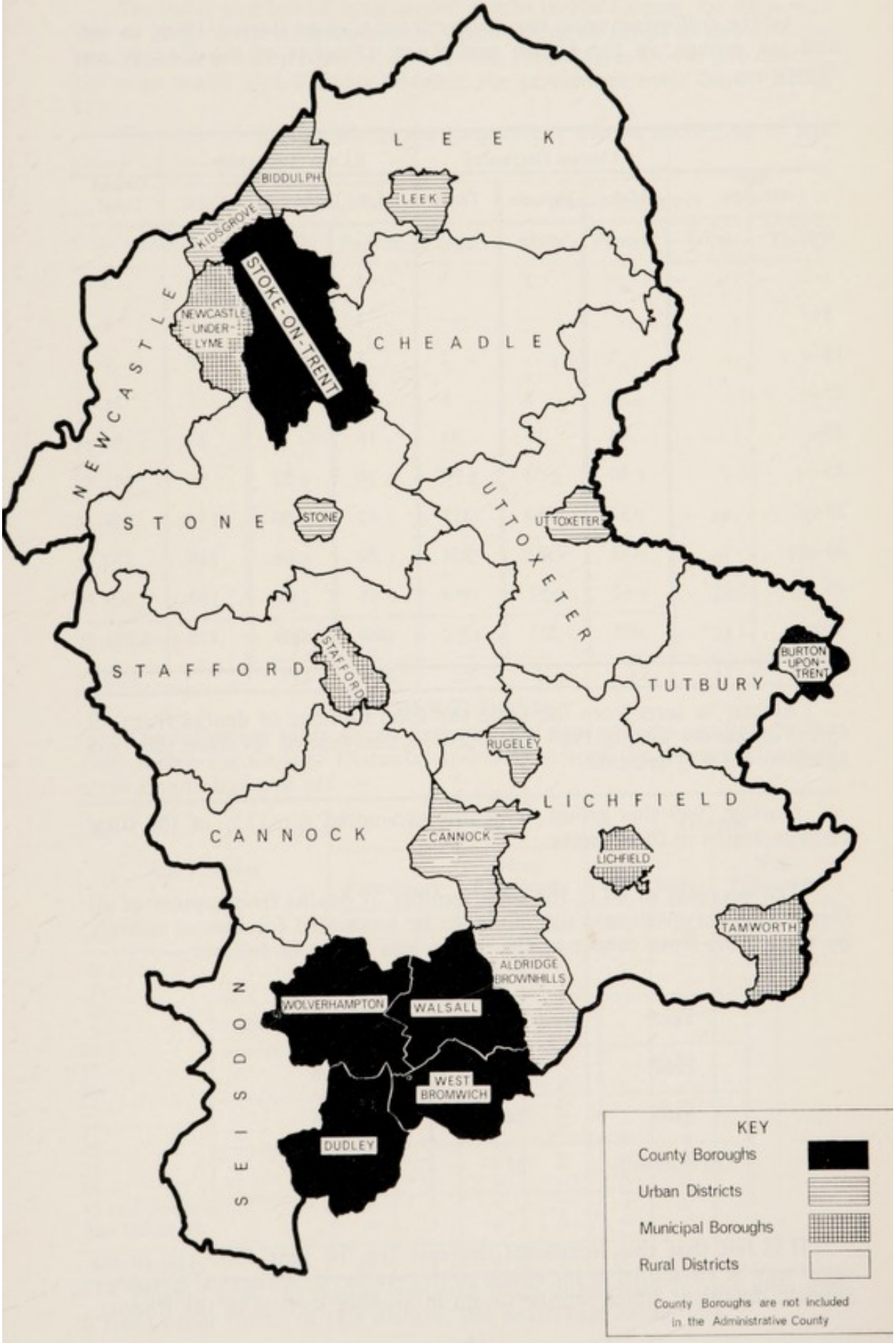
3. The plain of the Trent and the lower valleys of its tributaries. These areas are composed of low-lying agricultural land, over-looked by Cannock Chase, a high sandy area which is extensively forested. A group of old market towns, Stafford, Rugeley, Lichfield, and Tamworth form a north-west—south-east line across the area. These towns, together with Uttoxeter have undergone considerable industrial expansion in this century and are important employment centres.

4. The Conurbation fringes. These include part of the South Staffordshire coalfield and a number of rural areas. Despite the decline of coalmining the mining villages and towns have expanded with an influx of new industries and new population, many of whom commute to the Conurbation. In particular Aldridge-Brownhills, Cannock and Wombourne have grown as new industrial and commuter settlements.

In the following table the final census population of the Administrative County for 1966 and the estimated home population for mid-1969 are set out.

	Census 1966	*Estimated Population Mid*-1969
Urban	407,740	430,770
Rural	261,920	291,080
Totals	669,660	721,850

THE ADMINISTRATIVE COUNTY



CANCER

In the following table the deaths from Cancer during 1969, in age and sex groups, in the Urban and Rural Districts of the County are shown:—

Age Groups	Urban Districts			Rural Districts			Grand Total
	Male	Female	Total	Male	Female	Total	
0—	—	—	—	—	—	—	—
1—	—	1	1	1	1	2	3
5—	—	—	—	4	—	4	4
15—	2	—	2	2	—	2	4
25—	4	2	6	3	2	5	11
35—	14	19	33	16	7	23	56
45—	40	50	90	30	21	51	141
55—	137	80	217	82	50	132	349
65—	142	82	224	80	66	146	370
75—	62	97	159	48	62	110	269
Totals	401	331	732	266	209	475	1,207

As can be seen from the table the total number of deaths from all forms of cancer during 1969 was 1,207, a decrease of 44 from the 1968 figure or a 3.6% decrease.

During 1969 this group of deaths accounted for 17% of the total civilian deaths in the County.

The decrease of 44 in the total number of deaths from cancer of all forms, is a very welcome sign and can be accounted for almost entirely by the deaths from cancer of the uterus and breast as follows:—

Year	*Breast Cancer*	*Cancer of Uterus*
1968	115	68
1969	94	46
Difference	21	22

It is felt that this significant decrease for the year 1969 can in no small way be attributed to the effects of this Authority's Cervical Cytology Service, details of which will be found in another section of the Report.

LUNG CANCER

The total number of lung cancer deaths in the County for 1969 was 316, or 26% of the total number of deaths from all forms of this disease. This represents an increase of 28 over the 1968 figure. Of the 316 deaths, 276 were males and 40 were females, the percentage male deaths being 87%.

The following table shows the lung cancer deaths according to age grouping and sex.

Age Groups	Urban Districts			Rural Districts			Grand Total
	Male	Female	Total	Male	Female	Total	
0—	–	–	–	–	–	–	–
1—	–	–	–	–	–	–	–
5—	–	–	–	–	–	–	–
15—	–	–	–	–	–	–	–
25—	–	–	–	–	–	–	–
35—	3	1	4	6	1	7	11
45—	21	5	26	13	1	14	40
55—	69	13	82	43	4	47	129
65—	61	6	67	29	5	34	101
75 and over ..	19	3	22	12	1	13	35
Totals	173	28	201	103	12	115	316

TUBERCULOSIS

The following table shows new cases of tuberculosis notified during 1969 within the County Districts, and deaths from the disease, classified according to age and sex:—

1969 Age Periods	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0—	1	–	1	–	–	–	–	–
1—	–	–	–	–	–	–	–	–
2—	–	1	–	–	–	–	–	–
5—	1	3	–	–	–	–	–	–
10—	–	–	–	–	–	–	–	–
15—	–	1	–	–	–	–	–	–
20—	4	3	–	1	–	–	–	–
25—	8	1	–	1	–	–	–	–
35—	12	–	–	2	–	1	–	–
45—	10	3	1	–	3	1	1	–
55—	8	1	1	2	6	1	1	1
65—	3	1	1	–	5	1	2	–
75 and upwards	1	1	–	–	3	2	1	–
Age unknown	–	–	–	1	–	–	–	–
Totals	48	15	4	7	17	6	5	1

During 1969, 23 deaths occurred from pulmonary tuberculosis and 6 from other forms of this disease, the death-rate being 0.04.

REGISTERS OF DISTRICT MEDICAL OFFICERS OF HEALTH

At the end of the year the following cases were included in the registers of the Medical Officers for the County:—

TOTAL CASES	PULMONARY			NON-PULMONARY		
	M.	F.	Total	M.	F.	Total
3,170	1,454	1,156	2,610	269	291	560

The figures given above indicate that in 1969 there was one case of tuberculosis in every 227 persons, or 4.4 per 1,000 of the population.

The following table gives particulars of primary notifications of tuberculosis notified in the Administrative County each year since 1918, together with the case-rates per 1,000 of the estimated population. Only from 1946 is it possible to divide these figures to show numbers of respiratory and non-respiratory notifications, and the appropriate case-rates are given:—

Year	Primary Notifications			Case Rate per 1,000 of the Population		
	Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis	Tuberculosis (all forms)	Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis	Tuberculosis (all forms)
1918			856			1.37
1919			699			1.04
1920			642			0.92
1921			929			1.29
1922			971			1.37
1923			1,029			1.45
1924			974			1.36
1925			1,232			1.71
1926			1,400			1.93
1927			1,106			1.55
1928			1,194			1.68
1929			1,017			1.43
1930			1,021			1.44
1931			1,129			1.59
1932			1,074			1.50
1933			1,011			1.41
1934			929			1.29
1935			825			1.14
1936			831			1.14
1937			858			1.16
1938			789			1.05
1939			726			0.95
1940			669			0.88
1941			788			1.01
1942			830			1.07
1943			841			1.09
1944			798			1.03
1945			769			1.00
1946	636	139	775	0.80	0.17	0.97
1947	681	132	813	0.84	0.16	1.00
1948	728	124	852	0.88	0.15	1.03
1949	713	124	837	0.85	0.15	1.00
1950	706	101	807	0.83	0.12	0.95
1951	778	123	901	0.91	0.14	1.05
1952	712	93	805	0.83	0.11	0.94
1953	864	94	958	1.00	0.11	1.10
1954	709	99	808	0.81	0.11	0.92
1955	620	76	696	0.70	0.09	0.78
1956	568	55	623	0.63	0.06	0.69
1957	527	53	580	0.57	0.06	0.63
1958	469	54	533	0.56	0.06	0.62
1959	417	38	455	0.44	0.04	0.48
1960	378	37	415	0.39	0.04	0.43
1961	341	42	383	0.34	0.04	0.39
1962	283	59	342	0.28	0.06	0.34
1963	276	45	321	0.27	0.04	0.31
1964	263	48	311	0.25	0.05	0.30
1965	230	43	273	0.21	0.04	0.25
*1966	117	16	133	0.17	0.02	0.20
1967	74	20	94	0.08	0.02	0.10
1968	67	9	76	0.09	0,01	0.10
1969	63	11	74	0.09	0.02	0.10

* reduced County came into operation.

The table below shows the death-rates from tuberculosis in the Urban and Rural Districts of the County from 1940:—

Year	Death Rate per 1,000 of the Population			
	Pulmonary Tuberculosis		Other forms of Tuberculosis	
	Urban	Rural	Urban	Rural
1940	0.51	0.29	0.11	0.06
1941	0.57	0.33	0.16	0.14
1942	0.52	0.34	0.13	0.10
1943	0.55	0.29	0.11	0.07
1944	0.52	0.25	0.10	0.07
1945	0.56	0.22	0.11	0.09
1946	0.49	0.28	0.08	0.06
1947	0.47	0.28	0.09	0.07
1948	0.51	0.33	0.07	0.05
1949	0.45	0.22	0.06	0.03
1950	0.39	0.20	0.06	0.06
1951	0.37	0.12	0.05	0.04
1952	0.27	0.07	0.04	0.04
1953	0.19	0.10	0.04	0.00
1954	0.18	0.13	0.04	0.03
1955	0.10	0.04	0.01	0.01
1956	0.13	0.07	0.01	0.00
1957	0.10	0.01	0.01	0.01
1958	0.09	0.05	0.01	0.01
1959	0.09	0.06	0.01	0.01
1960	0.07	0.04	0.01	0.01
1961	0.05	0.05	0.01	0.00
1962	0.06	0.03	0.00	0.01
1963	0.05	0.04	0.01	0.01
1964	0.03	0.01	0.00	0.01
1965	0.03	0.03	0.00	0.00
*1966	0.05	0.02	0.00	0.00
1967	0.01	0.00	0.00	0.00
1968	0.00	0.00	0.00	0,00
1969	0.04	0.01	0.01	0.01

* reduced County came into operation.

TABLE SHOWING CHIEF CAUSES OF DEATH

Condition	*Number of Deaths*
Heart Disease	2,160
Cancer (all forms)	1,258
Cerebrovascular Disease	995
Pneumonia	481
Bronchitis and Emphysema	386
Other forms of Circulatory Disease	346
Hypertensive Disease	139
Accidents (General)	127
Motor Vehicle Accidents	116
Other diseases of Respiratory System	91
Congenital Anomalies	63
Other diseases of Digestive System	58
TOTAL	6,220
Total number of deaths from *all* causes	7,069

The numbers of deaths listed above represent 88 per cent of the total deaths.

Births

The number of births in the Administrative County amounted to 14,029, the number in the Urban Districts being 8,281 and in the Rural Districts 5,748.

Districts	Live Birth-Rate per 1,000 of Population											
	5 yrs. 1914-1918	5 yrs. 1919-1923	5 yrs. 1924-1928	5 yrs. 1929-1933	5 yrs. 1934-1938	5 yrs. 1939-1943	5 yrs. 1944-1948	5 yrs. 1949-1953	5 yrs. 1954-1958	5 yrs. 1959-1963	5 yrs. 1964–1968	1969
Staffordshire — Combined Urban and Rural ..	24.0	24.1	20.2	17.6	17.1	18.3	19.9	16.2	16.2	18.2	19.9	19.4
Staffordshire — Urban	25.0	25.0	20.7	18.1	17.5	18.9	20.4	16.4	16.3	18.2	19.7	19.2
Staffordshire — Rural	21.6	22.0	19.0	16.6	15.7	16.7	18.5	15.6	15.9	17.9	20.1	19.7
England and Wales ..	20.4	21.3	17.8	15.6	14.9	15.2	18.2	15.8	15.7	17.4	17.5	16.3

Deaths

The number of deaths in the Administrative County amounted to 7,069, the number in the Urban Districts being 4,297 and in the Rural Districts 2,772.

Districts	Death-Rate per 1,000 of Population											
	5 yrs. 1914-1918	5 yrs. 1919-1923	5 yrs. 1924-1928	5 yrs. 1929-1933	5 yrs. 1934-1938	5 yrs. 1939-1943	5 yrs. 1944-1948	5 yrs. 1949-1953	5 yrs. 1954-1958	5 yrs. 1959-1963	5 yrs. 1964–1968	1969
Staffordshire — Combined Urban and Rural ..	15.0	12.3	11.4	11.6	11.3	11.2	10.4	10.5	10.5	10.0	9.7	9.8
Staffordshire — Urban	15.5	12.6	11.5	11.8	11.3	11.2	10.4	10.7	10.5	10.0	9.8	10.0
Staffordshire — Rural	13.8	11.6	11.2	11.2	11.2	11.0	10.4	10.0	10.3	9.9	9.6	9.5
England and Wales ..	15.2	12.5	12.0	12.3	11.9	12.6	11.5	11.7	11.6	11.8	11.6	11.9

Causes of Death at Different Periods of Life during 1969 in the Administrative County of Staffordshire.

Aggregate of Urban Districts.

Cause of Death	Sex	All Ages	Age in Years										
			Under 4 weeks	4 weeks and under 1 year	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75 and over
Bacillary Dysentery, Amoebiasis	M	–	–	–	–	–	–	–	–	–	–	–	–
	F	1	–	–	–	1	–	–	–	–	–	–	–
Enteritis and other Diarrhoeal Diseases	M	5	2	3	–	–	–	–	–	–	–	–	–
	F	6	–	5	1	–	–	–	–	–	–	–	–
Tuberculosis of Respiratory System	M	14	–	–	–	–	–	–	–	3	6	3	2
	F	5	–	–	–	–	–	–	1	1	1	1	1
Other Tuberculosis, including late effects	M	3	–	–	–	–	–	–	–	–	1	1	1
	F	1	–	–	–	–	–	–	–	–	1	–	–
Syphilis and its Sequelae	M	3	–	–	–	–	–	–	–	1	–	1	1
	F	–	–	–	–	–	–	–	–	–	–	–	–
Other Infective and Parasitic Diseases	M	5	–	–	2	–	–	–	–	–	2	–	1
	F	4	1	1	–	–	1	–	1	–	–	–	–
Malignant Neoplasm, Buccal Cavity, etc.	M	10	–	–	–	–	–	–	1	–	3	3	3
	F	3	–	–	–	–	–	–	–	–	–	3	–
Malignant Neoplasm, Oesophagus	M	8	–	–	–	–	–	–	–	–	2	2	4
	F	14	–	–	–	–	–	–	–	2	1	5	6
Malignant Neoplasm, Stomach	M	57	–	–	–	–	–	–	3	4	17	21	12
	F	35	–	–	–	–	–	–	2	1	5	12	15
Malignant Neoplasm, Intestine	M	43	–	–	–	–	–	–	–	3	13	15	12
	F	64	–	–	–	–	–	–	3	7	14	14	26
Malignant Neoplasm, Larynx	M	5	–	–	–	–	–	–	–	1	3	1	–
	F	–	–	–	–	–	–	–	–	–	–	–	–
Malignant Neoplasm, Lung, Bronchus	M	173	–	–	–	–	–	–	3	21	69	61	19
	F	28	–	–	–	–	–	–	1	5	13	6	3
Malignant Neoplasm, Breast	M	–	–	–	–	–	–	–	–	–	–	–	–
	F	55	–	–	–	–	–	–	6	10	12	13	14
Malignant Neoplasm, Uterus	F	26	–	–	–	–	–	1	2	6	8	4	5
Malignant Neoplasm, Prostate	M	19	–	–	–	–	–	–	–	–	8	8	3
Leukaemia	M	17	–	–	1	4	2	–	2	1	2	2	3
	F	14	–	1	2	1	3	–	1	–	1	3	2
Other Malignant Neoplasms	M	84	–	–	–	–	2	2	7	11	22	31	9
	F	108	–	–	1	–	–	3	5	19	27	25	28
Benign and Unspecified Neoplasms	M	6	–	–	–	–	–	1	1	2	–	1	1
	F	1	–	–	–	–	–	–	–	–	1	–	–
Diabetes Mellitus	M	12	–	–	–	–	–	–	–	1	–	5	6
	F	18	–	–	–	–	–	–	–	–	6	7	5
Avitaminoses, etc.	M	1	–	–	–	–	–	–	–	–	1	–	–
	F	–	–	–	–	–	–	–	–	–	–	–	–
Other Endocrine etc. Diseases	M	5	1	–	–	1	–	–	1	–	1	1	–
	F	10	–	1	1	–	–	–	–	–	5	2	1
Anaemias	M	4	–	–	–	–	–	–	–	–	2	1	1
	F	5	–	–	–	–	–	–	–	–	2	–	3
Other Diseases of Blood, etc.	M	1	–	–	–	–	–	–	1	–	–	–	–
	F	1	–	–	–	–	–	–	–	–	–	–	1
Mental Disorders	M	3	–	–	–	–	–	1	–	–	2	–	–
	F	2	–	–	–	–	–	–	–	1	–	–	1
Meningitis	M	1	–	–	–	–	1	–	–	–	–	–	–
	F	–	–	–	–	–	–	–	–	–	–	–	–
Other Diseases of Nervous System, etc.	M	23	–	–	–	2	2	2	1	3	3	7	3
	F	21	–	–	–	1	2	1	2	3	3	5	4
Chronic Rheumatic Heart Disease	M	24	–	–	–	–	1	1	–	5	8	4	5
	F	43	–	–	–	–	1	1	2	5	15	5	14
Hypertensive Disease	M	44	–	–	–	–	–	–	2	3	6	19	14
	F	55	–	–	–	–	–	–	–	1	13	13	28
Ischaemic Heart Disease	M	629	–	–	–	–	1	2	16	77	158	205	170
	F	412	–	–	–	–	–	–	4	9	49	110	240
Other forms of Heart Disease	M	102	–	–	–	–	1	–	1	1	5	27	67
	F	114	–	–	–	–	–	–	1	2	5	24	82
Cerebrovascular Disease	M	278	–	–	–	–	–	–	4	13	42	90	129
	F	322	–	–	–	–	1	1	4	10	23	83	200
Other Diseases of Circulatory System	M	96	–	–	–	–	–	–	2	–	14	29	51
	F	117	–	–	–	–	1	–	2	1	5	25	83
Influenza	M	18	–	–	–	–	–	–	–	2	4	7	5
	F	15	–	–	–	–	1	–	1	2	1	5	5
Pneumonia	M	130	3	9	1	1	–	1	1	11	13	39	51
	F	146	2	2	–	–	2	–	1	5	11	34	89
Bronchitis and Emphysema	M	195	–	–	–	–	–	–	2	10	42	84	57
	F	51	–	–	–	–	–	–	1	–	6	14	30
Asthma	M	8	–	–	–	2	–	–	1	–	3	1	1
	F	5	–	–	–	–	–	–	1	–	4	–	–
Other Diseases of Respiratory System	M	35	–	4	1	–	–	–	1	4	4	12	9
	F	29	–	1	1	–	–	1	4	–	7	2	13
Peptic Ulcer	M	19	–	–	–	–	–	–	1	3	6	7	2
	F	11	–	–	–	–	–	–	1	–	–	5	5
Appendicitis	M	2	–	–	–	–	–	–	1	1	–	–	–
	F	1	–	–	–	–	–	–	–	–	1	–	–

Aggregate of Urban Districts continued.

Cause of Death	Sex	All Ages	Under 4 weeks	4 weeks and under 1 year	Age in Years 1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75 and over
Intestinal Obstruction and Hernia	M	6	–	–	–	–	1	–	–	1	1	1	2
	F	8	–	–	–	–	–	–	–	–	1	3	4
Cirrhosis of Liver	M	8	–	1	–	–	–	–	–	2	2	2	1
	F	11	–	–	1	–	–	1	–	1	3	3	2
Other Diseases of Digestive System	M	17	–	1	–	–	1	2	–	–	1	7	5
	F	24	–	1	1	–	–	1	2	–	3	4	12
Nephritis and Nephrosis	M	9	–	–	–	–	1	2	2	3	–	–	1
	F	7	–	–	–	–	–	–	1	1	2	1	2
Hyperplasia of Prostate	M	11	–	–	–	–	–	–	–	–	–	4	7
Other Diseases, Genito-Urinary System	M	9	–	–	–	–	–	–	1	–	–	4	4
	F	13	–	–	–	1	–	1	–	2	3	3	3
Other Complications of Pregnancy, etc.	F	1	–	–	–	–	–	1	–	–	–	–	–
Diseases of Skin, Subcutaneous Tissue	M	1	–	–	–	–	–	–	–	–	–	1	–
	F	1	–	–	–	–	–	–	–	–	–	–	1
Diseases of Musculo-Skeletal System	M	6	–	–	–	–	–	–	–	–	1	3	2
	F	12	–	–	–	–	–	–	–	2	–	2	8
Congenital Anomalies	M	19	9	4	2	–	–	1	1	1	1	–	–
	F	22	10	6	2	1	1	–	1	1	–	–	–
Birth Injury, Difficult Labour, etc.	M	27	27	–	–	–	–	–	–	–	–	–	–
	F	14	14	–	–	–	–	–	–	–	–	–	–
Other Causes of Perinatal Mortality	M	14	13	1	–	–	–	–	–	–	–	–	–
	F	15	14	1	–	–	–	–	–	–	–	–	–
Symptoms and Ill-defined Conditions	M	19	–	–	–	–	–	–	–	–	–	–	19
	F	35	–	–	–	–	–	–	–	–	–	1	34
Motor Vehicle Accidents	M	43	–	–	2	4	13	4	4	3	5	1	7
	F	12	–	–	1	2	2	2	1	–	1	2	1
All other Accidents	M	44	–	4	2	3	2	4	1	8	4	8	8
	F	34	–	2	6	1	–	–	–	1	3	6	15
Suicide and Self-inflicted Injuries	M	15	–	–	–	–	–	1	4	3	2	4	1
	F	6	–	–	–	–	2	–	–	2	1	1	–
All other External Causes	M	4	–	1	–	–	–	1	–	1	1	–	–
	F	5	–	–	–	–	–	–	–	–	4	1	–
Total – All Causes	M	2,334	55	28	11	17	28	25	65	203	480	723	699
	F	1,963	41	21	17	8	17	14	51	100	261	447	986

Causes of Death at Different Periods of Life during 1969 in the Administrative County of Staffordshire.

Aggregate of Rural Districts.

Cause of Death	Sex	All Ages	Under 4 weeks	4 weeks and under 1 year	Age in Years 1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75 and over
Enteritis and other Diarrhoeal Diseases	M	–	–	–	–	–	–	–	–	–	–	–	–
	F	1	–	–	1	–	–	–	–	–	–	–	–
Tuberculosis of Respiratory System	M	3	–	–	–	–	–	–	–	–	–	2	1
	F	1	–	–	–	–	–	–	–	–	–	–	1
Other Tuberculosis, including late effects	M	2	–	–	–	–	–	–	–	1	–	1	–
	F	–	–	–	–	–	–	–	–	–	–	–	–
Syphilis and its Sequelae	M	1	–	–	–	–	–	–	–	–	–	–	1
	F	–	–	–	–	–	–	–	–	–	–	–	–
Other Infective and Parasitic Diseases	M	6	–	–	1	–	–	–	1	1	1	–	2
	F	5	–	–	–	1	–	–	–	2	–	1	1
Malignant Neoplasm, Buccal Cavity, etc.	M	9	–	–	–	–	–	–	–	2	–	5	2
	F	6	–	–	–	–	–	–	1	–	–	2	3
Malignant Neoplasm, Oesophagus	M	7	–	–	–	–	–	–	–	1	2	1	3
	F	8	–	–	–	–	–	–	–	2	1	2	3
Malignant Neoplasm, Stomach	M	33	–	–	–	–	–	1	1	3	9	16	3
	F	19	–	–	–	–	–	–	1	–	4	4	10
Malignant Neoplasm, Intestine	M	32	–	–	–	–	–	1	1	1	7	12	10
	F	36	–	–	–	–	–	–	1	1	8	15	11
Malignant Neoplasm, Larynx	M	4	–	–	–	–	–	–	–	1	1	–	2
	F	–	–	–	–	–	–	–	–	–	–	–	–
Malignant Neoplasm, Lung, Bronchus	M	103	–	–	–	–	–	–	6	13	43	29	12
	F	12	–	–	–	–	–	–	1	1	4	5	1
Malignant Neoplasm, Breast	M	1	–	–	–	–	–	–	–	–	1	–	–
	F	39	–	–	–	–	–	–	1	4	15	8	11
Malignant Neoplasm, Uterus	F	20	–	–	–	–	–	1	–	5	5	6	3
Malignant Neoplasm, Prostate	M	12	–	–	–	–	–	–	–	–	–	4	8
Leukaemia	M	12	–	–	1	1	–	1	2	–	3	–	4
	F	8	–	–	–	1	–	1	1	–	–	3	2

Aggregate of Rural District continued

Cause of Death	Sex	All Ages	Under 4 weeks	4 weeks and under 1 year	Age in Years								
					1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75 and over
Other Malignant Neoplasms	M	65	–	–	1	4	2	1	8	9	19	13	8
	F	69	–	–	1	–	–	1	2	8	13	24	20
Benign and Unspecified Neoplasms	M	3	–	–	–	–	–	1	–	–	1	1	–
	F	4	–	–	–	–	–	1	1	1	1	–	–
Diabetes Mellitus	M	8	–	–	–	–	–	1	1	1	1	1	3
	F	17	–	–	–	–	–	–	–	–	2	5	10
Other Endocrine etc. Diseases	M	5	1	–	1	1	–	–	–	–	1	1	–
	F	8	–	–	–	1	–	–	–	1	1	4	1
Anaemias	M	3	–	–	–	–	–	–	–	–	–	1	2
	F	4	–	–	–	–	–	–	–	–	–	–	4
Other Diseases of Blood, etc.	M	1	–	–	1	–	–	–	–	–	–	–	–
	F	1	–	–	–	–	–	–	–	1	–	–	–
Mental Disorders	M	4	–	–	–	–	–	–	–	–	1	–	3
	F	5	–	1	–	–	–	–	–	–	1	1	2
Meningitis	M	1	–	–	1	–	–	–	–	–	–	–	–
	F	–	–	–	–	–	–	–	–	–	–	–	–
Other Diseases of Nervous System, etc.	M	14	–	2	–	1	–	1	2	5	1	–	2
	F	25	–	–	1	1	1	1	5	1	1	8	6
Chronic Rheumatic Heart Disease	M	11	–	–	–	–	–	1	–	1	6	3	–
	F	19	–	–	–	–	–	–	3	2	4	6	4
Hypertensive Disease	M	16	–	–	–	–	–	–	1	3	2	2	8
	F	24	–	–	–	–	–	–	1	2	5	5	11
Ischaemic Heart Disease	M	391	–	–	–	–	1	3	13	36	90	135	113
	F	220	–	–	–	–	–	–	1	4	19	59	137
Other forms of Heart Disease	M	79	–	–	–	–	–	–	1	1	8	20	49
	F	116	–	1	–	–	–	–	–	1	6	24	84
Cerebrovascular Disease	M	179	–	–	–	–	–	–	1	9	30	51	88
	F	216	–	–	–	–	2	–	–	6	12	58	138
Other Diseases of Circulatory System	M	55	–	–	–	–	–	–	–	4	7	15	29
	F	78	–	–	–	–	–	1	–	1	4	14	58
Influenza	M	15	–	–	–	–	–	–	–	1	3	6	5
	F	10	–	–	–	–	1	–	1	1	1	4	2
Pneumonia	M	91	3	4	1	–	–	–	1	8	11	19	44
	F	114	–	3	1	–	–	1	1	4	7	27	70
Bronchitis and Emphysema	M	105	–	–	–	–	–	–	–	5	25	49	26
	F	35	–	–	–	–	–	1	–	1	6	9	18
Asthma	M	–	–	–	–	–	–	–	–	–	–	–	–
	F	10	–	–	–	–	2	1	–	2	1	2	2
Other Diseases of Respiratory System	M	14	–	–	2	–	–	–	–	3	1	4	4
	F	13	–	1	–	–	–	–	–	1	3	–	8
Peptic Ulcer	M	10	–	–	–	–	–	–	–	1	1	3	5
	F	4	–	–	–	–	–	–	–	–	–	1	3
Intestinal Obstruction and Hernia	M	9	2	1	1	–	–	–	–	–	1	2	2
	F	7	–	–	–	–	–	–	–	1	2	3	1
Cirrhosis of Liver	M	2	–	–	–	–	–	–	–	1	1	–	–
	F	2	–	–	–	–	–	–	–	1	1	–	–
Other Diseases of Digestive System	M	6	–	1	–	1	–	–	–	–	1	1	2
	F	11	–	–	–	–	–	–	1	2	3	2	3
Nephritis and Nephrosis	M	8	–	–	–	–	–	2	1	–	3	–	2
	F	3	–	–	–	–	–	–	–	–	1	–	2
Hyperplasia of Prostate	M	9	–	–	–	–	–	–	–	–	–	1	8
Other Diseases, Genito-Urinary System	M	12	–	–	–	–	–	–	–	–	1	7	4
	F	11	–	–	–	–	–	–	–	–	–	3	8
Diseases of Skin, Subcutaneous Tissue	M	–	–	–	–	–	–	–	–	–	–	–	–
	F	4	–	–	–	1	–	–	–	–	1	1	1
Diseases of Musculo-Skeletal System	M	–	–	–	–	–	–	–	–	–	–	–	–
	F	12	–	–	–	–	–	–	–	–	2	4	6
Congenital Anomalies	M	6	3	2	1	–	–	–	–	–	–	–	–
	F	16	6	4	4	–	–	–	–	–	1	1	–
Birth Injury, Difficult Labour, etc.	M	14	14	–	–	–	–	–	–	–	–	–	–
	F	6	6	–	–	–	–	–	–	–	–	–	–
Other Causes of Perinatal Mortality	M	8	8	–	–	–	–	–	–	–	–	–	–
	F	14	14	–	–	–	–	–	–	–	–	–	–
Symptoms and Ill-defined Conditions	M	10	–	–	–	–	–	–	–	–	–	–	10
	F	30	–	–	–	–	–	–	–	–	–	1	29
Motor Vehicle Accidents	M	44	–	–	1	1	12	8	3	10	3	5	1
	F	17	–	–	1	3	4	2	1	–	3	2	1
All other Accidents	M	28	–	4	–	2	1	3	4	1	3	2	8
	F	21	1	5	1	–	1	–	–	1	1	4	7
Suicide and Self-inflicted Injuries	M	13	–	–	–	–	–	1	2	3	1	3	3
	F	3	–	–	–	–	–	–	2	–	1	–	–
All other External Causes	M	2	–	–	–	–	–	1	–	–	–	1	–
	F	2	–	–	–	–	–	1	1	–	–	–	–
Total – All Causes	M	1,466	31	14	12	11	16	26	49	125	289	416	477
	F	1,306	27	15	10	8	11	12	26	57	140	318	682

Table showing Population, Number of Persons per acre, Birth and Death-rates as well as the Death-rates at all ages and among Children under 1 year, and Death rates from certain causes.

URBAN

District	Population at all ages		Number of persons per acre	Crude Live Birth-rate per 1,000 of Population	Adjusted Live Birth-rate by comparability factor	Still-births, Rate per 1,000 total births	Crude death-rate per 1,000 of Population	Adjusted death-rate by comparability factor	Infant Mortality Rate (Deaths under 1 year per 1,000 live births)	Neonatal Mortality Rate (Deaths under 4 weeks per 1,000 live births)	Early Neonatal Mortality Rate (Deaths under 1 week per 1,000 total live births)	Perinatal Mortality Rate (Still-births and deaths under 1 week combined per 1,000 total births)	Death Rate per 1,000 Population						
	Census 1966	Estimated 1969											Ischaemic Heart Disease	Malignant Neoplasm	Bronchitis and Emphysema	Pneumonia	Other Diseases of Respiratory System	Nephritis and Nephrosis	Congenital Anomalies
Aldridge-Brownhills ..	82,780	87,530	6.6	18.6	14.0	10.0	6.7	11.0	14	11	10	21	1.42	1.02	0.39	0.38	0.06	0.01	0.10
Biddulph	16,100	16,770	2.5	19.3	17.8	18.0	9.2	13.2	15	15	12	30	2.50	0.95	0.36	0.12	0.18	0.06	—
Cannock	51,980	54,540	4.9	20.4	19.8	16.0	11.5	13.0	19	10	8	24	2.62	1.45	0.90	1.30	0.18	0.06	0.06
Kidsgrove	21,440	22,580	5.5	19.8	17.8	11.0	9.1	13.8	31	16	16	27	2.57	0.84	0.89	0.18	0.22	0.13	0.31
Leek	19,230	19,180	4.4	16.3	17.9	3.0	15.3	12.5	29	16	13	16	3.60	1.88	0.68	0.94	0.21	0.05	0.21
Lichfield	19,690	22,930	6.4	20.0	18.0	25.0	9.6	9.7	13	13	11	36	1.70	1.22	0.39	0.48	0.26	—	0.09
Newcastle	75,790	76,570	8.6	16.1	15.3	11.0	11.6	14.4	19	14	13	24	2.81	1.68	0.65	0.76	0.21	0.03	0.03
Rugeley	17,240	19,320	6.7	29.1	26.2	7.0	7.8	12.7	23	18	16	23	1.50	0.57	0.67	0.36	0.05	0.10	0.16
Stafford	51,480	54,200	10.7	18.9	18.5	16.0	11.4	11.1	17	9	8	24	3.28	1.24	0.44	0.92	0.17	0.02	0.07
Stone	10,210	10,810	5.5	17.7	18.1	5.0	11.4	9.1	—	—	—	5	3.42	1.02	1.02	0.28	0.28	—	0.19
Tamworth	32,910	37,360	4.9	23.0	21.4	14.0	9.1	10.7	15	7	3	17	2.33	1.18	0.35	0.37	0.03	0.05	0.11
Uttoxeter	8,890	8,980	2.6	14.6	14.3	8.0	10.7	11.0	15	15	8	15	2.23	1.22	0.45	0.56	0.11	—	0.11
Totals and Averages ..	407,740	430,770	5.9	19.2	17.5	13.0	10.0	12.1	18	12	10	23	2.42	1.25	0.57	0.64	0.15	0.04	0.10

RURAL

District	Population at all ages		Mean area per person in acres	Crude Live Birth-rate per 1,000 of Population	Adjusted Live Birth-rate by comparability factor	Still-births, Rate per 1,000 total births	Crude death-rate per 1,000 of Population	Adjusted death-rate by comparability factor	Infant Mortality Rate (Deaths under 1 year per 1,000 live births)	Neonatal Mortality Rate (Deaths under 4 weeks per 1,000 live births)	Early Neonatal Mortality Rate (Deaths under 1 week per 1,000 total live births)	Perinatal Mortality Rate (Still-births and deaths under 1 week combined per 1,000 total births)	Death Rate per 1,000 Population						
	Census 1966	Estimated 1969											Ischaemic Heart Disease	Malignant Neoplasm	Bronchitis and Emphysema	Pneumonia	Other Diseases of Respiratory System	Nephritis and Nephrosis	Congenital Anomalies
Cannock	36,900	42,670	1.3	26.2	22.0	7.0	7.8	11.9	18	13	11	18	1.66	1.01	0.54	0.52	0.09	0.05	0.05
Cheadle	34,670	40,150	1.5	18.3	18.3	7.0	12.1	10.5	16	10	10	16	2.34	1.37	0.50	1.02	0.10	0.15	0.07
Leek	13,160	13,500	5.3	15.3	15.6	10.0	10.7	12.7	10	5	5	14	2.59	1.41	0.37	0.22	—	0.07	0.07
Lichfield	49,900	55,100	1.5	25.0	24.0	14.0	10.4	10.7	17	11	10	24	2.14	1.13	0.54	1.36	0.15	0.02	0.13
Newcastle	18,260	20,260	1.9	13.8	13.2	4.0	10.9	11.8	11	7	7	11	2.71	1.38	0.79	0.49	—	—	0.05
Seisdon	36,540	39,200	1.1	16.7	13.2	14.0	8.3	12.5	17	11	11	24	1.73	1.15	0.46	0.66	0.15	—	0.13
Stafford	19,290	23,220	3.4	17.8	18.5	10.0	7.7	10.2	19	12	12	22	2.07	1.12	0.30	0.13	—	0.04	0.04
Stone	20,630	20,560	3.0	16.6	15.8	9.0	9.2	11.1	3	3	3	12	2.38	1.26	0.39	0.49	0.10	—	—
Tutbury	21,550	24,810	1.3	18.9	20.4	13.0	7.9	10.7	9	6	6	19	1.89	0.93	0.32	0.44	0.12	—	0.04
Uttoxeter	11,020	11,610	4.9	13.3	16.9	25.0	10.6	14.4	19	19	19	44	2.24	1.21	0.43	0.34	—	—	0.09
Totals and Averages ..	261,920	291,080	2.0	19.7	18.7	11.0	9.5	11.3	15	10	10	20	2.10	1.17	0.48	0.70	0.09	0.04	0.08

Deaths occurring during the year 1969 classified according to Diseases and Localities, together with Births occurring during the year.

URBAN

District	Live Births	Still Births	Deaths from all causes	Deaths of Infants			Bacillary Dysentery, Amoebiasis	Enteritis and other Diarrhoeal Diseases	Tuberculosis of Respiratory System	Other Tuberculosis, including late effects	Syphilis and its sequelae	Other Infective and Parasitic Diseases	Malignant Neoplasm								
				Under one year of age	Under four weeks of age	Under one week of age							Buccal Cavity, etc.	Oesophagus	Stomach	Intestine	Larynx	Lung Bronchus	Breast	Uterus	Prostate
Aldridge-Brownhills	1,627	17	583	22	18	17	–	–	4	1	–	2	–	3	14	16	1	38	8	7	2
Biddulph	323	6	155	5	5	4	–	1	–	1	–	–	–	–	2	4	–	8	2	–	–
Cannock	1,113	18	625	21	11	9	–	4	–	1	1	2	3	4	18	17	–	25	7	3	2
Kidsgrove	446	5	206	14	7	7	–	1	1	–	–	–	–	–	4	6	–	8	1	–	–
Leek	313	1	293	9	5	4	–	1	1	–	2	–	–	2	2	11	1	11	5	2	2
Lichfield	459	12	219	6	6	5	–	–	–	–	–	1	1	1	3	9	–	11	2	1	–
Newcastle	1,231	14	890	23	17	16	–	1	6	–	–	2	5	7	23	19	3	45	12	8	7
Rugeley	563	4	151	13	10	9	–	1	–	–	–	–	–	–	2	2	–	6	–	1	–
Stafford	1,023	17	617	17	9	8	–	1	5	1	–	2	2	4	11	14	–	23	8	2	3
Stone	191	1	123	–	–	–	–	–	1	–	–	–	2	1	–	2	–	2	3	–	1
Tamworth	861	12	339	13	6	3	1	1	1	–	–	–	–	–	12	5	–	18	6	1	2
Uttoxeter	131	1	96	2	2	1	–	–	–	–	–	–	–	–	1	2	–	6	1	1	–
Totals	8,281	108	4,297	145	96	83	1	11	19	4	3	9	13	22	92	107	5	201	55	26	19

Deaths occurring during the year 1969 classified according to Disease and Localities together with Births occurring during the year.

URBAN

District	Leukaemia	Other Malignant Neoplasms	Benign and Unspecified Neoplasms	Diabetes Mellitus	Avitaminoses, etc.	Other Endocrine etc. Diseases	Anaemias	Other Diseases of the Blood, etc.	Mental Disorders	Meningitis	Other Diseases of Nervous System, etc.	Chronic Rheumatic Heart Disease	Hypertensive Disease	Ischaemic Heart Disease	Other forms of Heart Disease	Cerebrovascular Disease	Other Diseases of Circulatory System	Influenza	Pneumonia	Bronchitis and Emphysema	Asthma
Aldridge-Brownhills ..	5	29	1	2	–	3	3	–	2	–	8	5	22	124	34	67	28	4	33	34	1
Biddulph	1	8	–	2	–	–	–	–	–	–	–	3	6	42	14	24	3	2	2	6	1
Cannock	5	16	–	5	1	2	3	–	–	–	9	8	6	143	37	73	32	6	71	49	2
Kidsgrove	2	11	2	1	–	–	–	2	–	1	3	3	3	58	2	27	10	–	4	20	–
Leek	1	13	–	1	–	1	–	–	–	–	2	4	11	69	27	44	11	1	18	13	–
Lichfield	1	8	1	1	–	–	–	–	1	–	2	1	4	39	5	30	8	3	11	9	1
Newcastle	9	47	–	6	–	5	–	–	1	–	9	20	12	215	39	148	37	4	58	50	1
Rugeley	3	7	–	3	–	1	–	–	–	–	1	1	6	29	9	21	8	2	7	13	–
Stafford	3	38	1	3	–	–	1	–	1	–	4	11	14	178	18	82	32	5	50	24	4
Stone	–	2	–	1	–	–	1	–	–	–	–	3	2	37	11	21	7	–	3	11	–
Tamworth	1	9	1	3	–	2	1	–	–	–	5	5	12	87	13	41	35	5	14	13	1
Uttoxeter	–	4	1	2	–	1	–	–	–	–	1	3	1	20	7	22	2	1	5	4	2
Totals	31	192	7	30	1	15	9	2	5	1	44	67	99	1,041	216	600	213	33	276	246	13

Deaths occurring during the year 1969 classified according to Disease and Localities together with Births occurring during the year.

URBAN

District	Other Diseases of Respiratory System	Peptic Ulcer	Appendicitis	Intestinal Obstruction and Hernia	Cirrhosis of Liver	Other Diseases of Digestive System	Nephritis and Nephrosis	Hyperplasia of Prostate	Other Diseases, Genito-Urinary System	Other Complications of Pregnancy, etc.	Diseases of Skin, Subcutaneous Tissue	Diseases of Musculo-Skeletal System	Congenital Anomalies	Birth Injury, Difficult Labour, etc.	Other Causes of Perinatal Mortality	Symptoms and Ill-defined Conditions	Motor Vehicle Accidents	All other Accidents	Suicide and Self-inflicted Injuries	All other External Causes
Aldridge-Brownhills	5	4	–	3	6	6	1	2	5	–	1	2	9	6	8	1	11	10	1	1
Biddulph	3	–	1	–	1	1	1	–	3	–	–	1	–	4	–	1	2	3	1	1
Cannock	10	6	–	5	2	3	3	3	4	1	–	1	3	6	1	–	13	5	2	2
Kidsgrove	5	–	–	–	–	7	3	–	1	–	–	–	7	3	1	1	4	2	1	1
Leek	4	2	–	–	2	1	1	1	1	–	–	–	4	3	1	9	–	7	–	1
Lichfield	6	2	–	–	–	2	–	–	1	–	1	3	2	1	4	35	5	–	3	–
Newcastle	16	8	–	3	4	6	2	–	2	–	–	4	2	6	8	1	7	14	6	2
Rugeley	1	–	1	–	–	2	2	1	2	–	–	–	3	6	2	–	1	5	2	–
Stafford	9	7	1	1	3	5	1	2	3	–	–	1	4	5	2	2	1	22	3	–
Stone	3	–	–	–	1	3	–	–	–	–	–	–	2	–	–	–	1	2	–	–
Tamworth	1	1	–	2	–	3	2	2	–	–	–	4	4	1	2	4	7	8	2	1
Uttoxeter	1	–	–	–	–	2	–	–	–	–	–	2	1	–	–	–	3	–	–	–
Totals	64	30	3	14	19	41	16	11	22	1	2	18	41	41	29	54	55	78	21	9

RURAL

District	Live Births	Still Births	Deaths from all causes	Deaths of Infants			Enteritis and other Diarrhoeal Diseases	Tuberculosis of Respiratory System	Other Tuberculosis, including late effects	Syphilis and its sequelae	Other Infective and Parasitic Diseases	Malignant Neoplasm								
				Under one year of age	Under four weeks of age	Under one week of age						Buccal Cavity, etc.	Oesophagus	Stomach	Intestine	Larynx	Lung, Bronchus	Breast	Uterus	Prostate
Cannock	1,117	8	333	20	14	12	–	1	1	–	2	–	1	5	13	1	15	5	3	–
Cheadle	734	5	487	12	7	7	–	1	–	–	2	3	3	9	13	2	17	3	3	2
Leek	207	2	145	2	1	1	–	–	–	–	–	–	1	2	7	–	5	4	–	–
Lichfield	1,377	20	573	23	15	14	1	–	1	1	2	5	4	10	5	–	22	12	2	2
Newcastle	279	1	220	3	2	2	–	1	–	–	–	2	1	3	4	–	10	3	2	3
Seisdon	656	9	326	11	7	7	–	–	–	–	1	–	2	8	6	–	19	3	5	2
Stafford	413	4	179	8	5	5	–	1	–	–	3	2	2	4	8	–	6	2	–	2
Stone	341	3	189	1	1	1	–	–	–	–	–	–	1	6	5	1	9	4	–	–
Tutbury	470	6	197	4	3	3	–	–	–	–	–	3	–	3	4	–	9	2	2	–
Uttoxeter	154	4	123	3	3	3	–	–	–	–	1	–	–	2	3	–	3	2	3	1
Totals	5,748	62	2,772	87	58	55	1	4	2	1	11	15	15	52	68	4	115	40	20	12

RURAL

District	Leukaemia	Other Malignant Neoplasms	Benign and Unspecified Neoplasms	Diabetes Mellitus	Other Endocrine etc. Diseases	Anaemias	Other Diseases of the Blood, etc.	Mental Disorders	Meningitis	Other Diseases of Nervous System, etc.	Chronic Rheumatic Heart Disease	Hypertensive Disease	Ischaemic Heart Disease	Other forms of Heart Disease	Cerebrovascular Disease	Other Diseases of Circulatory System	Influenza	Pneumonia	Bronchitis and Emphysema
Cannock	1	17	2	4	2	1	–	1	–	3	5	8	71	22	46	17	2	22	23
Cheadle	3	20	1	6	4	–	–	1	–	9	5	8	94	47	72	30	2	41	20
Leek	–	5	–	–	–	1	–	1	–	1	1	3	35	15	30	7	2	3	5
Lichfield	5	26	1	3	1	–	–	4	1	8	2	7	118	40	62	23	6	75	30
Newcastle	1	12	–	1	–	–	–	–	–	3	3	4	55	4	31	17	1	10	16
Seisdon	5	15	–	3	3	1	1	–	–	4	5	4	68	13	50	9	2	26	18
Stafford	2	6	1	2	1	1	–	–	–	4	3	1	48	11	23	8	2	3	7
Stone	3	10	–	2	1	2	–	–	–	5	2	3	49	7	30	10	5	10	8
Tutbury	–	14	1	2	1	–	1	2	–	1	2	1	47	20	28	8	2	11	8
Uttoxeter	–	9	1	2	–	1	–	–	–	1	2	1	26	16	23	4	1	4	5
TOTALS	20	134	7	25	13	7	2	9	1	39	30	40	611	195	395	133	25	205	140

RURAL

District	Asthma	Other Diseases of Respiratory System	Peptic Ulcer	Intestinal Obstruction and Hernia	Cirrhosis of Liver	Other Diseases of Digestive System	Nephritis and Nephrosis	Hyperplasia of Prostate	Other Diseases, Genito-Urinary System	Diseases of Skin, Subcutaneous Tissue	Diseases of Musculo-Skeletal System	Congenital Anomalies	Birth Injury, Difficult Labour, etc.	Other causes of Perinatal Mortality	Symptoms and Ill-defined Conditions	Motor Vehicle Accidents	All other Accidents	Suicide and Self-inflicted Injuries	All other External Causes
Cannock	1	4	–	2	–	–	2	1	–	–	–	2	3	8	2	7	6	1	–
Cheadle	1	4	2	–	1	3	6	2	9	–	3	3	1	3	7	8	10	2	1
Leek	–	–	1	3	–	–	1	–	–	–	1	1	1	–	1	5	1	1	1
Lichfield	1	8	2	2	1	2	1	3	6	3	2	7	7	4	15	18	9	3	–
Newcastle	4	–	3	2	–	3	–	–	2	–	2	1	1	1	4	6	4	–	–
Seisdon	–	6	1	3	1	4	–	2	–	–	2	5	3	1	8	6	6	4	1
Stafford	–	–	2	2	–	2	1	–	2	1	2	1	1	3	–	6	3	–	–
Stone	2	2	1	1	–	2	–	–	–	–	–	–	1	–	–	1	3	3	–
Tutbury	1	3	2	1	1	1	–	–	2	–	–	1	–	1	3	3	5	1	–
Uttoxeter	–	–	–	–	–	–	–	1	2	–	–	1	2	1	–	1	2	1	1
Totals	10	27	14	16	4	17	11	9	23	4	12	22	20	22	40	61	49	16	4

Table showing the number of cases of certain Infectious Diseases notified in each sanitary area during the year ended 31st December, 1969, and the Attack-Rates per 1,000 of the population.

URBAN

District	Estimated Population 1969 for calculating rates	Food Poisoning		Typhoid		Scarlet Fever		Whooping Cough		Dysentery		Acute Meningitis		Measles		Ophthalmia Neonatorum		Infective Jaundice		Ac. Encephalitis Infective		Ac. Encephalitis Post-Infectious	
		C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R
Aldridge-Brownhills ..	87,530	11	.13	—	—	143	1.63	4	.05	46	.53	3	.03	152	1.74	—	—	94	1.07	2	.02	—	—
Biddulph ..	16,770	3	.18	—	—	—	—	—	—	2	.12	—	—	2	.12	—	—	13	.78	—	—	—	—
Cannock ..	54,540	—	—	1	.02	8	.15	4	.07	4	.07	—	—	746	13.68	4	.07	16	.29	—	—	—	—
Kidsgrove ..	22,580	6	.27	—	—	2	.09	3	.13	36	1.59	—	—	3	.13	—	—	—	—	—	—	—	—
Leek	19,180	2	.10	—	—	18	.94	—	—	1	.05	—	—	10	.52	—	—	—	—	—	—	—	—
Lichfield ..	22,930	—	—	—	—	4	.17	—	—	—	—	—	—	8	.35	—	—	—	—	—	—	—	—
Newcastle ..	76,570	72	.94	—	—	21	.27	—	—	172	2.25	—	—	130	1.70	1	.01	9	.12	—	—	—	—
Rugeley.. ..	19,320	—	—	—	—	—	—	—	—	3	.16	—	—	19	.98	—	—	3	.16	—	—	—	—
Stafford.. ..	54,200	11	.20	—	—	10	.18	2	.04	6	.11	—	—	269	4.96	—	—	—	—	—	—	—	—
Stone	10,810	4	.37	—	—	—	—	—	—	—	—	—	—	81	7.49	—	—	—	—	—	—	—	—
Tamworth ..	37,360	1	.03	—	—	10	.27	1	.03	2	.05	—	—	5	.13	—	—	—	—	—	—	—	—
Uttoxeter ..	8,980	—	—	—	—	—	—	—	—	—	—	—	—	67	7.46	—	—	14	1.56	—	—	—	—

RURAL

District	Estimated Population 1969 for calculating rates	Food Poisoning		Scarlet Fever		Whooping Cough		Dysentery		Acute Meningitis		Measles		Infective Jaundice		Ac. Encephalitis			
																Infective		Post-Infectious	
		C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R
Cannock	42,670	1	.02	5	.12	2	.05	1	.02	3	.07	137	3.21	6	.14	—	—	—	—
Cheadle	40,150	1	.03	8	.18	—	—	3	.07	—	—	72	1.79	6	.15	—	—	—	—
Leek	13,500	1	.07	3	.22	2	.15	—	—	—	—	6	.44	1	.07	—	—	—	—
Lichfield	55,100	4	.07	4	.07	2	.04	—	—	2	.04	125	2.27	18	.33	—	—	—	—
Newcastle	20,260	2	.10	1	.05	1	.05	—	—	—	—	52	2.57	—	—	—	—	—	—
Seisdon	39,200	1	.03	1	.03	—	—	1	.03	—	—	114	2.91	13	.33	—	—	—	—
Stafford	23,220	10	.43	2	.09	—	—	—	—	—	—	30	1.29	1	.04	—	—	1	.04
Stone	20,560	2	.10	1	.05	—	—	11	.54	—	—	32	1.56	—	—	—	—	—	—
Tutbury	24,810	—	—	2	.08	11	.44	—	—	1	.04	129	5.20	14	.56	—	—	—	—
Uttoxeter	11,610	3	.26	1	.09	1	.09	5	.43	—	—	23	1.98	4	.34	—	—	—	—

SECTION III

LOCAL HEALTH SERVICES

ADAPTATIONS OF HOMES FOR INSTALLATION OF ARTIFICIAL KIDNEY MACHINES

Having regard to the gradually increasing use of artificial kidney machines in patients' homes for the treatment of chronic renal failure, the County Council has made arrangements to provide assistance in the adaptation of homes to enable a machine to be installed.

Hospital Authorities provide and maintain the intermittent haemodialysis (artificial kidney) equipment and provide the relevant medical services. They also pay for the extra cost of electricity and for the installation and rental of a telephone where this is necessary. Hospital Authorities do not, however, have powers to make adaptations to the home, this being the responsibility of the local health authority.

A patient being treated at home needs a room with space for a single bed and the dialysis equipment and a sink with a good supply of water; the walls and ceiling of the room have to be made crack-free and washable. Special storage space for one month's supply of sterile dressing and of containers of concentrated fluids is needed and the premises also require special electrical wiring, plumbing to the sink and waterproof floor covering.

Artificial kidney units are operating at the Queen Elizabeth Hospital, Birmingham, and at the North Staffs. Royal Infirmary. It is estimated that the number of County residents who attend the units, who will be suitable for intermittent haemodialysis in the home, will be about one every two months.

The estimated average cost of the installation of a machine is in the region of £250, although the cost depends on the facilities existing at the patient's home. In appropriate cases, a proportion of the cost may be recovered from the patient, depending upon the person's financial circumstances.

It usually takes 4 to 6 weeks to train patients to use home dialysis equipment and it is desirable that they should be able to transfer to home dialysis as soon as they are ready so that hospitals can plan their intake of new patients. Hospital Authorities have been asked to give local authorities not less than 4 weeks' notice of the intention to treat a patient in his or her own home.

During 1969, 3 cases were assisted with adaptations to their homes.

ADMISSION OF CHRONIC SICK TO HOSPITAL

During the year the number of cases referred by general practitioners was 791, the object being to achieve the best means of using the beds available for the treatment of the chronic sick, and also arranging adequate domiciliary care.

The figures for 1969 are probably not a true reflection of the movement of chronic sick cases since, following the appointment of Geriatrician Consultants by the Hospital Management Committees, a number of cases are referred by the general practitioners direct to the Consultants. No doubt this practice will increase in the future.

In addition, family doctors in the fringe areas of the County arrange for their patients to be admitted to chronic sick hospital accommodation outside the County, and the cases are not notified to the Area Medical Officers.

The following are the general (known) statistics relating to chronic sick cases.

1. Of the total referrals, the following action was taken:—

(a)	Admitted to Chronic Sick Hospital accommodation	339
(b)	Mental Hospitals	7
(c)	Part III Accommodation	11
(d)	General Hospitals	33
(e)	Died prior to admission	82
(f)	Application Cancelled	12
(g)	Temporary stays	23
(h)	Private Nursing Home	1
(i)	Patient refused admission	12
(j)	Transfers to other Hospitals	1
(*k*)	Referred to Bucknall Hospital	1
(*l*)	Referred to Kirk House, Uttoxeter	1
(m)	Admission refused by Hospital (holiday booking only)	1

2. Of the above figures, in 266 cases the County Council Services were of some assistance prior to the various courses of action being taken.

3. Of the total referrals, 287 cases were cared for at home and assistance was given in accordance with the following:—

(a)	Nursing	72
(b)	Domestic Help	55
(c)	Social Welfare	33
(d)	Nursing and Domestic Help	65
(e)	Nursing and Social Welfare	11
(f)	Domestic Help and Social Welfare	25
(g)	Nursing Domestic Help and Social Welfare	26

The care of the chronic sick is hampered by insufficient hospital beds being available throughout the County. This is accentuated during periods when wards or parts of wards have to be closed for repairs and maintenance. Quite often the bed scarcity results in even the most urgent cases having to wait for a vacancy.

AMBULANCE SERVICE

The ambulance stations are situated as follows:

24 *hour stations*	*Sub-stations*
Aldridge	Biddulph
Cannock	Kidsgrove
Cheadle	Rugeley
Leek	Stone
Lichfield	Tamworth
Newcastle	
Stafford	
Uttoxeter	

The building of the County Ambulance Service Headquarters was completed during the year and came into operation on 23rd August, 1969. The headquarters incorporates the County Ambulance Control—replacing three divisional controls that operated from Stafford, Lichfield and Newcastle Ambulance Stations, the Stafford Ambulance Station, the Ambulance Service Training School, the divisional maintenance sections and the County Ambulance Service administrative offices. The new premises serve as the Ambulance Station for the Borough of Stafford and adjacent area , joi ing up with the Cannock, Rugeley and Stone Ambulance Stations to constitute the Central Division of the County Ambulance Service. This station in the County Town is the last one to be replaced of all the original stations and the opportunity has been taken to incorporate all the features found to be the best in other stations.

The advances in radio and telex communications have made it possible to have one central control which enables the Ambulance Service fleet and crews to be more easily diverted when the need arises and according to demand in any part of the County, especially in the case of multiple crashes and emergencies. The changes have also achieved an increased efficiency in the Service as a whole. The introduction of the new system was however associated with some difficulty in the operation of the County Control, due mainly to faults on telephone and radio services plus some inexperience of the officers and staff in the control room. However after a short period these troubles were overcome and the control is functioning as planned and is proving to be a very efficient unit of the County Ambulance Service.

The changes in the control of the Service has meant major changes in the staffing of the 24 hour stations at Newcastle, Lichfield and Stafford as the supervisory staff at these stations, prior to the change over, were employed on control duties and following the establishment of the new County Control had to be redeployed.

The Stafford Ambulance Station, maintenance section, Training School and the Administrative Section are operating satisfactorily in the new headquarters, all members of the staff being extremely pleased with the facilities provided.

The training of Ambulance staff has continued throughout the year, following the Department of Health and Social Security recommended courses for Ambulance Personnel.

Vehicle replacements have taken place in accordance with the County policy of replacing vehicles every five years. Major change in vehicle policy being the introduction of chassis incorporating automatic transmission which should prove beneficial to fleet maintenance. During 1969 19 vehicles have been replaced by Ford chassis with Lomas bodies, some of which have been built in all fibre glass as an experiment in ambulance body building with the view to improving the standard of the vehicles in service.

The vehicle maintenance is carried out by County Ambulance Service mechanics in the Service's own workshops situated at County Ambulance Stations.

Mileage, Patients Carried, Vehicles, Etc.

The table below gives the mileage and number of patients carried by each ambulance station during 1969, together with the establishment of personnel and vehicles as at the 31st December, 1969.

Station	Hours Open	Personnel	Vehicles		Ambulances		Sitting Cars	
			Ambs.	Cars	Mileage	Patients	Mileage	Patients
Aldridge	24	25	4	6	72,429	9,230	86,593	12,808
Biddulph	16	6	1	2	25,380	3,261	35,823	7,663
Cannock	24	28	4	5	122,795	11,973	116,044	15,594
Cheadle	24	22	3	6	61,511	7,283	87,812	14,153
Kidsgrove	16	6	2	1	32,517	6,644	19,162	4,931
Leek	24	25	4	4	64,789	6,582	81,902	12,350
Lichfield	24	26	5	5	95,477	13,050	66,349	10,555
Newcastle	24	29	5	5	73,785	12,413	86,095	18,184
Rugeley	16	7	2	1	64,614	8,121	29,016	3,939
Stafford	24	29	5	4	102,101	11,874	72,825	9,618
Stone	16	6	1	2	35,802	3,886	49,865	6,016
Tamworth	16	11	2	2	53,726	9,881	53,396	5,846
Uttoxeter	24	24	3	4	65,208	6,090	90,477	9,109
County Control ..	24	24	–	–	—	—	—	—
Total	—	268	41	47‡	870,134	110,288	875,359	130,766

‡ Includes 4 retained for training purposes.

The analysis of the types of patients carried is given below:—

Maternity ..	4,450
Illness	228,535
Accidents ..	7,467
Infectious ..	230
Mental	372

The following is a comparison of the number of Stations, personnel, vehicles, patients carried and mileage at the 31st December, 1969 with the number at 31st December, 1968:

	31/12/68	31/12/69
24 hour Stations	8	8
Sub-Stations	5	5
Ambulances	41	41
Sitting Cars	43	47
Personnel	259	268
Patients carried	237,467	241,054
Mileage	1,694,006	1,745,493
Average miles per patient carried	7.13	7.24

Agency Service

The following table shows the mileage run and patients carried by the Hospital Car Service in the Stafford and Lichfield Areas:

Month	*Stafford*		*Lichfield*	
	Mileage	*Patients carried*	*Mileage*	*Patients carried*
January	3,126	46	1,895	64
February	1,763	32	1,663	55
March	3,587	46	1,370	42
April	3,854	62	970	49

AGENCY SERVICE—continued.

Month	*Stafford*		*Lichfield*	
	Mileage	*Patients carried*	*Mileage*	*Patients carried*
May	3,770	67	2,318	66
June	3,381	48	1,550	37
July	3,894	51	700	36
August	2,884	40	1,110	13
September	2,984	42	1,034	10
October	3,629	46	1,203	9
November	4,541	54	741	10
December	2,186	34	1,525	23
	39,599	568	16,079	414

ATTENDANCES AT CLINICS

INFANT WELFARE CENTRES

At the end of the year there were 102 Welfare Centres in operation of which 29 are purpose-built, 10 adapted and 63 occupied on a sessional basis.

The following are particulars of the number of sessions and attendances made during the year:—

No. of sessions	6,074
No. of children who attended during the year and who were born in:—	
1969	11,012
1968	5,973
1964-67	6,544
Total	23,529
No. of attendances during the year made by children who at the date of attending were:–	
Under 1 year	91,698
1 but under 2	77,065
2 but under 5	54,421
Total	223,184

ANTE-NATAL AND POST-NATAL CLINICS

1,501 sessions were held during the year as follows:—

Medical Officers	235
Midwives	1,141
General Practioners employed on a sessional basis	74
Hospital Medical Staff	51

The following are the numbers of expectant mothers and attendances made by them during the year at the Ante-Natal Clinics:—

No. of expectant mothers attending	4,982
Total number of attendances	11,730

30 persons attended the Post-Natal Clinics.

Where treatment is required, the patient is referred, other than for unsatisfactory dental conditions, to her own doctor. Dental treatment can be given under the County Council Scheme and the patients are offered the facilities locally available.

MOTHERCRAFT AND RELAXATION CLASSES

Number of women who attended during the year	(a) Institutional booked	1,836
	(b) Domiciliary booked	598
	(c) Total	2,434
Total number of attendances during the year ..		11,179

TODDLERS CLINICS

Number of clinics held during the year	225
Number of children who attended	2,180

HEARING TESTS FOR YOUNG CHILDREN

(a) Number of children screen tested	6,178
(i) at clinic	4,603
(ii) at home	1,575
(b) Number of children who failed	82

All children who fail the test are re-tested at a later date. Those who still do not pass the test are referred for appropriate treatment to their General Practitioner or to Specialists.

CHILDREN AT RISK

During the year 1969, 138 children were notified as suffering from some form of Congenital Abnormality and these cases were reported to the Registrar General. The Health Department is notified of all children to be placed on the At Risk Register, although extra details such as the age of the parents, drugs taken during pregnancy, and previous births are required in the case of Congenital Abnormalities. In the majority of cases these details reach the office very quickly and on several occasions children have been entered on the register only to be removed soon after as they did not live more than a few hours. Details of such cases are still required by the Registrar General. In 1969, 1,709 new cases were added to the At Risk Register and 1,009 cases were removed. The School Health and Mental Health Sections are notified of the existence of children with serious defects at the age of two years and of their progress at their six monthly reviews or when information is received from Consultants. This enables appropriate provision to be made for their long term care.

WELFARE OF BLIND AND PARTIALLY SIGHTED PERSONS

The County Welfare Officer of this Authority has kindly provided the following information with regard to the welfare of blind and partially sighted persons in the administrative County.

The number of registered blind people living in the County has decreased by 7 from the 1968 figure.

Blind and Partially Sighted Register

Numbers Registered as Blind at 31st December, 1969	Male	408
	Female	622
	Total	1,030
Numbers Registered as Partially Sighted at 31st December, 1969	Male	109
	Female	159
	Total	268
Number on Partially Sighted Register (under 16 years of age)	Male	16
	Female	12
	Total	28

Age Periods of Registered Blind

Age	*Numbers*
Below 1	0
1	3
2	2
3	1
4	2
5–10	17
11–15	13
16–20	10
21–29	26
30–39	34
40–49	65
50–59	94
60–64	88
65–69	98
70–79	247
80–84	139
85–89	116
90 and over	75
	1,030

Age at Onset of Blindness

Age	*Numbers*
Under 1	98
1	8
2	—
3	2
4	—
5–10	35
11–15	16
16–20	27
21–29	37
30–39	63
40–49	77
50–59	118
60–64	73
65–69	89
70–79	216
80–84	94
85–89	52
90 and over	14
Unknown	11
	1,030

Employed in Workshops .. 23 Employed Otherwise .. 77

In approved Home Workers' Schemes .. 11

Under Training .. .. 4 Children under 16 .. 38

Unemployable	861
Not available	115
Not capable	81
Over 65	665

Follow-up of Registered Blind and Partially sighted Persons

	Cause of Disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
(i) Number of cases registered during the year in respect of which Section F of Forms B.D.8 recommends:—	39	27	—	98
(*a*) No Treatment	12	6	—	56
(*b*) Treatment	27	21	—	42
(ii) Number of cases at (i) (*b*) above which on follow-up action have received treatment	15	16	—	35

Blind and Partially Sighted persons included in the "Others" column.

Retinopathy	11
Keratitis	5
Myopia	5
Detached Retina	1
Corneal Scarring	1
Macular Degeneration	33
Choroidal Degeneration	1
Optic Atrophy	8
Retino-Blastoma	1
Coloboma of Iris	1
Temporal Arteritis	1
Chorio-Retinal Degeneration	1
Congenital Nystagmus	1
Retinitis Pigmentosa	1
Retrobular Neuritis	1
Myopic Chorio Retinitis	1
Central Retinal Degeneration	3
Keratoconus	1
Malignant Melanoma of choroid	1
Macular Dystrophy	4
Hemaniopia	1
Choroiditis	1
Occlusion	1
Amblyopia	1
Maculopathy	3
Choroidal Sclerosis	2
Congenital Defect	1
Choroidal Atrophy	2
Aniridia	1
Arteriosclerosis	1
Aphakia	1
Corneal Degeneration	1
TOTAL	98

PARTICULARS OF REGISTERED BLIND AND PARTIALLY SIGHTED PERSONS WHO WERE RECOMMENDED TREATMENT DURING 1969 BUT DID NOT RECEIVE SUCH TREATMENT

AGE	CAUSE OF DISABILITY			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
0 – 15	1	–	–	–
16 – 29	–	–	–	–
30 – 49	–	–	–	1
50 – 64	1	–	–	2
65+	10	5	–	4

The County Welfare Department of this Authority is responsible for the welfare of blind persons. Where the department does not provide services, direct arrangements exist with registered voluntary organisations for the provision of these services.

A wide range of welfare services is provided for blind persons including social activities, instruction in handicrafts and in methods of overcoming their disability, holidays, outings and teaching to read embossed literature.

Where possible, attempts are made to assist in placing registered blind persons in open employment or in sheltered workshops or as home workers. In addition, instruction is provided in pastime occupations in the homes of blind people and in social and handicraft centres.

All registered blind and partially sighted people are visited regularly by the Home Teachers of the County Welfare Department to see what help can be given and to ensure they obtain all assistance to which they are entitled from the Social Services.

BUILDING PROGRAMME FOR HEALTH CENTRES AND CHILD HEALTH CLINICS

It is with regret that I have to report that no purpose-built premises were completed during 1969.

Tamworth Health Centre which opened in December, 1968 for local health authority services became fully operational early in 1969 and eight general practitioners, comprising two practices, commenced working from this Centre. In addition, three hospital consultants covering obstetrics, pathology and psychiatry attended regularly.

Future Programme

Although a very comprehensive forward three year planning programme comprising fourteen Health Centres and nine Child Health Clinics has been approved by the County Council very little progress towards realisation can be reported.

In spite of a considerable amount of ground work in the preparation of scheme submissions, discussions with general practitioners and others concerned with proposals for Health Centres, the only building work which commenced during the year was the Penkridge Health Centre which will be completed early in 1970.

An improvement in this situation, however, can be expected in 1970 when it is anticipated that work will commence on Health Centres for Great Wyrley, Burntwood, Silverdale (in the area administered by the delegated health authority of Newcastle-under-Lyme), Kidsgrove and Lichfield North.

Adapted Premises

Temporary clinic facilities were provided in a house rented from the Borough Council in the Belgrave area of Tamworth. The intention was to meet the needs of a rapidly growing overspill population coming in from Birmingham and as an interim provision pending the establishment of a purpose-built Health Centre in the area which is included in the current capital building programme.

HIRED PREMISES

During the year members of the staff continued the policy of seeking suitable accommodation for hiring on a sessional basis for clinic functions. Some premises are not altogether suitable for the purpose, but are preferable to having no facilities for a particular locality.

Where premises are not favourable, continued efforts are made to persuade the landlords to carry out improvements.

Requests for clinics to be established in certain parts of the County continue to be received and these were investigated and action taken in accordance with the merits of each request.

The following lists the hired premises opened and closed during 1969.

OPENED:

Chasetown Mining College
Social Services Centre, Walsall Wood (in the area administered by the Aldridge—Brownhills Delegated Health Authority)

CLOSED:

Wallsall Wood Methodist Church (in the area administered by by the Aldridge—Brownhills Delegated Health Authority)

The total number of premises (all types) in which sessions are held (102) shows an increase of two compared with 1968.

CARE OF UNMARRIED MOTHERS AND THEIR CHILDREN

This service is provided throughout the Administrative County and surrounding authorities by the Lichfield Diocesan Association for Moral Welfare Work and during the financial year 1969-70 the County Council's grant to the Association was £6,108.

The following is an extract from the report of the Organising Secretary on the care of illegitimate children for the year 1969 in the Administrative County.

"243 cases in which illegitimate births occurred in 1969 have been dealt with by the caseworkers of the Association and these are reported on below. In addition 87 cases in which births occurred prior to 1969 have been dealt with according to their various needs, including the placing of babies for adoption, taking Affiliation proceedings, finding accommodation etc. 61 expectant mothers whose babies were due to be born in 1970 had the necessary arrangements made for their confinements. This means a total of 391 cases were under care in 1969.

50 mothers were accommodated in Diocesan Homes, 188 went into hospital for their confinements, 3 remained in their own homes and 2 were accommodated in Homes outside the Diocese. 38 of the cases concerned married women who gave birth to illegitimate children, 17 were divorced, 14 were living apart from their husbands, 2 were legally separated and 5 were reconciled to their husbands after their babies had been placed for adoption.

Efforts were made as far as possible to trace the putative fathers with the result that 23 Affiliation Orders were made and 18 private agreements signed with the payments in most cases being made through the Caseworker and in 2 instances grants were made by voluntary societies, the caseworker acting as intermediary.

19 girls have married, 18 to the putative fathers.

The ages of the mothers ranged from 14 to 47 and are listed as follows (figures in brackets show 1968 ages):—

aged 13—0 (1) aged 14—2 (6) aged 15—9 (11) aged 16—25 (19) aged 17—31 (44) aged 18—38 (30) aged 19—37 (40) aged 20—24 (29) aged 21—14 (32) aged 22/27—42 (53) aged 28/34—10 (17) aged 35/40—8 (8) aged 40/47—3 (1).

The ages of the putative fathers ranged between 15 and 43.

The babies were placed as follows:

111 with mothers at home
18 with parents married
2 with mother in residential post
2 with mothers in Mother and Baby Homes
8 with parents co-habiting
12 with foster parents
2 in Local Authority homes
1 in voluntary children's homes
57 adopted through association
1 adopted through alternative society
6 adopted privately
13 transferred to another caseworker
6 died
3 miscarriages
1 abortion

1,192 visits and interviews have been paid in connection with the 391 cases under care. In addition the homes of 209 prospective adopters have been visited and reported on and 130 babies visited after they have been placed for adoptions, girls conveyed to Homes and accompanied when they have had to appear in Court or to have their signatures witnessed when consenting to an Adoption Order being made."

CERVICAL CYTOLOGY

The County Council's Cervical Cytology Service commenced in May, 1966 and the number of women who had been examined by the end of 1969 was 15,309. During the year 4,847 were examined and of these 3,426 attended for the first time and 1,421 were retest cases. As mentioned in last year's report, all recalls are now made by means of the County Council computer which produces a monthly list of patients due for another examination. A two part letter is then sent out asking the patient to complete and return it in order that an appointment can be made at the appropriate time for her. Unfortunately, despite reminders being sent, some women do not return their forms and this may be due to the assumption that only one test in a lifetime is necessary. Advertising literature is distributed throughout the County and advertisement of sessions are made in the local press in order to reach as wide a section of the community as possible. It is hoped that the domiciliary service which has been planned will commence in 1970.

One other pleasing factor which has been noted from the figures supplied by the Registrar General is the steady reduction in the number of deaths from cancer of the breast and uterus and this is commented upon in an earlier section of the report dealing with cancer.

During the year clinics were opened at Lichfield and Tamworth and the monthly clinic at Kinver also recommenced.

The following is the list of clinics which were in operation at the end of the year.

Cheadle
Leek
Kidsgrove
Stone
Stafford
Uttoxeter
Rugeley
Cannock
Hednesford
Chase Terrace
Codsall
Wombourne
Lichfield
Tamworth
Kinver

CHIROPODY SERVICE

The year 1969 was an unsettled and sometimes difficult one for the Chiropody Service. During the first quarter of the year the Service was operating at half strength, due to financial restrictions. Complete reorganisation of Chiropodists programmes of work enabled the Service to meet these temporary difficulties until a gradual expansion could take place in the new financial year.

As from 1st April periods of waiting between treatments were gradually reduced and an accumulation of work was absorbed. By the addition in the Autumn of 2 whole time chiropodists and one part-time chiropodist, the position had greatly improved.

Nurses assisted in the treatment of school children who were suffering from verrucae. This valuable assistance helped to contain the incidence of the infection during a difficult period. Although every effort was made to control the spread of verrucae by school inspections and early treatment of diagnosed cases, time and staff were insufficient to deal adequately with this recurring problem. The spread of infection can only be controlled by a constant programme of school inspection and immediate follow up treatments and more time will have to be given to the treatment of school children if this problem is to be contained. There are not enough chiropodists to deal with heavy demands for treatment and the main consideration must be the treatment of aged and physically handicapped.

The demand for treatment for aged persons was steady throughout the year. This is a Service which is much appreciated by the patients and there is little doubt that their mobility is improved because of the foot care they receive. Increasing age and rheumatoid conditions prevent an ever growing number of patients from attending clinics and swell the demand for domiciliary care. Wherever possible, domiciliary patients are encouraged to attend at clinics if their physical condition improves and foot care has resulted in greater mobility.

Towards the end of the year consideration was given to the provision of an Appliance Centre, in Stafford. Appliances should enable many elderly people to wait for longer periods between treatments, but the main object is the provision of corrective treatment for school children. It is hoped that foot deformities can be corrected in the early stages and so prevent serious trouble in later life. Chiropodists already do much to advise parents on foot care and correct footwear for their children. Films with appropriate commentary on foot health and hygiene were included on the programmes of Health Education Officers.

The number of patients on the register and receiving treatment at the end of 1969 was 9,041. Treatment figures were as follows:—

At Clinics	*Domiciliary*	
19,433	12,149	
Old Peoples Homes	*Surgeries*	*Schoolchildren*
252	409	12,841

The number of chiropodists employed and sessions worked were as follows:—

	Whole time Chiropodists	*Part time Chiropodists*	*Weekly sessions worked*
Administrative County . .	7	14	126
Newcastle Borough . .	1	Nil	10
Aldridge/Brownhills . .	1	Nil	10
			146

This left a vacancy of 0.4 on the establishment of 15 whole time chiropodists.

During the year, one whole time chiropodist left the Service, one part-time and two whole time chiropodists were appointed and one part-time chiropodist was appointed to a whole time post. One part-time chiropodist resigned.

Continuity of the Service was handicapped by temporary shortage of staff and frequent reallocation of work, but a good recovery was made before the close of the year.

CO-ORDINATION AND CO-OPERATION OF HEALTH DEPARTMENT DOMICILIARY STAFF WITH THE HOSPITAL AND FAMILY DOCTOR SERVICE

Although shortage of Health Visitors has delayed the progress of attachment to General Practitioners, it has been possible to attach staff in the Rugeley Area and plans are well advanced for extending this facility to other Areas. The attachments in Newcastle Borough Delegated Authority continued as before.

Dr. W. D. H. McFarland, Area Medical Officer for Stafford, continues his duties as an Honorary Member of the Staff of the Staffordshire General Infirmary and acts as liaison officer between the hospital and domiciliary services.

County Midwives continue to deliver some of their patients in the Victoria Hospital, Lichfield, and to attend them after discharge to their own homes. District Nurses in Rugeley have been attached to the General Practitioners.

Co-operation between nursing staff of all categories and the General Practitioners is good and it is hoped that as more attachment schemes are introduced it will become still more profitable for the patients and more rewarding for the staff.

CO-ORDINATING COMMITTEES — FAMILY WELFARE TO PREVENT CHILD NEGLECT OR ILL TREATMENT

The Medical Officers to Area Health Committees act as Co-ordinating Officers on behalf of the County Medical Officer. The County Children's Officer also shares the responsibility of Co-ordinating Committees in providing secretarial service.

The periodic meetings in all parts of the County are attended by social workers employed by the Authority, health visitors, representatives of the Probation Service, Housing Department, the Department of Health and Social Security, N.S.P.C.C. and other Voluntary Organisations. In addition student social workers attend the meetings and this provides them with valuable contact with other social workers and a sound insight into the wide field of social work. At the Co-ordinating Committee meetings, selective cases are discussed by representatives of the various Departments and Agencies present with a view to ascertaining the needs of the family and how these needs can be met, with a view to the case being referred to and dealt with by the most suitable Department or Agency. One of the important functions of these meetings is to enable members to get to know each other and to discuss common problems. This has greatly improved liaison between officials and has helped towards a greater awareness and understanding of the work and problems of the various Social Agencies, which is so necessary in dealing with needy families and enables families at risk to be given advice and help in the early stages of their difficulties.

The work of the Committees continue to make a valuable contribution to the efforts of the statutory and voluntary social workers involved in providing advice, support and assistance to the less adequate and needy families in the County.

It is encouraging to note that the majority of families discussed, although sometimes difficult to help, are kept together and enabled to function at a reasonable level.

In many instances intense casework is involved and this is shared between the local authority Departments concerned with social work and also the N.S.P.C.C. Quite often families with acute problems tend to approach several agencies for help and this can lead to overlapping, but efforts are being made to overcome this difficulty. There is a great deal of co-operation from various Departments of the District Councils and also the Department of Health and Social Security who inevitably become involved with families in need.

The use of small informal meetings of officers to discuss specific families has been considerably extended during the past year. This type of meeting has proved invaluable, particularly in respect of families requiring intensive case-work, and in times of emergency. Quarterly Co-ordinating Committees tend to be too large and formal for discussion in depth of the more intractable problems.

During the year 225 families were considered, 61 new cases being added and 10 cases restored to the register. Sixty cases were removed from the register, of these 11 had removed from the County and 20 were felt to be either satisfactorily concluded or were cases for whom little more could be achieved by discussion, such as where the need is basically one for rehousing in due course.

Every effort is made to observe strict confidence when discussions take place.

DAY NURSERIES

The County Council operate two Day Nurseries, at Stafford and Newcastle-under-Lyme, as follows:—

Stafford Day Nursery — Riverside, Stafford

The Stafford Nursery is administered from day to day by the Medical Officer to the Stafford Area Health Committee, and the following report has been provided by the Medical Officer:—

"It is pleasing to report that the new Stafford Day Nursery was completed and occupied by 50 children on 29th September, 1969. The building was officially opened on January 28th 1970 by Councillor R. F. Wright, Vice-Chairman of the County Health Committee.

The changed environment is a challenge to any group of nursery staff to try new and modern ideas and achieve a high standard, not only in the care of children, but in the training of nursery students.

New Opportunities for Play

Woodwork: Quite small children are gaining much encouragement from sawing and hammering, an asset in the nursery, for it offers educational value. The tools are made for the job. There is nothing more frustrating for a child to be given a toy hammer or an imitation saw. Careful supervision means safe and constructional play, and all that is required include hammers, pincers, off-cuts of soft wood, workbench with vice, and a large assortment of nails.

Gardening: Facilities are available for children to have their own garden plot, and this should prove to be an interesting feature later in the year. There is opportunity for adventure, and a good selection of climbing equipment.

Recreation: The nearby swings, roundabouts and paddling pools are a great attraction. The adjacent field provides adequate room for a rough and tumble game of football.

The nursery continues to provide accommodation for children whose mothers are without support of a husband and are in full-time employment, or because of illness.

Consideration has been given to include the following families:—

The unmarried mother
Separated parents
Divorced parents
Widows and widowers
Confinement cases
Hospital cases

At the present time there are only four children who are considered 'non-priority' cases three of whom will shortly be leaving for school.

As it is anticipated in the very near future all the children in the Day Nursery will be in the priority class, the prospects of others gaining admission (and there are some 84 on the waiting list) is extremely remote.

In 1969 all students were successful in gaining the N.N.E.B. certificate."

NEWCASTLE DAY NURSERY (LIVERPOOL ROAD, CROSS HEATH)

The Nursery is administered by the Medical Officer to the Borough of Newcastle-under-Lyme (Delegated Authority) and the following report has been provided by the Medical Officer:—

The nursery is situated at Liverpool Road, Cross Heath and provides 40 places. It is staffed by a Matron, Deputy Matron, two nursery nurses, one warden, a domestic staff of three and six students. The students obtain practical experience at the Nursery and attend part-time for theoretical training at the Nursery Training Centre at the Newcastle College of Further Education.

Children are admitted to the nursery on a waiting list basis with priority admission for urgent cases. A priority case might be where the mother is forced by circumstances to take employment, possibly because she is unmarried or widowed; where the home conditions are unsatisfactory; where the mother is unable to take full care of the child owing to illness; where the child is handicapped.

During the year the number of priority cases attending was 16 and on the basis of attendance of 31.0, 15 were attributed to non-priority cases. On these percentages slightly more than half of the children admitted are priority cases and slightly less than half from the other groups. There were no priority cases awaiting admission at the end of 1969.

In April/May, 1969 there were 22 cases of german measles amongst children at the nursery and in July one case of measles occurred. Mumps appeared in 20 children during the November/December period and throughout the year there were several children excluded with symptoms of vomiting and diarrhoea, but specimens submitted to the laboratory proved to be negative.

Despite the occurrence of these illnesses the average attendance of children in 1969 was 31.0 an improvement on the 1968 figure of 30.1. In the 0—2 age group the increase was 9.1 to 10.9 but in the 2—5 age group there was a slight reduction from 21.0 in 1968 to 20.1 last year.

Matron reports that apart from the absences due to illness which have already been reported upon, regular attendances have not been so erratic under the system of paying fees in advance and there have been no arrears

of payments. There were no complaints when the standard charge was increased and no child left the nursery as a result of the increase. The system whereby parents pay 50% of the charge when on holiday up to a period of eight weeks in any year has been welcomed.

The establishment was closed for two weeks in June to coincide with the local holiday weeks. This is felt to be an advantage from the point of view of maintenance and from the view point of users and it facilitates Matron's difficulties in allocating annual leave to members of the staff."

The following are some general statistics relating to Day Nurseries:—

	No. of approved places	*Average Daily Attendance*	*No. of children on register at end of year*	*No. of priority children on waiting list at end of year*
Stafford ..	50	39.3	50	Nil
Newcastle..	40	30.3	42	Nil

COUNTY DAY NURSERIES—STANDARD CHARGE

The standard charge for the Day Nursery accommodation is reviewed annually.

Ministry of Health Circular 23/52 authorises local authorities to make charges for the accommodation of children in Day Nurseries provided that the charges to be made should be determined as follows:—

(*a*) The standard (maximum) charge per day should be fixed; this charge not to exceed the actual cost per place day of the Day Nursery service, including a fair apportionment of central administrative costs, and

(*b*) the charge actually to be made in each case within the limits of the standard charge should be determined having regard to the means of the person concerned.

The standard charge for the service is fixed from time to time by the County Council having regard to the recommendations of the Health Committee. Assessment Scale "B" is used to determine in each case the actual charge to be made, although special consideration is given to assessments which would involve hardship to the person conerned so that appropriate reductions can be made in these cases.

During the year 1968-69 (financial), 164 children were accommodated in the County Council's two Day Nurseries. Of these, 71 cases were assessed to pay the standard charge, 48 paid a reduced charge and 45 were accommodated free.

Details are given overleaf of the net maintenance expenditure at the two Nurseries for 1968-69 and the total expenditure after adding 10%

of the net expenditure to cover the cost of central and area administration. This total expenditure is then expressed as a cost per place day.

	Newcastle Nursery	*Stafford Nursery*
	£	£
Net Maintenance Expenditure	10,505	11,975
Central and Area Administration ..	1,050	1,197
Total Expenditure	£11,555	£13,172
No. of places	40	50
No. of days upon which open	251	246
No. of Place Days	10,040	12,300
Cost per Place Day, 1968-69	23s. 0d.	21s. 5d.
Average Cost per Place Day	22s. 2d.	

On this basis the average daily cost per place available in the Day Nurseries during the 1968-69 period was 22s. 2d. compared with 21s. 7d. for the previous financial year.

The standard charge during 1968/69 for the service was 13/- per full day and 5s. 6d. per half day plus 2/- for lunch. These figures were approved in November, 1967.

Having regard to the above details of expenditure during the year 1968-69, the Health Committee at their autumn meeting 1969 decided that the standard charge be increased to 14/- per day (i.e. 6/- per half-day and 2/- for lunch) with effect from the 5th January, 1970.

Nurseries and Child Minders Regulation Act, 1948 as amended by the Health Services and Public Health Act, 1968

The 1st November, 1968 brought amended legislation to this growing service so this was the first year of the working of the revised Regulations, and at the 31st December the following registrations applied:—

Child Minders

149 persons caring for 634 children as follows:—

Part-time care	36 persons	285 children
Full-time care	113 persons	349 children
	149 persons	634 children

Day Nurseries (Pre-School Play Groups)

There are 101 registered day nurseries caring for 2,123 children of which only 3 establishments offer full day care for some 68 children.

This shows that at the end of the year 250 child minders or day nurseries were registered with the County Council. Comparing this with 1968 (i.e. 162 groups and 2,255 children) a general increase of 88 groups and 505 children has taken place. Unable to be included in these totals were many pre-school play groups who applied in December of 1969 and who will, of course, count statistically for the 1970 Annual Report due to their registration early in the new year.

In accordance with the regulations, all applicants and helpers completed the medical formalities required and some 500 x-rays were undertaken at Mass Miniature Radiography Units. It is pleasing to note that no person was found to be tuberculous although several investigations were necessary, but happily the outcome of these was satisfactory.

In general, it can be said that the standard and morale of all groups remains high and it is most encouraging to note how communities respond in such a generous way to meet a much required social need.

The Pre-School Play Groups Association plays no small part in the maintenance of the high standards achieved and I would wish to place on record the gratitude of the Department to this Organisation and to those ladies who act as County Organisers.

Dental Care

The table below is an extract from Form LHS 27/7 rendered to the Department of Health and Social Services for the year 1969:—

DENTAL SERVICES FOR EXPECTANT AND NURSING MOTHERS AND CHILDREN UNDER 5 YEARS

Part A—Attendances and Treatment. (*The figures in brackets are those for* 1968).

No. of visits for treatment during year	*Children* 0–4 (*incl.*)		*Expectant & Nursing Mothers*	
First Visit	1,097	(1,033)	126	(132)
Subsequent Visits	779	(517)	252	(313)
Total Visits	1,876	(1,550)	368	(445)
No. of additional courses of treatment other than the first course commenced during year	27	(42)	3	(10)
Treatment provided during the year—				
No. of Fillings	1,311	(926)	215	(327)
Teeth filled	1,167	(853)	165	(275)
Teeth extracted	1,657	(1,266)	319	(221)
General anaesthetics given	614	(510)	36	(28)
Emergency visits by patients	345	(284)	23	(22)
Patients X-rayed	5	(2)	7	(9)
Patients treated by scaling and/or removal of stains from the teeth (prophylaxis)	158	(97)	40	(68)
Teeth otherwise conserved	279	(446)	—	—
Teeth root filled	—		1	(—)
Inlays	—		—	
Crowns	—			(1)
No. of courses of treatment completed during the year	965	(822)	75	(118)

Part B—Prosthetics:

Patients supplied with F.U. or F.L. (first time)	12	(13)
Patients supplied with other Dentures	20	(19)
Number of Dentures supplied	42	(34)

Part C—Anaesthetics:

General Anaesthetics administered by Dental Officers	174	(164)

Part D—Inspections:	*Children 0–4 (incl.)*		*Expectant & Nursing Mothers*	
Number of patients given first inspections during year	1,826	(1,643)	147	(172)
Number of patients in A and D above for required treatment	1,028	(973)	133	(160)
Number of patients in B and E above who were offered treatment	1,015	(921)	133	(159)

Part E—Sessions:

No. of Dental Officer Sessions (*i.e.* equivalent complete half days) devoted to M. & C.W. patients	For Treatment	219	(280)
	For Health Edcn.	29	(37)

The senior dental technician retired on 31/3/1969 after 30 years service. The dental trainee left on 26/5/1969 to join Her Majesty's Forces.

DENTAL LABORATORY

A summary of work completed during the year by the County Dental Laboratory is shown in the following tables:—

(*a*) *Denture Work:*

Type of Denture	*No. constructed*	
Full Upper	15	(24)
Full Lower	2	(16)
Partial Upper	115	(117)
Partial Lower	16	(17)
Relines and Remakes	7	(9)
Repairs	31	(44)
	186	(227)

(*b*) *Orthodontics:*

Regulation Appliances (removable)	250	(271)
Study Models	361	(438)

(*c*) *Other Work:*

Crowns	28	(56)
Inlays	Nil	(Nil)
Special Trays	43	(47)
Ear Moulds	Nil	(37)
Splints	3	(2)

DISTRIBUTION OF WELFARE FOODS

The most noticeable trend in the Welfare Foods Service during 1969 was the tendency for suppliers to amalgamate. The bigger units then regionalised their delivery service and accounts system. S.P.D. depots for the Administrative County were sited at Manchester, Birmingham, Nottingham and Welshpool. Vestric Ltd., of Kingswinford took over the accounting and delivery of orders for some of the bigger firms supplying proprietary foods. Difficulties arose because deliveries could only be made in an area on a specified day and time chosen by the delivery firm. Because Welfare Foods are sold in an assortment of Centres, some of which are only opened for the sale of Welfare Foods on certain days and for short periods of time, arrangements had to be changed wherever possible to ensure that premises were open to receive consignments of foods. Where this could not be done, orders were delivered to the nearest Clinic and County Council staff collected from the Clinic. Difficulties were eventually overcome but some inconvenience remained.

A further problem resulted from the amalgamation of producers of proprietary foods. This was the refusal of firms to deliver orders below a certain figure, as many of the smaller clinics do not have a heavy enough demand to justify orders for large amounts, or the space in which to store goods. Suppliers were asked to consider this problem, but little could be done to meet Health Service requirements, and consequently, some proprietary foods were removed from the authorised list of products available to the public at Health Clinics.

As from 31st March, 1969, the Department of Health and Social Security ceased to accept postage stamps in payment of Welfare Foods.

Form W.F.8 (Certificate of Expected Confinement and Application for Welfare Milk Tokens) was revised to direct application for Welfare Milk tokens to the central milk token issuing office at Blackpool, instead of to local offices. Arrangements were made for General Practitioners to receive supplies of the revised forms. Supplies were sent to County Council midwives.

Forms W.F.6 and W.F.6A were revised as from 1st April, 1969. A simplified form was devised and form W.F.6B (Certification of destruction of Welfare Foods tokens) was discontinued. The certificate of destruction was included on the revised form W.F.6.

The Minister of Health announced that Orange Juice would be packed in cases of thirty bottles, instead of forty bottles, as from 1st April, 1969. This was done to make the handling of consignments easier.

Ministry leaflets advertising orange juice were redesigned to warn parents of the inadvisability of giving undiluted orange juice to children. The leaflet advised parents to dilute orange juice in four to six parts water and to use straws wherever possible, to avoid dangers of dental decay.

Welfare Foods Sales Clerks were asked to ensure that empty orange juice bottles were clean and undamaged before packing full cases, for return to the bottlers. They were also reminded that other Welfare Foods could **not** be returned to the Department of Health and Social Security without prior approval from the Ministry. The Minister informed this

Authority that S.P.D. staff had been instructed not to comply with any request to collect orange juice, cod-liver-oil or vitamin tablets unless such collection had been specifically authorised.

W.F.17C forms were amended in July 1969.

The number of complaints received from purchasers of Welfare Foods were as follows:—

N.D.M.	*Orange Juice*
4 packets	4 bottles

Samples of these products were returned to the Minister of Health and reports of the Government analyst's report were received.

DOMESTIC HELP SERVICE

This service is a vital aspect of community care and plays an important part in helping persons to remain at home in family surroundings for longer than would otherwise be the case if no such service existed. By forestalling institutional care, a saving in expenditure is achieved as care in an old people's Home, or chronic sick hospital is more costly than care provided in the home.

Domestic helps are available for assistance in the home in cases where, due to age, infirmity, sickness, absence of wife or mother in hospital or some similar reason, this leaves no suitable person in the home to care for the patient or the family.

Because of the shortage of chronic sick hospital accommodation throughout the County, the pressure upon the domestic help service continually increases. This means that a larger number of elderly persons have to be cared for at home for considerable periods of time when they ought really to be in hospital. The provision of more chronic sick hospital accommodation would relieve the pressure but, as mentioned above, would be more costly to the taxpayer.

Recruitment of an adequate number of domestic helps of the right calibre continues to be a problem in certain rural areas of the County. To improve the position the County Council agreed to the payment of car allowances at the casual users' rate to a limited number of home helps who are prepared to travel to outlying districts. This has proved successful and has improved the position to a certain extent.

In general, domestic helps are recruited from married women who in quite a number of cases, have children of their own to care for. This somewhat limits the flexibility of the service insofar as these home helps have to fit their hours of work in with their domestic commitments. Additionally, married women's holidays are taken to coincide with their husbands' holidays, which are usually during the peak holiday period. This results in a period arising during the year when it is very difficult to meet the demand for the service because of the shortage of staff, the appointment of relief domestic helps also being extremely difficult.

In certain parts of the County the recruitment of a sufficient number of capable home helps is further hampered by the keen competition for female labour, particularly in the areas where new industries are mushrooming. Generally, women going out to work are anxious to obtain a

good income to make their effort worth while and to achieve this they prefer to work full-time or for a substantial number of hours each week. This does not suit the requirements of the service where the need is for a large number of women each working a few hours daily so that all households can receive attention early in the day.

During 1969 little change took place with regard to the general administration of the service when compared with 1968. Because of the high cost (expenditure in excess of £250,000 per annum), an extremely close watch is kept on the allocation of hours of assistance. Each application is vetted carefully and all circumstances taken into account before the assessment of need is finally made. In view of the limited resources, hours of assistance have to be continually reviewed. Although inevitably there are persons who complain that the assistance provided is not adequate, it is accurate to say that no real hardship was experienced by any household involved. A successful policy is the reduction of hours of assistance during the summer months with a consequent increase in winter when demand is at its highest.

The domestic help service provides great benefit to those who receive assistance and this is borne out by the many letters of thanks that are continually received. The general content of these letters can be summarised as follows:—

> "I would like to express my gratitude for the help given. The help is a good worker and her presence always cheers me up beside the benefit she provides."

The following are some general statistics relating to the service during 1969:—

Total cases assisted during the year	5,680
(i) aged 65 and over	4,889
(ii) under 65—chronic and tuberculous ..	261
(iii) under 65—mentally disordered	28
(iv) maternity cases	182
(v) others	320

At the 31st December, 1969 the Authority were employing approximately 950 domestic helps.

HEALTH DEPARTMENT SOCIAL WORK FUNCTIONS

The Social Work undertaken by this department can be summarised under five main headings although these do not give a complete list of the many and varied duties performed by these members of staff.

Rent Guarantees

This Scheme was introduced in 1965 in accordance with Section 56 of the Local Government Act, 1958. At the 31st December, 24 rent guarantees were in force, the total cash outlay under this Scheme being £381 14s. 2d. from its inception in 1965. Thirty-nine rent guarantees were were offered to district councils during the year all of which were accepted, and the total of nineteen guarantees were rescinded. The total amount of money paid out by the County Council during 1969 for default in payment of rents was £156 13s. 8d. and represents payment for some 8

families. A total of £38 15s. 2d. was however repaid to the County Council by two tenants and 1 district council and this figure has been taken with account.

There can be little doubt that rent guarantees offer something much more suitable than temporary housing accommodation. It is without question that this way of family rehabilitation is a cheaper and much more satisfactory method from the Social Workers' point of view. It is easier to rehabilitate within known surroundings where the father and children can attend work and school respectively. Co-operation from district councils is extremely good and tribute must be paid to their kindness and understanding of problem families for the year under review.

Training in Home Management and Child Care

During 1969 one family (including four children) was sent away for this specialised training at Crowley House, Birmingham. Due to its costly nature only those families capable of seriously improving their standards under full-time care are given consideration and only then is approval given if the local Social Worker feels that full-time rehabilitation is the only desirable alternative. Training is usually for a period of between two and three months although in individual cases longer periods are necessary.

Travelling Expenses of Relatives Visiting Hospital Patients.

Travel warrants are still being issued in accordance with the Ministry of Health Circular 85/49 and for the year under review 16 applications were received and approved. Of these 15 received free travel and one paid partial cost. This service still proves to be an invaluable aid in certain cases of extreme hardship.

Convalescent Holidays

This Scheme is operated in accordance with the National Health Service Act, 1946. Thirty-nine applications were received for convalescence and of these 3 were refused, 32 had free treatment, with 7 paying part cost and one paying the full standard charge.

In two cases patients refused to take convalescence after this had been approved.

Care of Old People

During 1969 the Department's Social Workers made 3,578 visits to various old people in their homes which resulted in 3,879 persons being interviewed. The table below indicates the various categories and shows the extent to which the Social Workers and their assistants contribute to the care and wellbeing of retired persons.

	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 5	Total
Number of visits paid ..	849	397	1,455	847	30	3,578
Number of persons seen ..	1,132	411	1,452	859	25	3,879

A perusal of the following table will show particulars of work undertaken during the year 1969, by the Social Workers/Welfare Officers and their assistants.

	Free	Partial Payment by Patients	Paid in full by Patients	Total
1. Number of patients supplied with extra nourishment *	138	—	—	138
2. Number of patients supplied with clothing	316	—	—	316
3. Number of patients supplied with bedding and furniture	161	—	—	161
4. Number of patients supplied with Convalescent Home treatment ..	32	7	—	39
5. Number of patients supplied with appliances †	1,029	10	—	1,039
6. Number of visits and interviews with patients at home	—	—	—	9,729
7. Number of patients in hospital or sanatorium	—	—	—	486
8. Number of patients seen at office or clinic	—	—	—	827
9. Housing:				
(*a*) No. of cases recommended ..	—	—	—	43
(*b*) No. of cases re-housed ..	—	—	—	42
10. (*a*) No. of visits made to Area Health Offices	—	—	—	1,500
(*b*) No. of visits to homes made after office hours	—	—	—	118

* This number includes cases where assistance has been given through the Welfare Officer by organisations other than the County Council and include the British Red Cross Society, St. John Ambulance Brigade, the Social Security Service and numerous smaller organisations.

† This number includes the provision of invalid chairs, air beds, rubber rings, hot water bottles and occupational therapy items, etc. This equipment was provided through the Social Workers from the various medical loan depots throughout the Administrative County.

HEALTH EDUCATION

The sensational stress and overtones given to specific areas of health education e.g. sex education tends to obscure the vast amount of information given to all sections of the population on basic principles of maintaining health. The need to maintain a high level of immunisation/vaccination, and the importance of good dietary habits, food and personal hygiene, dental health, foot health, mental health etc. is recognised by public health departments and a major part of the health education work is devoted to maintaining a high degree of awareness in these health topics.

Staff

Staff changes and the delay in filling vacancies caused considerable difficulty in fulfilling lectures and courses arranged in many schools. Health talks and courses are booked at least one term in advance and a number had to be postponed until later in the year when the staffing position improved. It was not until October 1st that the section was fully staffed for the first time in 1969; Six whole-time officers, a clerical assistant

and a technical assistant being the staff establishment. Staffordshire is one of the few local authorities where practical training in comprehensive health education can be obtained. The section must be geared to cope with the staff changes that are inevitable as staff pass on to senior positions.

Exhibitions and Special Projects

The exhibition activities of the department were severely curtailed during 1969 due to the absence of the Health Education Officer, Deputy Health Education Officer and Technical Assistant in the early and middle months of the year. The annual exhibition at the County Agricultural Show was regrettably cancelled but it is hoped to exhibit again in 1970. It was not until October that the exhibition and display potential of the department was fully functional. Several displays were erected in child welfare clinics on the topics: foot health, accident prevention, dental health. In November a display at Tenterbanks Day Nursery, Stafford on Safety for the Under Fives was very successful.

An exhibition on Dental Health was successfully displayed at the Walton Comprehensive School Open Day in July in co-operation with the dental auxiliaries in Stafford.

A Seminar in Health Education was held at Crossfields, Stafford on 8th, 9th, 10th July, 1969 under the auspicies of the Health Education Council. Invitations were sent to surrounding authorities and representatives from Dudley, Wolverhampton, Warley and Walsall County Boroughs, Cheshire and Leicester County Council, and the Cities of Leicester and Stoke-on-Trent attended in addition to the Staffordshire Health Education Section staff. This in-service training is a very valuable aspect of Health Education; apart from the information received the mixing and passing on of ideas between local authority staffs brought special benefits.

Two members of staff attended a weekend course at Ilam Hall run by Staffordshire Youth Service on 31st—1st November. The topic was 'Group Pressure' and 30 young people and youth leaders took part. Subjects discussed were group pressures on the taking of alcohol, drugs, tobacco and the effect of advertising.

All six members of the Health Education Section took part in a special session on 'Personal Relationships' held at Walton Hall on 19th October, 1969. Thirty-four young people were in residence and took part in the project. Several approaches for follow up courses in local youth clubs followed this session.

Five new Mothers' Clubs were formed in 1969—Tutbury, Denstone, Rocester, Wombourne and Rugeley. As these organisations take 50% Health Education topics they form an important outlet for influencing young mothers.

Lectures

This technique of giving health education takes up the major part of the Health Education Sections activities and special priorities are those sessions involving lecturing to Youth Leaders, Student Teachers, Social Workers and other local authority staff. A seven session course in Personal Relationships was organised at Madeley Teacher Training College and thirty-seven second year Students attended.

Nine Parent-Teacher Association meetings were addressed and the policy of cementing closer links with parents of school children was further pursued.

The number of lectures given to Primary School Children approximately doubled and over 100 primary schools are now accepting health talks.

Increasing use was made of the visual aid and equipment loan service run by Health Department and Education Authority staffs. The section now stocks a comprehensive selection of films, filmstrips, leaflets, models, flannelgraphs, posters, wallcharts and an ever expanding library.

The Technical Assistant gave 102 film shows in support of Health Department staff in their work.

LECTURE DETAILS—GENERAL

Subject	*No.*	*Attendance*
Personal Relationships	22	278
Personal Hygiene	15	330
Dental Health	3	54
Home Safety	16	411
Smoking	10	207
Veneral Disease	13	263
Cervical Cytology	7	198
Food Hygiene	12	282
Drugs	13	363
Child Development	12	317
Parentcraft	6	36
Learning to Live (Youth)	(160 courses)	5,775
Growing Up (Primary Schools)	(113 courses)	4,203
Others—Mental Health, Foot Health, Nutrition, Retirement Resuscitation, Social Services	33	1,185

LECTURE DETAILS—SPECIAL

Student Teachers	6	222
Parent-Teachers Meetings	9	812
Youth Leaders Council Meetings	4	72
Youth Weekend Courses	2	79

Work undertaken by members of the Health Education Section staff outside normal working hours amounted to 163 evening sessions.

The above details relate to work undertaken by the Health Education Section staff and many lectures on health are given by other members of the County Health Department staff. Acknowledgment must be given to these members.

HEALTH VISITING

At the 30th September, 1969, the number of Health Visitors employed was 129. In addition, there were 6 combined posts of District Nurse/Midwife/Health Visitors. The staff establishment is reviewed annually but the number remained at 156. It was also decided that recruitment should be restricted to 143. Against the Health Visitor establishment 7 full-time School Clinic Nurses and 14 part-time School Clinic Nurses are employed.

During the year ending 30th September, 11 Student Health Visitors successfully completed their course at Keele University. Ten of these students came into the County to work but one emigrated to Canada with her husband. One student successfully trained at Manchester and now works in the northern part of the County and of the 3 Health Visitor Students taking their training at Birmingham, 2 successfully completed their course and now work in the County but the third retired from the course due to the need for operative treatment and plans are afoot for her to rejoin the course in September of this year.

The Health Visitor Courses for 1969/70 have obtained 7 students for the Keele University Course, 1 student placed at Leicester, 1 student at Oxford and 2 students at Birmingham which includes the member from the 1968/69 Course who was carried forward due to ill health.

The Keele University Course for Student Health Visitors continues to provide well trained new staff to our health visiting strength. The constant contact between our Fieldwork Instructors, who are Health Visitors on our staff, and the Health Visitor Tutor provide a source of enthusiasm and opportunity for an exchange of views. Our Fieldwork Instructors play an important and useful part in the training of Health Visitor Students.

The following are the statistics relating to the Health Visiting Service during 1969:—

Visits to Expectant Mothers:

First visits	2,494
Total visits	3,423

Visits to Infants under one year:

First visits	14,905
Total visits	55,731
Total visits to children aged 1 year and under 2 years	41,749
Total visits to children aged 2 years and under 5 years	63,110

	Cases visited by Health Visitors	No. of cases
1	Total number of cases	69,986
2	Children born in 1969	14,854
3	Children born in 1968	14,137
4	Children born in 1964-67	23,813
5	Total number of children in lines 2—4	52,804
6	Persons aged 65 or over..	2,910
7	Number included in line 6 who were visited at the special request of a General Practitioner or hospital	1,328
8	Mentally disordered persons	90
9	Number included in line 8 who were visited at the special request of a General Practitioner or hospital	68

	Cases visited by Health Visitors—continued	No. of cases
10	Persons excluding maternity cases discharged from hospital (other than Mental Hospitals)	429
11	Number included in line 10 who were visited at the special request of a General Practitioner or hospital	390
12	Number of tuberculous households visited	132
13	Number of households visited on account of other infectious diseases	279
14	Other cases	3,450
15	Number of tuberculous households visited by Tuberculosis Visitors	602

HOME NURSING SERVICE

At the 30th September, 1969, there were 77 whole-time General Nursing Sisters, together with 60 part-time General Nursing Sisters, 46 of these being also Domiciliary Midwives and 6 District Nurse/Midwife/ Health Visitors.

In the total of 77 General Nurses mentioned above are included 6 Male Nurses who do valuable work in the genito-urinary field and also among the heavier immobile patients. Their work, being more specialised, requires them to cover larger areas but the great benefit to the patients outweighs any disadvantage to the Nurse in larger mileages.

The greatest call on the district staff remains the nursing of the chronic sick but the accent on early discharge of surgical patients from the hospitals is showing some slight change in the pattern of work and this change will increase as closer liaison with hospital and community nursing is achieved.

Disposable gloves, syringes, mucous extractors and hopital underpads continue to be used with much success and saving of nursing time and, in some cases, more comfort to the patient. Pants and interliners for the incontinent ambulant patient are proving a great boon to those able to benefit by this distribution, often enabling the patients to go out of their homes where previously they were unable to do so.

The following tables show some of the general statistics relating to the Home Nursing Service.

Analysis of New Cases Nursed during the Year

Condition	Total new cases	Age 0–4	Age 5–15	Age 16–64	65 and over
Tuberculosis	58	4	–	49	5
Other infectious diseases	93	28	13	43	9
Diseases of the blood	823	1	5	261	556
Diseases of the heart	566	–	–	76	490
Cerebral Haemorrhage and thrombosis	771	1	–	120	650
Other circulatory diseases	224	1	2	59	162
Respiratory diseases other than tuberculosis	728	88	23	232	385
Diseases of ear, nose and throat	209	26	40	104	39
Eye conditions	58	1	5	29	23
Dental conditions	12	–	1	10	1
Gynaecological conditions	263	–	–	109	154
Genito-urinary	236	3	4	62	167
Diseases of bones, joints and muscles	522	2	10	197	313
Diseases of digestive system	562	46	28	211	277
Diabetes	219	1	4	75	139
Parasitic conditions (worms, lice, etc.)	1	–	1	–	–
New growths	628	1	1	263	363
Senility	626	–	1	6	619
Diseases of skin and subcutaneous tissues	485	14	23	162	286
Mental and nervous conditions	196	6	1	92	97
Injuries	521	33	70	222	196
Burns and scalds	148	28	11	50	59
Sepsis	217	18	19	109	71
Post operative	1,332	45	95	861	331
Complication of pregnancy or puerperium	307	8	4	295	–
Other conditions	503	34	21	224	224
TOTALS	10,308	387	384	3,921	5,616

Number of Treatments

Type of Case	Total number of treatments given in *all cases* — old and new — during the year ended 31st December, 1969
General Nursing	112,361
Dressings	72,040
Observation of Patient	20,330
Enemas	3,891
Changing of Pessaries	768
Washouts, douches and catheterisation	9,253
Preparation for diagnostic investigations	197
Injections—antibiotics	7,142
Other injections	65,034
Other treatments	9,085

Visits

(a) Total number of visits made 259,262

(b) Number of patients who would have required admission to hospital if a Home Nursing Service had not been available:

i Acute 1,667

ii Chronic 1,769

SUPPLY OF INCONTINENCE EQUIPMENT

In 1961 a pilot scheme was introduced to assess the value of incontinence pads for certain patients under the care of the Domiciliary Nurses. This indicated that these pads were of great value in enabling difficult cases to be nursed at home and in 1962 arrangements were made for them to be supplied to any case under the care of the Home Nurse.

Ministry of Health Circular 14/63 desired local authorities to make this sevice available to patients other than those cared for by the Home Nurse. Arrangements were, therefore, made for the Area Medical Officers to supply incontinence pads to such cases, providing that they were satisfied that the need was genuine and that there would be no excessive or abnormal use of the pads.

Methods of disposal vary in different parts of the County. In some cases the District Council makes special collections for incineration, while in others they are collected with ordinary refuse. In both cases they are placed in wet-strength paper sacks before being offered for disposal.

During 1969, 166,000 pads were supplied to cases of all types within the Administrative County.

In Circular 14/66 the Ministry of Health pointed out that some people who are incontinent by day but are not confined to bed need protective clothing in the form of waterproof pants or knickers with disposable linings. As for the supply of incontinence pads, the Ministry recommends that it is not necessary to restrict the provision of waterproof pants and interliners to persons already receiving home nursing and suggested that all local health authorities do provide such nursing aids to people who would benefit from them. This provision has been complied with in those cases where this was considered to be necessary.

Because of the high cost of protective clothing, a register of persons authorised to be issued with these items is maintained. Each application is carefully considered and priority is given to cases whereby the child is enabled to attend school or the person enabled to attend work through provision of this clothing. During the year the total supplies amounted to 209 pants and 63,000 interliners.

The main categories of illness qualifying for these supplies are:—

Spina Bifida
Severely sub-normal
Colostomy
Cystitis
Colitis
Senility

MATERNAL MORTALITY

During the year only one death was reported under the heading of Other Complications of Pregnancy and this occurred in hospital.

As usual the death was investigated in accordance with the procedure laid down by the Department of Health and Social Security and the report was submitted on Form MCW.97 Revised.

It is pleasing to note that this is the first year since 1950 that only one death has occurred as will be seen from the following table which gives the appropriate information.

The following table gives similar information since 1950:—

Year	No. of Deaths	Deaths Occurred	
		In Hospital	At Home
1950 ..	13	11	2
1951 ..	9	8	1
1952 ..	13	10	3
1953 ..	15	13	2
1954 ..	8	8	–
1955 ..	7	6	1
1956 ..	16	15	1
1957 ..	8	7	1
1958 ..	8	7	1
1959 ..	7	5	2
1960 ..	8	7	1
1961 ..	4	4	–
1962 ..	11	9	2
1963 ..	7	4	3
1964 ..	6	4	2
1965 ..	2	1	1
1966 ..	5	5	–
1967 ..	4	2	2
1968 ..	5	5	–

MEDICAL ASSESSMENTS AND REPORTS

This branch of the work of the Department deals with:—

1. Medical assessments of candidates appointed to the Council's service and their fitness for admission to the appropriate superannuation and sickness pay schemes;
2. medical reports on staff at the request of employing committees;
3. driving licence referrals on medical grounds;
4. medical examinations of entrants to training colleges for teachers and the teaching profession;
5. medical examination of applicants for Heavy Goods Vehicle Driving Licences.

Medical Assessments

The completion of medical questionnaires by prospective employees continues to work satisfactorily and is obviating work involved with the arrangement and carrying out of medical examinations.

Out of a total of 3,749 candidates screened for employment 435 underwent full medical examinations. This number includes 98 firemen who were examined by their own general practitioners and 26 ambulance personnel who are medically examined without first completing a questionnaire. Further enquiries were required in 109 cases, involving writing for reports from general practitioners, specialists and consultants.

Entrants to Teacher Training Colleges and the Teaching Profession

In addition to the above 570 candidates were medically examined for entrance to Teacher Training Colleges including chest x-ray examinations and 62 entrants to the teaching profession underwent the same screening.

In all, 3,295 applicants in all classes who were likely to come into contact with children were referred for chest x-ray examinations, through the auspices of the Chest Radiology Service.

Out of all categories 953 medical examinations were conducted by Medical Officers in the Department, and 190 by general practitioners. In addition 34 examinations were carried out by the Department's Medical Officers for other authorities.

Medical Enquiries for Existing Staff and Driving Licence Applicants

As medical adviser to the Authority, reports are provided for other County Council Departments with regard to existing employees, and the following are the statistics relevant to 1969, in the various categories.

(*a*) Absence of Roadworkers for period in excess of 6 weeks .. 124
(*b*) Absence of all other staff, varying periods 46
(*c*) Enquiries with regard to premature retirement on the grounds of ill health 53
(*d*) Driving licence enquiries 106

School Meals Staff

Apart from school meals staff permanently cleared (following the completion of a questionnaire) 321 applicants were cleared on a temporary basis following the receipt of a satisfactory Freedom from Infection certificate and chest x-ray report.

In addition 159 medical certificates were received during the year, which stated that after a period of illness that employees were free from infection and able to return to work in the kitchen.

Non-Insured Persons

It is a general requirement of the County Council that the payment of sick pay beyond three days is conditional upon production of appropriate medical certificates as evidence of the sickness of the employee concerned. Difficulty has been experienced in the past in this connection with non-insured persons because certain doctors refused to issue private medical certificates to non-insured patients, even on payment. Consequently, the employees concerned could not be paid sickness allowance. In fairness to these employees a scheme has been devised to meet this contingency whereby a form of medical questionnaire was completed by the person concerned and if the answers were satisfactory from my point of view, sick pay would then be paid for a limited period based on my recommendation. Two questionnaires were considered during the year.

Heavy Goods Vehicle Drivers Licences

During 1969 a scheme was devised for the routine medical examinations of County Council employees who are required to hold a Heavy

Goods Vehicle Licence. This requirement, in accordance with the revised regulations, will commence in February, 1970, the first medical examinations taking place in January of that year.

Screening results were as follows:—

No. of candidates found fit to be included in the superannuation and sickness pay schemes	3,548
No. of candidates found to be fit for the post applied for but not for inclusion within either or both of the superannuation or sickness pay schemes ..	87
No. of candidates rejected	29

NURSING OFFICERS

On the 13th January, 1969, Miss S. M. Savage took up duties with the County as Chief Nursing Officer and Miss M. S. Newman commenced duty on the same day as Deputy Chief Nursing Officer.

The nursing areas were re-arranged from four to three, each area having an Area Nursing Officer and Deputy Area Nursing Officer as shown below:—

Area	*Area Nursing Officer*	*Deputy Area Nursing Officer*
Area No. 1		
Biddulph U.D. Leek U.D. Leek R.D. Cheadle R.D. Kidsgrove U.D. Newcastle M.B. Newcastle R.D.	Miss D. Austin	Miss E. Alcock (commenced duty 1st October, 1969, the post previously being held by Mrs. M. D. Walker who resigned on 30th June, 1969)
Area No. 2		
Stafford M.B. Stafford R.D. Stone U.D. Stone R.D. Cannock U.D. Cannock R.D. Seisdon R.D.	Miss D. Chadwick	Miss M. Crowley
Area No. 3		
Lichfield City Lichfield R.D. Rugeley U.D. Tamworth M.B. Uttoxeter U.D. Uttoxeter R.D. Tutbury R.D. Aldridge— Brownhills U.D.	Mrs. M. E. Overend	Miss J. P. Elsmore

MENTAL HEALTH SERVICE

Administration

The Mental Health Sub-Committee (of the Health Committee) deals with the functions of the County Council relating to the Mental Health Service, the recommendations of the Sub-Committee being subject to the approval of the Health Committee and the County Council.

The Mental Health Section of the County Health Department administers both the mental health and child guidance services under the medical direction of the Principal Medical Officer for Mental Health (qualifications M.R.C.S. (Eng.), L.R.C.P. (Lond.)). The senior administrative assistant is the County Mental Welfare Officer (qualifications D.P.A. (Lond.)).

The Section is responsible for the provision of a social work service, training centres, residential establishments and other specialised services for the mentally disordered, the promotion of new projects included in an extensive building programme, and maintenance and improvement of existing services.

Responsibility for the day-to-day supervision of social work for both the mental health and child guidance services is vested in the Senior Casework Supervisors at the Mental Health Centres. There is one such Centre in each of the three areas into which the County is divided, these being co-terminous with the reception areas of the three Hospitals for the Mentally Ill which serve the County.

The Senior Casework Supervisors are qualified psychiatric social workers and their deputies (Casework Supervisors) must be either qualified psychiatric social workers or certificated social workers with at least three years experience as mental welfare officers. These officers supervise the social work service, carry a small case-load themselves and are responsible for the promotion and integration of the mental health and child guidance work within their areas.

Details of the field staff working from the Mental Health Centres as as 31st December, 1969, are given below.

(a) *Casework Supervisors:* Two Senior Casework Supervisors and three Casework Supervisors in post. There was one vacancy for a Senior Casework Supervisor.

(b) *Mental Health:* Five Senior Mental Welfare Officers (all qualified by length of service) and ten Mental Welfare Officers (two holding Certificate in Social Work). In addition there was one vacancy at 31st December, 1969.

(c) *Child Guidance:* Three full-time Social Workers (all qualified) and four part-time (sixteen sessions per week qualified and six sessions per week unqualified).

Training Centres

(a) *Children and Adults receiving training*

The extent of training facilities for the mentally handicapped is shown below. Section (A) indicates the numbers on roll at Staffordshire Training Centres and the numbers who receive home tuition from teachers employed by the Education Committee and by Home Teachers appointed

by the Health Committee. Section (B) shows the use made of Training Centres administered by neighbouring local authorities for children and adults who are resident in Staffordshire.

	Col. 1 Adults	*Col. 2 Juniors*
(A) FACILITIES PROVIDED IN STAFFORDSHIRE		
Training Centre:		
Cannock Junior	–	67
Leek Junior	–	43
Lichfield Junior	–	67
Newcastle Junior	–	61
Stafford Junior	–	39
Wombourne Junior	–	27
Leek Adult	52	–
Newcastle Adult	80	–
Stafford Adult	81	–
Lichfield Adult	63	–
Cannock Adult	50	–
Newcastle Special Care Unit	7	13
Home Teachers	–	5
TOTALS	333	322
(B) FACILITIES PROVIDED OUTSIDE STAFFORDSHIRE		
Training Centre:		
Shepwell Green Adult (Walsall C.B.)	4	–
Brewer Street Adult (Walsall C.B.)	4	–
Oxley Adult and Baby Unit (Wolverhampton C.B.)	5	–
Anglesey Road (Burton-on-Trent C.B.)	4	2
Audnam Adult (Dudley C.B.)	6	–
Blythe Junior (Warwickshire C.B.)	–	9
Longmoor Junior (Sutton Coldfield C.B.)	–	15
Totals	23	26

The figures in the above table total 356 adults and 348 juniors and show an increase of 45 over the previous year.

This was mainly the result of the opening of the 40-place Junior Training Centre in Wombourne on 17th March and the 20-place Special Care Unit in Newcastle on 5th May, both providing purpose-built accommodation. Lichfield Junior Training Centre was transferred to new and larger premises on 27th January increasing the number of places from 55 to 60, and with the addition of paper-shredding facilities at the Stafford Adult Training Centre from 14th April the nominal roll there has increased from 60 to 70.

A further reduction in the numbers of trainees attending out-County centres was achieved as a result of the transfer of the Staffordshire children from the Waterloo Road Junior Centre, Wolverhampton, to the Wombourne Centre on opening, and from Chell Heath Junior Centre, Stoke-on-Trent when the Newcastle Special Care Unit became operational. During the year, also, Staffordshire children were transferred from Tividale Junior Centre, Warley, and adults from Albert Bradford Adult Centre, Warley, to places at County Training Centres.

At the end of the year there were 26 children and 7 adults on waiting lists for training.

HORTICULTURE is proving an interesting and worthwhile activity for the Mentally Handicapped and here two trainees are seen picking and weighing the tomato crop in the greenhouse at one of the five Adult Training Centres in the County.

(b) *Training Centre Staff*

The staffing of training centres as at the end of the year is set out below:—

(i) Supervisors: 10 (all qualified or holding the Letter of Recognition)

(ii) Instructors: (at Adult Centres) 31 including deputies (8 qualified or holding the Letter of Recognition).

(iii) Assistant Supervisors (at Junior Centres): 30 including deputies. (17 qualified or holding the Letter of Recognition).

TAN-Y-BRYN

(a) *Summer Season*

One week's summer holiday was provided for 485 children and adults attending Staffordshire Training Centres at the Staffordshire County Council's Home, Tan-y-Bryn, at Colwyn Bay. They were accompanied by 87 members of staff who worked with the staff of the Home to give their charges an enjoyable holiday. Seventeen students from Nelson Hall Training College gave voluntary help to the staff during the season. Unaccompanied mentally handicapped adults occupied the Home for two separate weeks, and several filled vacancies when smaller training centres were on holiday—a total of 65 in all. Children accompanied by parents occupied 29 places during the season. One party of 24 children attending child guidance clinics for treatment, and two parties from Homes for the elderly comprising a total of 31 people were also accommodated. Assistance with the child guidance party was given by 10 members of the International Voluntary Service, and 7 members of staff accompanied the elderly people.

(b) *Winter Season*

From the beginning of January to Easter and from the end of October until Christmas, the number of persons given temporary care was 329. These periods are usually of a fortnight's duration, this being extended if there are special circumstances.

While at the Home, every effort is made to keep residents fully occupied so that their stay is of benefit to them. On their return home, appreciation is often expressed by parents of the greater self-confidence acquired by their children, and also they are thankful for a period of respite from the care of a mentally handicapped child or adult once or twice a year.

VOLUNTARY WORK

The growing participation of the volunteer in the mental health service was much in evidence during the year. This was welcomed as a further sign of the breaking-down of old psychological barriers to the acceptance of the mentally ill and subnormal by the general public. Some volunteers offer their services as individuals whilst others serve as members of organisations such as the local voluntary committees of the Staffordshire Association for Mental Welfare. An example of the former are college students who give voluntary service at training centres and hostels during their vacations.

Apart from the giving of personal services, many additional amenities were provided by voluntary bodies during the year. Examples include an adventure playground provided by Lichfield Round Table at the Junior

Training Centre and an extension in the form of a veranda to the Stafford Junior Training Centre by this Centre's Voluntary Committee. Social events at the various establishments have added to the enjoyment of trainees and residents. The regular social evenings at the Stafford Adult Hostel and Training Centre, organised by the Leighfields Social Committee, and a very full programme of Christmas entertainment by local organisations at the Tan-y-Bryn Holiday Home being especially commendable examples. Other voluntary committees have made special efforts by holding public meetings with speakers and films on mental health topics, to interest and inform the public on this subject.

Undoubtedly, however, the most notable advance in the voluntary field during the year was the opening of unstaffed houses for two small groups of women with a history of mental illness at Leek and Newcastle. These houses are owned by the Leek U.D.C. and Newcastle Borough Council respectively and are let at economic rents to the local voluntary committees of the Staffordshire Association for Mental Welfare who, in turn, collect a share of the rent and other expenses from the "sub-tenants". The aim with each house is for the scheme to be self-supporting financially, but the County Health Committee, as well as assisting with initial furnishing, has agreed to meet any deficit in the voluntary committee's housing account in respect of Staffordshire residents up to a maximum of £150 per house per annum.

Training

(a) *Full-time Courses commenced by staff during* 1969

Eight staff from Training Centres, including five on the County Council Training Scheme for school leavers, commenced one-year or two-year Diploma Courses of the Training Council for Teachers of the Mentally Handicapped, six on Courses for junior centre staff and two on Courses for the staff of adult centres. All were seconded on full salary and received grants in accordance with the post-entry training financial assistance scheme.

(b) *County Training Schemes for Training Centre Staff*

The number of supernumerary student teachers was maintained at the level of 12, there being no additional recruitments during the year.

(*c*) *Annual Refresher Course*

A record number of students, 180 in all, attended the 4-day residential refresher course at the Nelson Hall Annexe of the Madeley College of Education from 31st March to 3rd April. This is believed to be the largest Course of its kind in the country and its popularity owes much to the warmth of the hospitality extended to the students by the College Principal, Miss Malloch, and other members of the College staff, for which we are most grateful.

Development of the Service During 1969

New establishments were opened during the year as follows:—

Name and Address of Establishment	Description of Premises or changes	Date Opened	No. of Places
Junior Training Centre, Wissage Road, Lichfield	Purpose-built Centre to replace old premises. (55 places)	27/1/69	60
Junior Training Centre, Giggetty Lane, Wombourne	Purpose-built Centre	17/3/69	40
Adult Training Centre, Lime Tree Avenue, Stafford	Addition of paper-shredding shop to existing Centre	14/4/69	Increased from 60 to 70
Special Care Unit, May Place, May Bank, Newcastle	Purpose-built Unit basically for children	5/5/59	20
"Brookside", Giggetty Lane, Wombourne	Purpose-built Hostel for mentally handicapped children	13/5/69	20

Work Undertaken in the Community

(a) *New cases*

Particulars of new cases reported to the Local Health Authority during 1969 are given below. These are shown under each of the four categories laid down by the Mental Health Act, 1959.

Referred by	Mentally Ill		Psycho-pathic		Sub-normal		Severely Subnormal		Grand Total
	M.	F.	M.	F.	M.	F.	M.	F.	
(A) General Practitioners:									
(1) Under 16 years of age ...	1	-	-	-	3	-	3	1	380
(2) Aged 16 years and over ...	135	232	4	-	-	1	-	-	
(B) Hospitals (after in-patient treatment):									
(1) Under 16 years of age ...	-	-	-	3	-	-	-	-	637
(2) Aged 16 years and over ...	208	420	-	-	3	3	-	-	
C) Hospitals (after or during out-patient or day treatment):									
(1) Under 16 years of age ...	-	-	-	-	-	-	-	-	137
(2) Aged 16 years and over ...	44	89	-	-	3	3	2	-	
(D) Local Education Authority:									
(1) Under 16 years of age ...	-	-	-	-	2	2	6	2	28
(2) Aged 16 years and over ...	1	-	-	-	9	6	-	-	
(E) Police and Courts:									
(1) Under 16 years of age ...	-	1	-	-	-	-	-	-	79
(2) Aged 16 years and over ...	39	34	1	-	2	1	1	-	
(F) Other Sources:									
(1) Under 16 years of age ...	1	1	-	-	6	8	30	21	459
(2) Aged 16 years and over ...	153	196	2	-	19	14	6	2	
							TOTAL ...		1,720

Community Care

In addition to those receiving training or on waiting lists for training, many other mentally disturbed or mentally handicapped persons living within the community are visited by Mental Welfare staff. The following table shows the numbers receiving care at the end of the year.

	Mentally Ill		Elderly Mentally Infirm		Psycho-pathic		Sub-normal		Severely Sub-normal		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
(A) Receiving training in Training Centre:											
(1) Under 16 years of age ...	–	–	–	–	–	–	6	9	182	146	
(2) Aged 16 years and over...	3	4	–	–	–	–	53	20	157	119	699
(B) Awaiting entry thereto:											
(1) Under 16 years of age ...	–	–	–	–	–	–	2	1	13	10	
(2) Aged 16 years and over...	–	1	–	–	–	–	2	2	2	–	33
(C) Receiving Home Training:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	4	1	
(2) Aged 16 years and over...	–	–	–	–	–	–	–	–	–	–	5
(D) Awaiting Home Training:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	–	–	
(2) Aged 16 years and over...	–	–	–	–	–	–	–	–	–	–	–
(E) Resident in L.A. Home/ Hostel:											
(1) Under 16 years of age ...	–	–	–	–	–	–	3	1	29	26	
(2) Aged 16 years and over...	12	18	16	36	–	–	11	17	23	18	210
(F) Awaiting residence therein:											
(1) Under 16 years of age ...	–	–	–	–	–	–	1	–	1	–	
(2) Aged 16 years and over...	3	1	–	1	–	–	6	1	5	2	21
(G) Resident at L.A. Expense in other Homes/Hostels:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	–	–	
(2) Aged 16 years and over...	1	–	–	–	–	–	–	1	1	1	4
(H) Resident at L.A. Expense in private household:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	–	–	
(2) Aged 16 years and over...	–	–	–	–	–	–	–	–	–	–	–
(I) Attending Day Hospitals:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	4	1	
(2) Aged 16 years and over...	2	1	–	–	–	–	–	–	1	1	10
(J) Receiving home visits and not included in (A) to (H) above:											
(1) Under 16 years of age ...	1	–	–	–	–	–	2	4	16	13	
(2) Aged 16 years and over...	210	297	–	–	2	–	85	66	54	73	823
(K) Totals:											
(1) Under 16 years of age ...	1	–	–	–	–	–	9	14	219	171	
(2) Aged 16 years and over...	231	320	16	37	2	–	151	101	223	198	1,693

NOTE.—In Sections (A) to (J) the figures relate to *categories only* and a person may appear under more than one category. The totals in Section (K) relate to *persons in care*, each person being counted once only. The totals are therefore not necessarily a direct addition of the figures above.

The Majority of mentally subnormal children and adults receive regular visits by the Mental Health staff experienced in the work, who can advise wisely when difficulties arise. Those admitted the Training Centres gain benefit and happiness from the friendly school or workshop atmosphere, and most of them can remain living in their own homes.

The Hostels which have been opened in conjunction with Training Centres are all full to capacity during term-time. The residents are mainly mentally subnormal persons who have no homes, come from unsuitable home backgrounds, or whose parents need some relief from their care.

Some are able to go home for weekends and during the Centre holidays. The vacant beds so created provide temporary accommodation for those who usually live at home, whilst their parents and relatives take a holiday.

Other mentally handicapped persons living in the community are able to work and ready assistance is given to the social workers by officers of the Department of Employment and Productivity in placing them in suitable employment. The Department of Health and Social Security provides financial aid to those who are unemployable.

Guardianship

At 31st December, 1969, there was one male adult and one girl under 16 years of age who were under statutory guardianship of the local health authority. Both receive regular visits from a social worker. The adult is in regular employment and the girl attends a junior training centre.

Hospital Care

During 1969 there were 16 informal admissions to hospitals for the mentally subnormal under provisions of the Mental Health Act, 1959.

The table below indicates the extent of temporary residential care provided during the year and the state of the hospital waiting list by the end of the year.

	Mentally Ill		Elderly Mentally Infirm		Psycho-pathic		Sub-normal		Severely Sub-normal		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Number of persons in L.H.A. area awaiting admission to hospital at 31/12/69:											
(A) In urgent need of hospital care:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	5	1	13
(2) Aged 16 years and over ...	–	–	–	–	–	–	–	–	4	3	
(B) Not in urgent need of hospital care:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	3	4	17
(2) Aged 16 years and over ...	–	–	–	–	–	–	1	–	5	4	
Number of admissions for temporary residential care during 1969:											
(A) to N.H.S. Hospitals:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	3	2	15
(2) Aged 16 years and over ...	–	1	–	–	–	–	–	–	8	1	
(B) to L.H.A. residential accommodation:											
(1) Under 16 years of age ...	–	–	–	–	–	–	41	25	13	13	275
(2) Aged 16 years and over ...	20	60	9	2	–	–	42	28	11	11	
(C) Elsewhere:											
(1) Under 16 years of age ...	–	–	–	–	–	–	–	–	–	–	—
(2) Aged 16 years and over ...	–	–	–	–	–	–	–	–	–	–	

THE WORK OF THE MENTAL HEALTH CENTRES

These Centres provide a focal point for all aspects of mental health for each area. As the experience of staff widens and more qualified personnel become available, so the Centres are becoming increasingly recognised as agencies willing to offer skilled help and advice on the emotional problems of living.

Subnormality clinics held in collaboration with the staff of the Regional Hospital Board have continued. These are diagnostic and advisory clinics for mentally subnormal children, adults and their families. Regular clinics are held at Stafford and are served by Stallington Hospital staff and occasional clinics are held at Wombourne as required with staff from St. Margaret's Hospital.

Loan sanction for a new Junior Training Centre to serve Aldridge/Brownhills U.D. and adjacent areas has been obtained and it is hoped to complete the work and open the Centre by the Spring of 1971. This will relieve pressure for places at the Lichfield Junior Training Centre and enable the existing arrangements with Warwickshire and Sutton Coldfield Health Committees whereby Staffordshire children are provided with places at the Coleshill and Longmoor Junior Training Centres to be discontinued. These most welcome facilities have been a great help during the long period of steadily mounting pressure for training centre places in the south-eastern area of the administrative County and we are extremely grateful to the two local health authorities concerned.

Experience with the new Special Care Unit at Newcastle rapidly confirmed the need for more units of this type and attention will next be given to meeting the needs of these extremely handicapped children in the Stafford and Lichfield areas. Financial assistance with the capital cost of a Special Care Unit in Stafford has been kindly offered by the Spastics Society.

In the field of residential care the greatest need is for more hostels for the adult subnormal. A welcome sign that subnormality hospitals may at last be turning their attention to the possibility of returning some of their more physically able patients to the community has appeared in the form of a request from Stallington Hospital for assistance in discharging a number of male and female patients who are suitable for hostel care and employment in industry or training at adult training centres.

Movement from hospital to the community for this type of patient is bound to be slow, however, until more hostels become available. Unfortunately few, if any, are likely to be suitable for the unstaffed type of accommodation which it is hoped will be of growing importance in the residential care of the mentally ill.

MIDWIVES' SERVICE

The following are particulars of the midwives practising at the end of 1969:—

Number of midwives employed by the Authority ..	140
Number of midwives in private practice (including midwives employed in Nursing Homes): Domiciliary	4
Number of midwives employed by Hospital Management Committees	50

The following table shows the number of cases dealt with by the midwives in the area of the Local Supervising Authority during the year:—

Deliveries attended by Domiciliary Midwives during the year:—

Number of domiciliary confinements attended by midwives under N.H.S. arrangements					Number of cases delivered in hospitals and other institutions but discharged and attended by domiciliary midwives before 10th day
Doctor not booked		Doctor booked			
*Doctor present at delivery (1)	Doctor not present at delivery (2)	Doctor present *at delivery (either the booked Doctor or another) (3)	Doctor not present at delivery (4)	Total (5)	(6)
5	75	276	2,859	3,215	8,989

* Doctor to be regarded as present if he is present during the first, second or third stages of labour.

Particulars of deliveries by Midwives for the last 30 years are given in the table below:—

Year	*No. of deliveries by Mid-wives	Medical Aid Notices	Still-births	Death of Mother	Contact with Infec-tion	Laying out the Dead	Artificial Feeding
1940	8,714	3,822	206	8	157	31	253
1941	9,101	3,966	220	8	151	38	280
1942	9,325	3,811	214	7	118	28	331
1943	9,190	3,546	172	3	125	17	374
1944	9,136	3,482	143	8	108	21	484
1945	8,159	3,259	133	8	113	14	460
1946	8,526	3,248	164	5	94	22	474
1947	9,375	3,358	167	4	125	18	568
1948	8,071	3,375	199	5	87	20	728
1949	6,520	1,767	146	5	82	21	616
1950	6,586	1,376	172	2	85	16	655
1951	5,909	1,467	161	1	85	20	709
1952	5,252	1,375	160	4	86	19	728
1953	5,895	1,290	148	5	60	21	764
1954	5,722	1,225	146	1	51	17	744
1955	5,693	1,118	168	1	67	14	815
1956	6,044	1,162	159	2	38	13	743
1957	6,102	1,113	157	–	60	17	840
1958	6,381	1,323	158	2	60	17	882
1959	6,273	1,274	132	1	57	7	1,022
1960	7,804	1,640	130	1	50	20	584†
1961	7,349	1,485	105	–	46	6	–
1962	7,416	1,294	113	1	39	4	–
1963	8,166	1,185	104	–	43	10	–
1964	8,093	1,102	84	–	38	3	–
1965	7,570	1,094	93	–	43	5	–
a1966	5,393	691	24	–	15	9	–
1967	4,041	509	25	3	6	–	–
1968	3,593	492	42	1	8	2	–
1969	3,215	420	24	1	6	–	–

* Including midwifery cases in private maternity homes.
† To 30.6.60. Not required after 1.7.60.
a Boundary change.

The percentage of doctors' calls to the number of births attended by midwives was 13.7.

All Midwives employed by the County Council now have Entonox or Trilene machines for the administration of analgesics when necessary. All Midwives also have baby resuscitators for the administration of oxygen.

In accordance with the rules of the Central Midwives Board, 25 Midwives attended courses arranged by the Royal College of Midwives.

We have 24 Teacher Midwives who have helped in the training of 18 Pupil Midwives, all 18 of whom completed Part II of the Midwifery Training. There are 7 in training at this date.

The deliveries in the mother's own home continue to fall as the trend towards hospital confinements increases, due to the very adequate number of hospital beds available.

Ante-Natal Preparation Classes

The classes organised by the full-time Organiser continue to run at full capacity. The Health Visitors also help with the health education during the course sessions. Other Midwives and Health Visitors run courses in various parts of the County where buildings and transport make it practical.

Close liaison with the Health Education Department enables the participants to see some instructive and helpful films.

MOTHERS' CLUBS

In June, 1966, the Health Committee approved a scheme for the establishment of mothers' clubs throughout the Administrative County.

The basic idea underlying the formation of these clubs is to bring mothers of children together at regular meetings. The clubs serve two main purposes:—

(a) They enable mothers with a common interest to meet and provide a break from the home and children;

(b) they provide a receptive group for topics of Health Education which have a beneficial effect on the health of the mothers and their families.

In return for accepting a programme of Health Education, the County Council make available premises for meetings, either by allowing the use of clinics, where it does not conflict with County Council functions, or by paying for the hiring of accommodation where necessary.

A constitution for the clubs has been laid down, as set out below:—

(1) The Club shall be open to all mothers of children up to the age of 10 years.

(2) (i) Clubs should elect a Chairman and Committee annually from amongst its own members, together with a Secretary/Treasurer. A quorum of three members of the Committee (excluding the Secretary/Treasurer) is necessary before business can be conducted.

(ii) The Health Visitor or District Nurse of the Child Welfare Centre must be a member of the Committee.

(3) *Club Activities*

(i) At the discretion to the Committee.

(ii) Fifty per cent of the programme should be given over to health education.

(iii) County Health Staff are available to help with health education and suggested programmes are available on request. Free loan of equipment is provided.

(4) *Finance*

The County Council will pay for the hire of the premises subject to the hiring charges being approved by the appropriate Committee following consultation with the County Valuation Officer.

(5) The Mothers' Clubs will be responsible for the repair or replacement of any damage occasioned during their occupation of the premises.

(6) *Subscription*

Subscription fees must not exceed 2s. 6d. per person per meeting.

(7) *Annual Programme of Clubs' Activities*

The yearly programme of the proposed club activities, together with any suggestions, speakers, etc., is required to be sent to the County Medical Officer of Health by the 30th November each year in respect of the following year.

The programmes of activities received from the mothers' clubs indicate that a wide variety of topics, discussions and lectures are provided.

For clubs that have been operating for three or more years (those that existed before the County Council scheme) practically all aspects of Health Education will have been covered. Care has to be taken therefore with regard to the amount of Health Education lectures provided to avoid duplication.

The number of assisted Mothers' Clubs in the County continues to expand gradually and at the end of 1969, the following clubs were operating successfully:—

Ashley
Barton-under-Needwood
Cannock
Denstone
Glascote
Kidsgrove
Penkridge
Rocester
Rugeley
Two-Gates, Tamworth
Tutbury
Uttoxeter

There is no doubt the scheme has proved beneficial to mothers who participate and attempts will be made to encourage and assist persons who are thinking of forming such a club in their locality.

There are, of course, various other types of clubs for mothers to attend. These have differing names and are formed under differing organisations (*e.g.* Young Wives Groups attached to Church Organisations).

NEIGHBOURLY HELP SERVICE

This service, which is an integral part of the Domestic Help Scheme, is one in which arrangements are made for neighbours to look after old or sick people living alone, and for the helpers to receive a daily fee for the work they undertake, *i.e.* lighting fires, undertaking shopping, collecting pensions, helping the old people when they are getting up or going to bed, etc. The importance and justification for the scheme is that it has helped old people to remain in their homes in familiar surroundings and that generally it results in obviating, or at least delaying, admissions to residential and hospital accommodation, thus bringing about a considerable saving in public money. It is known that persons employed very often do a lot more work for the cases than they are paid for. This is because of their genuine concern for the patient which means far more to them than financial reward.

During the year under review, 37 neighbourly helps were provided.

NIGHT HELPS

The scheme for employing Night Helps (or Night Sitters or Watchers) was introduced in 1956 and is designed to provide help in cases of serious chronic and terminal illnesses to relieve the heavy strain on relatives by enabling them to have periods of undisturbed sleep during certain nights of the week. The scheme is also intended to give families opportunities of taking annual holidays in cases where there are aged parents who need constant attention and who cannot be temporarily removed to a hospital or other similar institution.

Whilst there is not a great amount of actual work involved in Night Help duties the task can be quite demanding as the Help sits with the patient usually from between 10-12 hours per night. Periods of Night Help duty are not usually long periods of duty. The Help attends the case continually until assistance is no longer required, and this normally is for a period of between 1 and 4 weeks.

Quite often persons employed as Domestic Helps with the Authority agree to undertake Night Help duty also, as it is not always possible to recruit outside persons.

It is generally found that the Night Help Service is called upon by General Practitioners as a last resort in cases of patients living alone and where there is some delay in removing the patient to hospital.

During 1969, 23 persons were engaged as Night Helps.

NURSING COMFORTS

The County Council continues to have an arrangement with the British Red Cross Society and the St. John Ambulance Brigade for the provision of nursing aids throughout the Administrative County, such as commodes, wheelchairs, bedpans, hoists and various other items of equipment.

This service is maintained to a high standard by both organisations and is invaluable to the County Council in maintaining as much home nursing as possible thus relieving pressure on hospital services. As in previous years the County Council has made financial contributions and for the financial year ending 31st March, 1970, the following grants will have been made:—

British Red Cross Society — £4,556

St. John Ambulance Brigade — £709 18s. 8d.

The equipment is loaned to the general public from the following centres:—

British Red Cross

Aldridge	Chasetown	Kings Bromley	Streetly
Alrewas	Cheadle	Kingsley	Tamworth
Alton (Cheadle)	Chorley	Kinver	Tutbury rural
Armitage	Codsall	Leek	Wall
Barton-under-Needwood	Eccleshall	Lichfield	Weeford
	Gayton	Mayfield	Weston-under-Lizard
Biddulph	Great Wyrley	Newcastle	
Blythe Bridge	Fradswell	Pelsall	Wheaton Aston
Brewood	Gnosall	Penkridge	Whittington
Brocton	Hammerwich	Rugeley	Wombourne
Burntwood	Haughton	Rushall	Yoxall
Burston	Heath Hayes	Shenstone	
Calton	Hednesford	Stafford	
Cannock	Ipstones	Stone	

St. John Ambulance

Audley	Hednesford	Cheadle	Uttoxeter
Aldridge	Stafford	Kidsgrove	Cheddleton
Chesterton	Brownhills	Leek	Great Wyrley

It is becoming increasingly difficult to find people to operate local depots. This task is made all the more difficult when private persons are asked to operate local depots and are expected to receive back into the medical loan store equipment in a dirty and unsatisfactory condition, bearing in mind, of course, that local depots are usually accommodated at private addresses. In some instances, wheelchairs have been returned so badly damaged as to require a major overhaul before re-issue.

Commodes are in the main returned without being suitably cleansed.

May I take this opportunity of placing on record once again sincere thanks due to both organisations for their unstinting efforts to maintain what is a growing and most important community service.

PREMATURITY

The following table gives particulars of the number of premature infants who were born during 1969:—

(1)	Number of Premature Live Births notified—	
	(a) In hospital	769
	(b) At home or a Nursing Home	119
		888
(2)	Number of Premature Stillbirths notified—	
	(a) In hospital	106
	(b) At home or a Nursing Home	6
	Total	112

	Weight at birth	PREMATURE LIVE BIRTHS												PREMATURE STILLBIRTHS	
		Born in hospital				Born at home or in a nursing home									
						Nursed entirely at home or in a nursing home				Transferred to hospital on or before 28th day					
			Died				Died				Died			Born	
		Total births (1)	within 24 hours of birth (2)	in 1 and under 7 days (3)	in 7 and under 28 days (4)	Total births (5)	within 24 hours of birth (6)	in 1 and under 7 days (7)	in 7 and under 28 days (8)	Total births (9)	within 24 hours of birth (10)	in 1 and under 7 days (11)	in 7 and under 28 days (12)	in hos-pital (13)	at home or in a nursing home (14)
1	2 lb. 3 oz. or less ..	27	16	3	2	1	1	–	–	1	–	1	–	25	3
2	Over 2 lb. 3 oz. up to and including 3 lb. 4 oz.	54	13	7	2	1	1	–	–	3	1	–	–	31	2
3	Over 3 lb. 4 oz. up to and including 4 lb. 6 oz.	145	13	9	2	5	–	–	–	6	3	1	1	23	1
4	Over 4 lb. 6 oz. up to and including 4 lb. 15 oz.	193	4	3	1	12	–	–	–	9	–	–	–	13	–
5	Over 4 lb. 15 oz. up to and including 5 lb. 8 oz.	350	3	3	2	76	2	2	–	5	–	–	2	14	–
6	Total ..	769	49	25	9	95	4	2	–	24	4	2	3	106	6

VACCINATION AND IMMUNISATION

Circular CMO.9/68 gave information concerning the adoption of a single schedule of vaccination and immunisation procedures in place of those previously used.

It was decided to implement the revised schedule which was prepared by the Joint Committee on Vaccination/Immunisation and accepted by the Standing Medical Advisory Committee of the Central Health Services Council and the Department of Health.

The schedule was introduced in November, 1968, and is as follows:—

Age	Antigen	Minimum Intervals	Comments
6 months	First Triple Antigen (Diphtheria, Pertussis, Tetanus) and one dose of oral Poliomyelitis Vaccine.		
8 months	Second Triple Antigen and one dose of oral Poliomyelitis Vaccine.	6-8 weeks	
12-14 months ..	Third Triple Antigen and one dose of oral Poliomyelitis Vaccine.	4-6 months	
During 2nd year .. (13-15 months)	Measles Vaccine.	4 weeks	
During 2nd year .. (14-16 months)	Smallpox Vaccine.	4 weeks	May be given in first year in special circumstances.
Five years or .. school entry	Diphtheria, Tetanus Toxoid and oral Poliomyelitis Vaccine		May be given on entry to Nursery School. If no immunisation, or an incomplete basic course of immunisation has been given before school entry the full basic course of diphtheria, tetanus, pertussis and poliomyelitis immunisation should be given at school entry, but primary vaccination against smallpox should not be undertaken unless a need arises.
	Smallpox Vaccine.	4 weeks	Above antigens may be followed by re-vaccination against smallpox.
10 years and ... upwards	B.C.G. Vaccine.		For tuberculin negative children.
About 15 years, .. prior to leaving school	Tetanus Toxoid, Oral Poliomyelitis Vaccine.		
	Smallpox Lymph.	4 weeks	Above antigens may be followed by re-vaccination against Smallpox

In the statistical tables below details are given of the number of persons under the age of 16 years who received protection during 1969:—

VACCINATION OF PERSONS UNDER AGE 16 COMPLETED DURING 1969

Table 1.—Completed Primary Courses—Number of persons under age 16.

Type of vaccine or dose	Year of Birth					Others under age 16	Total
	1969	1968	1967	1966	1962-1965		
1. Quadruple DTPP ..	–	–	–	–	–	–	–
2. Triple DTP	735	4,378	630	154	172	8	6,077
3. Diphtheria/Pertussis ..	–	–	–	–	–	–	–
4. Diphtheria/Tetanus ..	26	350	109	41	798	407	1,731
5. Diphtheria	–	8	5	2	7	27	49
6. Pertussis	–	–	–	–	–	–	–
7. Tetanus	73	34	10	7	59	387	570
8. Salk	161	800	187	55	346	18	1,567
9. Sabin	581	3,954	551	162	684	902	6,834
10. Measles	40	1,095	1,775	902	1,944	927	6,683
11. Lines 1+2+3+4+5 (Diphtheria)	761	4,736	744	197	977	442	7,857
12. Lines 1+2+3+6 (Whooping Cough) ..	735	4,378	630	154	172	8	6,077
13. Lines 1+2+4+7 (Tetanus)	834	4,762	749	203	1,029	802	8,379
14. Lines 1+8+9 (Polio) ..	742	4,754	738	217	1,030	920	8,401

Table 2.—Reinforcing Doses—Number of persons under age 16.

Type of vaccine or dose	Year of Birth					Others under age 16	Total
	1969	1968	1967	1966	1962-1965		
1. Quadruple DTPP ..	–	–	–	–	–	–	–
2. Triple DTP	58	1,218	2,773	527	1,086	217	5,879
3. Diphtheria/Pertussis ..	–	–	–	–	–	–	–
4. Diphtheria/Tetanus ..	58	493	775	196	7,552	2,059	11,133
5. Diphtheria	1	–	4	11	81	78	175
6. Pertussis	–	–	1	–	–	–	1
7. Tetanus	7	3	11	13	246	838	1,118
8. Salk	18	328	643	122	1,527	129	2,767
9. Sabin	83	1,327	2,272	492	7,966	3,848	15,988
10. Measles	–	–	–	–	–	–	–
11. Lines 1+2+3+4+5 (Diphtheria)	117	1,611	3,652	734	8,719	2,354	17,187
12. Lines 1+2+3+6 (Whooping Cough) ..	58	1,218	2,774	527	1,086	217	5,880
13. Lines 1+2+4+7 (Tetanus)	123	1,614	3,659	736	8,885	3,116	18,133
14. Lines 1+8+9 (Polio) ..	101	1,655	2,915	614	9,493	3,977	18,755

SMALLPOX VACCINATION—PERSONS AGED UNDER 16

Age at date of vaccination	Number of Persons Vaccinated (or revaccinated during period)	
	Number vaccinated	Number revaccinated
0 – 3 months	28	–
3 – 6 months	39	–
6 – 9 months	20	–
9 – 12 months	119	–
1	2,653	3
2 – 4	2,215	52
5 – 15	662	641
TOTAL	5,736	696

When compared with the 1968 figures the number of completed primary courses is down by almost half. This is accounted for by the lengthening of the intervals between the three doses needed to complete

the course, in accordance with the revised schedules. The reduction in the number of Measles doses administered is attributable to the withdrawal of a particular type of vaccine supplied.

From statistics forwarded annually to the Department of Health and Social Security (formerly Ministry of Health) on vaccination/immunisation, the following table is prepared and, as can be seen, Staffordshire's record compares favourably with the average percentage for England and Wales.

The following table shows the percentages vaccinated for Staffordshire together with the equivalent national figures:—

	Children born in 1968			*Smallpox (Children under* 2) (4)
	Whooping Cough (1)	*Diphtheria* (2)	*Poliomyelitis* (3)	
England and Wales..	66	67	65	31
Local Authority ..	65	69	70	20

IMMUNISATION BY MEANS OF THE INTRAJET INSTRUMENT

The protection of children against diphtheria, tetanus and whooping cough by a technique which dispenses with the traditional syringe has been under investigation for some time, in collaboration with Glaxo Laboratories. The Intrajet instrument is used to introduce a measured quantity (0.1ml.) of vaccine through the skin by means of high pressure and the absence of a needle has psychological advantages as well as avoiding pain and sterility problems.

The instrument has the limitation of only being capable of delivering a small dose. It has been used very successfully in the County for four years to protect children against tuberculosis by B.C.G. vaccination, but the concentration of the combined vaccine against diphtheria, tetanus and whooping cough has presented some problems.

Reference was made in earlier reports to the preliminary stages of the investigation, and in the course of 1969 it was demonstrated that there were no significant reactions to the administration of 0.1ml. of the fully concentrated preparation by this means. Consequently, it only remains to determine the effectiveness of this technique by taking a series of blood samples at various stages in the course and comparing the immune response in infants protected in this way with that in a comparable group treated conventionally.

MEASLES VACCINATION

The beginning of 1968 saw the abandonment of the priority scheme for susceptible children in favour of a general scheme of vaccination, although measles vaccine continued to be in short supply. In March, 1969 one of the two suppliers of the vaccine recalled all measles vaccine supplied by their firm and this caused difficulties in the supply arrangements. In view of this, vaccination was once again restricted to the following categories.

(a) Children in their 4th, 5th and 6th years;

(b) Children in residential establishments who were aged 1 to 7 years.

Despite this drawback in the measles vaccination programme, it is most encouraging to note that some 6,689 children received this form of protection during 1969. Publicity to this scheme is given in the following ways.

(1) Advertisments in the local press;

(2) Distribution of leaflets in schools and child health clinics;

(3) Posters in clinics and on public notice boards;

(4) Talks to various clubs by health visitors;

(5) Visits to family homes by health visitors.

SMALLPOX VACCINE DISTRIBUTION

From the 12th June, 1967, in accordance with Ministry of Health Circular 6/67, the distribution of smallpox vaccine to hospitals and general practitioners became the responsibility of local health authorities and authorities exercising delegated health functions. The distribution was previously carried out by the Public Health Laboratory Service.

To enable the changeover to take place, all hospitals and general practitioners in the Administrative County were circularised and given details of the hours during which the County Health Department would be open to deal with requests for vaccine. Arrangements were also made for the Department to be open from 9.0—11.0 a.m. on Saturday mornings. Members of the staff who volunteered to do duty on Saturday mornings on a rota basis were vaccinated as a precautionary measure and they are granted time off in lieu in respect of the extra duty. Records are kept in respect of all vaccine issued. The scheme continues to work exceptionally well.

B.C.G. VACCINATION, 1969

During the year the B.C.G. team visited 103 schools to tuberculin test and vaccinate eleven year old children. Three colleges for full-time students were also included in the programme.

The positive reactor rate continued to fall to the lowest rate ever recorded in this County.

The results are as follows:—

	1969	1968	1967
Number of children eligible ..	12,869	12,611	12,566
Number of acceptances	9,668	9,112	9,180
Acceptance rate	75%	72%	73%
Number tuberculin tested	9,129	8,880	8,932
Number vaccinated (negative reactors)	8,868	8,528	8,569
Positive reactors (no previous B.C.G.)	261	352	363
Percentage positive	2.8%	3.9%	4.0%
Stongly positive reactors referred for x-ray	12	50	89

Examination of Strongly Positive Reactors

There were no cases of active tuberculosis discovered through routine chest x-ray examinations, but investigation of as many contacts as possible of the positive reactors amongst school children was continued, the main purpose being to discover the source of infection responsible for the tuberculin reaction in the child and to offer protective measures to other members of the family if necessary.

At the beginning of the Autumn Term the Department was informed that a member of the ancillary staff at a Junior School was suffering from an infectious form of Pulmonary Tuberculosis. Three hundred pupils at the school, together with 110 children who had transferred to a Comprehensive School and 41 members of staff were considered to be at risk and investigations were necessary to exclude infection.

Results:

(a) *Junior School*

Seventeen children were found to have positive skin tests, but 5 of these were attributable to B.C.G. vaccination in infancy; all 17 had chest x-rays with negative results, but in view of the intensity of the reaction the Consultant Chest Physician decided to notify 3 of the children as having active Tuberculosis and to institute treatment as a precautionary measure. There was no question of infectivity in these cases and consequently continuing school attendance was sanctioned. The 41 members of staff who had been in contact had chest x-rays and it was necessary to repeat these in six instances. Eventually all staff were cleared.

(b) *Comprehensive School*

Seven of the 110 children developed low grade positive reactions to the tuberculin test, but x-rays were negative. All negative reactors were vaccinated. Arrangements were made to repeat the tuberculin tests after an interval of six months in order to ensure early detection of any late onset of tuberculosis amongst the contacts.

Conclusion

Incidents such as this establish the need for periodic chest x-ray of all staff having contact with children, and it is hoped that the school staffs will co-operate fully in the arrangements for repeat chest films at intervals of three years.

Contact Scheme

B.C.G. vaccination against tuberculosis can be given to infants and other young contacts of tubercular patients and to those who are at special risk by reason of their occupation.

During 1969 a total of 296 persons received vaccination at the Chest Clinic, the greater number of whom were child contacts of tubercular relatives. The number of persons skin tested was 412, the number found positive 133.

SECTION IV

OTHER SERVICES

FAMILY PLANNING SERVICE

During 1969 the Authority continued its policy of supporting the Family Planning Association, who provide the service throughout the Administrative County, by making grants and allowing clinics and equipment to be used free of charge.

The gradual expansion of the service continued throughout the year necessitating the opening of clinics at Tamworth Health Centre and the Heath House Clinic, Uttoxeter, and the expansion of the number of sessions at existing clinics. An approximate total number of clinic sessions held during the year was 978 and the approximate number of patient attendances was 14,300.

The Association report that the opening of the clinic at Tamworth has proved to meet a definite need and had progressed to a self-supporting basis within six months of opening. On the other hand, however, the Uttoxeter clinic up to the end of the year had not been successful, and consequently was uneconomic. Consideration was given to closing this clinic but it was decided to continue operating for a further trial period, altering the clinic day to coincide with the town's market day. Expansion plans for the future include the possibility of clinics at Kidsgrove or Biddulph and the opening of a vasectomy clinic by the West Midlands Branch of the Family Planning Association to include patients referred from this Authority.

The Family Planning Domiciliary Service operated by the Stafford shire Branch made a slow but worthwhile start in June, 1969 and by the end of the year 37 patients had been seen. It is interesting to note that the groups into which the cases seen can be categorised are as follows:—

(a) The real problem family mother who requires a large share of the service's resources.

(b) The diffident patients who keep putting off the first visit to a clinic but who after once accepting a method and knowing that they can see a doctor with whom contact has already been established, can quite happily be transferred to a clinic after perhaps two visits.

(c) Patients who are prevented from attending clinics either through lack of transport in rural areas or not being able to leave large numbers of small children.

The clinic at Stafford for the unmarried, known as S.A.F.E. (Single Adult Fertility Education), made considerable progress during 1969 and has expanded to the point where an extra session will need to be introduced. Because of the Authority's policy with regard to parental consent—required for those under the age of 19 years—the numbers in the 16, 17 and 18 age group were not forthcoming, and this thwarted the aim of the clinic which, in the main, is directed towards assisting the younger unmarried persons in avoiding unwanted pregnancies. However, the introduction of a change in the law affecting the age of majority prompted the Authority to review its policy with the result that parental consent is now only required for any person under the age of 16 years.

It is noted that the clientele attending the S.A.F.E clinic are those of the higher social category, and the promiscuous who are in the greatest need of protection are not attending, although there are no illusions about their existence. An encouraging point is the responsible attitude of male partners who show genuine concern for their girl friends. An unexpected element has been the number of older clientele, some either widows or divorcees, who have problems and have a definite preference for attending the unmarrieds' clinic despite the fact that they could quite inconspicuously be absorbed into an ordinary Family Planning Association session.

The year in question has been a very busy and successful one for the two branches of the Family Planning Association which together provide the service in this County. Family planning and related topics were never really free from national publicity, the biggest single item being the recommended withdrawal of several types of contraceptive pills.

The following clinics were serving County residents as at 31st December, 1969.

ALDRIDGE, Leighswood Road Child Health Clinic

Monday 10.00—11.30 a.m. and 7.00—8.30 p.m.
Closed Bank Holiday weeks

BENTILEE, Ubberley Health Centre, Bargrave Street, Bentilee, Bucknall, Stoke-on-Trent, Staffs.

Mondays 6.30—8.30 p.m.

BURTON-UPON-TRENT, The Clinic, Cross Street, Burton-upon-Trent

Monday weekly 1.45—3.45 p.m. and 6.00—8.00 p.m.

CANNOCK, County Health Clinic, Beecroft Road, Cannock, Staffs.

Tuesday 7.00—9.00 p.m.
Wednesday 7.00—9.00 p.m.
Thursday 2.00—4.00 p.m.

LEEK, Haregate Clinic, Leek, Staffs.

Wednesday weekly 7.00—9.00 p.m.
alternate Wednesdays 2.00—4.00 p.m.

LICHFIELD, The Clinic, Sandford Street, Lichfield

Tuesdays 10.00 a.m. to 12 noon and 1.30—3.30 p.m.
Wednesdays 7.00 to 9.00 p.m.

NEWCASTLE, The Clinic, King Street, Newcastle-under-Lyme

Thursday 2.00—4.00 p.m.

PHEASEY, Beacon Road, Pheasy, Great Barr.

Tuesday 7.15—8.30 p.m.
Thursdays 7.15—8.30 p.m.

RUGELEY, New Health Centre, Rugeley

Wednesdays 10.00 a.m. to 12 noon and 2.00—4.00 p.m.

STAFFORD, Child Health Clinic, North Walls, Stafford

Mondays 6.00—8.00 p.m.
Thursdays 10.00 a.m.—8.00 p.m.

S.A.F.E. (Clinic for the Unmarried) Child Health Clinic, North Walls, Stafford

Tuesdays 7.00—9.00 p.m.

STOKE-ON-TRENT, 12 Wellesley Street, Shelton, Stoke-on-Trent, Staffs.

Tuesdays 10.00 a.m. to 12 noon, 2.00—4.00 and 6.00—8.00 p.m.
Wednesdays 2.00—4.00 p.m. and 6.00—8.00 p.m.
Thursdays 10.00 to 12 noon

TAMWORTH, Health Centre, Hospital Street, Tamworth

Fridays 9.30—11.30 a.m.

UTTOXETER, Heath House Clinic, Cheadle Road, Uttoxeter

Tuesdays 2.00—3.00 p.m.

STAFFORDSHIRE COUNTY COUNCIL

HEALTH COMMITTEE

Annual Report of the County Analyst for the year 1969

INTRODUCTION

The total number of samples, from all sources, was 7,277, of which 5,158 or 71.0% were from County Council sources, 1,564 or 21.5% were from the four other Autonomous Authorities for which your Analyst is also appointed as Public Analyst and 555 or 7.5% were from other sources, including 19 other Boroughs or District Councils within the borders of the County of Stafford.

In order to facilitate reference to these samples in this Report, they are grouped under Sections, as follows:—

Section I	Number of samples and their origin
Section II	Food and Drugs Act, 1955
Section III	Fertiliser and Feeding Stuffs Act, 1926
Section IV	Consumer Protection Act, 1961
Section V	Pharmacy and Poisons Act, 1933
Section VI	Trade Descriptions Act, 1968
Section VII	Other samples

Legislation

During the period under review six Statutory Instruments came into operation:—

The Canned Meat Product Regulations, 1967

The Sausage and Other Meat Product Regulations, 1967

The Canned Meat Product (Amendment) Regulations, 1968

The Sausage and Other Meat Product (Amendment) Regulations, 1968

The Food (Control of Irradiation) (Amendment) Regulations, 1969

The Meat (Sterilisation) Regulations, 1969

Two other Statutory Instruments issued in 1969 but coming into force in 1970 were:—

The Artificial Sweeteners in Food Regulations, 1969 (January, 1970)

The Soft Drinks (Amendment) Regulations, 1969 (January, 1970)

There were no new Acts, relevant to the work of the laboratory, but the publication of the Agriculture Bill was a major step in legislation upon agriculture.

A Private Member's Bill, "The Labelling of Food and Toilet Preparations Bill", was introduced into Parliament but was not accepted.

Proposals for revised legislation on Cheese and on Labelling of Food were circulated by the Ministry.

Future legislation, new and revised, was indicated by:—

Food Standards Committee

Report on Condensed Milks.

Food Additives and Contaminants Committee

A review of the Colouring Matter in Food Regulations.
A review of the Antioxidant in Food Regulations.

Advisory Committee on Pesticides and Other Toxic Chemicals

Report on the Collection of Residue Data.

A further Review of Certain Persistent Organochlorine Pesticides used in Great Britain.

During 1969, new editions of the British Pharmacopoeia and The British Pharmaceutical Codex, which laid down new and revised standards for drugs and medical substances, came into operation.

A service volume to the standard work on Food and Drug Legislation – Bell and O'Keefe's "Sale of Food and Drugs" added a further 248 pages to the 1584 pages of the current Fourteenth Edition, which was published as recently as July, 1968.

The Canned Meat Product Regulations, 1967

The Canned Meat Product (Amendment) Regulations, 1969

The Sausage and Other Meat Product Regulations, 1967

The Sausage and Other Meat Product (Amendment) Regulations, 1969

Although made as long ago as May, 1967, these Regulations, covering most meat products other than pies and spreads, did not come into operation until May 31st, 1969, and were amended before they did so.

The Regulations concerning Sausages have proved to be relatively simple to administer as they have the effect of giving legal recognition to the standards of 65% meat content of Pork Sausages and 50% for Beef and other sausages, that have been used by Public Analysts for many years.

The attempt by our legislators to lay down standards for other specific products has, however, resulted in differences in interpretation of definitions and the omission from the Regulations of popular dishes such as Hamburgers and Shepherds Pie.

"Ready Meals", as included in the Regulations, have proved to be particularly difficult to interpret although the amendment did have the effect of changing matters from impossible to only very difficult! Your Analyst has taken the view that a "Ready Meal" must be something which produces a complete meal in a minimum of time and with a minimum of preparation. Those products with directions such as "peel and cook x lbs. of potatoes" are *not* "Ready Meals" nor is something that has to be "cooked in a slow oven for 45 minutes".

In spite of the difficulty, however, the Regulations are very welcome and with their help a considerable improvement in products has taken place.

The Food (Control of Irradiation) (Amendment) Regulations, 1969

The original Regulations, made in 1967, prohibited, with one exception, the application of ionising radiation to food intended for sale for human consumption. The amendment introduces a further exception, operative from 1st December, 1969, to permit the treatment of food for patients who are certified by a registered medical practitioner to require a sterile diet. The original exception being the permitted use of low level radiation as a processing or packaging aid.

The Meat (Sterilisation) Regulations, 1969

These Regulations, which came into force on 1st November, 1969, revoked and replaced The Meat (Staining and Sterilisation) Regulations, 1960.

By these Regulations, the staining of meat unfit for human consumption with a distinctive colour is no longer an alternative to sterilisation but it remains necessary for such meat to be marked "unfit for human consumption".

The movement of such meat is controlled and it is clear that the intention is to avoid the risks of the contamination of sound meat.

To the Public Analyst it means that the presence of an unusual colour in a meat product will no longer raise the suspicion that condemned meat has been used.

The Artificial Sweeteners in Food Regulations, 1969

The Soft Drinks (Amendment) Regulations, 1969

These Regulations were made at the close of 1969 and came into operation on 1st January, 1970.

The effect of these Regulations was to place a complete ban upon the use of Cyclamates in food, following a report from the U.S.A. that massive doses of Cyclamates given to test animals had raised doubts about their safety.

The extraordinary speed with which the Ministry moved in this matter resulted in some Public Analysts first hearing of the ban via radio news bulletins and many Public Analysts did not receive copies of the new Regulations until some time after they had come into effect. Copies of the Press Notice, sent to Public Analysts, became caught up in the Christmas mail and were considerably delayed.

This haste resulted, also, in an odd situation whereby the Ministry actually issued a proposed further amendment to a Labelling of Food amendment which had not been published.

The validity of the U.S.A. findings have been questioned, but on the basis of 'give a dog a bad name' it is very unlikely that Cyclamates will ever be re-introduced.

Controversy on Cyclamates has now ended, but it does leave the thought as to what might be banned if similar criteria were to be applied – many common, natural, foods might well be found to be harmful if consumed on a scale comparable with the amount of Cyclamate that was put into the diet of those unfortunate rats.

The Agriculture Bill

A somewhat mixed document, described "To make provision with respect to agriculture and related matters and with respect to flood warning systems; and to amend the Diseases of Animals Act, 1950, as respects importation and treatment by serum or vaccine".

At first sight it appears to be a consolidating measure dealing with such matters as eggs and smallholdings, but Part 4 seeks to completely revoke and replace the present Fertiliser and Feeding Stuffs Act.

The present Act dates from 1926 and although a good Act in its time, a revision is certainly due.

A welcome addition is that provision would be made to require the Statutory Statement to include instructions concerning the use of the material and this provision would appear to have been added as a result of representations which were made by Staffordshire County Council concerning the inclusion of urea in feeding stuffs. Another provision – Clause 78(6) – states:—

> " A certificate of analysis by an agricultural analyst or the Government Chemist, in any legal proceedings, be received as evidence of the facts stated therein if the party against whom it is to be given in evidence has been served with a copy of it not less than seven days before the hearing and has not, before the third day preceding the hearing, served on the other party a notice requiring the attendance of the person who made the analysis."

This wording is very similar to Clause 22 of the 1926 Act, and apart from the impossibly short times of giving notice but which were later extended would not appear to be any course for concern.

Correspondence between the Association of Public Analysts and the Ministry revealed, however, that it was now the Minister's intention to apply this Clause as it has never been applied in the past – that is to give the Defence in a prosecution the right to call as a witness a member of the staff of the Official Agricultural Analyst in addition to *or in place of* the Official Agricultural Analyst.

It has, for many years, been the custom for the Government Chemist to be represented by a Senior Analyst of his staff, who would be comparable in qualifications and experience with an Official Agricultural Analyst, but the County Council might well be at a disadvantage if cross-examination in the witness box is directed at a comparatively junior member of the staff of the County Laboratory.

The Minister also expressed the opinion that such a provision should be incorporated in Food and Drugs legislation. The present Food & Drugs Act, 1955, states, however, in Clause 110(1) that *the analyst* may be called as a witness and paragraph (3) of the same Clause makes it plain that "the analyst" means "The Public Analyst".

The Government Chemist can draw upon a reserve of such Senior Analysts and the County Council may find it necessary to include a higher proportion, than at present, of highly qualified and experienced staff to defend the good name of Local Government.

The Labelling of Food

The ill-fated Private Member's Bill could be a manifestation of the frustration in many quarters because of slow progress in labelling legislation.

The present Labelling of Food Regulations date from 1953. New Regulations were issued in 1967, to come into force in 1971, but forces were at work and it was announced that the new Regulations would be revoked before they would come into effect – completely new Regulations were actually published early in 1970 but which will not come into effect *until* 1973. By this time the present inadequate Regulations will have been in force for 20 years.

Food Standards Committee Report on Condensed Milk

This Report was commissioned mainly because of differences between the present Condensed Milk Regulations, 1959, and the more recent Dried Milk Regulations, 1965. A number of changes in description are recommended which will, if adopted, bring the Regulations up to date.

Colouring matter in Food

The Food Additives and Contaminants Committee recommended that the artificial red colouring matter, Ponceau MX, should be withdrawn from the list of Permitted Colours. They did not consider the matter to be urgent, however, and further recommended that the ban should not operate until January, 1971, to enable stocks to be cleared.

Although Ponceau MX is in wide use there are several other red dyes in the Permitted List from which manufacturers may choose – but the list is gradually becoming shorter.

Antioxidants in Food

The Food Additives and Contaminants Committee were asked by the Ministry to review the use of butylated hydroxytoluene in food but their Report did not become available in 1969.

Antibiotics in Food

A request was received from the Ministry, via the Association of Public Analysts, for information upon the use of non-medical antibiotics in food – nisin, tetracyclines and nystatin, which are permitted preservatives in certain foods.

Public Analysts are agreed that although the use of these preservatives is not widespread there would be cause for concern if there was to be unnecessary proliferation of food additives.

Pesticide Residues

The first of two Reports by the Advisory Committee on Pesticides and Other Toxic Chemicals, is entitled "The Collection of Residue Data".

This is an important Report, dealing with the practical aspects of the examination of foodstuffs for pesticides.

Following the publication of this Report, two new Committees were set up by the Ministry – an Analytical Methods Committee and a panel to review levels of pesticides in foods and to advise, and arrange, for the carrying out of surveys.

The setting up of these Committees has been taken by certain interested persons to mean that Local Authorities should no longer concern themselves in this important matter, but that all necessary work would be undertaken by Ministry controlled laboratories. A detailed study of the Report shows, however, that the conclusions from the Report are that there are two separate but complementary aspects to the work.

(a) the establishment of dietary levels by detailed examinations of whole diets and the consequent setting of limits for residues. This work is to be the province of Government Laboratories.

(b) the carrying out of general surveys over the whole country to establish general levels of residues in a wide range of foodstuffs and, following the setting of limits, the enforcement of such limits under the provision of the Food and Drugs Act.

Paragraph 60 of the Report states:—

"The activity of the appropriate Local Authorities in Britain, if carried out on an extended scale, could serve to indicate the general levels of residues and any undesirable trends."

Clearly the Food and Drugs Authorities have an important and continuing part to play in this essential work.

The second Report – "A Further Review of Certain Persistent Organochlorine Pesticides used in Great Britain" – concluded that while the small amounts of certain pesticides which are present in the environment have had no effect on man, their presence is undesirable and the amounts should be reduced. The Committee did not feel that there was a case, at the present time, for a ban on persistent organochlorine pesticides but they did recommend that certain types of usage should be prohibited – thus DDT should not be used in the home or garden nor in vapourisers. They considered, also, that Dieldrin should not be available in small retail packs and the restrictions should be placed on the use of Aldrin, Dieldrin and DDT on certain crops.

The Report has been generally accepted as a reasoned document, but some trade interests have claimed that the proposed restrictions on DDT are based more upon emotion than evidence.

The use of Antibiotics in Animal Husbandry and Veterinary Medicine

The Report of a Joint Committee – The Swann Report – is a very comprehensive document which summarises information upon the subject from many sources.

It outlines theories to account for the growth promoting effect of antibiotics and discusses the development of organisms resistant to drugs. It reports also on a new and somewhat disturbing phenomenon whereby some resistant organisms have been found to transfer their resistance to other organisms that have not been in contact with the drug.

A distinction is drawn between antibiotics that have therapeutic uses and those that have not. It recommends that the former should not be used as feed additives and should be used only for therapeutic purposes and even then only when prescribed by a veterinary surgeon.

In particular, penicillin, chlortetracycline, oxytetracycline and also the bacteriostatic sulphonamides, should be available only on prescription.

It is recommended that when antibiotics are used in feed that they should be specified by name and that no more than 100ppm should be used.

The use of sub-therapeutic doses to treat "stress" in animals is particularly criticised because of the lack of any evidence as to the value of such treatment. Of more direct interest to Public Analysts is the suggestion that antibiotics used to treat mastitis in cows should incorporate a marker that would make the presence of antibiotics in milk more obvious or more readily detectable. There is also a proposal that there should be a survey of antibiotic residues in foods.

Disposal of Waste Materials

Reference was made in the 1968 Report to the nuisance and expenditure of public money caused by the dumping of waste materials by unprincipled persons. Three further such cases were investigated during 1969 – a quantity of an oily liquid with a most offensive odour was dumped near residential property and a plating waste containing cyanides was dumped on a local authority rubbish tip, but the case which was most serious concerned the dumping of a large quantity of medicines on open land. Detailed reference to these matters is given in Section VII (Special Investigations).

Laboratory Organisation and Equipment

The major change during 1969 was the introduction of a system of work control and records incorporating a purpose-designed Kalamazoo punched card system. This has been of very considerable benefit in the day-to-day management of the laboratory and has effected a considerable saving in time, and a gain in accuracy, in the preparation of accounts and of the Statutory Returns required by the Ministry.

Several Local Authorities and individual Public Analysts have requested details of the system.

A second deep-freeze refrigerator was purchased to provide additional storage for perishable samples.

The decision was made to purchase an Atomic Absorption Spectrophotometer (this instrument was delivered early in 1970) and negotiations were commenced for the purchase of additional Gas Chromatography equipment and also for a more versatile Ultraviolet Spectrophotometer to replace the existing obsolete instrument.

Staff

The very specialised nature of the work of a Public Analyst's Laboratory demands a considerable degree of stability in staffing, since it can take several years for new entrants, even those at graduate level, to become familiar with the work.

Mobility of staff in Local Government is usually considered to be a good thing and is, in fact, encouraged. This cannot apply to the staff of a Public Analyst since there are only 27 such laboratories, financed by Local Authorities, in the whole of Great Britain and opportunities for advancement by mobility are very few.

Another factor is that it is vitally necessary for scientific staff to keep themselves informed of latest developments in techniques and apparatus, by reference to current scientific publications and by participation in meetings of Learned Societies. Unfortunately, not all staff of Public Analysts have the necessary facilities, so that outside London and the larger Provincial Centres it may be necessary for staff to travel some distance to use a technical library, attend a meeting or even to take a part-time course of study.

Towards the close of 1969 it became apparent that the County Laboratory was no longer able to compete with industry, or even the Public Services, for staff, and the New Year had to be faced with a much depleted staff. Two experienced Analysts and two Trainee Analysts left – two to other Public Analyst's Laboratories, one to a Public Utility and one to industry. These were serious losses. Experienced staff cannot be replaced immediately and the loss of trainees, just as they begin to become useful members of the staff, is particularly regrettable. Trained staff are, in effect, the capital investment of a laboratory.

Another problem, associated with recruitment, has arisen from changes in the pattern of further education. In the past it was usually necessary for the bright school leaver, of limited means, to progress via employment that provided facilities for part-time study. The position now is that many more grants are available and most students, that show promise, are able to take a course of full-time study.

There can be no doubt that these changes in education are for the better, and there is also no doubt that full-time study is preferable to part-time study. A school leaver entering the County Laboratory with 5 'O' levels faces at least seven years' part-time study before graduation – a daunting prospect.

A further difficulty, in the not too distant future, is that it may become impossible to cover the syllabus for an Honours Degree by part-time study.

Industry is trying to solve this problem of recruitment by offering full-time release and by sandwich courses.

The retirement of Mr. George Isles, a Senior Assistant Analyst, at the end of the year marked the end of an era. Mr. Isles was an Assistant to a former County Analyst, Mr. E. V. Jones, when the latter held the appointment as a Consultant before the present County Laboratory came into being in 1929, and joined the staff of the County Laboratory shortly after Mr. Jones was appointed as Staffordshire's first full-time County Analyst.

Mr. Isles is one of a select few who helped to lay the foundations of the present Public Analyst's Service and who took part in the revolution which has advanced analysis from basic test-tube chemistry to the science which it is to-day.

Another retirement was that of Miss N. Gee, of the clerical staff. Miss Gee was a member of the staff of the County Laboratory for 23 years and was Secretary to my predecessor, Mr. A. Houlbrooke, during the whole of the time of his appointment as County Analyst.

My thanks are due to all members of the staff, whose depleted numbers have had to cope with an ever increasing volume of work, and in particular to my Deputy, Mr. H. M. Bee, M.Chem.A., B.Sc., F.R.I.C., for his support during a year of change and development. A special word of thanks is due, also, to my clerical staff who have co-operated in a complete revision of the office system.

RONALD S. HATFULL,
County Analyst.

County Laboratory,
Martin Street,
Stafford.

SECTION I

Numbers of Samples submitted under the various Acts etc., and their Origin.

FOOD & DRUGS ACT, 1955

	Milk			Pesticide Residues	Complaints	Other Foods & Drugs	Totals
	Composition	Antibiotics	Hypochlorite				
County Council:							
W. & M. Dept. ...	1,630	–	–	–	9	1,386	3,025
Health Dept.	1,151	189	426	–	5	–	1,771
	2,781	189	426	–	14	1,386	4,796
Other Sources:							
Stoke-on-Trent	121	–	–	9	7	734	871
Newcastle Borough ...	68	–	–	–	7	99	174
Stafford Borough ...	79	–	–	–	13	100	192
Cannock U.D.C. ...	–	–	–	–	7	62	69
Other Authorities ...	–	–	–	–	59	–	59
Private Purchasers ...	–	–	–	–	5	–	5
	268	–	–	9	98	995	1,370
	3,049	189	426	9	112	2,381	6,166

FERTILISER & FEEDING STUFFS ACT, 1926

	Fertilisers	Feeding Stuffs	Totals
County Council	57	85	142
Stoke-on-Trent	15	6	21
Private	–	2	2
	72	93	163

CONSUMER PROTECTION ACT, 1961

The Toys (Safety) Regulations, 1967

County Council	15	
Stoke-on-Trent	3	Total 18

THE PHARMACY AND POISONS ACT, 1933

County Council	1	Total 1

THE TRADE DESCRIPTIONS ACT, 1968

County Council	17	
Stoke-on-Trent	1	Total 18

OTHER SAMPLES

ATMOSPHERIC POLLUTION

	Lead Peroxide Cylinders	Rain gauges	Totals
Aldridge-Brownhills U.D.C. ..	14	24	48
Cannock U.D.C.	–	36	36
Newcastle Borough	–	12	12
Stone R.D.C.	44	53	97
Rugeley U.D.C.	12	12	24
Cheadle R.D.C.	–	20	20
Newcastle R.D.C.	11	12	23
	91	169	260

	Drinking Water	Sewage		Swimming Baths	Others	Total
		Routine Domestic	Trade Wastes			
County Council ..	18	133	–	5	10	166
Stoke-on-Trent ..	7	–	–	75	1	83
Newcastle B.C. ..	3	–	–	64	1	68
Stafford B.C. ..	16	–	–	–	–	16
Cannock U.D.C. ..	–	–	–	–	–	–
Other Authorities ..	64	16	23	52	25	180
Private	7	–	3	–	1	11
	116	149	26	196	38	524

THE ROAD SAFETY ACT, 1967

Private	33
Total	33

MISCELLANEOUS

	Special Investigations	Toxicology	Totals
County Council	18	3	21
Stoke-on-Trent	–	1	1
Newcastle Borough	5	1	6
Stafford Borough	5	1	6
Cannock U.D.C.	3	–	3
Other Authorities	18	2	20
Private	24	11	35
	73	19	92

Total, all samples, 7,277.

SECTION II
FOOD & DRUGS ACT, 1955

Samples	County Council		Other Sources	
	Examined	Unsatis-factory	Examined	Unsatis-factory
Dairy Products:				
Milk, Ordinary (Composition) ..	2,658	30	214	–
,, Skimmed ,, ..	–	–	–	–
,, Channel Island ,, ..	123	6	54	1
,, Antibiotics	189	4	–	–
,, Hypochlorites	426	–	–	–
,, Complaints	3	–	14	12
,, Condensed	2	–	10	1
,, Dried	4	–	2	–
Cream	16	1	42	2
Butter	37	–	32	1
Margarine	19	2	7	–
Cheese	56	1	10	2
Ice Cream	18	–	29	–
Milk Puddings	15	–	9	1
Fermented Milk	6	1	5	1
Cereal Products:				
Flour and Flour Mixes	17	–	9	1
Bread	10	1	17	15

Samples	County Council		Other Sources	
	Examined	Unsatis-factory	Examined	Unsatis-factory
Flour Confectionery	71	3	10	7
Pasta	5	–	–	–
Starch Products	15	–	5	–
Breakfast Cereals	4	1	–	–
Other Cereals	19	2	2	1
Meat and Meat Products:				
Meat, Raw or Cooked	38	–	7	2
,, Cured or Corned	27	3	15	5
Sausages	105	13	298	37
Prepared Meat	97	12	118	13
Meat in Pastry	41	1	30	5
Spreads	9	–	4	–
Extracts	5	–	1	–
Poultry and Poultry Products:				
Poultry, Raw or Cooked	1	1	–	–
Prepared Poultry	13	2	13	2
Poultry in Pastry	2	–	–	–
Spreads	3	–	–	–
Eggs and Egg Products	2	–	3	–
Fish and Fish Products:				
Fish, Raw or Cooked	15	1	5	3
Prepared Fish	23	5	6	3
Cured Fish	1	–	–	–
Spreads	8	1	4	–
Fruit and Fruit Products:				
Fresh	–	–	1	–
Dried	19	–	32	–
Preserves	36	1	58	2
Canned or Bottled	33	–	8	3
Other Products	33	–	30	2
Vegetables and Vegetable Products:				
Fresh	8	–	5	3
Dried	15	1	2	–
Canned or Bottled	25	–	2	1
Other Products	32	4	13	2
Nuts and Nut Products:				
Nuts	17	–	19	–
Nut Products	15	–	12	–
Sugar and Sugar Products:				
Sugars	13	2	8	1
Sugar Confectionery	57	1	10	3
Other Products	8	–	3	–
Substitutes	–	–	1	–
Oils and Fats:				
Animal	38	–	16	1
Vegetable	10	–	4	–
Baby and Infant Foods:				
Milk Basis	1	–	1	–
Cereal Basis	2	–	1	–
Fruit/Vegetable Basis	5	–	4	–
Meat Basis	3	–	2	1

Samples	County Council		Other Sources	
	Examined	Unsatisfactory	Examined	Unsatisfactory
Beverages:				
Tea	19	–	2	–
Coffee	11	–	3	–
Cocoa	5	–	1	1
Cereal	2	–	1	–
Fermentation Products:				
Beers	21	1	5	1
Wines	7	–	–	–
Spirits	2	–	4	–
Vinegar, Pickles, etc.	65	3	36	2
Other Products	2	1	–	–
Soft Drinks:				
Mineral Waters	17	–	15	1
Squashes, Cordials, etc.	37	–	40	1
Others	10	1	3	1
Spices, Flavourings, etc.:				
Herbs and Spices	31	1	14	1
Flavours and Essences	5	–	–	–
Colours	–	–	1	–
Mineral Adjuncts	10	–	6	–
Remedial Foods:				
Slimming Foods	13	2	3	–
Vitamin Foods	3	–	–	–
Special Diets	–	–	–	–
Diabetic Foods	1	–	1	–
Drugs:				
Analgesics and Antipyretics	8	–	2	–
Antiseptics and Disinfectants	7	–	–	–
Digestive Aids	10	–	1	–
Emollients and Drugs of Local Action	3	–	5	–
Laxatives and Purgatives	14	–	10	1
Respiratory System	18	1	8	–
Vitamin Preparations	9	1	1	–
	4,796	112	1,370	144

Unsatisfactory Food & Drug Samples—Statistics

The numbers of samples, received from official sources, that were the subject of adverse reports—together with the corresponding figures for 1968.

	Milk			Pesticide Residues	Complaints	Other Foods & Drugs	Totals
	Composition	Antibiotics	Hypochlorites				
County Council:							
1968	62 (2.1%)	1 (0.5%)	0 –	0 –	15 (39%)	46 (3.3%)	124 (2.5%)
1969	36 (1.3%)	4 (2.1%)	0 –	0 –	7 (50%)	65 (4.7%)	112 (2.3%)
Other Sources:							
1968	3 (0.8%)	– –	– –	0 –	70 (70%)	41 (4.2%)	114 (7.9%)
1969	1 (0.4%)	0 –	0 –	1 (13%)	77 (78%)	63 (6.3%)	142 (10%)

MILK

The average composition of genuine samples of normal milk for the four quarters of 1969, as compared with 1968, was as follows. Appeal-to-cow samples are not included.

Ordinary Milk

Source		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter	
		f.	s.n.f.	f.	s.n.f.	f.	s.n.f.	f.	s.n.f.
County Council	1969	3.75%	8.65%	3.60%	8.65%	3.70%	8.70%	3.95%	8.80%
	1968	3.75%	8.75%	3.60%	8.75%	3.70%	8.70%	3.90%	8.75%
Stoke-on-Trent	1969	3.70%	8.60%	3.55%	8.65%	3.70%	8.75%	3.85%	8.80%
	1968	3.65%	8.70%	3.50%	8.75%	3.70%	8.70%	3.85%	8.70%
Newcastle Borough	1969	3.70%	8.60%	3.55%	8.60%	3.65%	8.80%	3.80%	8.75%
	1968	3.70%	8.70%	3.55%	8.75%	3.55%	8.70%	4.30%	8.70%
Stafford Borough	1969	3.75%	8.60%	3.60%	8.75%	3.70%	8.80%	3.95%	8.80%
	1968	3.70%	8.75%	3.55%	8.80%	3.75%	8.70%	3.90%	8.75%
Cannock U.D.C.	1969	—	—	—	—	—	—	—	—
	1968	3.70%	9.00%	3.20%*	8.80%*	—	—	—	—

*Single Samples

Channel Island Milk

Source		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter	
		f.	s.n.f.	f.	s.n.f.	f.	s.n.f.	f.	s.n.f.
County Council	1969	4.70%	8.90%	4.45%	9.00%	4.70%	9.10%	5.05%	9.20%
	1968	4.70%	9.10%	4.55%	9.10%	4.70%	9.10%	4.95%	9.05%
Stoke-on-Trent	1969	4.65%	8.90%	4.45%	8.95%	4.65%	9.10%	5.05%	9.20%
	1968	4.50%	9.00%	4.35%	9.05%	4.50%	9.05%	4.90%	9.00%
Newcastle Borough	1969	4.65%	8.90%	4.30%	8.75%	4.45%	9.20%	4.80%	9.05%
	1968	4.50%	8.90%	4.50%	9.10%	4.50%	9.05%	—	—
Stafford Borough	1969	4.80%	8.85%	4.40%	9.05%	4.75%	9.25%	4.60%	9.10%
	1968	4.60%	9.20%	4.65%	9.05%	5.25%	9.15%	5.50%	9.10%
Cannock U.D.C.	1969	—	—	—	—	—	—	—	—
	1968	4.70%	9.30%	4.10%*	9.20%*	—	—	—	—

*Single Samples

Unsatisfactory Milk Samples

Details of the 37 official samples of liquid milk reported as unsatisfactory are as follows:—

Source	Mark	Type	Observations
County Council ..	F.193	U	0.7% water
,, ..	F.194	U	1.5% water
,, ..	H.547	U	5.0% def. in fat
,, ..	H.645	U	7.7% water
,, ..	H.648	U	5.0% water
,, ..	33C/B	U	4.7% def. in fat; 0.7% water
,, ..	41C/B	U	2.9% def. in fat; 0.7% water
,, ..	XD989	P(CI)	15.0% def. in fat
,, ..	D.59	P	20.0% def. in fat
,, ..	D.56	P	23.3% def. in fat
,, ..	‡H.918	U	3.3% def. in fat
,, ..	‡H.919	U	6.6% def. in fat
,, ..	‡72C/B	U	3.3% def. in fat
,, ..	F.218	U	3.3% def. in fat
,, ..	D.384	U	8.3% def. in fat
,, ..	D.386	U	3.3% def. in fat
,, ..	74C/B	U	10.0% def. in fat
,, ..	H.1568	U	3.3% def. in fat
,, ..	F.286	P	2.0% water
County Council ..	XF295	U	3.3% def. in fat
,, ..	H.1112	U	3.3% water
,, ..	88C/B	U	3.3% def. in fat
,, ..	90C/B	U	4.1% def. in fat; 0.3% water
,, ..	91C/B	U	4.1% def. in fat; 0.8% water
,, ..	XD485	P(CI)	13.1% water; 7.5% def. in fat
,, ..	94C/B	P(CI)	2.5% def. in fat
,, ..	95C/B	P(CI)	5.0% def. in fat
,, ..	XF374	U	3.3% def. in fat
,, ..	‡D.589	U (CI)	12.5% def. in fat
,, ..	XF482	P	10.4% water
,, ..	‡5C/C	U (CI)	7.5% def. in fat
,, ..	H.1342	U	11.7% def. in fat
,, ..	‡18C/C	U	20.0% def. in fat
,, ..	‡H.1426	U	10.0% def. in fat
,, ..	32C/C	U	1.7% def. in fat
,, ..	‡34C/C	U	6.7% def. in fat
Stafford B.C.	1769	P(CI)	5.0% def. in fat

One sample of milk, submitted as ordinary milk (County XF383) was of satisfactory composition and, therefore, included with the satisfactory samples, but the criticism was made that it had been sold in a bottle embossed with the words "Channel Islands Milk".

That this was a case of a "stray" bottle was indicated by a name on the bottle that was different from that on the foil cap – which latter made no mention of Channel Islands Milk.

As an isolated instance it was not considered that there had been any deliberate misdescription but it is clearly desirable that bottles that have a permanent marking of one type of milk should not be used for any other type of milk.

Of the samples of milk reported genuine, 100, including 3 "Appeal-to-Cow" samples were naturally poor in solids-not-fat as shown by the Freezing Point Test (Hortvet).

8 samples that were reported as low in fat were later considered to be genuine when corresponding "Appeal-to-Cow" samples showed that the milk was of naturally poor quality. These samples are marked * in the above table.

ANTIBIOTIC TEST

Antibiotics are used to treat mastitis and the consumption of milk from such cows could constitute a health hazard, particularly to those persons who are sensitive to antibiotics.

Of the 189 samples examined, the following were found to contain antibiotics:—

Sample No.	*International Units of Penicillin in 1 millilitre of Milk*
D.842 ..	0.075
F.74 AB ..	0.02
F.85 AB ..	0.025
F.209 AB ..	0.075

Subsequent samples from the same sources were free from antibiotics.

These amounts of antibiotics are small and at the lower limit of detection but indicates that milk from a cow under treatment had been sold before sufficient time had elapsed for its elimination from the animal.

Only 4 samples, 2.1%, out of 189 examined in the County Laboratory in 1969, is very much better than when the Milk Hygiene Sub-Committee of the Milk and Milk Products Technical Advisory Committee of the Ministry of Agriculture, Fisheries and Food reported in 1963 that 14% of the total milk sampled contained antibiotics.

The sale of milk containing antibiotics may become more difficult to detect in the future due to the introduction of bulk milk tanks on farms, the milk from the whole herd being mixed together. This could be a temptation to include the milk from cows under treatment in the knowledge that the amount of antibiotic in the milk would be diluted by the milk from the other cows to a level that might not be detected by present analytical methods. A situation could arise where most milk contained minute traces of antibiotics which, though not detectable by present means, could have long term medical significance. The Ministry is, however, investigating the possibility of including a marker dye with the antibiotic that would colour the milk and thus facilitate detection.

It would appear, however, that there is a need for a requirement, by law, for milking machines to have provision for the taking of samples from an individual cow as the cow is being milked.

This same Milk Advisory Committee recommended that there should be a campaign to reduce the incidence of mastitis, but it has been suggested that the extensive use of machine milking has resulted in an increase in what has been described as sub-clinical mastitis. In support of this is the observation that some samples of milk submitted with the complaint that they contained sediment, were found to contain very numerous leucocyte cells – sufficient to form a deposit upon standing – further reference to this matter is given under the samples concerned.

Hypochlorite Test

Solutions of hypochlorites are permitted for the sterilisation of dairy equipment, but none should gain access to the milk.

All 426 samples examined were free from hypochlorites.

OTHER FOODS AND COMPLAINT SAMPLES

Dairy Products

Milk

The number of bottles of milk delivered in the course of a year must be astronomical and viewed against this, the number of justified complaints appears very small. Nevertheless, the customer who finds that the bottle of milk that was left on the doorstep is unusable because of some unwelcome object is justifiably annoyed – or "prejudiced" as the law has it. Unthinking purchasers are, however, sometimes guilty of practices that must try the dairyman's temper and baffle his bottle-washing machine.

In four cases a previous purchaser appeared to have been a contributory factor, although this does not excuse the dairy from liability. Two bottles, Newcastle Borough FC.69/93 and Newcastle Rural FC.69/82, contained mould and the latter contained, also, mineral and vegetable debris and mites. Another bottle – Cannock Urban FC.69/12 – contained the pupae of the Phorid fly, Paraspiniphora Bergenstammi. The presence of moulds and insects presupposes that there must have been something in the bottle to support such life as is the case when a milk bottle has not been rinsed out properly. The fourth bottle, Seisdon Rural FC/69/18, contained iron rust which appeared to have come from iron filings.

Six samples were submitted because they looked 'unusual' to the purchaser. These include two of Sterilised Milk – Newcastle Borough FC.69/2, and Aldridge-Brownhills FC.69/42, that contained added water, 70% and 83% respectively – both bottles had faulty seals that had allowed water to enter during the sterilisation process. Another sample of ordinary milk, Lichfield City FC.69/98, contained 10% of a dilute aqueous solution of an alkaline substance and it appeared that some water from the bottle washing plant had remained in the bottle. A sample thought to be 'thin', Newcastle Borough FC.69/10, was of normal composition but a sample that was thought to have been made by reconstituting dried milk, County 34 B/O, FC.69/81, was deficient in both fat and solids but there was no evidence that it contained dried milk.

A complaint of a 'peculiar taste' in a sample of sterilised milk, Stafford Borough FC.69/59, could not be substantiated.

Two school milks, County FC.69/54 and FC.69/106, were submitted following complaints that the bottles contained splinters of glass, but none was found.

Foreign matter in a bottle of sterilised milk, Seisdon Rural FC.69/40, consisted mainly of particles of iron, together with some dirt, and it was suggested that this had been introduced by some malfunction of the capping machinery.

One sample, Aldridge-Brownhills FC.69/47, appeared to contain "dirt" but was satisfactory, marks on the outside of the bottle being responsible for the effect.

An unusual contaminant in a complaint sample from Tamworth Borough, FC.69/92, was found to be the inflorescence of the common oak tree – *Quercus Robur*.

Two samples, Stafford Borough FC.69/49 and Aldridge-Brownhills FC.69/52, were submitted following a complaint that a "sludge-like" deposit formed on standing. When first examined the samples appeared to be perfectly normal, but when left undisturbed for 24–48 hours, the separation on the bottom of the bottle of a pale buff coloured deposit became apparent.

Deposits of similar appearance to this material have been seen occasionally in the past and have been denatured milk solids with possibly a little starchy matter due to dust from the feeding troughs, and occasionally a few blood cells. With these samples, however, the appearance under the microscope was very different and it was clear that some new factor had emerged.

After a long investigation it was concluded that the material consisted of leucocyte cells from the cows udders. A few such cells are not uncommon, but the presence of sufficient to form a layer of "sludge" on the bottom of the bottle required an explanation.

It has been suggested that such cells are present in the milk of cows suffering from mastitis and it has been stated that a sub-clinical form of mastitis is a common consequence of machine milking. It has also been suggested that newer types of filters at the milking plant permit this material to pass through, whereas the older, slower, filters would provide a barrier.

To quote from the 1963 Report of the Milk Hygiene Sub-Committee of the Milk and Milk Products Technical Advisory Committee of the Ministry of Agriculture, Fisheries and Food:—

> " there should be an anti-mastitis campaign by veterinary surgeons and by all those advising on milk production to encourage better milking techniques and hygienic method."

Much may have been done but it is clear that this problem has not yet been solved.

Condensed Milk

A sample of Full Cream Evaporated Milk, Stoke-on-Trent 406A (FD69/x622), was found to have undergone bacteriological decomposition due to entry of apoilage organisms through a fault in the seam of the can.

Cream

The Cream of a Dairy Cream Trifle, County 88 A/R (FD.69/134) contained only 14.4% of fat and was not, therefore, "cream" within the meaning of the Food Standard (Cream) Order, 1951 – which required a minimum of 18% of fat for Single Cream.

The Cream of a Dairy Cream Slice, submitted following a complaint, Cannock Urban FC.69/67, had dark particulate matter that contained metallic iron and aluminium – probably the result of friction in the mixing machinery.

Butter

A complaint sample, Lichfield City FD.69/86, had an acid value of 1.7 – an indication of developing rancidity.

Margarine

The wrappers of two samples of margarine, County 30 B/N (FD.69/665) and 75 B/M (FD.69/551), had lists of ingredients that included "butter" whereas no butter was present. The manufacturers admitted that by a mistake in their design department this list of ingredients had appeared on the wrappers of margarine without butter. It is understood that such large stocks of wrappers were involved that the manufacturers found that their only course was to add butter.

Cheese

A sample of Cheese Spread with Onion, County 36 A/Q (FD.69/18), was contaminated by mould and a sample of Cheddar Cheese, Aldridge-Brownhills FC.69/9, contained a flake of white paint.

A sample described as "Goats Milk Lactic Cheese", Stoke-on-Trent 554A (FD.69/X821), contained only 19.4% of fat and, also, 63.6% of water. The Cheese Regulations required that cheese of this composition should bear the wording "Medium Fat Soft Cheese", but there is some doubt as to whether the Regulations apply to cheese made from other than cow's milk.

Milk Puddings

The discoloration in a complaint sample of Canned Creamed Rice Pudding, Stoke-on-Trent FC.69/22, was due to local corrosion of the can.

Fermented Milk

A sample marked "Real Fruit Yoghurt", County 33 B/L (FD.69/296), contained Yoghurt that had been made from skimmed milk instead of whole milk.

"Smetana" is the name of a type of soured cream that originated in Russia. The cream is soured by the use of Strepotococcous lactis and Lacto-bacillus acidophilus and the product contains 30%–45% of fat. Exception was taken, therefore, to a product sold as "Smetana", Stoke-on-Trent 552A (FD.69/X819), which contained only 10% of fat and had been prepared by souring a mixture of cream and skimmed milk powder with the yoghurt organism, lactobacillus bulgaricus.

A yoghurt type product described as "Dairy Cocktail", Aldridge-Brownhills FC.69/97, was contaminated by a growth of Penicillium type mould.

Cereal Products

Flour

A complaint sample of flour, Kidsgrove Urban FC.69/89, was contaminated by rodent excretia – probably from a mouse.

Bread

The contamination of bread continued to be a problem and 16 complaint samples were examined during the year.

It is informative to list these samples by the quarter in which they were submitted.

1st Quarter

Cannock Rural	FC.69/14	Sliced Bread	Lubricant from machinery
Cheadle Rural	FC.69/15	Sliced Bread	Lubricant from machinery
Lichfield Rural	FC.69/17	Sliced Bread	Deposit of metallic zinc on the crust – apparently due to improperly galvanised equipment
Rugeley Urban	FC.69/19	Sliced Bread	Contained two small pieces of brown paper saturated with mineral oil

2nd Quarter

Cannock Urban	FC.69/69	Bread	Iron rust, that had become pressed into the dough prior to baking
Aldridge-Brownhills Urban	FC.69/46	Sliced Bread	Mould – mainly Geotrichum candidum – and some Penicillium
Aldridge-Brownhills Urban	FC.69/53	Sliced Bread	Mould – Cladosporium
Rugeley Urban	FC.69/24	Sliced Bread	Mould – Penicillium
Rugeley Urban	FC.69/36	Sliced Bread	Mould – Penicillium, Cladosporium and Geotrichum

3rd Quarter

County	FC.69/77	Bread	Mineral and vegetable debris associated with iron and mineral oil
Stafford Borough	FC.69/68	Bread	Two pieces of ferrous metal wire were embedded in the crust
Lichfield City	FC.69/84	Bread	Soiled bread dough containing mineral and vegetable debris
Rugeley Urban	FC.69/76	Bread Rolls	A complaint of a petrol taste, but this could not be substantiated
Stafford Borough	FC.69/70	Sliced Bread	Mould – Monilia sitophilia – the "red bread mould"

4th Quarter

Rugeley Urban	FC.69/90	Sliced Bread	Fragments of foreign matter that it was alleged were found in the bread were identified as glass, but none could be found in the actual sample
Rugeley Urban	FC.69/99	Sliced Bread	Mould (Mucor) and vegetable and mineral debris. A blue stain was due to copper compounds

Contamination by oil and dirt, of the type encountered, can only have occurred at the bakery, but other factors appear to govern the incidence of mould.

Of the six mouldy samples, all but one occurred in the warmer months of the year. The exception was complicated by the presence of other extraneous matter and was not a simple growth of mould.

It will be noted also that all the mouldy breads were sliced (and wrapped) bread. There is a common, but mistaken, idea that wrapped bread will keep longer than unwrapped bread. Another factor is that the slicing of a loaf makes the bread more prone to mould attack because the exposed moist interior is much more favourable to mould than the drier outer crust of an unwrapped loaf.

Bread is a perishable article, in whatever form, and complaints of mould will continue until it is fully appreciated by all who handle bread from the baker and shopkeeper, or roundsmen, to the purchaser.

The label of a "Low Calorie High Protein Bread", County 5 A/V (FD.69/753), was considered to be misleading, as on a weight basis the calorific value was the same as ordinary bread. The sample was less dense, however, than ordinary bread so that the consumer would have a lower calorie intake if the comparison was made on a volume basis. Since, however, diets are calculated on a weight basis for solid foods a comparison by volumes for bread was not considered to be satisfactory.

Flour Confectionery

Three samples of Butter Cake, County 52 B/N (FD.69/888), 76 B/N (FD.69/954) and 20 A/Y (FD.69/111), all had a declaration that they "contained 50% of butter".

The amounts of butter found were 12%, 12% and 10% respectively.

It would appear that this was a result of a mistake by the designers of the packet since it would be very unusual cake that consisted of half butter. Analysis showed that the fat *used* consisted of 50% butter and it was clear that part of the intended declaration had been omitted.

A complaint of foreign matter in the 'cream' filling of a cake, Stafford Borough FC.69/112, had a close superficial resemblance to a 'grub'. It was found to consist of the same substance as the filling but contaminated by miscellaneous dirt.

An insect embedded in a cake, Stafford Borough FC.69/61, was identified as Musca domestica – the house fly. It had been cooked in the cake.

A house fly larva was present in the filling of a Chocolate Swiss Roll, Lichfield Rural FC.69/72.

Two Christmas Puddings, Newcastle Borough 203 (FD.69/X888) and Stafford Borough 1077 (FD.69/X979), were considered to be deficient in fat – containing 7.8% and 7.2% respectively. The examination of a number of samples indicates that such puddings usually contain 10%–12% of fat, or more, and a minimum standard of 9% of fat has been adopted.

An unusual case of severe discoloration of a canned sponge pudding, Lichfield City FC.69/101, was due to corrosion of the interior of the can.

Comparisons between affected and unaffected parts of the pudding gave the following:—

	Discoloured	*Normal*
Iron ..	0.20% ..	0.003%
Tin	80 p.p.m. ..	Nil

A complaint of a taint in Biscuits, Stoke-on-Trent FC.69/45, appeared to be well founded as several instances related to the same supplier. The laboratory was, however, unable to confirm the presence of any taint and an exhaustive search for contaminants was negative.

Uncooked Puff Pastry, Aldridge-Brownhills FC.69/11, was contaminated by the mould Geotrichum candidum.

Breakfast Cereals

A complaint sample, County 79 B/N (FC.69/105), contained three dead and one live specimens of Ptinus tectus, the Spider Beetle.

Other Cereals

Barley Kernels, County 25 A/S (FD.69/184), had a very comprehensive list of the amounts of Protein, Carbohydrate, etc., but which was extraordinarily inaccurate. It was claimed, also, that the sample contained "ample quantities of the B vitamin complex".

Regulations require that if such claims are made then the food must supply at least half the daily requirement – to obtain half the daily requirement of Thiamine it would have been necessary to consume two whole 8 oz. packets.

MEAT AND MEAT PRODUCTS

Meat, Raw or Cooked

Canned Pork, Stoke-on-Trent 305A (FD.69/X462), was correctly described as in "Natural Juices with Gelatine added" but "gelatine" had been omitted from the list of ingredients.

Lamb chops, Newcastle Borough FC.69/4, and Minced Beef, Aldridge-Brownhills U.D.C. FC.69/60, were contaminated by the excreta of herbinous animals – a particularly objectionable form of contamination which could only result from gross carelessness at the slaughter house.

Meat, Cured and Corned

The Regulations require that a canned meat product that contains no other food than meat should contain not less than 95% of meat.

A lower standard of 90% would apply, however, if the product has been cured and is labelled as "cured" *or* if it consists of chopped or minced meat.

The possible combinations, to take "Pork" for an example, are:—

"Pork"	Min. 95% meat
"Cured Pork"	Min. 90% meat
"Chopped Cured Pork"	Min. 90% meat
"Chopped Pork"	Min. 90% meat

This would appear to give ample scope for manufacturers, but three samples labelled "Picnic Pork", County 22 A/Y (FD.69/1113) and 23 AY (FD.69/1114), and Stoke-on-Trent 514A (FD.69/X870), consisted of chopped cured meat and contained, respectively, 90.6%, 90.0% and 92.8% of meat, calculated as pork, instead of not less than 95%.

After many months discussion and indeed argument, the manufacturers agreed to label their product "Cured Picnic Pork". Strictly speaking the word "chopped" should also appear for this particular product but it was decided not to press the matter further once some degree of agreement had been reached since an illustration on the can showed clearly that it was a chopped meat.

A curious facet of this matter that once the term "cured" was included a different factor has to be used for the calculation of the meat content and the above sample then contained approximately 95% of *cured* meat. It is strongly suspected that a misreading of a difficult passage in the Regulations resulted in the manufacturer calculating the *raw* meat content of their product in terms of cured meat and coming to the incorrect conclusion that they could use the description "Pork".

Another sample that resulted in long correspondence of a similar nature was an open meat product (i.e., not canned) sold as "Chopped Verginian Ham", County 10B/R (FD.69/1231), which had a meat content, as ham, of 88.9% instead of the 90% minimum required.

Following complaints of 'Blown' cans of ham a sample was submitted for examination, Stoke-on-Trent FC.69/78, but it was found to be wholesome.

Discolouration of a Bacon Hock, Aldridge-Brownhills FC.69/85, was found to be caused by compounds of copper.

Canned Ham, Seisdon R.D.C. FC.69/32, was severely affected by metallic contamination due to a protective metal strip on the inside of a soldered seam having been displaced during the soldering process.

	Meat near the seam	*Meat remote from the seam*
Iron ..	900 p.p.m. ..	51 p.p.m.
Tin	380 p.p.m. ..	31 p.p.m.
Lead ..	10 p.p.m. ..	4 p.p.m.

Small spots of grey-black discolouration in Corned Beef, Seisdon R.D.C. FC.69/31, were traces of Iron Sulphide. Reference was made in last year's Annual Report to this form of contaminant when it was suggested that it might result from the re-processing of corned beef.

A complaint sample of Corned Beef, Stafford Borough FC.69/96, was found to contain a large mass of calcified structureless matter enclosed within an 'envelope' of fibromuscular tissue, measuring 32mm × 14mm.

It appeared to be a cyst or absess that had degenerated, probably caused in the animal by a parasite, or warble fly attack followed by infection.

Other alleged foreign matter in Corned Beef, submitted privately FC.69/44(P), resembled maggots but consisted of pieces of ligaments, normal to meat.

Sausages

The coming into force on 31st May, 1969, of standards for Sausages under The Sausage and Other Meat Product Regulations, 1967, did not have any dramatic effect – nor was this to be expected as the standard of 65% of meat for Pork Sausage and 50% of meat for Beef and other sausages has been applied successfully by Public Analysts for some years.

Of the 403 samples examined for composition, 25 pork sausages or 6.2% were deficient in meat. All Beef, and other sausages, had a satisfactory meat content.

Pork Sausage Deficient in Meat

Source	Mark	Lab. Ref.	Meat Content	Deficiency
County	83B/S	FD.69/189	62.2%	4.3%
,, ...	1B/L	FD.69/210	61.2%	5.8%
,, ...	54A/S	FD.69/371	56.7%	12.8%
,, *	89A/Q	FD.69/415	57.3%	11.8%
,, ...	54A/T	FD.69/661	59.4%	8.6%
,, ...	43B/L	FD.69/842	61.6%	5.2%
,, ...	85B/O	FD.69/1283	58.8%	9.5%
,, ...	45B/R	FD.69/1366	61.8%	4.9%
Stoke	28A	FD.69/X61	58.8%	9.5%
,, ...	39A	FD.69/X82	63.3%	2.6%
,, ...	51A	FD.69/X98	54.0%	16.9%
,, ...	90A	FD.69/X137	56.4%	13.2%
,, ...	150A	FD.69/X222	62.6%	3.7%
,, ...	1PH	FD.69/X249	62.6%	3.7%
,, ...	197A	FD.69/X295	61.0%	6.2%
,, ...	220	FD.69/X327	59.1%	9.1%
,, ...	330A	FD.69/X504	63.8%	1.9%
,, ...	434A	FD.69/X653	52.0%	20.0%
,, ...	482A	FD.69/X720	63.5%	2.4%
,, ...	147	FD.69/X737	54.9%	15.5%
,, ...	623A	FD.69/X925	62.8%	3.4%
,, ...	659A	FD.69/X961	61.6%	5.2%
Newcastle B.C.*	106	FD.69/X301	58.2%	10.5%
Cannock U.D.C.	15/69	FD.69/X243	50.5%	22.4%
,, ...	23/69	FD.69/X315	59.3%	8.8%

* Contained undeclared sulphite preservative.

Under the Preservatives Regulations the presence of Sulphur Dioxide Preservative in Sausage must be declared. 24 samples, including 2 that were deficient in meat contained undeclared Sulphur Dioxide. No sample had more than the limit of 450 p.p.m. permitted by the Regulations.

Sausages containing undeclared Sulphur Dioxide

Source	Type	Mark	Lab. Ref.	Sulphur Dioxide
County	Beef and Pork	46A/Q	FD.69/28	300 p.p.m.
,, ...	Pork	72A/R	FD.69/106	200 ,,
,, ...	,,	63A/Q	FD.69/112	270 ,,
* ,, ...	,,	89A/Q	FD.69/415	205 ,,
,, ...	,,	42A/V	FD.69/524	220 ,,
Stoke	,,	1A	FD.69/X4	75 ,,
,, ...	,,	13A	FD.69/X46	270 ,,
,, ...	Beef	18A	FD.69/X51	100 ,,
,, ...	Pork	35A	FD.69/X68	150 ,,
,, ...	,,	54A	FD.69/X101	270 ,,
,, ...	,,	74A	FD.69/X121	40 ,,
,, ...	,,	309A	FD.69/X466	150 ,,
,, ...	Beef	327A	FD.69/X501	100 ,,
,, ...	Pork	331A	FD.69/X505	190 ,,
,, ...	,,	338A	FD.69/X513	200 ,,
,, ...	Beef	456A	FD.69/X697	80 ,,
,, ...	Pork	491A	FD.69/X734	85 ,,
,, ...	,,	493A	FD.69/X736	230 ,,
,, ...	,,	564A	FD.69/X831	230 ,,
,, ...	,,	599A	FD.69/X874	215 ,,
,, ...	,,	621A	FD.69/X923	240 ,,
,, ...	,,	642A	FD.69/X944	110 ,,
*Newcastle	,,	106	FD.69/X301	220 ,,
,, ...	Beef and Pork	108	FD.69/X303	220 ,,

* Deficient in meat

4 samples of Sausages were submitted following complaints.

Discolouration of part of the meat in a Sausage, County FC.69/109, was due to the inclusion of trimmings from the outer parts of a carcase that had become darkened by drying and oxidation. A complaint of a bitter taste, Stoke-on-Trent FC.69/58, could not, however, be substantiated, there being no evidence of contamination or putrification.

An unusual complaint that sausages "grew bigger when cooked" was investigated. The sausages were of rather higher meat content than usual, 73.7%, and behaved quite normally when cooked in the laboratory. It is possible that the complainant was accustomed to sausages of lower meat content, which sometimes tend to shrink on cooking.

Material that was stated to have been found in a sausage, Lichfield Rural FC.69/110, was identified as glass, but none was found in the sausages submitted.

Discolouration in a sample from Stone R.D.C., FC.6966, was due to mineral debris including iron.

PREPARED MEATS

Meat with Gravy – minimum standard 75%.

Source	Description	Mark	Lab. Ref.	Meat Content	Deficiency
County	Minced Steak with Gravy	53B/K	FD.69/283	67.7%	9.7%
,,	Stewed Steak with Rich Gravy	24B/M	FD.69/312	69.4%	7.5%
Stoke-on-Trent	Minced Steak with Gravy	549A	FD.69/X816	69.0%	8.0%
Stafford B.C.	Stewed Steak with Gravy	976	FD.69/X155	70.0%	6.7%

Hamburgers, etc. – minimum standard 80%.

A standard for Hamburgers, as such, is not specifically included in the Regulations, but the standard for "meat with cereal", a minimum of 80% of meat, has been applied and accepted by the Courts.

Source	Description	Mark	Lab. Ref.	Meat Content	Deficiency
County	Baconburgers	65A/S	FD.69/382	55.6%	30.5%
,,	,,	43A/T	FD.69/605	47.4%	40.7%
,,	,,	44A/T	FD.69/606	52.8%	34.0%
Stoke-on-Trent	Hamburgers	260A	FD.69/X404	69.7%	12.9%
,,	Beefburgers	282A	FD.69/X426	74.3%	7.1%
,,	Hamburgers	600A	FD.69/X875	66.6%	16.8%

Hamburgers with Gravy – minimum standard 60%.

When Hamburgers, etc., are packed in Gravy, a standard of a minimum of 60% is applied, i.e., 75% of 80%. One large manufacturer claimed, however, that it is not possible to make a satisfactory product with 60% of meat because the shape of a Hamburger is such that a lot of space remains in the can for the Gravy which has the effect of lowering the meat content. To increase the meat content of Hamburgers for canning, much above 80%, to compensate for this results in a loss of cohesion and the break-up of the Hamburgers.

Discussions upon this matter are taking place, but the 60% standard is being applied until the matter is resolved.

Source	Description	Mark	Lab. Ref.	Meat Content	Deficiency
County	Fried Hamburgers with Gravy and Onions	84A/V	FD.69/1076	48.0%	20.0%
,,	Fried Hamburgers with Gravy and Onions	85A/V	FD.69/1077	48.0%	20.0%

It should be noted that these samples contained less than 12.5% of onion, if they had contained more, then a further standard of a minimum of 40% of meat would have applied.

Meat in Pastry

Following the coming into force of the Meat Pie and Sausage Roll Regulations during the previous year, the meat content of these products improved and only one sample was reported as deficient in meat – a Pork Pie, County 100 A/V (FD.69/770), which contained only 0.85 oz. of meat instead of the 1 oz. required in this instance.

Shepherd's Pie

These products were criticised in the Annual Report of 1968 but no standard has yet been fixed by legislation. A minimum standard of 25% meat is continuing to be applied, however, although some Public Analysts are insisting upon at least 35% of meat. This Staffordshire standard is considered, however, to be reasonable for a traditionally cheap dish. A higher standard would make commercial production difficult at a reasonable price.

The determination and calculation of the meat content of such products is more difficult than might be supposed – the examination of a number of samples has indicated that the meat is measured into the dish, which is then 'topped up' with potato.

The potato is relatively cheap and is often applied in a liberal fashion – but the more potato added, the lower is the meat content as a percentage of the whole.

To avoid treating a manufacture unjustly because of this additional potato a procedure has been adopted by which the actual weight of the sample is compared with the declared weight and the determined meat content adjusted for any extra weight, on the assumption that the extra is potato. A purchaser could not be regarded as having been prejudiced if not less than 25% of the *declared weight* is meat and in addition receives an extra generous helping of potato.

Only one sample was reported as deficient, County 94 B/L (FD.69/1144), with only 17.7% of meat – a deficiency of 29.2%.

Another sample, County 18 B/R (FD.69/123), was criticised, although it contained 25% of meat, because of a prominent label "Now 10% more meat".

Since it only contained the minimum of 25% it seemed that the manufacturer's pride was unfounded and was really an admission of the poor quality of their earlier product. The statement was, also, ambiguous since the purchaser would not know whether the 10% was of the whole product or of the meat content.

It was an extraordinary instance of making a virtue out of a necessity·

Irish Stew

Most Public Analysts considered that Irish Stew is not a product in which it would be expected that meat would be a major ingredient and generally no exception is taken to these products provided they are of reasonable composition and satisfactory quality.

Exception was taken, however, to two samples of the same brand, County 23 B/R (FD.69/1244), and Stafford Borough 1045 (FD.69/X682), because it was considered that the labelling "made to a special recipe using only fresh English Beef and fresh English vegetables" was an inference that meat was a major ingredient – for which the Canned Meat Product Regulations requires a meat content of 35%.

The actual meat contents were 31.0% and 26.8% which would be considered to be quite reasonable for this product in the absence of a specific reference to meat.

It is understood that the manufacturers had not appreciated this meaning of their label and that the label would be changed.

Other Meat Products

Two samples described as "Beefaroni Macaroni with Beef in Tomato Sauce", County 57 A/W (FD.69/998) and 58 A/W (FD.69/999), were criticised because of low meat contents, 15.6% and 16.6% respectively. If described simply as "Macaroni with Beef in Tomato Sauce" they would have been considered as satisfactory, but the made-up word "Beefaroni" was considered to imply a product that would bring it into the minimum of 40% meat category of the Regulations.

It is perhaps a matter of debate as to how much licence can be permitted in the coining of trade brand names, but clearly the use of made-up names that infer that a product is something different or better than it actually is cannot pass unchallenged.

Another instance of a misleading label was a Ready Meal "Beef Roma", Stoke-on-Trent 118A (FD.69/X174), where the description was again taken to indicate that meat was a major ingredient – but it is not possible for a manufacturer to claim exception from the requirements of the Regulations simply by labelling the packet "Ready Meal". A label that included the words "now with more meat" may have been factual, but the opinion was expressed that this would also influence the purchaser into thinking that meat was a major ingredient.

It contained 26.7% of meat instead of the 35% that would be required by the Regulation for a product labelled in such a manner.

Prepared Meat – Complaint Samples

The majority of these complaints concerned meat pies and it is again emphasised that much still needs to be done to educate shopkeepers and the public in the correct storage of these perishable articles and to appreciate that they have a very short shelf life.

As has been referred to with wrapped bread, there is a widespread but erroneous impression that pie enclosed in a wrapping becomes blessed with eternal life. Another factor which is something not appreciated is that the cooled cabinets installed in shops for pies are not refrigerators – a cooked pie cannot be stored under freezing conditions since this causes changes in the pastry that adversely effect the texture and flavour.

Development of mould is usually the first indication of staleness.

Source	Description	Mark	Lab. Ref.	Organisms Present
County	Meat and Potato Pie	H.154	FC.69/57	Rhizopus Nigricans
Cheadle R.D.C. ..	Meat and Potato Pie	—	FC.69/6	Penicillium
Aldridge-Brownhills U.D.C.	Pork Pie	—	FC.69/43	Penicillium
Leek U.D.C. ..	Sausage Roll	—	FC.69/44	Aspergillus glaucus and Penicillium
Lichfield R.D.C. ..	Beef Pie	—	FC.69/29	Penicillium, Mucor and Geotrichum Candidum
Lichfield R.D.C. ..	Sausage Roll	—	FC.69/48	Penicillium
Aldridge-Brownhills U.D.C.	Pork Pie	—	FC.69/74	A dark bluish green pigment, formed by bacterial action – probably Bacillus subtilus
Lichfield R.D.C. ..	Meat Pie	—	FC.69/95	Penicillium and Clordosporium

Miscellaneous complaints included a Steak and Onion Pie, Cheadle R.D.C. FC.69/7, that had been kept on display in a warming cabinet for so long that it had the texture of a hard biscuit.

Two other pies, Kidsgrove U.D.C. FC.69/1, and Lichfield R.D.C. FC.69/30, were thought to be stale, but were satisfactory.

Material in a Sausage Roll, Lichfield City FC.69/41, had an appearance very closely resembling that of the tail of a mouse but was actually a piece of gristle.

An unusual complaint was that a Stuffed Pork Roll, submitted privately, FC.69/23P, lacked flavour. The composition was normal except that the amount of herbs in the stuffing was less than in other brands.

Poultry and Poultry Products

Two samples described as Chicken with Mushrooms, County 8 A/V and 9 A/V (FD.69/756/757), should have been described as Chicken and Mushrooms with Sauce. The ingredients were listed, also in an incorrect order.

Chicken Curry with Rice, County 97 B/L (FD.1147), contained only 11.6% of Chicken instead of the 15% required.

A sample described as Chicken Chow Mein, Stafford Borough 1070 (FD.69/X972), may conjure up a different picture in Oriental eyes but the emphasis on the word Chicken would seem to require more than the 14.2% actually present.

An unsavoury object found in a restaurant meal, FC.69/73P, was identified as a piece of poultry skin complete with feathers.

A sample of eggs that were alleged to have an abnormal taste and smell, Stafford Borough FC.69/56 and FC.69/83, were found to be normal, apart from being a little less fresh than might be desired. An extensive search for contaminants, including pesticides, was negative.

An unusual complaint that the white of eggs turned yellow when hard boiled, County FC.69/102, was, apparently, the result of boiling for too long and then not cooling quickly enough, thus encouraging the formation, from the natural constituents of the eggs, of iron sulphide in the white. The investigation was complicated by the fact that comparitive cooking trials carried out in the laboratory on samples of the same batch of eggs invariably produced eggs, the whiteness of which would have been the envy of any washing powder advertiser!

Fish and Fish Products

Fish Fingers

Fish Fingers have proved to be a very popular food of convenience and there is need for a universally recognised standard.

When first introduced, a fish content of about 80% was usual, but over the years there has been a steady downwards trend. Some change is the result of the reduction in the size of the individual fish fingers—the smaller the bulk the greater relative amounts of batter that is required to give a covering. The manufacturers claim that the public demand the small product with less fish, but it is a matter of conjecture, as to how much choice the public have.

Your Public Analyst has decided to adopt a standard that not less than 65% of the declared weight of the product should be fish—this is considered to be a fair standard and it meets the usual objection of the manufacturers to the fixing of a standard in that they would not be penalised if the apparent percentage of *fish* was made to appear less because of an overgenerous batter coating. There are signs, however that the Ministry will yield to trade pressure and put forward a lower standard, possibly of only 60%.

The following were regarded as deficient:—

County	87 A/R	FD.69/133	60.1%
,,	51 B/M	FD.69/411	60.6%
,,	52 B/M	FD.69/412	60.6%
,,	62 B/M	FD.69/538	60.0%
,,	63 A/V	FD.69/1015	51.3%
Stoke	111A	FD.69/X159	56.1%

Fish Spreads

Salmon Spread with Butter, County, 56 B/N (FD.69/892), contained only 4.4% of Butter Fat instead of the 6% required.

Complaints

A number of complaints concerned fish and fish products.

Trout was alleged to have a creosote taste, Aldridge-Brownhills—F.FD.69/50. No material associated with creosote was found, but investigations revealed traces of several pesticides, including D.D.T. that suggested that an insecticide spray had been used on, or near, the fish.

A tin of Pilchards in Tomato Sauce, Stafford Borough FC. 69/51, contained a marine crustacean of the Isopoda order, a parasite that attaches itself to the outer surface of the host fish. It resembles a large wood louse and is not a pretty sight.

Fried Fish, Rugeley U.D.C. FC.69/37, contained parasitic Nematode worms. Although harmless to humans, their presence is very objectionable.

Alleged contamination in Crab Fish Spread, Aldridge-Brownhills FC.69/8, was found to be particles of the normal, so called, dark meat of the crab.

Canned Salmon, Cannock Rural FC.69/113, contained hydrogen sulphide and yielded volatile bases equivalent to 69 mg of N per 100g, indication incipient putrification.

Canned Cods Roe, Aldridge-Brownhills FC.69/108, contained a beetle of the Carabidae family, probably Carabidae Nebria.

Canned Soft Herring Roes, County 75 A/V, (FD.69/1066) not actually submitted as a complaint, contained a sliver of wood measuring 17 x 5mm.

Fruit and Fruit Products

Marmalade, County 24 B/O (FD.69/928), was described as "Scotch Whisky Flavoured Marmalade" but it was considered that this was misleading as the sample contained no whisky, but only whisky flavouring.

Two samples of jam, Blackcurrent, Stoke-on-Trent 550A (FD. 69/X817) and Gooseberry, Stoke-on-Trent 551 A (FD.69/X818), were deficient in soluble solids—the former containing 66.5% and the latter only 61.6%. Jam sold in containers that are not hermetically sealed, as in these two instances, must contain not less than 68.5% of soluble solids—with a lesser quantity deterioration of the jam is likely to occur.

A sample of Lemon Cheese, Newcastle 207 (FD.69/X892), was similarly deficient in soluble solids, containing only 52.5%. The minimum quantity for this product being 65%.

Another sample of Lemon Cheese, Stoke-on-Trent 576A (FD.69/X850), had a list of ingredients in which "butter" prededed "margarine" whereas it contained 4.9% of margarine fat but only 2.8% of butter fat.

A complaint of an unpleasant taste in Canned Peaches, Stafford Borough 1000 (FC.69/33), was found to be due to corrosion of the interior of the can by the fruit acids. 480ppm of iron was found and hydrogen gas was present.

The amount of tin was not, however, excessive.

In a similar complaint, concerning Canned Grapefruit, Aldridge-Brownhills FC.69/62, the amount of iron, 39ppm was of less consequence, but 255ppm of tin was found — which is in excess of the limit of 250ppm.

The contents of a can of strawberries, submitted following a complaint, Aldridge/Brownhills FC.69/91, has the appearance of tomato soup. The sample was found to be contaminated by mould—Penicillium and Byssochlamys Fulva. The latter has the characteristic of bringing about the complete disintegration of the fruit. A fault in the side seam of the can was evidently the path by which the moulds had entered.

Vegetable and Vegetable Products

A purple discolouration in Potato Crisps, County 38 B/L (FC.69/27,) was found to be due to the presence of a natural pigment that occurs in certain varieties of potato. The investigation did, however, reveal the presence of another colour—the permitted artificial Sunset Yellow FCF—the presence of which had not been declared.

The same dye was found in two other samples of Potato Crisps, County 39 B/1, 1 B/Q (FD.69/426 and FC.69/1151) again without declaration.

Dried Carrots that had been held in store for many years, County FC.69/28, were found to have deteriorated beyond the point at which they could be sold to the public.

A foreign object in a Salad Bannock Stoke-on-Trent FC. 69/94, was found to be a pupa of an insect of the lepidoptera order.

Rice, Lichfield City FC.69/3, contained mineral matter, comprised mainly of silica and iron.

Another sample of Rice, County 83 B/L (FD.69/80) contained part of a cockroach.

A packet of Frozen Peas, Cannock U.D.C. FC.69/35, contained foreign matter that closely resembled a pellet of rabbit excretia, but which was found to be a compact mass of leaf-tissue—probably due to some action of a mechanical pea harvester.

Tomato Soup, County 93 A/V (FD.69/1084) was deficient in Tomato solids.

Two samples of Cream Soups, Cream of Tomato, Stafford Borough 1061, (FD.69/X812) and Cream of Mushroom, Stafford Borough 1062 (FD.69/X813), were deficient in fat.

An unusual sample was a Vegetable Marrow, FC.69/95P, that had an intensely bitter flavour. This was found to be due to the presence of Cucumin, a substance normally present in wild plants of the marrow family, in ornamental gourds and occasionally, to a very small extent, in cultivated marrows and cucumbers due to partial revision to the uncultivated forms.

Enquiries revealed that ornamental gourds had been grown in close proximity to the marrows and it was evident that cross pollination had occurred and that this had introduced the bitter characteristic into the marrows.

This substance is poisonous and there are recorded cases of illness following the eating of "bitter" marrows.

Cooked Beetroot, Rugeley U.D.C. FC.69/71, were contaminated by Penicillium mould.

Dark coloured matter in Sliced Beetroot, Stoke-on-Trent FC.69/21, which bore a strong resemblance to an insect was found to be an abnormal growth of fibrous roots into the interior of the beetroot.

An unusual complaint of an odd flavour in Canned Tomatoes, Cannock U.D.C. FC.69/34, was certainly justified—the contents of the can, clearly labelled "Tomatoes", was found to consist of Red Peppers.

Sugar and Sugar Products

Granulated Sugar, Cannock U.D.C. FC.69/100 submitted following a complaint was found to contain 4.1% of Sodium Chloride (Common Salt).

Sweets described as "Milko Chews", County 89 A/R (FD.69/135), contained less than 1% of milk solids—insufficient to justify the inference to "milk".

Complaint samples included a Macaroon Bar, Rugeley FC.69/13, that contained a synthetic fibre 11.5cm long; a Chocolate Bar, Stone Rural FC.69/16, contaminated by iron rust and an object found in Chocolate Dragees, Rugeley Urban FC.69/20, that consisted of a chocolate covered iron nail.

Jelly Crystals, Newcastle Borough FC.69/87, were stated to produce a jelly with bitter flavour. It appeared, however, that the purchaser had not appreciated that the packet was marked "Unsweetened Jelly Crystals" and had omitted to add the necessary sugar as no fault could be found with the material submitted.

Oils and Fats

Dripping, Stoke-on-Trent 258 A (FD.69/X402), contained 0.3ppm of Dieldrin. Further reference to the sample is included in the section on Pesticides.

Baby and Infant Foods

A complaint sample of a Canned Meat Baby Food, Lichfield Rural FC.69/25, contained a Spider—probably of the Drassidae family—Scotophaes Blackwalli.

Beverages

Drinking Chocolate, Stafford Borough FC.69/111, contained an insect larvae, probably of the cocoa moth, Ephestia Elutella, together with webbing and frass.

Fermentations Products

Beer

Two samples of a canned concentrate for the preparation of home-brewed beer, County 77 A/R and 32 B/K (FD.69123 and FD.69/240) were incorrectly labelled in that the list of ingredients included the terms "Heading Liquid", "Mineral Salts" and "Vitamins", which did not adequately describe the nature of these ingredients, as required by the Labelling of Food Order 1953.

Barley Wine, County 67 B/O, (FD.69/1218), was described as being as 'strong as a Double Scotch' but contained only 16.2% of Proof Spirit. It is in fact, impossible to make a beer with the same 70% of Proof Spirit as ordinary whisky. The actual amount of alcohol in the whole contents of the bottle of the sample was the same as in the much smaller volume of one third of a gill—the usual volume of a double whisky—but this was considered to be not a valid comparison of "strengths".

Shandy, County 45 B/O (FD.69/948), contained 4.3% of proof spirit, instead of the declared maximum of 2.0%.

A complaint sample of bottled Beer, Newcastle Borough FC.69/75, contained a growth of mould—probably Stemphilium.

Spirits

A sample of Whisky, Cannock Urban 68/69 (FD.69/X991), contained only 62.8% of Proof Spirit instead of the minimum of 65%.

Liqueur Chocolates, County 1 B/S, (FD.69/1342), contained only 1% w/w of alcohol—insufficient to justify the description "Liqueur".

Vinegar Products

A sample of Pickle, County 70 B/O (FD.69/1221), included "Rutabaga', in the list of ingredients. It was considered that this name was less informative to the general public than the common name of "Swede".

Tomato Ketchup, Stoke-on-Trent 187 A (FD.60/X285), and Tomato Sauce, Stoke-on-Trent 189 A (FD.69/X287), were deficient in tomato solids—both containing not more than 4.6% instead of the minimum of 6% required by Regulations.

Another sample of Tomato Ketchup, County 84 A/S (FD.69/401) contained only 2.9% of tomato solids.

Mint Jelly, County 76 A/T (FD.69/708), had no list of ingredients as required by the Labelling of Food Order 1953. This product was simply a mint sauce in jelly form but the manufacturers had made the curious mistake of thinking that their product was "jam" in the sense that red-currant jelly was a jam, which latter does not have to have declaration of ingredients under the 1953 legislation.

Soft Drinks, Etc.

Low Calorie Orange Drink, Stoke-on-Trent 395 A (FD.69/X610), contained only 6lbs of comminuted fruit per 10 gallons instead of the 10lbs required by Regulations.

A Mineral Water Bottle, Cannock Urban FC.69/79, was contaminated by a growth of mould of the Monilia type—probably Monilia Nigrae.

Lemonade Powder, County 10 A/V (FD.69/450) did not carry a list of ingredients as required by the Labelling of Food Order 1953.

An Iced Lolly, Lichfield Rural FD.69/69, submitted following a complaint of the taste was found to contain 1.6% of Calcium Chloride. Presumed to be due to a leak in the freezing equipment.

Spices, Etc.

Two samples of Ground Nutmeg, County 69 B/M (FD.69/545), and Stoke-on-Trent 414 A (FD.69/X630), were deficient in volatile oil—the former containing 2.7% and the latter 2.5% instead of the required minimum of 4%.

Remedial Foods

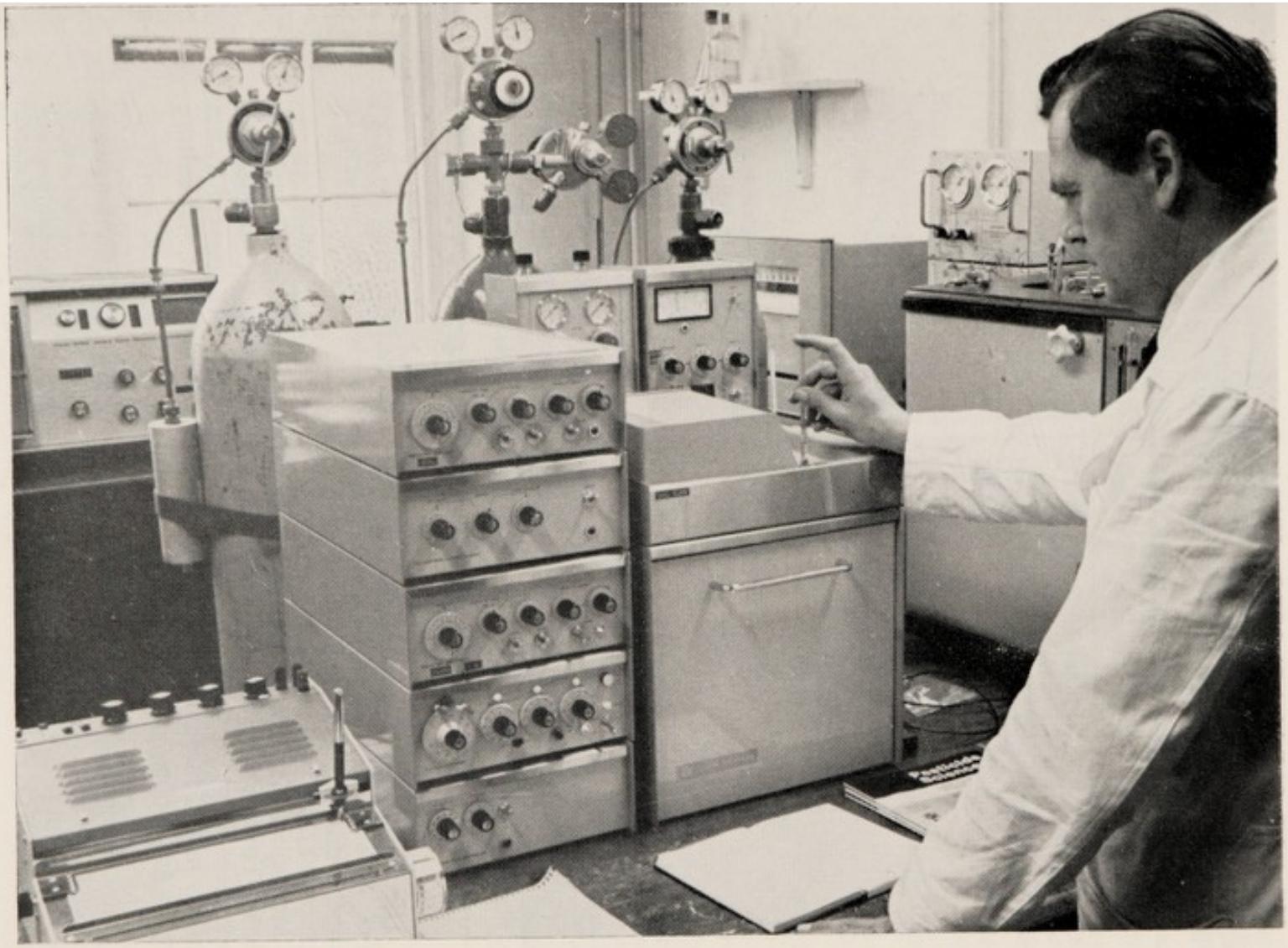
An aid to slimming described as "Fruity Flavour", County 37 A/V (FD.69/965), declared an ingredient as "Trusil Grapefruit"—which is a trade name for a flavouring preparation and not an appropriate designation for the purposes of the Labelling of Food Order 1953.

Drugs

Halibut Liver Oil Capsules, County 74 A/R (FD.69/120) were marked "B.P.C." instead of "B.P." and no declaration of potency was given.

Borax and Honey B.P.C., County 75 B/N (FD.69/911), should have had the description "B.P.C.", qualified by the date "1959" as this is the last edition of the British Pharmaceutical Codex in which this preparation was included.

Glauber Salts, Newcastle Borough 163 (FD.69/X515), had lost part of its water of crystallisation, thus increasing the content of active material. This would cause errors in the measurement of the dose.



INSTRUMENTATION IN THE COUNTY LABORATORY—A member of the staff using apparatus for the detection and determination of trace materials, including pesticides and other contaminants.

Pesticide Residues

The second part of the survey of residues in pesticides, sponsored by the Local Authority Associations, ended in 1968 and the arrangements for the third part were not concluded in time for a start to be made during 1969.

The County Laboratory has continued, however, to examine a selected number of foods for such residues of Organo-chlorine compounds with the following results.

Sample	Source	Mark	Lab. Ref.	Pesticide
Milk	Stoke-on-Trent	48A	FD.69/X91	Nil
Butter	,,	46A	FD.69/X89	Nil
Rice	County	35B/L	FD.69/298	Nil
,, ...	,,	97B/K	FD.69/255	Nil
Porage Oats	,,	98B/K	FD.69/256	Nil
Eggs	Stafford	—	FC.69/83	Nil
,, ...	,,	—	FC.69/56	Nil
Pears	Stoke-on-Trent	49A	FD.69/X92	Nil
,, ...	County	1B/N	FD.69/259	Nil
Lettuce	Stoke-on-Trent	259A	FD.69/X403	BHC slight trace
Lard	County	50A/W	FD.69/977	Nil
,, ...	Stoke-on-Trent	256A	FD.69/X400	Nil
Dripping	County	48A/W	FD.69/975	Nil
,, ...	,,	51A/W	FD.69/978	Nil
,, ...	Stoke-on-Trent	258A	FD.69/X402	Dieldrin 0.3 ppm
,, ...	,,	345A	FD.69/X540	BHC 0.02 ppm Aldrin, slight trace
Baby Food (Fruit and Cereal)	County	12A/R	FD.69/35	Nil
Baby Food (Veg. and Meat)	Newcastle B.C.	74	FD.69/X29	Nil
Baby Food (Meat) ..	,,	73	FD.69/X28	Nil
Baby Food (Veg. and Meat)	County	70A/R	FD.69/104	Nil
Baby Food (Cereal) ..	,,	11A/R	FD.69/34	Nil

The above results are re-assuring, but this type of sampling is, of course, no substitute for a planned survey and it would be unwise to attempt to draw conclusions from these results.

Mention should, however, be made of the sample of Dripping—Stoke-on-Trent 258A (FD.69/X402) that contained 0.3ppm of Dieldrin. This is three times the limit of 0.1ppm in General Foods suggested by the Additives and Contaminants Committee of the Ministry of Agriculture Fisheries and Food.

It was thought, at first, that this sample of dripping containing mutton fat—which has been prone to contamination by pesticides from their use in sheep dips—but this was not the case and the origin of the contamination remains a mystery. A further sample contained only a slight trace of pesticide.

At the time of the preparation of this Annual Report the results of the second part of the National Survey which ended in July 1968, are still not available in published form.

It can be stated however that the results will show that although no gross contamination was revealed, there was some increase in the incidence of residues of organo-chlorine compounds—including an increase in the incidence of Aldrin/Dieldrin residues, which must occasion some surprise in view of the restrictions upon the use of these latter substances.

A direct comparison between the results of the first year and those of the second year of the National Survey is complicated by the variation in the range of foods examined, but the following comparison is of interest.

Incidence of Organo-Chlorine Residues in Foods in amounts above the reporting limits expressed as percentages of the number of samples of each food examined:—

	Total Organo-Chlorine compounds		*Aldrin/Dieldrin only*	
	1966/67	1967/68	1966/67	1967/68
Bread	7%	16%	0.5%	1.7%
Milk (Liquid)	29%	27%	10%	16%
Infant Food (Milk based)	36%	20%	22%	7%
,, ,, (Meat & Veg. based) ..	24%	10%	10%	4%
Sausages	8%	24%	Nil	8%
Lard	49%	54%	18%	14%
Apples	29%	31%	0.5%	Nil
Potatoes	10%	Nil	5%	Nil
Onions	11%	9%	1.5%	5%
Tomatoes	20%	9%	Nil	Nil

The dramatic reduction from a 10% to nil incidence in Potatoes is of particular interest and the fact that even minute traces of some pesticides have a serious effect on the flavour of potatoes, such that they become unsaleable, may be relevant.

Infant foods also show a welcome downward trend.

The continuing level of incidence in liquid milk and in particular the marked rise in the incidence of Aldrin/Dieldrin must occasion some surprise.

The increased incidence in *both* Bread and Sausages might be expected by the layman but the analytical evidence is that the major part of the pesticide residues in sausages is contributed by the meat.

Lard was, again, the food with the highest incidence.

The Codex Committee on Pesticide Residues, a subsidiary body of the International Codex Alimentarius Commission, has reached an advanced stage in the formulation of limits for pesticide residues in foods, but until these are finalised the only guide is the limits suggested by the Additives and Contaminants Committee of the Ministry of Agriculture, Fisheries and Foods, for Aldrin/Dieldrin, viz:

General Foods	0.1ppm
Mutton Fat	1.0ppm
Liquid Milk	0.003ppm
Baby Foods, including Dried Milk ..	0.002ppm

A direct comparison between the first two parts of the National Survey is complicated by the variation in the range of foods examined, but the following comparison is of interest.

	Number of Foods above the limits	
	1966/67	1967/68
General Foods ..	4	11
Liquid Milk ..	*8	*9
Baby Foods ..	Nil	Nil

* A further 11 samples of Milk contained the maximum of 0.003ppm in 1967/68 compared to a further 7 samples in 1966/67.

Or expressed as percentages of the number of samples of milk in the National Survey.

Milk samples containing Aldrin/Dieldrin	1966/67	1967/68
0.003ppm or more	7.7%	11.2%
More than 0.003ppm ..	4.1%	5.0%

It would be of interest to compare these figures with the level of deliberate adulteration of milk by abstraction of fat or addition of water—no such figures are available for the area covered by the National Pesticide Survey, but the figures for the Administrative County of Staffordshire were 1.1% for 1967 and 2.1% for 1968.

The position concerning the non-persistent organo-phosphous pesticides is more encouraging as only few samples in the National Survey gave positive results. Unexpected high amounts in isolated samples of cheese and pork emphasise that vigilance must not be relaxed.

SECTION III

FERTILISER AND FEEDING STUFFS ACT, 1926

163 samples, 142 from the County Council and 21 from Stoke-on-Trent, were submitted by Inspectors under the Act, of these samples 20 Fertilisers and 15 Feeding Stuffs were irregular.

The irregular samples included 10 that had variations that were to the prejudice of the purchaser (6.1% of all samples) and also 9 that were sold without Statutory Statements or with Statements that were not in the prescribed manner (5.5% of all samples).

Particulars of the samples are given in the following tables:—

(It should be noted that the total of irregularities in the table exceeds the number of irregular samples as some samples were irregular in more than one aspect).

Samples Examined

	County Council				Stoke-on-Trent			
		Irregularities				Irregularities		
	No.	Excess	Deficient	Others	No.	Excess	Deficient	Others
Fertilisers:								
Basic Slag	–	–	–	–	4	–	–	–
Bone Meal	4	1	1	2	–	–	–	–
Compound	31	13	9	2	11	–	–	–
Hoof and Horn Meal ..	1	–	–	–	–	–	–	–
Lime	10	–	–	2	–	–	–	–
Nitrate of Soda	2	–	–	–	–	–	–	–
Nitrate of Potash ..	1	–	–	–	–	–	–	–
Nitro Chalk	2	–	–	–	–	–	–	–
Sulphate of Ammonia ..	2	–	–	–	–	–	–	–
Sulphate of Potash ..	2	–	–	–	–	–	–	–
Superphosphate	2	–	–	1	–	–	–	–
	57	14	10	7	15	–	–	–
Feeding Stuffs:								
Cattle Feed	40	6	2	–	–	–	–	–
Feeding Meat and Bone Meal	3	1	1	1	–	–	–	–
Pig Feed	13	–	–	1	2	–	–	–
Poultry Feed	24	3	1	–	4	1	–	–
Sheep Feed	3	–	–	–	–	–	–	–
Molassed Meals	2	–	2	–	–	–	–	–
	85	10	6	2	6	1	–	–

Samples from Other Sources

In additon to the above, 2 samples of Feeding Stuffs were submitted privately for compositional analysis.

Irregular Samples

In the following tables, the 'excess' and 'deficiences' are the actual variations from the amounts given in the Statutory Statements. Only these samples are included in which these variations exceeded the permitted limits of variation.

Fertilisers

Authority and Description		N	P_2O_5%				K_2O	Other	Irregularity
			Total	Soluble	Insoluble	Citric			
		%	%	%	%	%	%		
County Council:									
A.36 Superphosphate	G	—	18.5	—	—	—	—	—	Amount of Soluble P_2O_5 not declared
	F	—	19.6	18.7	—	—	—	—	
A.37 Ground Limestone	G	—	—	—	—	—	—	—	No Statutory Statement
	F	—	—	—	—	—	—	CaO 56.7 Fineness 56.2	
A.41 Garden Lime	S	—	—	—	—	—	—	—	No Statutory Statement
	F	—	—	—	—	—	—	CaO 73.6	
B.1156 Compound Fertiliser 13.13.20	S	13.0	—	12.3	0.7	—	20.0	—	Soluble P_2O_5 2.7% deficient
	F	11.6	—	9.6	0.7	—	21.8	—	
B.1165 Early Bite Fertiliser	S	14.0	—	6.5	0.5	—	7.0	—	Sol. P_2O_5 1.5% deficient
	F	14.5	—	5.0	2.5	—	7.7	—	Insol. P_2O_5 2.0% excess
B.1166 13.13.20 Fertiliser	S	13.0	—	12.3	0.7	—	20.0	—	Sol. P_2O_5 3.1% excess
	F	14.3	—	15.4	0.8	—	20.0	—	
B.1168 10.10.10 Fertiliser	S	10.0	—	9.0	1.0	—	10.0	—	Sol. P_2O_5 1.8% deficient.
	F	11.0	—	7.2	1.9	—	10.4	—	Insol. P_2O_5 0.9% excess
B.1169 5.17.17 Fertiliser	S	5.0	—	16.0	1.0	—	17.0	—	N, 5.9% excess. Sol. P_2O_5
	F	9.7	—	10.1	3.3	—	17.2	—	4.2%. Def. Insol. P_2O_5 2.3% excess

Authority and Description		N	P_2O_5 %				KzO	Other	Irregularity
			Total	Soluble	Insoluble	Citric			
		%	%	%	%	%	%		
B.1171	Rich Lawn	S	5.0	—	6.0	4.0	—	2.0	—	K_2O, 0.9% excess
	Fertiliser	F	4.8	—	5.4	4.4	—	2.9	—	
B.62	Ideal Lawn	S	8.5	6.75	2.75	4.0	—	5.0	—	Sol. P_2O_5 1.0% deficient.
	Fertiliser	F	7.9	8.5	1.8	6.7	—	5.4	—	Insol. P_2O_5 2.7% excess
B.64	Bone Meal	S	6.3	15.5	—	—	—	—	—	N, 1.5% excess
		F	7.8	8.1	—	—	—	—	—	P^2O^5 7.4% deficient. Does not accord with the definition Bone Meal given in the Act
A.59	Organic Lawn	S	6.0	3.0	2.0	—	—	3.0	—	K_2O 1.8% excess. No
	Food	F	6.2	3.7	2.4	1.3	—	4.8	—	Statement of Insol. P_2O_5
A.60	Organic	S	4.0	3.1	0.9	—	—	2.1	—	No statement of Insol.
	Fertiliser	F	3.7	3.6	0.9	2.7	—	2.4	—	P_2O_5
A.71	Bone Meal	S	4.0	—	—	21.0	—	—	—	Nodeclaration of the total
		F	3.8	20.9	—	—	—	—	—	amount of Phos. Acid (P_2O_5)
B.1185	5.17.17	S	5.0	—	16.0	1.0	—	17.0	—	N, 0.8% excess.
	Fertiliser	F	5.8	—	16.0	2.7	—	17.0	—	Insol. P_2O_5 1.7% excess
B.1188	Rose Base	S	3.5	—	5.0	3.0	—	5.0	—	N, 0.8% excess. Sol. P_2O_5
	Dressing	F	4.3	—	3.8	4.1	—	4.8	—	1.2% deficient. Insol. P_2O_5 1.1% excess
B.1192	20.10.10	S	20.0	—	9.3	0.7	—	10.0	—	Sol. P_2O_5 1.7% deficient
	Fertiliser	F	19.5	—	7.6	0.7	—	10.8	—	
B.1193	Winter	S	4.0	—	11.0	1.0	—	15.0	—	Nitrogen 0.9% excess
	Hardener	F	4.9	—	10.2	0.8	—	15.3	—	
B.1194	5.17.17	S	5.0	—	16.0	1.0	—	17.0	—	N, 1.5% excess.
	Fertiliser	F	6.5	—	11.5	1.2	—	16.7	—	Sol. P_2O_5 4.5% deficient
B.1198	Winter Feed	S	2.0	—	4.0	10.0	—	6.0	—	Insol. P_2O_5 1.6% excess.
		F	2.1	—	2.7	11.6	—	5.6	—	Sol. P_2O_5 1.3% deficient

"G" = Guarantee. "F" = Found. 'S' = Statement.

In the above table, excesses are to the advantage and deficiences are to the prejudice of the purchaser. It will be noted, however that in samples No. B.1165, B.62. B.1188 and B.1198, deficiences of soluble phosphoric acid are offset by excesses of insoluble phosphoric acid and it is considered that, in these particular instances, the deficiences are not prejudicial since they are due to reversion of soluble phosphoric acid to the insoluble form—a process which does occur naturally when a fertiliser is applied to the gound.

Feeding Stuffs

Authority and Description			Oil	Protein	Fibre	Others	Irregularity
			%	%	%		
County Council:							
A.32	Special Dairy Meal	S	5.5	19.0	6.0	—	Oil 1.5% excess
		F	7.0	17.7	5.7		
A.33	Dairy Grain Balance	S	6.0	26.0	7.0	—	Oil 1.8% excess
		F	7.8	27.0	7.2		
A.45	Dairy Meal 16	S	3.0	16.0	7.0	Protein equiv. of Urea 3.6%	Protein 4.0% excess
		F	3.7	20.0	7.0	Protein equiv. of Urea 4.5%	
A.54	Beef Fattening Nuts	S	1·75	13.5	5.0	—	Oil 1.7% excess
		F	3.45	13.9	5.4		
A.56	Cattle Grain	S	3.75	26.0	6.0	—	Protain 4.8% deficient
	Balance Meal	F	3.5	21.2	5.8		
B.63	Feeding Meat and	S	6/8	40/42	—	P_2O_5 15.5%	Protein 5.8% excess.
	Bone Meal	F	7.2	47.8	—	P_2O_5 8.3%	P_2O_5 7.2% deficient. The Statutory Statement was not as required by the Act in that the amount of Oil and Protein must be given as definite percentages and not as ranges
B.1179	Hen Battery Deep	S	2.5	17.0	5.0	—	Protein 2.2% deficient.
	Litter Pellets	F	3.3	14.8	7.1		Fibre 2.1% excess
A.76	Bullock Mixture	S	3.0	14.5	9.0	—	Protein 1.9% deficient
		F	2.8	12.6	7.5		

Authority and Description			Oi	Protein	Fibre	Others	Irregularity
			%	%	%		
A.81	Economy Dairy Ration	S	2.0	16.0	6.0	Protein equiv. of Urea 3.6%	Oil 2.0% excess
		F	4.0	15.0	3.9	2.4%	
B.66	Pig Baconer and Meal (Vit. & Min.)	S	2.25	14.0	5.5	Copper 200 ppm	No declaration of the amount of Copper present
		F	1.9	13.0	2.8		
A.83	Battery Mixture	S	3.0	15.0	5.5	—	Oil 2.6% excess
		F	5.6	14.8	3.1		
B.1191	Dairy Ration	S	3.0	17.0	7.0	—	Protein 6.4% excess
		F	3.7	23.4	7.6		
B.69	Molassed Meal	S	—	—	10.0	Sugar 30.0%	Fibre 2.7% deficient
		F	—	—	7.3	31.6%	
B.70	Molassed Meal	S	—	—	10.0	Sugar 25.0%	Fibre 3.3% deficient
		F	—	—	6.7	26.0%	
Stoke-on-Trent:							
13F	Growers' Mash	S	4.0	17.0	5.0	—	Oi 1.3% excess
		F	5.3	16.7	5.0		

"S" = Statement. "F" = Found.

In general, with Feeding Stuffs, the excesses are to the advantage and the deficiences are to the prejudice of the purchaser, in the case of fibre, however, the converse applies.

Use of Urea in Feeding Stuffs

Ruminants are able to utilise a limited amount of urea as a source of Nitrogen and the use of urea in certain feeding stuffs was recognised in the revised 1968 Regulations made under the Act—provided that its presence and amount was declared, in terms of the "Protein Equivalent of Urea" in the Statutory Statement.

Beef Cattle, which are usually fed on the basis of little and often, can tolerate up to 3% of actual urea in the feed (protein equivalent of 8.7%) but dairy cattle, which usually follow a two feeds a day routine, have a lower tolerance of 1.4% urea (protein equivalent of 4.1%). Amounts in excess of these could be toxic to cattle.

To non-ruminants, any more than trace amounts could be toxic.

During the period covered by the Report, two samples were received, which had the following composition:—

		Oil	Total Protein	Protein Equivalent of Urea	Fibre
B.57	Beef Concentrate ..	3.0%	44.0%	27.4%	3.7%
B.60	Dairy Concentrate ..	3.9%	40.9%	19.9%	5.2%

Under the present provisions of the Act, no exception could be taken to these samples since they were labelled as at present required by the Act and the composition agreed, within the prescribed limits, with the Statutory Statement.

Moreover the manufacturers gave adequate directions for their use which should ensure that, when suitable diluted with cereals, no hazard would arise.

The opinion was expressed, however, that users of feeding stuffs should be made aware of the hazard associated with the misuse of such feeding stuffs and the County Council made representation to the Ministry of Agriculture Fisheries and Food, through the County Councils Association, that future legislation should include provision to *oblige* sellers to give advice on the correct use of such feeds. It was suggested also that the Ministry should consider the advisability of requiring such feeds to be marked by a distinctive colouring.

The wisdom of the County Councils action was confirmed shortly afterwards when the County Laboratory was asked to help in the investigation of a mysterious outbreak of illness in a herd of dairy cattle. Analysis of the feed showed that it contained 7.6% of urea (protein equivalent of 22%—more than five times the amount that could be tolerated by such cattle.

It is noted that the new 1970 Agriculture Act does include provision for the making of Regulations to require sellers to give information concerning the use of particular feeding stuffs.

SECTION IV

CONSUMER PROTECTION ACT, 1961

The Toys (Safety) Regulations, 1967

These Regulations place a ban on the use of the highly inflammable Cellulose Nitrate for all toys, except table tennis balls—nothing else, apparently, is suitable for table tennis balls.

Restrictions are placed also on the use of paints containing certain metals:—

Total Lead	not more than 5000ppm in the dry paint film
Total Arsenic	,, ,, ,, 250ppm ,, ,, ,, ,, ,,
Soluable Antimony	,, ,, ,, 250ppm ,, ,, ,, ,, ,,
,, Barium	,, ,, ,, 250ppm ,, ,, ,, ,, ,,
,, Cadmium	,, ,, ,, 250ppm ,, ,, ,, ,, ,,
,, Chromium	,, ,, ,, 250ppm ,, ,, ,, ,, ,,

Of the 18 toys examined, none included Cellulose Nitrate in their construction, but 2 toys (11.1% of samples) had paint that did not comply with the Regulations:—

Toy	Source	Mark	Lab. Ref.	Colour	Irregularity
Paint Brushes ..	County	CP.64B	CP.69/6	Yellow Green	Lead 85,000 p.p.m. ,, 16,000 p.p.m.
Whip and Top ..	County	CP.69B	CP.69/11	Red (1) Red (2)	Lead 25,000 p.p.m. ,, 8,000 p.p.m.

These Regulations, which at first sight appeared to be the essence of simplicity, have proved to be extremely difficult to administer.

A major difficulty has been the definition of "paint" which for the purpose of the Regulations—"paint includes lacquer, varnish and other similar substances".

This definition cannot, of course, take account of the method or applying the coloured coating to the toy—conventional application by brush is rare in mass production and the usual application is by spray or by dipping. With multi-coloured toys, and in particular those with complex designs, a process similar to printing makes use of printing inks—the Home Office has suggested that such inks are outside the scope of the Regulations but has, as yet, been unable to offer any opinion as to how the analyst is to differentiate between a thin coating of paint and a thick coating of ink.

Considerable practical difficulties have arisen, also, from the common practice of using several layers of paints on a toy—each of different composition.

It is not unusual for a single toy to have six or more different paints, each of which has to be examined for six metals. The use of modern instrumental methods has greatly reduced the time for the actual analysis but no way has yet been devised to hasten the tedious and time-consuming process of removing the paint from the toy and, all too frequently, it just is not possible to obtain sufficient paint for all tests.

A revision of the Regulations, to eliminate these difficulties, is urgent.

SECTION V

THE PHARMACY AND POISONS ACT, 1933

Only 1 sample was submitted under the Pharmacy and Poisons Act, 1933 by the County, an 'aerosol' container containing a preparation for spraying onto vehicle tyres to increase adhesion (PP.69/1).

The material consisted of a rubber like substance, probably of synthetic origin in a solvent consisting mainly of alcohol.

The container was considered to be labelled in a satisfactory manner and it was decided that the composition was not within the scope of the Act.

SECTION VI

THE TRADE DESCRIPTIONS ACT, 1968

17 samples were submitted by the County and 1 by Stoke-on-Trent consisting of one sample of Poultry Feed Supplement, three Petrol/Oil mixtures and 13 Pet Foods.

Poultry Vitamin Supplement	Stoke-on-Trent	T.69/1	It was suspected that the material was deficient in Vitamin D3, but it was found to contain 1.1 million I.U. per 3 lbs as compared with the stated 1 million I.U. per 3lbs.

PETROL OIL MIXTURES

Source	*Mark*	*Ref.*	*Oil Content*
County	.. LF B15	.. TD.69/4	.. 0.7% by volume
,,	.. LF 16	.. TD.69/5	.. 4.0% ,, ,,
,,	.. LF 17	.. TD.69/7	.. 4.2% ,, ,,

These mixtures are sold for use in two-stroke petrol engines where the lubrication of the internal mechanism is provided by oil in the petrol supply.

Two of the samples were considered to be satisfactory but one (LF B15) would almost certainly have caused seizure if used in such an engine.

PET FOODS (CANNED)

Description	*Source*	*Mark*	*Ref.*	*Meat standard applied (see below)*	*Meat content*
Dog Food	County	.. 50 B/O	.. TD.69/2	.. 50%	.. Meat 38.0%
,, ,, ..	,,	.. 51 B/O	.. TD.69/3	.. 50%	.. Meat 37.8%
,, ,, ..	,,	.. 52 B/O	.. TD.69/6	.. None	.. Meat 35.6%
,, ,, ..	,,	.. 81 B/O	.. TD.69/8	.. 35%	.. Meat 41.1%
,, ,, ..	,,	.. 82 B/O	.. TD.69/9	.. None	.. Meat 32.3%
,, ,, ..	,,	.. 83 B/O	.. TD.69/10	35%	.. Meat 42.5%
,, ,, ..	,,	.. 7 B/S	.. TD.69/12	35%	.. Meat 29.4%
,, ,, ..	,,	.. 12 B/S	.. TD.69/17	None	.. Meat 49.0%
,, ,, ..	,,	.. 13 B/S	.. TD.69/18	50%	.. Meat 60.0%
Cat Food ..	County	.. 84 B/O	.. TD.69/11	None	.. Fish 57.8%
,, ,, ..	,,	.. 8 B/S	.. TD.69/12	50%	.. Fish 76.0%
,, ,, ..	,,	.. 9 B/S	.. TD.69/14	None	.. Fish 44.1%
,, ,, ..	,,	.. 10 B/S	.. TD.69/15	None	.. Fish 67.2%
,, ,, ..	,,	.. 11 B/S	.. TD.69/16	35%	.. Meat 43.3%

There are no agreed standards of composition for canned pet foods and there is some confusion in the mind of the public concerning these products because of the use of descriptions such as "Meat in Gravy" which have a special meaning, and Statutory Standard, when applied to food for human consumption—but not when applied to pet foods.

It would be unrealistic to apply these standards to pet foods because of price considerations, notwithstanding that pet foods contain meat and offals that might not, normally, be used for human diet.

In an attempt to bring some measure of protection to the customer, if not consumer; the following considerations have been applied in assessing canned pet foods.

(a) MEAT CONTENT

(1) *Not less than* 50% *meat*

If the name or description implies that "meat" is a major ingredient and where there is no mention of ingredients other than meat in the name or description of the product.
e.g. "Meat Dog Foods," "Meat in Gravy" etc.

(2) *Not less than* 35% *meat*

If the name or description includes "meat", but not in such a manner as to imply that meat is a major ingredient. Such a name or description would normally include reference to other ingredients e.g. "Meat with Cereal."

(3) *No Standard for Meat Content*

When "meat" is not included in the name or description.

(b) STATEMENTS OF INGREDIENTS

It would not appear to be practical to insist upon a list of ingredients, as is required for canned meat products for human consumption, because of the necessity to vary the recipe according to the availability of materials, but it is considered that if such a list is given, then it must be a true statement with the ingredients in the order in which they are present. There would appear to be no logical reason why such a list should not include added water. In some instances the major part of the contents of the can is added water.

(c) OTHER CLAIMS

General claims such as "Rich in Liver", "High Protein", "Full of Vitamins" should not be made unless they can be substantiated.

In addition to the meat deficiencies apparent in the above table several samples had lists of ingredients that omitted added water

One sample (12 B/S) made the claim "High in Protein" but contained only 10.3% of protein.

SECTION VII

OTHER SAMPLES

ATMOSPHERIC POLLUTION

90 Lead Peroxide Cylinders and the contents of 169 Rain Gauges were submitted for examination in 1969, as listed in Section 1.

The Lead Peroxide Cylinders are used to determine the amounts of sulphur gasses in the atmosphere—the Lead Peroxide reacts with and fixes the sulphur, which is then determined by analysis.

Rainwater is measured to determine the actual rainfall and is then examined for soluble and insoluble matter.

LEAD PEROXIDE CYLINDERS

Authority	Site Name and Number	No. of Samples	Lowest Month	Highest Month	Average
Aldridge-Brownhills U.D.C. ..	Brownhills No. 2	12	0.8	2.6	1.6
,, ..	,, No. 3	12	0.3	3.3	1.1
Newcastle-under-Lyme R.D.C. ..	Keele No. 1	11	0.6	2.1	1.3
Rugeley U.D.C.	Stone No. 9	11	0.3	1.4	0.8
Stone R.D.C.	,, No. 9	11	0.5	1.7	1.0
,, ,, ...	,, No. 12	11	0.8	2.4	1.4
,, ,, ...	,, No. 13	11	0.4	1.7	1.0
,, ,, ...	,, No. 14	11	0.5	1.5	1.0

Rainwater Gauges

Authority	Site Name and Number	No. of Samples	Average Rainfall (mm./day)	Average Solids Deposit (mg./sq. metre per day)		
				Undissolved	Dissolved	Total
Aldridge-Brownhills U.D.C. ..	Brownhills No. 2	12	1.7	141	84	225
,, ,, ,, ..	,, No. 3	12	2.1	112	91	203
Cannock U.D.C.	,, No. 1	12	2.1	87	71	158
,, ,, ...	Cannock No. 9	12	2.0	103	70	173
,, ,, ...	,, No. 11	12	1.8	102	140	242
Cheadle R.D.C.	Cheadle No. 1	10	2.7	185	217	402
,, ,, ...	,, No. 2	10	2.2	119	152	271
Newcastle-under-Lyme B.C. ..	Newcastle No. 4	12	2.0	57	66	123
Newcastle-under-Lyme R.D.C...	Keele No. 1	12	2.2	47	72	119
Rugeley U.D.C.	Rugeley No. 9	12	1.8	122	75	197
Stone R.D.C.	Stone No. 27	11*	1.7	116	219	335
,, ,, ...	,, No. 29	11	1.4	83	171	254
,, ,, ...	,, No. 30	8‡	1.4	39	96	135
,, ,, ...	,, No. 35	11	2.0	53	82	135
,, ,, ...	– P.103	3†	1.9	29	76	105
,, ,, ...	– P.104	3†	1.7	91	107	198
,, ,, ...	– P.105	3†	2.0	47	86	133
,, ,, ...	– P.106	3†	2.0	53	79	132

‡ Samples from the Stone No. 30 site were not submitted during the summer months.
† Stone samples from gauges P.103-6 were submitted from new sites with effect from October, 1969.
* The gauge, Stone No. 27 was re-sited in October, 1969.

ROAD SAFETY ACT, 1967

Persons who may be charged with an offence under the Act are provided by the Police with part of the sample of blood, or urine.

The County Laboratory provides a service whereby, such persons may for a fee, fixed by the County Council, have such samples examined for alcohol content.

During the year, the following results were obtained.

Lab. Ref.	*Blood Alcohol, mg./100 millilitres*
A.69/1	60
2	26
3	130
4	263
5	262 (Urine)
6	85
7	250
8	160
9	66
10	94
11	158
13	82
14	193
15	80
16	112
17	128
18	120
20	68

Lab. Ref.	*Blood Alcohol mg/109 millilitres*
23	96
25	36
26	81
27	162
28	30
29	270
30	338
31	84
32	60
33	124

The limits prescribed by the Act are 80 mg./100 millilitres of blood and 107 mg./100 millilitres of urine.

WATERS, EFFLUENTS

Drinking Water

Of the 115 samples none were reported upon adversely on sanitary grounds, but four private supplies from springs or shallow wells were of doubtful purity and a fourth from a public supply, but via a private storage tank, had become contaminated by debris in the tank.

A number of samples were criticised, however, on other than sanitary grounds and these are discussed in the following paragraphs.

Nitrates in Drinking Water

Reference was made in the 1967 and 1968 Annual Reports to the undesirable nature of waters containing more than 20ppm of nitrates for consumption by infants under 12 months of age, because of the formation of methaemoglobin in the blood.

Five samples with 20ppm or more of nitrates were received during 1969.

Lab. Ref.	*Source*	*Nitrate N*
W.69/82	.. Stone R.D.C.	.. 21 ppm
W.69/153	.. Stone R.D.C.	.. 49 ppm
W.69/223	.. Stone R.D.C.	.. 22 ppm
W.69/366	.. Stone R.D.C.	.. 20 ppm
W.69/367	.. Cheadle R.D.C.	.. 25 ppm

Metallic Contamination of Drinking Water

All samples are examined for Lead, Iron, Copper and Zinc.

Lead

Contamination by Lead is particularly serious as it is a cumulative poison and the Standard of the World Health Organisation is the very small amount of 0.05 ppm.

Now that Lead piping is going out of use, contamination by Lead is, fortunately rare, but one sample from a private supply. Stoke-on-Trent W.69/172 contained 3.7 ppm. Further investigations (W.69/183) showed that the water in the well was free from Lead, but that it was extremely plumbo-solvent and was dissolving Lead from an old plumbing system.

Iron

There is no evidence that the trace amounts of Iron that occur in most waters are harmful, but amounts in excess of 0.3 ppm will have an adverse effect upon palatability and may cause stains when such a water is used for laundry purposes. Amounts in excess of 0.5 ppm are considered to render a water unfit for domestic use.

Sixteen waters contained excessive Iron.

Lab. Ref.	*Source*	*Iron*
W.69/60	County	0.7 ppm
W.69/82	Stone R.D.C.	1.8 ppm
W.69/111	County	3.5 ppm
W.69/117	Kidsgrove U.D.C.	1.6 ppm
W.69/166	County	0.4 ppm
W.69/167	County	0.5 ppm
W.69/221	Newcastle R.D.C.	0.7 ppm
W.69/222	Newcastle R.D.C.	1.0 ppm
W.69/311	Cannock R.D.C.	8.0 ppm
W.69/323	Lichfield R.D.C.	0.5 ppm
W 69/352	County	0.8 ppm
W 69/353	County	1.1 ppm
W 69/390	Cheadle R D C.	0.7 ppm
W.69/424	County	1.6 ppm
W.69/425	County	2.0 ppm
W.69/426	Cheadle R.D.C.	0.7 ppm

Copper

Copper is not considered to be hazardous in the amounts that usually occur in domestic water supplies. Natural waters rarely contain any copper but the now widespread use of copper plumbing means that trace amounts are now quite common in waters as consumed.

Of the 114 samples of drinking water 34 has measurable amounts of Copper, as follows:—

Copper	*Number of Samples*
Up to 0.1 ppm	8
0.1—0.3 ppm	17
Over 0.3 ppm	9

The World Health Organisation considers that up to 1.0ppm of Copper is acceptable on Health grounds.

Attention is drawn to the presence of copper in drinking water if it exceeds 0.3 ppm. Details of the nine samples are:—

Lab. Ref.	*Source*	*Copper*
W.69/110	County	0.40 ppm
W.69/239	Rugeley U.D.C.	0.45 ppm
W.69/265	Stone R.D.C.	0.40 ppm
W.69/274	Rugeley U.D.C.	0.35 ppm
W.69/338	Cheadle R.D.C.	0.40 ppm
W.69/366	Stone R.D.C.	0.75 ppm
W.69/386	Uttoxeter R.D.C.	0.40 ppm
W.69/387	Uttoxeter R.D.C.	0.85 ppm
W.69/492	Newcastle R.D.C.	0.90 ppm

Traces of Copper of the order of 1.0 ppm can, however, cause serious corrosion to galvanised tanks and fittings. Aluminium vessels may also be attacked if as little as 0.02 ppm of Copper is present, if the water is hard, but 1.0 ppm may be present in soft waters without adverse effects upon aluminium.

Three examples of such corrosion of Aluminium were investigated during 1969.

An aluminium water jug—County (M.69/42) was found to have deposits of a white material on the inner surface, that contained aluminium and copper compounds.

The two other cases were the very severe corrosion of an industrial heat exchanger and in the condensing system of a large boat.

It would seem that users of aluminium are unaware of this corrosion risk.

Zinc

Zinc is rarely present in natural waters, but many domestic supplies contain trace amounts from the use of galvanised equipment.

Of the 114 samples of drinking waters 43 had measurable amounts of zinc, as follows.

Zinc	*Number of Samples*
Up to 1.0 ppm	34
1.0—5.0 ppm	8
Over 5.0 ppm	1

The World Health Organisation considers that 5.0 ppm of zinc is the acceptable maximum. One sample exceeded this amount.

Lab. Ref.	*Source*	*Zinc*
W.69/222	Newcastle R.D.C.	7.2 ppm

Hardness

Some water supplies in the area served by the County Laboratory are very hard. No exception can be taken to such waters on health grounds but they are inconvenient and wasteful of soap in the home and can be the cause of considerably difficulties in hot water systems from corrosion and scaling.

The water supplies examined for hardness are classified as follows:

Classification	*Hardness (Total as $CaCO_3$*	*Number of individual supplies*
Soft	0—50 ppm ..	Nil
Moderately Soft	50—100 ppm ..	9
Slightly Hard	100—150 ppm ..	6
Moderately Hard	150—250 ppm	31
Hard	250—350 ppm ..	15
Excessively Hard	more than 350 ppm	11

Details of the 14 samples from the 11 supplies that was reported as excessively hard are:

Lab. Ref.	Course	Total Hardness as $CaCO_3$	Carbonate Hardness as $CaCO_3$	Non-Carbonate Hardness as $CaCO_3$
W.69/113	County	404	252	152
W.69/83	Cannock R.D.C.	486	314	172
W.69/475	Lichfield R.D.C.	402	172	230
*W.69/104	Stafford Borough	400	248	152
*W.69/228	,, ,,	450	254	196
*W.69/374	,, ,,	398	244	154
*W.69/485	,, ,,	400	248	152
W.69/82	Stone R.D.C.	464	218	246
W.69/127	,, ,,	640	430	210
W.69/153	,, ,,	556	186	370
W.69/205	,, ,,	960	184	776
W.69/454	Tutbury R.D.C.	656	382	274
W.69/94	Uttoxeter	492	262	230
W.69/261P	Private	1,780	218	1,562

Apart from the four samples marked*, which came from a single public supply, all the above samples were from private wells.

Swimming Bath Waters

It is commonly believed by the public that the water is frequently discarded and replaced by fresh from the main supply. Except for very small private baths this would be quite impractical—not only because of the cost of the water but because it could take several days to completely refill a normal public swimming bath, it is also very doubtful if the public water supply would be able to supply, at other than very infrequent intervals, the amount of water required.

The ideal water for a swimming bath would have the same degree of purity as drinking water. This is rarely, if ever, achieved in practice since the moment that the water from the treatment plant re-enters the bath it becomes contaminated by contact with the bodies of the bathers which contribute "dirt" of various forms, also perspiration, saliva and urine.

The aim of swimming bath management is to treat the water to remove particulate matter to ensure absolute clarity, to maintain a level of free chlorine sufficient not only to kill bacteria but also to bring about the destruction of organic matter and to control the pH within a narrow range. To achieve this when the load may vary from day to day from almost nil to "standing room only" is extremely difficult—sometimes bordering upon the impossible.

The realisation of the importance of adequate control of swimming baths is shown by the number of samples submitted, which has almost doubled those in 1968.

That only 43 of the 196 samples examined were entirely satisfactory is not necessarily a criticism of the management of the baths, but an illustration of the difficulty of control and confirmation of the necessity for frequent examination.

The results are summarised as follows:

pH and Alkaline Reserve

The optimum pH is within the range 7.5—8.0. If lower the free chlorine causes irritation and inflamation to the eyes and other sensitive areas. If higher (i.e. more alkaline) unpleasant 'woolly' odours are produced.

pH	*Number of Samples*
below 6.5	3
6.5—6.9	3
7.0—7.4	54
7.5—8.0 (optimum) ..	99
8.1—8.5	32
above 8.5	5

The alkaline Reserve should not fall below 100 ppm, as $CaCO_3$ and preferably should be in the region of 200 ppm. The lower pH readings were associated with inadequate alkali reserves.

Details of waters below pH 7.0 are:—

Lab. Ref.	*pH*	*Alkaline Reserve as $CaCO_3$*
W.69/340 ..	4.6 ..	3
W.69/282 ..	6.2 ..	14
W.69/325 ..	6.3 ..	10
W.69/339 ..	6.7 ..	32
W.69/178 ..	6.8 ..	30
W.69/243 ..	6.8 ..	39

The highest pH readings were associated with an excessive alkaline reserve.

Details of waters above 8.5 are—

Lab. Ref.	*pH*	*Alkaline Reserve, as $CaCO_3$*
W.69/69 ..	8.6 ..	—
W.69/245 ..	8.6 ..	620
W.69/377 ..	8.6 ..	410
W.69/120 ..	8.7 ..	692
W.69/510 ..	8.7 ..	720

RESIDUAL CHLORINE

Free Residual Chlorine

The usual recommended level is 0.2—0.5ppm but an amount as low as 0.2ppm could only be considered satisfactory at a point where the water leaves the bath. Water entering the bath with only 0.2ppm of free chlorine will almost certainly show no free chlorine by the time that it leaves.

Modern practices is to favour higher levels of 0.5—2.0ppm and it is found that these amounts are quite acceptable to bathers, provided that the pH control is maintained, and gives a greater margin of safety in meeting any sudden pollution load.

The results are summarised as follows.

Free Residual Chlorine	*Number of samples*
Less than 0.2	19
0.2—0.4	44
0.5—2.0	89
Above 2.0	44

The nineteen samples with less than 0.2ppm of free residual chlorine were reported as unsatisfactory.

Of the 44 samples with more than 2.0ppm of free chlorine, and therefore the subject of adverse comment, 15 had 4.0ppm or more—the highest amount found being 21ppm. Such high amounts of free chlorine are very undesirable.

Combined Residual Chlorine

In the presence of ammonia and other nitrogen containing substances, such as are introduced by urine, chlorine enters into combination to form chloramines and other more complex substances. The formation of these substances is favoured also by insufficient alkaline reserve and consequent fall of pH.

It was at one time considered that chloramines were beneficial in that they were a more stable form of residual chlorine and their formation was even encouraged by the addition of ammonium salts to the water.

The bacterial value of chloramines is, however, now known to be very much less than that of free chlorine and the presence of other than minimal amounts of such substances is now taken as an indication of the existence in the water of residues of organic polluting matter.

The actual amount of combined residual chlorine appears to be of less significance than the ratio of Combined to Free Residual Chlorine. With waters of satisfactory purity the ratio is usually 1:1 or less, but a ratio that exceeds 2:1 indicates some build up of organic matter. When the ratio exceeds 3:1 heavy dosing with chlorine is necessary to oxidise the organic matter present and to give an effective level of free residual chlorine.

Of the 196 waters examined, 60 samples had a Combined to Free ratio in excess of 3.0. It is of significance that of these only 9 had levels of free residual chlorine above 0.5ppm while none exceeded 1.0ppm and 39 had 0.3ppm or less of free residual chlorine.

EFFLUENTS

As it is an inland County, Authorities in Staffordshire have a particularly difficult task in disposing in a satisfactory manner of effluents from the expanding urban development and because of the limited dilution available in the comparatively small water courses.

An ever present problem, is the control of industrial effluents. The introduction of new methods and materials in industry which may introduce into effluents substances which can have adverse effects upon the operation of sewage treatment installations.

The majority of samples examined were taken in connection with the operation of existing works and in assessing the need for new works or extension of old works. A number of examinations were carried out, however, in relation to proposals to discharge trade wastes into public sewers and also where it was suspected that unauthorised discharges were being made.

These latter investigations included oils, phenolic substances, slaughter house wastes, and plating works effluents. An unusual case was where the operation of a sewage works suddenly became adversely effected for no readily apparent reason.

An extensive investigation into the latter case, which included an examination of various materials that were used in nearby industries, eventually led to the detection, by a specially devised procedure employing gas chromatography, of Methyl Naphthalene, a substance used in the preliminary treatment of synthetic textiles prior to dyeing, in amounts varying from 1ppm to 8ppm, in the crude sewage.

Experiments carried out as the sewage works confirmed that Methyl Naphthalene, in only trace amounts, had a very serious effect upon the purification processes.

OTHER WATERS

A number of investigations were carried out on suspected pollution of various natural waters.

A particularly bad example of pollution was an apparently normal land drain that was in fact discharging material from a nearby factory with all the characteristics of a crude untreated sewage. There were also several instances in which domestic sewage was being discharged into roadside ditches.

Two cases of a rather unusual character, was the contamination of water courses by coal dust washed from coal tipping sites by heavy rain. One of these cases was visited by the County Laboratory and coal dust was detected on agricultural land, where it had been deposited by flooding, for some distance downstream of the site.

The death of fish in an ornamental pool was the subject of a special investigation. The water was found to be free from the more usual types of pollution but contained traces of the selective herbicide known as "2:4:D", to which fish are very sensitive. It was ascertained that the surrounding lawn had been treated with this herbicide.

MISCELLANEOUS SAMPLES

Special Investigations

COUNTY COUNCIL

County Medical Officer of Health

M.69/42 Aluminium Water Jug	Severe corrosion of the interior of the jug was found to be due to the presence of traces of copper in the water supply (see also Section VII (Waters) of this Report).

M.69/19 Plastic Bowls

A small fire had occurred when plastic bowls were being sterilised.

Examination of the bowls showed that they were made of polypropylene—a synthetic material that is readily combustable when subjected to dry heat.

M.69/39/50/51 Deposits from Swimming Bath

Microscopic examination of the deposits show that they included filtering media from the treatment plant. The amount, by chemical analysis being 20%—the remainder being water hardness solids.

M.69/61 Deposit from Swimming Bath

A greenish coloured deposit was found to consist, essentially of copper carbonate.

County Children's Officer

M.69/52 Bottle of Liquid

Found in suspicious circumstances and thought to contain an intoxicating liquid, but contained only ordinary tap-water.

County Fire Officer

M.69/56 Charred Cloth

Cloth, from the scene of a fire, consisted entirely of cotton.

M.69/10/11 Hazardous Materials

Following the occurrence of an explosion and fire at a place of entertainment, the County Laboratory was requested to examine the materials that were used to produce stage effects. The tests that were carried out demonstrated the very dangerous properties of the materials and the County Fire Officer was able to make appropriate recommendations.

The "Pop Group" concerned were very helpful and co-operative and their leader was asked to visit the County Laboratory for discussions. It was with some embarrassment that it was later realised that such "Groups" do not recognise a "leader" and the whole group—which was a large one—duly arrived and took part in the discussions.

County Surveyor

M.69/60 Antifreeze

The sample complied with BS.3151 type B, as specified.

M.69/20/21 Material from Drain

Material that was obstructing a drain was found to be almost entirely calcium carbonate.

County Chief Inspector of Weights and Measures

M.69/18 Brick Colouring Preparation

The material contained 7.5% of a pigment based upon iron oxide in a vehicle consisting of a solution of a resinous binder in methylated spirit.

M.69/68/69 Tomato Ketchup and Tomato Puree

Following upon an adverse report upon a sample of Tomato Ketchup, 84 A/S (FD.69/401), the manufacturers submitted a sample of Ketchup from their current production, together with a sample of the puree used.

The puree was of normal composition and the ketchup up to standard.

Stafford Borough

M.69/41 Section of Water Main

When a section of a large water main was removed in order to make a connection it was noticed that the interior was coated with an unusual, chocolate coloured, deposit.

The deposit was found to consist mainly of hydrated iron and manganese exides and had the following composition:

Loss on ignition	54.2%
Silica	14.0%
Iron (as Fe_2O_3)	19.5%
Manganese (MnO_2)	12.3%

M.69/31 Raw Peeled Chipped Potatoes

Submitted by the Authority following an enquiry by a commercial user.

Discolouration was found to be due to absence of the usual sulphur dioxide preservative.

M.69/22/23/24 Frying Oils

Submitted by the Authority following an enquiry by a commercial user.

All were satisfactory.

Cannock U.D.C.

M.69/25/26/27 Atmospheric Pollution

Dust from the roofs of parked cars included fuel ash, siliceous matter, rubber (from road dust), with an Iron content of 5%.

Waste from a nearby foundry was suspected as the cause of the nuisance, but samples of material from the foundry were of a much coarser nature and contained only 1% of iron.

Newcastle Borough

M.69/5/6/7 Atmospheric Pollution

Grit that was being deposited in a residential area had the characteristics of the ash from a coal fired furnace but the absence of the usual spherical particles indicated that it had come from the grate of a furnace and not from the flues.

M.69/8/9 Atmospheric Pollution

Grit in the vicinity of residential premises was thought to have come from nearby industrial premises. It was found, however, to be composed mainly of siliceous matter, such as would be produced by the natural weathering of bricks, roof tiles and concrete.

OTHER AUTHORITIES

Aldridge-Brownhills U.D.C.

M.69/1/2 Material found in a field

Material that had been deposited in a field near to residential property had an extremely offensive odour.

Chemical analysis showed that it consisted of a hydrocarbon oil with a high content of organic sulphides.

A suggested treatment of the material with bleaching powder proved to be very effective in removing the offensive odour, to the great relief of the local population.

M.69/13 Waste Material from Refuse Tip

The material contained:—

Sulphate (SO_4)	4110ppm
Chloride (Cl)	2750ppm
Cyanide-total (CN) ..	578ppm
Cyanide-free (CN) ..	337ppm
Iron (Fe)	90ppm
Copper (Cu)	356ppm
Chromium (Cr)	52ppm

These findings are consistent with the material being a waste from an electroplating works, which had been dumped without permission.

Cannock R.D.C.

M.69/35/36 Deposits from Garden and Field

Black material deposited on gardens and agricultural land was found to be coal dust that had been washed from a coal tipping site.

Leek U.D.C.

M.69/16/17 Cloth

A works that was using treated river water in the processing of cloth had complained to the Authority that brown stains had resulted, allegedly as a result of the Authority's discharge of treated sewage into the river.

The staining of the cloth was proved however to be due entirely to iron. It was later ascertained that the works were treating the water with lime and "copperas" but had apparently not appreciated that "copperas" was a compound of iron (iron sulphate) and not of copper.

M.69/45/46/47/48 Industrial Chemicals

These materials were submitted in connection with difficulties experienced at a sewage treatment plant. One of these substances, Methyl Naphthalene was found to be the responsible agent.

Lichfield City

M.69/55 Insect

The insect, found on the windowsill of a house was identified as a Burying (or Sexton) Beetle, family SILPHIDAE, subfamily SILPHIDAE, genus NECROPHORUS—probably N.INVESTIGATOR.

These beetles are usually found upon carrion, to which they are guided by a highly developed sense of smell. Being strong fliers, individual beetles may however occur almost anywhere.

M.69/44 Material for treatment of Swimming Bath Water

Found to consist mainly of sodium carbonate with approximately 5% of a phosphate of the "Calgon" type.

Stone R.D.C.

M.69/65 Road Dust

Material found by the roadside consisted mainly of small fragments of shale, probably from colliery waste, together with some fly-ash particles, iron rust, flakes of paint and vegetable debris.

M.69/64 Blast Furnace Slag

It was proposed to use the slag for infilling when road making and it was desired to know the sulphur content.

Sulphide Sulphur released by water	0.2%
,, ,, ,, by dil acid	0.6%
Sulphates (SO3) soluble in water	0.2%
,, ,, ,, in dil acid	2.8%
Total Sulphur (as S)	2.5%

M.69/30 Atmospheric Pollution

The composition of material deposit on residential premises was consistent with it being the emission of a coal fired boiler.

Tutbury R.D.C.

M.69/34 Atmospheric Pollution

The material had the following composition:—

Loss on ignition	50.1%
Acid insoluble matter ..	19.6%
Iron (as Fe_2O_3)	5.2%
Calcium Sulphate (as $CaSO_4$)	25.1%

It was considered that a suspicion that deposits upon vegetation came from nearby plaster works was substantiated.

M.69/72 Pair of Slippers

The purchaser of the slippers had complained of irritation and "bites".

The slippers were found to be infested with dog fleas CTENOCEPHALUS CANIS. Investigations by the Authority found that such fleas were present at the place of origin of the slippers.

Private

M.69/33P/37P/54P/59P/66P Samples of Milk

Samples submitted by producers. All were satisfactory.

M.69/70P/71P Double Cream

Samples submitted by a wholesaler for comparison. Both were satisfactory and of similar composition.

M.69/12P Heavy Fuel Oil

It was suspected that an incorrect grade of oil had been supplied. The viscosity of 3400 Redwood I seconds at 100°F was considered to be in reasonable agreement with the specification of 3500 seconds.

M.69/3P/4P Aquarium Waters

A proprietor of a store for aquarium supplies had noticed that Daphnia etc. thrived better in some waters than in others. These waters were found to be high in oxidisable organic matter and to contain small amounts of combined nitrogen, phosphate and potassium.

M.69/69P Copper Pipe

The material of the pipe was commercially pure copper of not less than 99.8% purity.

M.69/49P Substance for identification

The substance was identified as Cannabis.

M.69/28 Wallpaper	Staining on the wallpaper was found to be due to water-soluble substances dissolved from the flue deposits, by condensed water penetrating the brickwork, and not due to oil fuel as had been suspected.
M.69/57P Length of cable & box of dust	It was suspected that the cable contained asbestos, which would be a hazard to workmen engaged on salvaging the metal from the cable. No asbestos was present but the dust did contain 14% of metallic lead, which had come from lead foil in the cable.
M.69/42(A)P and M.69/32P Corrosion of Aluminium	Two very similar cases of very severe corrosion of aluminium in heat exchangers containing soft aluminium tubes. In both cases it was confirmed that traces of copper in the water were responsible (See Section VII (Waters).)
M.69/40P/62P/63P Deposits from Land Drains and in Brookcourse	It was suspected that pollution was being caused by the deposition of waste animal matter upon agricultural land. The deposits consisted mainly of gelatinous masses of saprophytic bacteria, together with other organisms characteristic of polluted waters. Sulphides and fatty matter were also present.
M.69/53P Cement Rendering	Failure of the cement rendering was thought to be due to excessive amounts of sulphates but the amount of sulphate was within specification.
M.69/29P/38P Insects	Two separate cases of insect infestations of private houses were found to be due to beetles of the ATTAGEHUS PELLIO species. These are common household pests, the larvae of which are destructive to woollen textiles etc. Wood is not attacked.
M.69/15P Insects	Insects from a private house were identified as cat fleas—CTENOCEPHALUS FELIS.
M.69/58P Objects for identification	Identified as the empty pupal cases of the common housefly—MUSCA DOMESTICA.
M.69/14P Black Material from skin	Black material from the skin of a patient at a Health Centre was found to be miscellaneous dirt mixed with various textile fibres.

M.69/73P Soil and Vegetation — Following an accident at an industrial site it was suspected that crops had been effected by deposition of carbonaceous matter.

The surfaces of the vegetation were found to have an adherent deposit of carbon and particles of carbon had entered and blocked the lenticels (breathing pores).

TOXICOLOGY

Stoke-on-Trent

T.69/1 Canned Salmon — Canned salmon was implicated in a case of food poisoning, but was free from contamination.

Stafford Borough

T.69/7 Fungi — A specimen of fungi, similar to that which had been eaten by a child was submitted for urgent identification.

Fortunately the fungi proved to be a non-poisonous variety—a species of the genus PANALEOLUS, probably P.RICKENII.

Newcastle Borough

T.79/15 Ceramic Materials — Samples of finely powdered materials were submitted following complaints of a dust nuisance. There was no hazard associated with the composition of the materials.

Kidsgrove U.D.C.

T.69/3 Medicines etc. and Hypodermic Syringes — Part of a large quantity of medicines and associated materials that had been dumped upon open ground.

Capsules contained Ampicillin, an antibiotic and Benadryl, an antihistomine. Small bottles—labelled in Spanish!—contain Ampicillin.

Hypodermic syringes contained various pollen allergens.

Drums had contained Ethyl Chloroformate—an industrial solvent.

Rugeley U.D.C.

T.69/2 Sliced Green Beans — The sample was submitted following a complaint of sickness, but no abnormality was found.

Private

T.69/4P/5P Sample of Food and body of Dog — Following the illness of a number of dogs, one of which had died. Examination of the food revealed the presence of crushed glass and a considerable amount of a drug of the barbituate group.

T.69/8P/17P Stomach contents and blood of dogs — Samples taken from two dogs, in a locality adjacent to the above case, showed barbiturates to be present in the stomach contents and blood of one dog but not in another.

M.69/18P Stomach contents of dog — Strychnine was found to be present.

M.69/10P Baby's Coat and Tablets — The tablets, to which the child had gained access, were found to contain iron. Iron was present also in the stains on the coat.

M.69/6P Dead fish — Submitted in connection with the sample of water which was found to be contaminated by the selective herbicide "2-4-D" (See Section VII (Waters).

T.69/14P Samples of Tea and Coffee — It was alleged that the authorities at an industrial training establishment had ordered that bromides should be added to tea and coffee supplied in the canteen to men students to "stop the men chasing the women". The tea and coffee was of normal composition and the allegations were unfounded.

T.69/9 Coarse Dairy Meal — Illness of dairy cattle was found to be due to the presence of 7.6% of urea (protein equivalent 22.1%) in the meal. Urea is used in some cattle foods but the maximum amount tolerated by dairy cattle is only 1.4% (protein equivalent 4.1%).

(Further reference to this sample is made in Section III).

T.69/11P/12P/13P Formalised Skim Milks — Skimmed milk for use as an animal feed is sometimes preserved by the addition of 0.1% of formalin solution (40% Formaldehyde).

Following the death of a calf fed on such preserved milk, three samples were submitted. One contained only 0.03% of formalin solution but the other two contained 0.9%. It was apparent that the formalin was not being mixed uniformly with the milk and there was a strong presumption that the dead calf had received an excessive amount.

Milk Sampling Officer purchasing sample of milk.

MILK SUPPLY

Milk Sampling

The work of the Department in endeavouring to ensure a clean, wholesome and disease-free milk supply throughout the County was maintained.

Midway through the year under review, the sampling programme was reorganised in order to introduce a greater degree of rationalisation and flexibility into the frequency of sampling. In this way the tendency towards possible over-sampling of the larger processors' supplies, to the detriment of cover provided in respect of some of the smaller suppliers, was eliminated. At the same time it permitted greater attention to be given to Untreated supplies and to cases where special problems arose or investigations were required.

The overall effect of the reorganisation has been to improve the efficiency of the service provided whilst at the same time leading to a reduction in the actual number of samples taken. This trend is reflected in the Tables of figures embodied in the Report but the actual decrease has to some extent been over-emphasised by the four-month absence, due to sickness, of one of the Milk Sampling Officers and by a reduction in the number of 'sampling days' made available to the Department by the Public Health Laboratory Service.

There has been a continued noticeable decline in the number of producer/retailers selling their own raw milk within the County area, as the following figures indicate:—

Producer/Retailers selling	1963	1964	1965	1966	1967	1968	1969
in the County area ..	128	122	111	105	101	75	62

The Department continued to undertake the sampling of 'street' or retail milk throughout that part of the County area for which the County Council is the Food and Drugs Authority. These samples of milk are subject to appropriate statutory tests as follows:—

Untreated milks are examined bacteriologically for cleanliness (the Methylene Blue Test) and also biologically for the presence of tubercle bacilli and Brucella organisms.

Pasteurised milks are also subjected to the Methylene Blue Test and in addition are checked for the efficiency of the pasteurisation process (the Phosphatase Test).

Sterilised milks are examined for the efficiency of heat processing (the Turbidity Test).

Ultra Heat Treated milks must comply with the Colony Count Test.

There are indications nationally that Ultra Heat Treated milk, whilst still a comparative newcomer to the market, is becoming a commercial success and sales are on the increase. It is not yet, however, processed within the County.

Details of these samples appear in Table I.

Legislation

The principal legislation relating to milk are The Milk and Dairies (General) Regulations, 1959, and The Milk (Special Designation) Regulations, 1963, and in accordance with the requirements of these statutes, the following licences were in force at the year end within the County:

Milk Pasteurising and Sterilising Plants

1 firm held a Dealer's (Pasteuriser's) and a Dealer's (Steriliser's) Licence;

2 firms held Dealers' (Pasteurisers') Licences.

All these plants were visited regularly and the premises and plant inspected. In addition to the collection of routine milk samples therefrom, samples of washed bottles were taken from two of the plants. The third dairy supplied milk only in churns and milk packs.

Milk Dealers' Licences

The number of licences in operation during the year was:—

Dealers' (Pre-packed Milk) Licences	..	1,285
Dealers' (Untreated Milk) Licences	..	5

Biological Testing

The Department continued to undertake the collection of retail untreated milk samples for biological examination. Unsatisfactory sample results were notified to the District Councils concerned, for appropriate action.

Biological tests on these untreated supplies were conducted for the presence of tubercle bacilli and Brucella infection and although the former has now diminished to nil, Brucella abortus, on the other hand, continues to become more prominent in the public eye.

As a result of the Ministry of Health Circular 17/66 issued in late October, 1966, herd samples of all milk which is sold for retail consumption as 'Untreated Milk' continue to be taken at monthly intervals.

Details of samples submitted for the presence of Brucella organisms and tubercle bacilli are given in Table II.

Informal Food and Drugs Sampling

The Department continued to undertake, as an administrative convenience, the routine sampling of milk from retail sources and from schools and school canteens, institutions, etc., for informal examination under the Food and Drugs Act. These samples were examined for the percentage of fat and solids-not-fat and for the presence of added water, the results being notified to the Chief Inspector of Weights and Measures.

TABLE I

Summary of Street or Retail Milk Samples Collected (i.e. excluding Samples from Schools, Institutions, &c.)

Type of Milk	Total Samples Taken	Methylene Blue Test (for Cleanliness)					Phosphatase Test (for correct Pasteurisation)			Turbidity Test (Sterilised Milk)		Colony Count Test (U.H.T. Milk)	
		Samples Void	Samples Examined	Result	% 1969	% 1968	Samples Examined	Result		Samples Examined	Result	Samples Examined	Result
Untreated ..	1,140	43	1,097	Passed 983 Failed 114	89.6	90.8	—	—		—	—	—	—
Pasteurised ..	1,807	45	1,762	Passed 1,693 Failed 69	96.1	97.5	1,807	Passed 1,805 Failed 2		—	—	—	—
							% Satis.	1969 99.9 1968 100.0					
Sterilised ..	26	—	—	— —	—	—	—	—	—	26	Passed	—	—
Ultra Heat Treated	26	—	—	— —	—	—	—	—	—	—	—	26	Passed
Totals ..	2,999	88	2,859	Passed 2,676 Failed 183	93.6	95.3							

Unsatisfactory samples of Pasteurised milk processed at dairies licensed by the County Council are investigated by the County Health Department for both Methylene Blue and Phosphatase test failures. Where the dairy is not licensed by the County Council, samples which fail the tests are reported to the Medical Officer of Health of the licensing authority concerned, for appropriate action.

TABLE II

Table of Biological Results

	Brucella abortus				Tubercle bacilli	
Untreated Milk	Total Samples Examined	Ring Test POSITIVE	Direct Culture POSITIVE	Biological POSITIVE	Total Samples Examined	Biological POSITIVE
Street/Retail	1,230	98	1	21	197	Nil
Schools	13	Nil	Nil	Nil	2	Nil
School Canteens, Private Schools, S.C.C. Premises, and Old People's Home	55	5	Nil	Nil	6	Nil
Special Investigation .. .. (Request Samples)	17	4	6*	5	5	Nil
TOTALS	1,315	107	7	26	210	Nil

* Of these 6 samples, 5 were further reported Positive on the Biological Test. The B.A. Positive samples therefore total 28, 5 of which were from herds of three producers outside the Staffordshire County Council area.

Details of these samples, from all sources, are as follows:—

Untreated ..	182	(5 unsatisfactory – deficient in fat)
Untreated (Channel Island) ..	36	(1 unsatisfactory – deficient in fat)
Pasteurised ..	834	(4 unsatisfactory – 2 deficient in fat 2 containing added water)
Pasteurised (Channel Island) ..	56	(1 unsatisfactory – deficient in fat)
Sterilised	23	
Ultra Heat Treated	16	
Total	1,147	(11 unsatisfactory)

These eleven unsatisfactory informal samples were followed-up by the Chief Inspector of Weights and Measures, who reported as follows:—

Designation	*Results of Repeat Samples and action taken*
Pasteurised Channel Island Milk	Genuine
Pasteurised Milk	Genuine
Pasteurised Milk	Genuine
Untreated Milk	Genuine
Untreated Milk	Genuine
Untreated Milk	Genuine
Pasteurised Milk	Genuine
Untreated Milk	Deficient in Fat – Further samples 'Genuine'
Untreated Milk	Genuine
Untreated Channel Island Milk	Deficient in Fat – Proved by 'Appeal to Cow' Samples to be naturally poor
Pasteurised Milk	Genuine

Hypochlorites in Milk

Samples of milk continued to be examined for the presence of hypochlorites (chemical agents used in the sterilisation of bottles, churns, dairy plants, etc.).

Details are as follows:—

Untreated	153	
Untreated (Channel Island) ..	30	
Pasteurised	181	
Pasteurised (Channel Island) ..	39	
Sterilised	23	
Total	426	(all satisfactory)

Antibiotics in Milk

The routine sampling of milk supplies to determine the presence of antibiotics, commenced in late 1965, continued throughout the year under review.

The relatively low number of 'positive' samples which have been found each year since the Milk Marketing Board's price penalty clause was introduced in April, 1966, was again maintained. In the four cases which proved to have a 'positive' result, the circumstances were investigated but no legal action was taken.

Year	Total Samples taken	Total 'Positive' Samples	Range of 'Positive' Samples
1969	189	4	0.025 to 0.2 international units penicillin
1968	180	1	0.075 international units penicillin
1967	202	4	0.05 to 0.5 international units penicillin
1966	288	17	'Slight trace' to 0.05 international units penicillin

Milk in Schools Scheme

At the end of the year under review, the position regarding the numbers of school children receiving milk and the type of milk supplied under the Milk in Schools Scheme to the various schools in the Administrative Area (excluding Newcastle Excepted District) was as shown in table III.

TABLE III

Maintained Schools

Type of Milk	Schools sampled by Staffs. C.C.		Schools in the Areas of the Food & Drugs Authorities of Cannock U.D. Stafford M.B. (not sampled by Staffs. CC)		No. of children supplied (figures supplied by Education Dept.)
	No. of Suppliers	No. of Schools supplied	No. of suppliers	No. of Schools supplied	Totals
Pasteurised	24	326	3	63	57,459
Ultra Heat Treated	1	8	–	–	176
Untreated	2	2	–	–	41
Total	27	336	3	63	57,676

Non-Maintained Schools

Pasteurised	9	14	3	3	1,077
Totals for all schools	36	350	6	66	58,753

All school supplies are subject to the approval of the County Medical Officer of Health. Pasteurised milk is normally insisted upon if such is available but in two instances involving rural schools where this has not been practicable, then local Untreated milk supplies have been approved.

A number of schools in the more remote northern areas of the County have been supplied for the past two and a half years with Ultra Heat Treated milk in lieu of the previous Untreated supplies which for one reason or another had proved to be unreliable. One advantage of this type of milk is that it need be supplied to schools only once per fortnight or so which greatly reduces transport problems in times of bad weather. Furthermore, it does not present any storage problems since refrigeration is not necessary for this type of milk. Apart from two occasions during the period of this supply to date, when there were a few complaints of souring due to faulty carton seals, no real difficulties have been encountered. It is interesting to record the continued popularity of this type of milk, with its slightly caramel flavour, amongst young children who had been in the main brought up on 'raw' milk.

Details of school milk samples appear in Table IV.

General

In addition to samples taken under the foregoing heads, samples of milk were also taken during the year from S.C.C. School Canteens, Hospitals, Children's Homes, County Council Premises, Day Nurseries, Play Groups, and certain Private Schools and Colleges, and were subjected to the same tests as other supplies.

Details of these samples appear in Table V.

Glass etc. in School Milk

There were 10 incidents reported to the Department during the year concerning the discovery of glass inside bottles of school milk and in addition there were 8 complaints involving either miscellaneous foreign bodies or dirt and/or damaged bottles. All these incidents were fully investigated and the matters taken up with the dairies concerned. No legal proceedings were instituted.

There were also 2 unusual incidents of used plastic straws being capped *in situ*. This would appear to be a new problem associated with the use of the plastic type straw and one not previously experienced with the old paper straw which disintegrated during the bottle washing process. Happily, the dairy involved co-operated in this instance and introduced coloured plastic straws at the suggestion of this Department in order to facilitate their being detected more easily.

The traditional conservatism of the Dairy Industry in retaining the returnable glass bottle for milk packaging continues to pose the dangerous problem of glass splinters in the milk, quite apart from all the difficulties and expense involved in washing the glass bottles. The milk bottle remains the anachronism of the packaging age.

The wider use of the tetrapak carton is not without its problems, however, since there have been complaints concerning leaking cartons due to faulty seals and they are, furthermore, very vulnerable to rough handling.

The ultimate aim of the Industry should be the universal use of the non-returnable pre-formed plastic container.

Summary

The following is a summary of routine samples collected by the Department during the year:—

Street/Retail Milks	2,999
Schools	491
School Canteens	185
Hospitals, Homes, etc.	279
"Food and Drugs" (Milk)	1,147
"Hypochlorites"	426
"Antibiotics"	189
Brucellosis Test only	90*
Bottle Rinsings	717
"Special Requests"	17
Total	6,540

*This figure of 90 is included in the total of 1,315 in Table II.

Miscellaneous Matters

The routine inspection work of the Department continued to embrace schools and other establishments under the control of the County Council, with particular reference to kitchens, canteens, food inspection, water supplies, especially in rural areas, swimming baths, and general sanitation, including small sewage disposal works.

All school swimming baths were inspected by the County Health Inspectorate at least once per term as a matter of course and tests were carried out on the spot to determine both the chlorine and pH content of the water. Advice on the operation of the bath was given to caretakers as and when necessary and special attention was paid to new baths or in cases where difficulties were experienced.

A total of 23 samples was taken for bacteriological examination, of which 20 were satisfactory and 3 were unsatisfactory.

A total of 3 samples was taken for chemical analysis, all of which were unsatisfactory.

The number of school swimming pools continues to increase and the position at the year end was as follows:—

12 schools had open air (heated) baths equipped with purification plants;

2 schools had fill-and-empty type baths which are hand chlorinated;

16 schools had covered baths equipped with purification plants;

2 private pools used by the Local Education Authority by special arrangement.

TABLE IV

Summary of School Milk Samples

1st January — 31st December, 1969

Type of Milk	Total Samples Taken	Methylene Blue Test (For Cleanliness)					Phosphatase Test (For correct Pasteurisation)		Colony Count Test (U.H.T. Milk)	
		Samples Void	Samples Examined	Result	% 1969	% 1968	Samples Examined	Result	Samples Examined	Result
Untreated	13	—	13	Passed 12 Failed 1	92,3	87.5	—	—	—	—
Pasteurised	456	20	436	Passed 427 Failed 9	97.9	96.1	456	Passed 453 Failed 3	—	—
							% Satis.	1969 99.3 1968 100	—	—
Ultra Heat Treated ..	22	—	—	—	—	—	—	—	22	Passed 20 Failed 2
TOTALS	491	20	449	Passed 439 Failed 10	97.8	95.9				

Unsatisfactory samples of Pasteurised milk processed at dairies licensed by the County Council are investigated by the County Health Inspectors for both Methylene Blue and Phosphatase test failures. Where the dairy is not licensed by the County Council, samples which fail the tests are reported to the Medical Officer of Health of the licensing authority concerned, for appropriate action.

TABLE V

Summary of Milk Samples from School Canteens, Hospitals, Homes, S.C.C. Premises, Private Schools, Play Groups, etc.

1st January — 31st December, 1969

Type of Milk	Total Samples Taken	Methylene Blue Test (for Cleanliness)					Phosphatase Test (for correct Pasteurisation)	
		Samples Void	Samples Examined	Result	% 1969	% 1968	Samples Examined	Result
Untreated	55	5	50	Passed 43 Failed 7	86.0	68.9	—	—
Pasteurised	409	17	392	Passed 374 Failed 18	95.4	99.2	409 % Satis.	Passed 409 Failed Nil 1969 100 1968 100
TOTALS	464	22	342	Passed 417 Failed 25	94.3	97.4		

The schools which have their own swimming baths comprise the following:—

18 Secondary Schools
6 Primary Schools
5 Special Schools
1 Training College

In addition, the Local Education Authority uses the following baths by special arrangement:—

Denstone College
R.A.F. (16 M.U.) Stafford

During the year, the County Health Inspectorate continued to sample rural school water supplies for purity and, where applicable, the efficiency of chlorination equipment and technique.

A total of 10 samples was taken for bacteriological examination, of which 5 were satisfactory.

One sample was taken for chemical analysis and this proved to be satisfactory.

The number of rural schools receiving non-public mains supplies continues to diminish and the situation at the year end was as follows:—

4 schools were sterilising their own local supply;
2 schools were receiving private mains water;
1 school camp was using untreated water from its own borehole.

SCHEMES OF WATER SUPPLY, SEWERAGE AND SEWAGE DISPOSAL

For the financial year 1968-69 a sum of £215,727, made up of £171,749 under the Local Government Act, 1958, and £43,978 under the Rural Water Supplies and Sewerage Acts, was contributed by the County Council to District Councils towards the cost of sewerage and sewage disposal schemes.

During the year, sewerage and sewage disposal schemes estimated to cost £1,121,581 were submitted to the County Council for grant purposes and were considered by the Health Committee.

There were no water supply schemes put forward in this particular year.

Details of schemes of sewerage and sewage disposal considered during 1969 for grants under the Rural Water Supplies and Sewage Acts, 1944-65 and/or Section 56 of the Local Government Act, 1958:—

LICHFIELD CITY

Curborough Sewage Disposal Works Extensions – Stage I

This scheme, estimated to cost £305,885, was an amended scheme replacing an earlier one approved by the County Council in 1966. The latest proposals provide for a population of 40,000 as against the earlier estimate of 30,000.

The scheme was recommended for approval.

Beacon Street Area – Proposed Storm Water Sewer

This scheme, estimated to cost £24,300, was to provide a relief storm water sewer in the Wheel Lane/Beacon Street area to relieve existing overloaded sewers and prevent the discharge of surface water into foul sewers from a combined storm water/foul sewer manhole. Certain improvements to a filtration system designed to avoid oil and other types of pollution reaching the stream were made by this Department and were accepted by the Borough Surveyor.

Subject to the improvements, the scheme was recommended for approval.

St. Chad's Road Area – Flood Relief Sewer

This scheme, estimated to cost £20,204, consisted of lengths of 36in. and 27in. foul sewers to replace existing 18in. foul sewers. The 18in. sewers were incapable of taking the flow reaching them, consequently surcharging took place leading to flooding of premises and pollution of streams in the St. Chad's Road area.

The scheme was recommended for approval.

STAFFORD BOROUGH

Brancote Sewage Disposal Works – Proposed Extensions – Balancing and Storm Water Tanks

This scheme, estimated to cost £81,359, is to provide a balancing tank and storm water tanks at the Borough Brancote Gorse disposal works. The proposals were to provide four storm water tanks with a capacity of 1 million gallons, access to each of the tanks being provided by a ramp which would enable a tractor to drive directly to the base of the tank to enable mechanical desludging to be carried out.

This Department considered a useful saving in cost could be effected by substituting three tanks in lieu of four, keeping the overall capacity the same. This deletion of a division wall, concrete ramp on supporting walls, and floating arm, together with associated control equipment, was estimated by the Borough's Consulting Engineers to amount to a saving of some £2,000. This suggestion was agreed to by the Consulting Engineers.

The scheme was recommended for approval.

TAMWORTH BOROUGH

Kettlebrook Valley – Foul Intercepting Sewer – Stage IV

This scheme, estimated to cost £30,000, was a further section of the overall new sewerage and sewage disposal scheme for Tamworth Borough, necessary for the proposed new development of residential area No. 7 on the draft town map as part of the Tamworth town expansion's programme.

The scheme was recommended for approval.

Foul and Surface Water Sewers to Area No. 10, Belgrave

This scheme, estimated to cost £30,555, was a still further section of the overall new sewerage and sewage disposal scheme for Tamworth and will provide surface and foul trunk sewer facilities for area No. 10, Belgrave. The development of the area is dependent upon the provision of the sewers.

The scheme was recommended for approval.

BIDDULPH URBAN DISTRICT

Sewage Disposal Works Extension

This scheme was a revised scheme replacing one which had been considered by the County Council in 1964. The cost of the revised scheme is £243,505 and is to deal with a population of some 22,000 with a dry weather flow of 990,000 gallons a day.

The scheme was recommended for approval.

CANNOCK URBAN DISTRICT

Norton Canes Sewage Disposal Works Extensions

This scheme, estimated to cost £225,900, was to provide for extensions at the Norton Canes works and renewal of the filter media in some of the filter beds. The works have been overloaded for some time and a high standard of effluent is aimed at from these particular works.

The scheme was recommended for approval.

CANNOCK RURAL DISTRICT

Acton Trussell and Dunston Sewerage Scheme

This scheme, estimated to cost £52,393, is to provide for the sewerage of Acton Trussell and to pump the sewage therefrom to the Penkridge main disposal works for treatment. The scheme includes proposals to deal with the sewage from Dunston by means of a pump and rising main to the Penkridge works and the abandonment of the existing small ineffective works.

The scheme was recommended for approval subject to the Rural District Council being asked to consider a possible reduction in the cost of the scheme by the use of p.v.c. pipes for the rising main in lieu of asbestos cement pipes. The need for providing ventilation to the pump house sump wells was also drawn to the attention of the Rural District Council.

Coppenhall Sewerage Scheme

This scheme, estimated to cost £29,700, is to provide for the sewerage of Coppenhall where, at the present moment of time, there is no proper sewerage system. Pollution of ditches is being caused by overflowing cesspools and tanks and there is an increasing burden on the Rural District Council's cesspool emptying and disposal service.

The scheme was recommended for approval, again subject to the suggestion that the Rural District Council look into the question of a possible decrease in the cost of the scheme by the use of p.v.c. pipes for the rising main in lieu of asbestos cement pipes.

The County Council also suggested the deletion of a certain length of sewer, the cost of which, it was felt, should properly fall upon the developer of certain land. This was agreed to by the Rural District Council. The need for ventilation to the pump house sump well was also drawn to the attention of the Rural District Council.

Cheadle Rural District

Armshead Road and Hulme Lane, Werrington – Sewer Extensions

These two small foul sewer extension schemes, estimated to cost £7,000, are to provide proper sewerage facilities to a number of properties at present without satisfactory drainage or disposal arrangements. Nuisance is caused by unsatisfactory effluents discharging into ditches and the only satisfactory way of dealing with the problem is to provide the proposed sewer extensions.

The two schemes were recommended for approval.

Croft Cottages, Tean – Sewer Extension

This scheme, estimated to cost £3,500, is to provide a sewer to connect nine properties to the Tean main drainage system. Considerable nuisance due to smell arises from the present drainage system which fouls a considerable area of ground before soaking away. Provision of this sewer will also permit Housing Act improvements to some eight properties which could provide satisfactory accommodation for at least thirty years.

The scheme was recommended for approval.

Lichfield Rural District

Kings Bromley Sewerage Scheme

This scheme is to provide a sewerage scheme for the village of Kings Bromley, with a pumping station and rising main to pump the sewage therefrom to the Lichfield City disposal works at Curborough. This replaces an earlier scheme for the village, which envisaged the sewage disposal works in the Kings Bromley area and which was rejected by the Ministry of Housing and Local Government. A suggestion by the County Council that the Tutbury Rural District Council and the Lichfield Rural District Council should share the cost of extending an existing works at Yoxall was rejected by the Tutbury Rural District Council. This proposal would have meant a saving of £13,500 to the two Councils over the cost of a separate works at Kings Bromley and extensions to the Yoxall works for the needs of Yoxall only.

Failing agreement, the Ministry have suggested that Lichfield Rural District Council should consider pumping the sewage to Curborough and this has been accepted by the Rural District Council.

This scheme is likely to be very expensive to the Rural District Council and has only been recommended for approval by the Health Department following the refusal of Tutbury Rural District Council to participate in a joint disposal scheme with Lichfield Rural District Council. The scheme is estimated to cost £68,500, the annual costs to the Rural District Council are not yet known.

SEISDON RURAL DISTRICT

Pattingham – Replacement of Storm Water Sewer

This scheme, estimated to cost £1,100, was to provide for a new storm water sewer in lieu of an existing old conduit of pipes with open joints and not laid to proper falls.

The scheme was recommended for approval.

Penn Common and Gospel End – Foul Sewerage Scheme

This scheme, estimated to cost £27,000, was to provide for a new trunk sewer linking the Penn Common area with the Wombourne sewerage system, the abandonment of the existing, antiquated Penn Common sewage disposal works and the provision of sewers for the unsewered area of Gospel End, which was transferred to Seisdon Rural District Council as the result of boundary changes some time ago. The Penn Common works are in a poor condition and difficult to reach in wet weather for maintenance purposes. The Gospel End area had a number of cesspools and tanks which overflowed and were a potential health hazard. A number of properties along Penn Brook would also be provided with sewerage facilities and pollution of the brook would thereby be lessened.

The scheme was recommended for approval.

STAFFORD RURAL DISTRICT

Hopton Sewerage Scheme

This Scheme, estimated to cost £25,230, is to provide a sewerage scheme for the village of Hopton. There is some degree of surface or stream pollution from soakaways and/or overflows from cesspools; the rock formation on which the village is built tends to aggravate the situation.

The scheme was recommended for approval subject to the Rural District Council being recommended to provide a further extension of the sewers to deal with a caravan site from which a large amount of pollution is taking place. (Subsequently the Rural District Council agreed to extend the sewer.)

STONE RURAL DISTRICT

Hilderstone and Milwich – Sewerage and Sewage Disposal Scheme

In July, 1967, Stone Rural District Council submitted two separate schemes, one for the sewerage of Hilderstone with a treatment works just outside the village, and a similar scheme for Milwich with a separate works in the village of Milwich. The estimated cost of both schemes was £31,579.

Following a Ministry Inquiry, the Ministry suggested both villages should drain to a common combined works to be sited on the site chosen originally for the Milwich only disposal works. This Department then suggested the site for a combined works at Milwich (as distinct from a smaller works for Milwich only) was not a good one and, furthermore, if the disposal works were moved further downstream it would be possible to provide drainage facilities for the hamlet of Coton and at the same time it would obviate the need for the County Council spending an estimated £4,000 on a sewage disposal plant for Coton School only and on which some preliminary planning work was already in hand.

The Stone Rural District felt unable to justify the expense of a longer length of sewer as a result of siting the works downstream unless the County Council were prepared to give a substantial grant towards the extra cost. An offer of £750 from the County Council to the Stone Rural District Council was rejected. It now seems the scheme for a sewage disposal plant for the school only will go ahead and Coton hamlet will remain unsewered.

The cost of the combined scheme dealing with Hilderstone and Milwich only, was estimated to be £45,450, but technical details were not provided and there were no details as to how the £45,450 was made up.

Since the combined scheme was £13,871 more than the two separate schemes, without any corresponding advantages, this Department was unable to recommend it for approval for grant purposes.

Ministry of Housing and Local Government Inquiries

During the year, the following Ministry Inquiries were held into proposed Schemes of Sewerage and Sewage Disposal.

The County Health Department was represented by the County Health Inspector who also accompanied the Ministry Inspector on his subsequent visits of inspection of the areas concerned.

22/1/69 Stoke, Stone Urban and Rural Districts and Cheadle Rural District – Joint Sewage Disposal Scheme for Extensions to the Deadman's Green Sewage Treatment Works.

15/4/69 Cannock Urban District – Extensions to the Norton Green Sewage Treatment Works.

General

As previously mentioned, the work of the Department in regard to milk sampling was reorganised and put on a more logical basis during the year. This will result in economies in the cost of milk analyses, without any corresponding loss of cover.

During the year a report on the functions and duties performed by the "Public Health Section" of the Health Department was presented to the Health Committee for transmission to the Finance and Planning Sub-Committee.

The report on the work of the County Health Inspector's Section, a very comprehensive document, set out very fully and clearly the work of that particular section of the Department and was very well received by the Health Committee.

MASS RADIOGRAPHY

I am grateful to the Consultant Chest Physician of the Stoke-on-Trent Chest Radiology Centre for providing a report of his work during 1969 from which the following information has been extracted:—

" In 1969 the Chest Radiology Service based at Stoke-on-Trent took over the areas in South Staffordshire, Worcestershire, Herefordshire and Shropshire which had previously been served by the Wolverhampton mobile unit. By streamlining procedures and drastic curtailment of surveys in large factories, it was possible to satisfy most demands by Medical Officers of Health for preventive surveys of school teachers, Mantoux positive children and contacts. The number of X-rays taken by the mobile unit rose to 78,000 (60,000 in 1968), of which 18,000 were taken in the areas previously covered by the Wolverhampton Unit.

The *static unit* at the Central Out-Patients' Department in Stoke-on-Trent continued its work in the same way as during the preceding years. The number of patients referred by General Practitioners has now settled around the 15,000 mark. With the exception of the Skin Department the X-raying of out-patients has remained a failure, but the number of 'preventive' X-rays of teachers, nurses, etc., rose from 2,000 in 1968 to 3,000 during 1969. There was a slight fall in the number of 'self-referred' persons and since the opening of the new Maternity Hospital in Stoke, with its own X-ray facilities, only 'home confinements' are sent by their doctors.

Respiratory Tuberculosis

Seventy-three cases of pulmonary tuberculosis in need of treatment and/or close supervision came to light, eleven less than in 1968 with a corresponding slight decrease of case-finding rates in most groups and areas. Once again the common epidemiological experience that at a low level prevalence curves tend to flatten out and that it becomes increasingly difficult to pull them down to zero. In this area – and for that matter in the whole country – tuberculosis remains a Public Health problem.

12% of 'newly detected cases' were in fact cases of 'reactivated' tuberculosis in persons who – by present day standards – had been inadequately treated in the early days of chemotheraphy and been removed from the clinic registers. Most of them were cases of so-called 'silico-tuberculosis'. The case-finding rates in industry were low, only one-tenth compared with General Practitioners' patients. It is no waste of time or money to screen 8,000 teachers and other persons in close contact with children and contacts, if 5 cases of previously unsuspected and clinically significant tuberculosis are found amongst them.

The case-finding rates in Pakistani immigrants were even higher than in 1968, but the number X-rayed is too small to attach too much significance to the fact. In 1969 the chest radiology service contributed 28% to the new notifications from the Stoke Chest Clinic and hospitals, and 80% from the Clinic for Respiratory Diseases at the Central Out-Patients' Department.

Industrial Chest Diseases

In recent years interest in this field has shifted from mineral to organic dusts. The number of cases of serologically confirmed cases of Farmer's Lung, Aspergillosis and Ornithosis which were first suspected from radiological abnormalities, and environmental histories has increased over the past few years but the main problem in this area remains coal-miners and potters' pneumoconiosis. The number of newly found cases of industrial chest diseases was slightly larger than in 1968 but as the extent of surveys in the local pottery industry varies from year to year no rash conclusions should be drawn from that fact. During the past six years (1964-1969) the number of newly detected pneumoconiosis was only half that found during the period 1958-1963, and only a third of that for 1952-1957. Furthermore, the proportion of Progressive Massive Fibrosis has now remained on a low level since 1960.

Since the first Annual Report was circulated in 1952, he has suggested caution in interpreting figures and trends which for a number of technical and statistical reasons cannot be an accurate index of attack – or prevalence rates. Just the same they are still widely used as the most accurate and comprehensive ones at present available, and have been repeatedly considered by the Joint Standing Committee for the Pottery Industry and by the Factory Inspectorate who are responsible for the improvements of hygienic conditions in the ceramic industry. Generally there is now agreement on at least two points:

1. The post-war improvements in the industry have started to produce the desired results.
2. Despite these improvements, undue and avoidable hazards are still present in some places and new cases of pneumoconiosis still arise, some of whom will become severely disabled and die of its complications.

Lung Cancer

121 cases were found in 1969 (compared with 132 in 1968). Two interesting facts have now emerged:—

1. The previously observed 'shift to the right' with regard to age in men is now approaching statistical significance. The relation between cigarette smoking and incidence of lung cancer has been sufficiently proven but – with some minor exceptions – tobacco consumption by the British population – both male and female – has remained very high. It would therefore be foolish and premature to read too much significance into these figures or to indulge in hopes that we are at the beginning of the end of the lung cancer epidemic. Just the same, the higher age at first diagnosis – which has also been observed in other areas – gives rise to speculations that there may be an as yet undefined co-carcinogenic factor which since the start of the epidemic has become less active.

   Naturally the high average age at the time of diagnosis is bound to depress the operability rates, which in 1969 were only 12%.

2. It is interesting that in this area the proportion of female to male cases has over the past 15 years averaged 1 : 10. This is in concordance with figures published elsewhere and despite the increase in tobacco consumption by women since about 1940 no really significant changes in the ratio have occurred. There may, therefore, be some truth in a recently proposed hypothesis (Ashley D. J. B. & Davies H. D., 1969, Thorax 24, 446-450) that genetically determined immunological factors enhance the body defences against carcinogenic agents.

The fact that the sex ratio of lung cancer in North Staffordshire is very similar to that in other areas of the United Kingdom where women are *not* directly exposed to silica-containing dust, lends no support to the frequently heard suggestion that silicosis contributes to the development of bronchogenic neoplasms.

The Influenza Epidemic, 1969-1970

This reached North Staffordshire at Christmas, 1969, and both the static and the mobile unit had to deal with its aftermath for the next three months. A detailed report will be given in the report for 1970, but in the meantime, the following preliminary analysis gives some indication of the increased workload on the chest radiology service caused by unforeseen epidemics:

	Jan. – March 1969	*Jan. – March* 1970
Patients referred by General Practitioners for routine X-rays because of 'Influenza, Bronchitis, Pleurisy, Pneumonia and P.U.O.'	3,113	6,003
Radiological evidence of Pneumonia, Pneumonitis or Pleurisy ..	165	402

Future Policy

This was, of course, the year of the Circular 'Mass Miniature Radiography Service' (H.M. 69/97) issued by the Department of Health and Social Security. To many people intimately concerned with preventive and clinical medicine it seemed to imply the rapid 'phasing out' or even abrupt closing down of a service which had proved its value for almost 30 years. This is not the place to argue with specific points of the memorandum, some of which are highly debatable. In the Birmingham Region most of its recommendations had been anticipated. By drastically curtailing 'unproductive surveys' in factories and in rural areas it was possible to reduce the number of mobile units in the Region from seven to three without significant detriment to the service for General Practitioners, preventive X-rays of teachers, other persons in contact with children, contacts, nurses, etc. The integration of the static unit in Stoke into the Hospital Centre had taken place in 1965."

INFECTIOUS DISEASES

The following statistical table relates to the notifiable infectious diseases and the deaths from the diseases among the home population during 1969.

Diseases	Notifications		Deaths	
	Urban	Rural	Urban	Rural
Measles (excluding Rubella)	1,492	720	–	–
Dysentery	272	21	1	–
Scarlet Fever	219	28	–	–
Diphtheria	–	–	–	–
Acute Meningitis	3	6	1	1
Ac. Poliomyelitis – Paralytic	–	–	–	–
– Non-Paralytic ..	–	–	–	–
Smallpox	–	–	–	–
Ophthalmia Neonatorum	5	–	–	–
Anthrax	–	–	–	–
Yellow Fever	–	–	–	–
Ac. Encephalitis – Infective	2	–	–	–
– Post-Infectious ..	–	1	–	–
Lepto-spirosis	–	–	–	–
Paratyphoid Fever	–	–	–	–
Typhoid Fever	1	–	–	–
Food Poisoning	110	25	–	–
Whooping Cough	25	19	–	–
Tetanus	–	–	–	–
Infective Jaundice	149	63	–	–
Tuberculosis – Respiratory	47	16	19	4
– Meninges and C.N.S. ..	1	–	–	–
– Other	8	2	4	2
– Cases of T.B. not notified before death ..	4	–	–	–

VENEREAL DISEASES

During the year 1,459 Staffordshire patients attended for diagnosis and treatment for the first time compared with 1,352 for 1968. It will be seen that in 1969, 1,165 of the persons who attended were found not to be infected and the corresponding figure for the previous year was 1,113.

Treatment Centre	Syphilis	Gonorrhoea	*Other Conditions	Total New Cases
Birmingham General Hospital	–	51	129	180
Burton-on-Trent General Hospital	–	4	5	9
Dudley Guest Hospital	–	3	6	9
Stafford (Staffordshire General Infirmary) ..	8	26	90	124
Stoke-on-Trent (Wellesley Street)	4	52	317	373
Walsall (Manor Hospital)	1	64	307	372
Wolverhampton Royal Hospital	–	81	311	392
Totals	13	281	1,165	1,459

* Non-venereal.

For comparative purposes the totals of the cases included in the foregoing table for the last thirty-five years have been extracted and are given below:—

Year	Syphilis	Soft Chancre	Gonorrhoea	Total Cases	Non-Venereal
1935	166	4	322	492	295
1936	137	6	294	437	341
1937	116	5	320	441	326
1938	133	3	302	438	344
1939	116	5	283	404	310
1940	126	1	244	371	348
1941	111	1	267	379	359
1942	134	2	266	402	512
1943	163	2	271	436	783
1944	171	2	273	446	791
1945	186	–	355	541	867
1946	275	2	451	728	1,180
1947	147	2	254	403	682
1948	177	4	219	400	904
1949	148	–	234	382	842
1950	85	–	178	263	824
1951	67	–	163	230	760
1952	54	–	136	190	666
1953	64	–	158	222	698
1954	51	–	109	160	707
1955	39	–	105	144	562
1956	46	–	117	163	531
1957	43	–	163	206	700
1958	43	–	148	191	650
1959	37	–	142	179	797
1960	28	–	121	149	960
1961	32	–	155	187	920
1962	29	–	194	223	978
1963	43	–	213	256	981
1964	34	–	227	261	1,042
1965	29	–	322	351	1,183
1966	28	–	261	289	1,113
1967	22	–	238	260	1,042
1968	19	–	220	239	1,113
1969	13	–	281	294	1,165

In his latest Annual Report on the State of the Public Health, Sir George Godber, the Chief Medical Officer of the Department of Health and Social Security, stated that the venereal diseases continued to be a major cause of anxiety to all those concerned with the health of the community and that the continued failure to control gonorrhoea was now one of the major public health problems in the field of the communicable diseases of known aetiology. The Health Education Council shares his concern and has decided to launch a new campaign against these diseases, aimed particularly at people in the age group 16–30.