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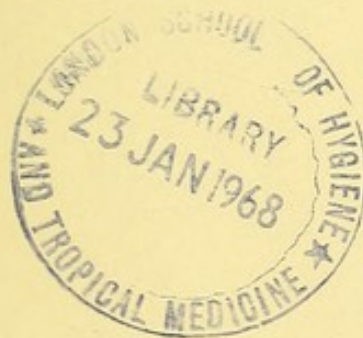
REPORT


of the

Medical Officer of Health

for

1963





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To the Chairman and Members of the Bedfordshire County Council

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have the honour to submit the Report on the Health Services for the year 1963.

This is the last year the Report will cover the whole of geographical Bedfordshire, the Borough of Luton having become a County Borough on the 1st April last. It follows the usual pattern; that is, there are sections on Statistics, Provision of Health Services, Prevalence of and Control over Infectious Diseases, and Inspection and Supervision of Food. Where it is appropriate in those sections, some indications of the changes during the last fifteen years have been given.

With regard to *Staffing*, this is and has been since the inception of the National Health Service a constant source of difficulty. In some degree the difficulty has affected all services, but it has been particularly felt in the Dental, Nursing and Ambulance Services.

During the year 1963, the establishment for *Medical Officers* was increased by two; viz., a post for a Senior Medical Officer for Mental Health and an additional Assistant Medical Officer post. Dr. L. G. Nicol, who holds a Diploma in Psychological Medicine, was appointed to the former post, and Dr. Mary Dastgir to the latter. There were changes in the *Dental Service* also. Mr. A. A. Gardner, B.Dent.Sc., who had served the Authority well for fourteen years, died suddenly just after he had taken up a new post of Area Dental Officer with this Authority. Mr. R. Burman, B.D.S., was appointed as Area Dental Officer to the south of the County. A post in the *Occupational Therapy Service* was filled after being vacant for two-and-a-half years. An additional *Chiropodist* was appointed.

The *Population* of the County in mid-1963 was 403,790. This was an increase of 7,800 from mid-1962, being slightly more in the south of the County than in the north. The increase is nearly 2.0 per cent, a state of affairs which has been going on for some years and which brings with it

continuing pressure on the Services. In the hope that they may be of interest there are set out on page 21 some population figures taken from the 1961 Census.

Once again the *Vital Statistics* compare favourably with those for England and Wales. The Birth Rate of 22.6 was the highest since 1911. The national rate was 18.2 which was higher than any year since 1947. The Infant Mortality Rate in the County was 15.4, the previous lowest being 18.0 in 1955. The corresponding 1963 rate for England and Wales was 20.9 which is the lowest recorded for the country. The Peri-natal Mortality Rate, which gives the number of stillbirths and infants dying within the first week of life per thousand total births, was 24.2. The figure for the country as a whole is not yet available but it is likely that the Bedfordshire figure will be lower than the national one.

As to *Causes of Death*, there has been no change in the order. Heart disease still holds the leading position, being followed by cancer. Cancer of the lung continues to make a large contribution to the number of deaths, especially in males.

Details of the *Services* are given in the text and some photographs are included. In the Maternal and Child Welfare Service there has been a great growth of mothercraft teaching and relaxation exercises and there has been an increased use of child welfare centres. The take-up of Welfare Foods, which declined a year or two ago, is now increasing. The Midwifery Service has worked under great difficulties. The number of midwives in post at any one time has never reached the establishment figure which was regarded as being adequate for work in normal circumstances. The circumstances, however, have not been normal. Increasingly hospitals have discharged maternity patients home after only a few days in hospital, and this has added considerably to the work of the domiciliary midwives. The District Nursing Service has been more and more concerned with the aged; in fact nearly half of the patients attended were in that category. During the year the Health Visiting Service gave special attention to the important matter of health education in schools.

In the case of vaccination against smallpox, there is now firm advice that primary vaccination should take place during the second year of life.

With regard to *Infectious Diseases*, the immunisation campaign against diphtheria and poliomyelitis has been very rewarding. There were no cases of diphtheria and there was only one case of poliomyelitis and this was an infection of the non-paralytic type in an unvaccinated pre-schoolchild. There was, however, a small outbreak of typhoid fever, a disease against which vaccination is not offered to the general public at the present time. The outbreak is described in the text of the Report. It had a certain similarity with other outbreaks and the conclusions reached were similar. It may be,

however, that the last word has not yet been written. The figures for Venereal Diseases show an increase. This seems to be a feature common to most countries, and is especially true of gonorrhoea. There is much undiagnosed infection, particularly among females, and the accepted methods of control have had but limited effect.

In the *Mental Health Service* there was closer co-operation between the hospital and the general practitioner services. The Local Authority Service continues to develop on the lines settled by the Authority some years ago.

Under Section 28 of the National Health Service Act, *Prevention of Illness, etc.*, every effort is being made to improve the quality and scope of health education. During the year particular attention was given to the dangers of smoking and neglect of dental hygiene. It is regrettable that the institution of fluoridation, which has been approved in principle by the County Council, has not yet been possible. In the Borough of Bedford some very interesting work has been done by the Medical Officer of Health in the detection of diabetes and glaucoma. It is well-known that tuberculosis has decreased rapidly in this country, but it should not be regarded lightly on that account. It still claims 3,000 victims annually, and 20,000 cases are notified. This matter is dealt with in a recent publication by the Ministry of Health, which states: "The patient must be so treated that he becomes non-infectious as rapidly as possible and rendered safe from the danger of relapse, and his contacts must be examined to detect both possible sources of infection and any secondary cases. The responsibility for ensuring that this is done rests with the Chest Physician, in collaboration with the Medical Officer of Health and his staff."

It may not be out of place to add a few words on the administration of the Health Service. At the Local Health Authority operational level there are three types of administrative body—Hospital Management Committee, Local Executive Council, and the Local Health Authority itself. Each of these bodies has its prescribed duties, but in general the services provided may be regarded as complementary. There is need for close co-operation between all three bodies if the best is to be done for the patient and in Bedfordshire this has always existed. Such difficulties as exist are due not to lack of co-operation but to deficiencies in the services. In the case of the Local Health Authority, for example, there has been a chronic lack of an adequate number of domiciliary midwives, and in the hospital service, there has been a long-standing lack of an adequate number of beds for the chronic sick.

I wish to thank the Chairman and members of the Health Committee for the sympathetic attitude they have shown to the problems of medical administration and for their constant encouragement.

I gratefully acknowledge the help I have received during the year from voluntary bodies, general medical practitioners, members of the hospital service, and the Medical Officers of Health of the County Districts, and in that

connection it seems appropriate at this time to mention Dr. R. M. Dykes, Medical Officer of Health to the new County Borough of Luton.

The staffs, professional and lay, of the Health Department, central and divisional, have worked well and have given great support. In particular I wish to thank Mr. C. J. Guy, the Health Education and Statistics Officer, who has been mainly responsible for the compilation of this Report.

I have the honour to be,

Your obedient servant,

W. C. V. BROTHWOOD,

County Medical Officer of Health.

HEALTH DEPARTMENT,

PHOENIX CHAMBERS,

HIGH STREET,

BEDFORD.

Telephone: Bedford 68211.

September, 1964.

COUNTY HEALTH COMMITTEE, 1963-64*Chairman* : Alderman H. R. Waller, O.B.E., J.P., D.L.*Vice-Chairman* : Alderman T. E. S. Lloyd, M.A., M.B., B.Chir.*Ex-Officio* : Alderman E. K. Martell, LL.B., J.P.
Alderman S. Whitbread, B.A., J.P.*Aldermen*L. Chambers
Miss D. M. MannW. G. Matthews
Mrs. A. Urwin*Councillors*J. A. Allison
Mrs. E. M. Chapman
Mrs. D. Clarke, J.P.
G. W. Cooper
C. H. Griffin
J. Hallworth
F. A. Jarvis
G. E. Jones
W. J. MartinP. G. Miller
E. W. Shafto Hilton
C. Sheffield
J. Simpson
D. W. Smith
R. T. Webb
Miss J. Williams
J. Wynn Williams*Co-opted Members*Medical Committee of the Bedfordshire Executive Council :
S. Seed, M.A., M.R.C.S., L.R.C.P.
J. G. Williams, M.R.C.S., L.R.C.P.

Dental Committee for Bedfordshire : G. W. Allen, L.D.S.

Pharmacists Committee for Bedfordshire : F. G. Bull, M.P.S.

Bedford Group Hospital Management Committee :
N. R. Wynn-Williams, M.D., M.R.C.P.Luton and Hitchin Group Hospital Management Committee :
Mrs. L. J. Aylett, S.R.N.

Women's Voluntary Services : Mrs. G. Griffiths

St. John Ambulance Brigade and British Red Cross Society :
Mrs. R. L. Field

Federation of Trades Councils : A. A. Orr

Bedfordshire Executive Council : H. J. Weller, J.P.

Divisional Committee Chairmen

North-Eastern : Councillor J. Wynn Williams

Southern : Councillor C. Sheffield

COUNTY HEALTH STAFF, 1963*County Medical Officer of Health*

W. C. V. BROTHWOOD, M.A., M.D., D.P.H.

*Deputy County Medical Officer of Health and
North-Eastern Divisional Medical Officer*

H. S. BURY, M.R.C.S., L.R.C.P., D.P.H.

*Southern Divisional Medical Officer*A. R. DARLOW, T.D., M.B., B.S., M.R.C.S., L.R.C.P.,
D.P.H., D.T.M. & H., D.C.H.*Senior Medical Officer for Mental Health :*

L. G. NICOL, M.R.C.S., L.R.C.P., D.P.M., D.P.H. (w.e.f. 9.10.63)

Assistant County Medical Officers and School Medical Officers

BRENDA N. AKEROYD, M.R.C.S., L.R.C.P.

M. ELIZABETH BUCKLEY, M.B., B.Ch., D.P.H.

MARY B. DASTGIR, M.B., Ch.B. (apptd. 1.4.63 ; resigned 20.12.63)

DORA S. JAMES, M.B., B.S., D.Obst. R.C.O.G.

L. G. NICOL, M.R.C.S., L.R.C.P., D.P.M., D.P.H. (until 8.10.63)

IRENE E. SANDFORD, M.R.C.S., L.R.C.P., D.P.H.

CICELY STEER, M.B., B.S., D.C.H.

Chest Physicians (part-time)

J. B. SHAW, M.D., D.P.H.

N. R. WYNN-WILLIAMS, M.D., M.R.C.P.

Senior Dental Officer

R. B. T. DINSDALE, L.D.S.

Area Dental Officer

R. BURMAN, B.D.S., L.D.S.R.C.S. (apptd. 15.7.63)

Dental Officers

MARGARET A. ARMSTRONG, L.D.S.R.C.S. (Edin.) (part-time)

J. E. CRUICKSHANK, L.D.S.

A. A. GARDNER, B.Dent.Sc. (died 21.4.63)

FRANCES D. MORRIS, L.D.S.R.F.P.S. (Glas.) (part-time)

STAFF—continued

Superintendent Nursing Officer

WINNIE FROST, S.R.N., S.C.M., Q.N., H.V's. Cert.

Superintendent Health Visitor

EDITH L. MARTIN, S.R.N., S.C.M., H.V's. Cert.

*County Health Inspector*R. E. N. THOMAS, T.D., F.R.S.H., M.A.P.H.I., M.R.I.P.H.H.
(resigned 31.1.63)*County Analyst*

J. S. LEA, B.Sc., F.R.I.C.

Health Education and Statistics Officer

C. J. GUY, D.P.A., F.S.S., M.I.H.E.

Chief Mental Welfare Officer

C. W. FRENCH, A.A.P.S.W.

Assistant Chief Mental Welfare Officer

E. F. K. KING, A.A.P.S.W.

Occupational Therapists

JOAN E. DAVIDSON, M.A.O.T. (apptd. 17.6.63)

DAPHNE SMITH, M.A.O.T.

Chiropodists

J. BEAUMONT, M.Ch.S.

R. J. LANE, M.Ch.S. (apptd. 2.9.63)

County Ambulance Superintendent

J. P. WILLEY, M.B.E., F.I.A.O.

Chief Clerk

S. P. MARRIOTT

Five Years:	1910	1915	1920
Population	4,120	4,400	4,700
Male	2,050	2,150	2,250
Female	2,070	2,250	2,450

Five Years:	1910	1915	1920
Population	4,120	4,400	4,700
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SECTION I

STATISTICS AND SOCIAL CONDITIONS

Five Years:	1910	1915	1920
Population	4,120	4,400	4,700
Male	2,050	2,150	2,250
Female	2,070	2,250	2,450

Five Years:	1910	1915	1920
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Female	2,070	2,250	2,450

EXTRACTS FROM VITAL STATISTICS FOR 1963

LIVE BIRTHS :

				<i>Male</i>	<i>Female</i>	<i>Total</i>
Legitimate	...	...	...	4,404	4,150	8,554
Illegitimate	...	...	...	309	252	561
				<hr/>	<hr/>	<hr/>
				4,713	4,402	9,115

Crude live birth rate per 1,000 estimated home population 22.6

Illegitimate live births per cent of total live births ... 6.2

STILLBIRTHS :

				<i>Male</i>	<i>Female</i>	<i>Total</i>
Legitimate	...	...	...	67	75	142
Illegitimate	...	...	...	9	9	18
				<hr/>	<hr/>	<hr/>
				76	84	160

Stillbirth rate per 1,000 total (live and still) births ... 17.3

Total number of live and stillbirths ... 9,275

INFANT DEATHS :

				<i>Male</i>	<i>Female</i>	<i>Total</i>
Legitimate	...	...	...	66	60	126
Illegitimate	...	...	...	8	6	14
				<hr/>	<hr/>	<hr/>
				74	66	140

Infant mortality rate (all infant deaths per 1,000 live births) 15.4

Legitimate infant mortality rate ... 14.7

Illegitimate infant mortality rate ... 25.0

NEO-NATAL DEATHS* :

				<i>Male</i>	<i>Female</i>	<i>Total</i>
Legitimate	...	...	...	51	40	91
Illegitimate	...	...	...	6	5	11
				<hr/>	<hr/>	<hr/>
				57	45	102

Neo-natal mortality rate per 1,000 live births ... 11.2

Early neo-natal mortality rate (i.e. deaths under one week) 7.2

Perinatal mortality rate (stillbirths and deaths under one week per 1,000 total births) ... 24.2

* Within first four weeks of life.

MATERNAL DEATHS :

No. of deaths	...	...	...	...	...	...	1
Maternal mortality rate per 1,000 live and stillbirths	...	...	...	...	...	...	0.11

POPULATION

NOTE.—The statistical information contained in the remainder of this Section is based on figures supplied by the Registrar General.

The statistics issued by the Registrar General for 1963 comprise figures relating to resident civilians and members of the armed forces stationed in the area. The population figures thus obtained are referred to as "home populations". The estimated home populations of the County Districts at the 30th June, 1963, were as follows :—

Administrative County	...	...	...	403,790
Urban Districts	...	...	...	267,730
Amphill	...	...	...	4,110
Bedford M.B.	...	...	...	65,370
Biggleswade	...	...	...	8,560
Dunstable M.B.	...	...	...	27,200
Kempston	...	...	...	9,520
Leighton Buzzard	...	...	...	12,500
Luton M.B.	...	...	...	136,390
Sandy	...	...	...	4,080
Rural Districts	...	...	...	136,060
Amphill	...	...	...	27,880
Bedford	...	...	...	35,390
Biggleswade	...	...	...	30,220
Luton	...	...	...	42,570

BIRTHS

As the number of births in any area is largely governed by the number of married women of child-bearing age, it follows that crude birth rates, which are calculated as the number of births per 1,000 of the population, are not comparable unless the sex and age structure of the population concerned is the same. To overcome this difficulty the Registrar General has calculated a birth comparability factor for each district. When the crude rate is multiplied by this factor, an *adjusted birth rate* is obtained which is comparable with the adjusted birth rate of any other area *in the same year*. The crude and adjusted birth rates based on the *home* populations for each of the county districts are shown in Table I.

Births are attributed to the areas in which the mothers normally reside and not to the areas in which they take place. Altogether, there were 9,115 births registered in 1963 and Table I shows their distribution between the County Districts. The crude birth rate for the County was 22.6. This was 0.4 higher than the previous year and

the highest figure recorded since 1911 when the birth rate was 22.8. The national rate also increased and at 18.2 was higher than at any time since 1947.

Table II shows the crude birth rates for the Urban and Rural areas of the County, for the County as a whole, and for England and Wales during the last twenty years. These rates are based on *civilian* populations for the years 1944-49 and on *home* populations for the years since.

ILLEGITIMATE BIRTHS

There were 561 illegitimate live births registered in 1963. These constituted 6.2 per cent of the total live births, compared with 6.1 per cent in 1962. Of the 160 stillbirths, 18 were illegitimate. During the year 14 illegitimate infants under one year of age died, giving an illegitimate infant mortality rate of 25.0 per 1,000 illegitimate live births. The figures are, however, so small that no great significance can be attached to them. The legitimate infant mortality rate was 14.7.

STILLBIRTHS

The term stillbirth refers to any child born after the 28th week of pregnancy which did not, at any time after being completely expelled from its mother, breathe or show any other sign of life. It will be seen in Table I that there were 160 stillbirths attributable to Bedfordshire residents during 1963, giving a stillbirth rate of 17.3 per 1,000 total births (live and still), 0.3 higher than the rate for 1962 which was the lowest ever recorded. Table II shows the stillbirth rates for the Urban and Rural Areas of the County, for the County as a whole, and for England and Wales during the past twenty years. Illegitimate stillbirths constituted 11.2 per cent of the total in 1963 compared with 7.2 per cent in 1962.

TABLE I—NUMBER OF BIRTHS, INFANT DEATHS AND STILLBIRTHS REGISTERED DURING 1963 (SUBDIVIDED ACCORDING TO LEGITIMACY), TOGETHER WITH THE APPROPRIATE RATES FOR EACH OF THE COUNTY DISTRICTS

DISTRICTS	LIVE BIRTHS				DEATHS OF INFANTS UNDER 1 YEAR OF AGE				STILLBIRTHS				
	Legitimate	Illegitimate	Total	Crude Rate per 1,000 Home Pop.	Adjusted Rate	Legitimate	Illegitimate	Total	Rate per 1,000 live births	Legitimate	Illegitimate	Total	Rate per 1,000 total births (live and still)
URBAN:													
Ampthill ..	69	5	74	18.0	17.5	1	—	1	13.5	1	1	2	26.3
Bedford M.B. ..	1,341	124	1,465	22.4	20.6	22	2	24	16.4	23	4	27	18.1
Biggleswade ..	147	5	152	17.8	18.5	2	—	2	13.2	4	1	5	31.8
Dunstable M.B. ..	621	31	652	24.0	20.6	8	1	9	13.8	10	—	10	15.1
Kempston ..	164	3	167	17.5	18.4	3	—	3	18.0	—	1	1	6.0
Leighton Buzzard ..	313	21	334	26.7	23.5	5	1	6	18.0	7	1	8	23.4
Luton M.B. ..	3,111	248	3,359	24.6	23.2	47	9	56	16.7	46	6	52	15.2
Sandy ..	75	2	77	18.9	19.6	—	—	—	—	1	—	1	12.8
TOTALS ..	5,841	439	6,280	23.5	21.8	88	13	101	16.1	92	14	106	16.6
RURAL:													
Ampthill ..	506	14	520	18.7	19.2	4	—	4	7.7	13	1	14	26.2
Bedford ..	671	45	716	20.2	19.8	5	1	6	8.4	10	1	11	15.1
Biggleswade ..	528	21	549	18.2	18.9	11	—	11	20.0	7	1	8	14.4
Luton ..	1,008	42	1,050	24.7	19.5	18	—	18	17.1	20	1	21	19.6
TOTALS ..	2,713	122	2,835	20.8	19.4	38	1	39	13.8	50	4	54	18.7
GRAND TOTALS ..	8,554	561	9,115	22.6	21.0	126	14	140	15.4	142	18	160	17.3

TABLE II—BIRTH, INFANT MORTALITY AND STILLBIRTH RATES FOR URBAN AND RURAL AREAS OF COUNTY,
WHOLE COUNTY AND ENGLAND AND WALES 1944-63

YEAR	CRUDE BIRTH RATES PER 1,000 POPULATION*				INFANT MORTALITY RATES				STILLBIRTH RATES			
	Urban Districts	Rural Districts	Whole County	England and Wales	Urban Districts	Rural Districts	Whole County	England and Wales	Urban Districts	Rural Districts	Whole County	England and Wales
1944	21.8	18.9	20.9	19.9	34.3	37.8	35.2	45.4	27.9	30.6	28.7	27.7
1945	18.9	17.2	18.4	17.8	33.4	35.8	34.1	46.0	27.0	25.3	26.5	27.6
1946	19.3	18.3	19.0	20.2	35.2	32.7	34.5	42.9	31.6	24.3	29.6	27.2
1947	20.9	19.5	20.5	21.1	32.1	27.0	30.7	41.4	21.2	23.5	21.8	24.1
1948	17.6	17.4	17.5	18.1	29.2	31.4	29.8	33.9	20.3	18.2	19.7	23.2
1949	16.3	17.3	16.7	16.9	27.2	25.4	26.6	32.4	23.5	24.2	23.7	22.7
1950	15.6	15.4	15.5	15.9	24.0	28.2	25.3	29.6	26.9	24.9	26.3	22.6
1951	15.7	14.0	15.2	15.5	28.3	22.8	26.6	29.7	23.6	23.6	23.6	23.0
1952	14.9	14.2	14.6	15.3	23.2	26.1	24.1	27.6	23.0	24.2	23.3	22.7
1953	15.2	14.7	15.0	15.5	26.8	19.6	24.5	26.8	24.1	19.8	22.7	22.4
1954	15.3	15.4	15.3	15.2	26.7	26.1	26.5	25.4	26.6	20.0	24.4	23.5
1955	15.2	15.8	15.4	15.0	18.2	17.8	18.0	24.9	21.3	16.3	19.7	23.2
1956	17.0	15.4	16.5	15.7	22.1	22.6	22.2	23.8	21.3	26.1	22.8	23.0
1957	17.5	17.5	17.5	16.1	22.3	24.5	23.0	23.1	20.6	23.4	21.5	22.5
1958	18.9	17.1	18.3	16.4	17.4	19.7	18.1	22.6	19.3	15.2	18.1	21.6
1959	19.6	18.9	19.4	16.5	20.1	18.9	19.7	22.2	19.3	21.3	19.9	21.0
1960	21.0	19.4	20.5	17.1	18.3	22.1	19.5	21.9	19.3	17.4	18.7	19.8
1961	20.4	20.7	20.5	17.4	19.9	16.2	18.7	21.4	20.8	14.5	18.7	19.1
1962	22.1	22.3	22.2	18.0	21.9	20.4	21.4	21.6	17.8	15.4	17.0	18.1
1963	23.5	20.8	22.6	18.2	16.1	13.8	15.4	20.9	16.6	18.7	17.3	17.3

*Civilian population to 1949; home population since.

TABLE IV—CAUSES OF DEATH IN EACH DISTRICT OF BEDFORDSHIRE, 1963

CAUSE OF DEATH	Administrative County	URBAN DISTRICTS								RURAL DISTRICTS					
		Amphill	Bedford	Biggleswade	Dunstable	Kempston	Leighton Buzzard	Luton	Sandy	TOTAL	Amphill	Bedford	Biggleswade	Luton	TOTAL
1. Tuberculosis, Respiratory .. .	17	—	3	—	—	—	—	8	—	11	—	3	2	1	6
2. Tuberculosis, Other .. .	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—
3. Syphilitic Disease .. .	6	—	—	—	—	—	—	3	—	3	—	2	1	—	3
4. Diphtheria .. .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Whooping Cough .. .	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—
6. Meningococcal Infections .. .	1	—	—	—	—	—	—	—	—	—	—	—	—	1	1
7. Acute Poliomyelitis .. .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. Measles .. .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Other Infective and Parasitic Diseases	4	—	1	—	—	—	—	1	—	2	—	—	1	1	2
Malignant Neoplasm—															
10. Stomach .. .	98	—	12	2	7	4	4	33	2	64	5	10	11	8	34
11. Lung, Bronchus .. .	175	1	37	4	9	4	3	67	3	128	8	9	10	20	47
12. Breast .. .	82	—	19	5	4	1	1	25	2	57	7	5	6	7	25
13. Uterus .. .	34	1	5	—	3	—	1	12	—	22	5	3	—	4	12
14. Other Malignant and Lymphatic Neoplasms	340	6	66	10	25	14	13	112	1	247	19	35	20	19	93
15. Leukaemia, Aleukaemia .. .	27	—	5	1	—	1	—	11	—	18	2	2	3	2	9
16. Diabetes .. .	32	1	7	—	6	1	—	8	—	23	3	1	2	3	9
17. Vascular Lesions of Nervous System	623	9	109	18	28	28	16	209	11	428	52	61	39	43	195
18. Coronary Disease, Angina .. .	761	10	144	26	49	23	26	242	12	532	46	55	62	66	229
19. Hypertension with Heart Disease .. .	55	1	11	—	3	3	2	23	1	44	4	1	4	2	11
20. Other Heart Disease .. .	415	5	59	12	18	15	10	128	5	252	49	28	54	32	163
21. Other Circulatory Disease .. .	161	1	23	2	9	6	7	66	2	116	9	18	9	9	45
22. Influenza .. .	28	—	—	12	2	—	1	6	—	21	2	2	—	3	7
23. Pneumonia .. .	236	6	29	7	22	3	4	86	3	160	16	15	27	18	76
24. Bronchitis .. .	215	2	32	4	14	6	4	87	—	149	11	23	18	14	66
25. Other Diseases of Respiratory System	43	1	5	—	3	1	1	12	—	23	3	5	6	6	20
26. Ulcer of Stomach and Duodenum .. .	39	—	2	1	1	1	3	22	—	30	2	3	2	2	9
27. Gastritis, Enteritis and Diarrhoea .. .	20	1	—	1	—	1	2	10	—	15	3	1	—	1	5
28. Nephritis and Nephrosis .. .	26	1	3	—	2	2	1	12	—	21	—	2	1	2	5
29. Hyperplasia of Prostate .. .	24	1	2	1	1	—	—	7	1	13	1	2	5	3	11
30. Pregnancy, Childbirth, Abortion .. .	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—
31. Congenital Malformations .. .	47	1	11	—	4	1	2	13	—	32	1	4	4	6	15
32. Other Defined and Ill-defined Diseases	359	5	50	8	22	8	7	123	4	227	20	31	52	29	132
33. Motor Vehicle Accidents .. .	56	—	12	3	3	1	2	13	2	36	5	4	8	3	20
34. All Other Accidents .. .	72	2	13	2	2	2	4	24	1	50	2	7	7	6	22
35. Suicide .. .	36	—	5	2	2	—	—	17	—	28	—	1	5	2	8
36. Homicide and Operations of War .. .	3	—	—	—	1	—	—	1	—	2	1	—	—	—	1
TOTALS: ALL CAUSES .. .	4,038	55	665	121	240	126	116	1,384	50	2,757	276	333	359	313	1,281

TABLE V—CAUSES OF DEATH IN URBAN AND RURAL AREAS OF BEDFORDSHIRE, 1963, DIVIDED ACCORDING TO SEX AND AGE

CAUSE OF DEATH	URBAN DISTRICTS																RURAL DISTRICTS																							
	MALES								FEMALES								MALES								FEMALES															
	0	1	5	15	25	45	65	75	Total	0	1	5	15	25	45	65	75	Total	0	1	5	15	25	45	65	75	Total	0	1	5	15	25	45	65	75	Total				
1. Tuberculosis, Respiratory					1	5	1	1	8						3			3									1	2	1	4									1	
2. Tuberculosis, Other						1	1	2						1			1												1									1		
3. Syphilitic Disease																																								
4. Diphtheria																																								
5. Whooping Cough																																								
6. Meningococcal Infections																																								
7. Acute Poliomyelitis																																								
8. Measles																																								
9. Other Infective and Parasitic Diseases	1							1									1												1									1		
10. Malignant Neoplasm—																																								
Stomach					3	9	13	33							6	6	19	31									2	9	5	10	26									2
Lung, Bronchus					7	51	44	114							1	7	4	14									4	22	14	5	45									2
Breast															6	24	20	57																						2
Uterus															3	10	6	22																						3
Other Malignant and Lymphatic Neoplasms																																								
11. Leukaemia, Aleukaemia																																								
12. Diabetes																																								
13. Vascular Lesions of Nervous System																																								
14. Coronary Disease, Angina																																								
15. Hypertension with Heart Disease																																								
16. Other Heart Disease																																								
17. Other Circulatory Disease																																								
18. Influenza																																								
19. Pneumonia	5	2																																						
20. Bronchitis	3																																							
21. Other Diseases of Respiratory System																																								
22. Ulcer of Stomach and Duodenum																																								
23. Gastritis, Enteritis and Diarrhoea																																								
24. Nephritis and Nephrosis																																								
25. Hyperplasia of Prostate																																								
26. Pregnancy, Childbirth, Abortion																																								
27. Congenital Malformations	9	2	1					14	15							1	18												1									5		
28. Other Defined and Ill-defined Diseases	32	3	1					36	21							15	129												13									26		
29. Motor Vehicle Accidents																																								
30. All Other Accidents	1	2	1					4	2							1	26											1									9			
31. Suicide																																								
32. Homicide and Operations of War																																								
TOTALS: ALL CAUSES	51	9	8	11	72	410	374	503	1,438	50	4	3	9	40	223	296	694	1,319	23	6	6	10	29	159	180	270	683	16	4	2	3	19	101	134	319	598				

DEATHS

During the year, 4,038 deaths attributable to Bedfordshire were registered, giving a death rate of 10.0 for 1963, compared with 9.7 in 1962. The death rate is calculated as the number of deaths per 1,000 of the home population. Comparison of death rates of different districts is not valid unless the population structure of each is similar. For example, a district with a small population but containing a residential institution for old people will have an unduly high proportion of deaths and consequently a high crude death rate. To overcome this difficulty and to enable local death rates to be compared, the Registrar General has supplied an Area Comparability Factor for each district. When the crude death rate is multiplied by this factor, an *adjusted death rate* is obtained which is comparable with the adjusted death rate of any other area or with the crude death rate of England and Wales *in the same year*. The crude death rates, area comparability factors and adjusted death rates of the County Districts and of England and Wales for 1963 are shown in Table III.

TABLE III—CRUDE DEATH RATES, AREA COMPARABILITY FACTORS, AND ADJUSTED DEATH RATES OF THE COUNTY DISTRICTS AND ENGLAND AND WALES, 1963

	Crude Death Rate per 1,000 Home Population	Area Comparability Factor	Adjusted Death Rate
Urban Districts	10.3	1.19	12.3
Ampthill	13.4	0.58	7.8
Bedford M.B.	10.2	1.12	11.4
Biggleswade	14.1	0.69	9.8
Dunstable M.B.	8.8	1.42	12.5
Kempston	13.2	1.04	13.8
Leighton Buzzard	9.3	1.24	11.5
Luton M.B.	10.1	1.26	12.8
Sandy	12.3	1.00	12.3
Rural Districts	9.4	1.08	10.2
Ampthill	9.9	0.99	9.8
Bedford	9.4	0.98	9.2
Biggleswade	11.9	0.91	10.8
Luton	7.4	1.52	11.2
Admin. County	10.0	1.16	11.6
England and Wales	12.2	—	—

Since 1950, the County death rate has remained comparatively steady at about 10 per 1,000. The extremes during this period were 10.6 in 1955 and 9.5 in 1961. The rate has been consistently lower than the national rate by between one and two per 1,000.

CAUSES OF DEATH

The causes of death in each District of the County are shown in Table IV. Table V shows the age and sex distribution of the deaths from the various causes in the Urban and Rural Areas of the County. Heart disease is the major cause of death, accounting for about 30 per cent of deaths each year. Cancer in all its forms is responsible for nearly 20 per cent and cerebral haemorrhage for rather more than 15 per cent. A further 10 per cent of deaths is attributable to pneumonia and bronchitis. Thus these five causes between them are responsible for about three-quarters of the deaths in Bedfordshire each year.

One of the most dramatic changes in the pattern of mortality in recent years has been the decline of tuberculosis. The death rate from respiratory tuberculosis in Bedfordshire in 1931 was 75 per 100,000 of the population. By 1958 it had reached the low level of 3.2. Unfortunately the hopes that the disease might be eradicated have not been fulfilled and the rate has since fluctuated. After rising to 5.0 in 1960 it dropped to 3.1, the lowest ever recorded, in 1961 and rose again to 4.2 per 100,000 in 1963. It must, of course, be realised that these recent rates are based on less than 20 deaths per year.

CANCER

Excluding the 27 deaths from leukaemia and aleukaemia, there were 729 deaths attributable to malignant neoplasms in 1963 compared with 750 in 1962. Examination of Table VI reveals an upward trend in the number of men dying from cancer of the lung and bronchus. Whereas only 71 men died in 1950, the figure in 1962 had risen to 163, more than twice as many. Past experience does not suggest that any comfort can be derived from the fact that the number dropped slightly to 159 in 1963. More heartening is the drop in the number of women dying from this form of cancer; it may be that, for the present at least, we are not going to witness the upward trend in women that had been expected.

The addiction to tobacco persists among the majority of the population in spite of the accumulation of evidence linking cigarette smoking with lung cancer. It cannot be said too often that of those people who habitually smoke 20 or more cigarettes a day, one in eight dies from lung cancer; of non-smokers, only one in 300. Giving up smoking reduces the risk.

TABLE VI—SEX-AGE DISTRIBUTION OF LUNG AND OTHER CANCERS*
IN BEDFORDSHIRE, 1950-63

	MALES								FEMALES							
	0—	5—	15—	25—	45—	65—	75—	Total	0—	5—	15—	25—	45—	65—	75—	Total
BRONCHUS																
..	—	—	—	2	51	14	4	71	—	—	—	—	4	8	2	14
..	—	—	1	4	52	21	6	84	—	—	—	2	6	3	5	16
..	—	—	—	5	59	27	10	101	—	—	—	—	6	4	—	10
..	—	—	—	3	43	17	7	70	—	—	—	2	4	3	—	9
..	—	—	—	5	49	34	10	98	—	—	—	1	8	5	1	15
..	—	—	—	6	59	36	8	109	—	—	1	1	8	5	2	17
..	—	—	—	7	51	24	17	99	—	—	—	2	6	6	2	16
..	—	—	1	2	70	38	12	123	—	—	—	1	7	3	2	13
..	—	—	—	6	57	35	15	113	—	—	—	—	7	6	3	16
..	—	—	—	3	61	33	10	107	—	—	—	—	7	1	6	14
..	—	—	—	1	85	31	15	132	—	—	—	3	9	7	2	21
..	—	—	—	4	68	42	17	131	—	—	—	1	8	5	8	22
..	—	—	—	4	93	47	19	163	—	—	—	3	16	9	6	34
..	—	—	—	11	73	58	17	159	—	—	—	1	8	5	2	16
OTHER SITES																
..	4	—	1	11	62	75	65	218	2	—	1	15	93	69	65	245
..	2	1	1	14	74	64	58	214	3	3	2	24	82	73	63	250
..	4	—	1	19	65	62	73	224	1	—	—	19	102	54	90	266
..	1	1	2	12	63	71	65	215	3	2	2	24	74	54	79	238
..	1	2	1	16	68	58	74	220	—	3	4	18	106	72	86	289
..	3	1	2	11	86	73	77	253	2	1	1	13	93	96	95	301
..	2	2	1	12	59	63	70	209	—	4	—	23	105	82	78	292
..	1	2	2	12	70	60	63	210	2	1	2	20	105	70	83	283
..	1	2	2	7	81	62	70	225	1	2	2	17	110	89	87	308
..	3	3	3	16	82	87	68	262	—	1	1	23	93	83	96	297
..	1	2	1	16	82	71	80	253	2	—	3	24	99	72	105	305
..	3	3	2	12	76	69	70	235	—	1	—	19	100	64	121	305
..	2	2	3	12	73	79	73	244	3	1	—	29	95	79	119	326
..	1	3	2	19	75	65	83	248	—	1	1	28	117	88	98	333

* Including leukaemia and aleukaemia.

INFANT MORTALITY

During 1963, 140 infants under one year of age died, 90 within the first week and 102 within the first four weeks of life. The distribution of infant deaths amongst the County Districts is shown in Table I on page 13. The number of such deaths per 1,000 live births registered during the year constitutes the Infant Mortality Rate. The rates for the individual districts are also shown in the Table. It should be borne in mind, however, that the figures are so small in some cases that the rate calculated may not be truly significant. Table II on page 14 shows the Infant Mortality Rates for the Urban and Rural Areas, for the County as a whole, and for England and Wales for the past twenty years. The rate for the County was 15.4 and was the lowest ever recorded, well below the previous lowest figure

of 18.0 achieved in 1955. This is something of which all concerned may be justly proud. However, the fact that in 1962 the rate had risen to 21.4 must serve as a reminder that we cannot afford to relax our efforts. Nationally, the infant mortality rate was 20.9 and was also the lowest ever recorded. The causes and sex-distribution of the infant deaths registered in 1963 are set out in Table VII. Prematurity is included in "Other Causes".

TABLE VII—CAUSES OF INFANT DEATHS IN URBAN AND RURAL AREAS, 1963, SUBDIVIDED ACCORDING TO SEX

CAUSE	URBAN DISTRICTS		RURAL DISTRICTS		COUNTY	
	Male	Female	Male	Female	Male	Female
Whooping Cough	—	1	—	—	—	1
Cancer	—	—	1	—	1	—
Heart Disease	—	1	—	—	—	1
Pneumonia	5	8	2	3	7	11
Bronchitis	3	—	—	—	3	—
Other Respiratory Diseases Gastritis, Enteritis and Diarrhoea	—	1	—	—	—	1
Diarrhoea	—	1	1	—	1	1
Congenital Malformations ..	9	15	5	6	14	21
Accidents	1	2	1	—	3	2
Other Causes	33	21	13	7	46	28
TOTALS	51	50	23	16	74	66

Perinatal Mortality is the combination of stillbirths and deaths within the first week of life expressed as a rate per 1,000 total (live and still) births. The rate for the County in 1963 was 24.2 compared with 31.5 in 1962. This reduction was occasioned by the considerable drop in the number of deaths in the first week of life, from 129 to 90.

MATERNAL MORTALITY

One death attributable to maternal causes was registered during the year, in Luton Borough. The young woman concerned died from a pulmonary embolus due to pelvic thrombophlebitis five months after the baby was born. The maternal mortality rate was 0.11 per 1,000 total (live and still) births compared with 0.28 for England and Wales.

CENSUS, 1961

The basic function of the census was to count the number of living persons in the country at midnight on the 23rd/24th April, 1961. Thus the census populations of the County districts which are

given in Table VIII together with those for the previous census, exclude residents who were away from home that night and include visitors who spent the night in the area. The populations of the parishes were given in the Report for 1962.

TABLE VIII—CENSUS POPULATIONS OF COUNTY DISTRICTS, 1951 AND 1961

	1951			1961		
	Males	Females	Persons	Males	Females	Persons
Administrative County ...	155,436	156,501	311,937	190,549	190,288	380,837
Aggregate of M.B.s and U.D.s ...	102,888	109,399	212,287	128,069	129,293	257,362
Apthill U.D. ...	1,364	1,509	2,873	1,897	1,955	3,852
Bedford M.B. ...	25,071	28,004	53,075	31,089	32,245	63,334
Begleswade U.D. ...	3,662	3,769	7,431	3,957	4,093	8,050
Brinstable M.B. ...	8,262	8,928	17,190	12,796	12,849	25,645
Empston U.D. ...	4,324	4,321	8,645	4,507	4,683	9,190
Highton Buzzard U.D. ...	4,593	4,432	9,025	5,822	5,923	11,745
Highton M.B. ...	53,823	56,558	110,381	66,002	65,581	131,583
Highdy U.D. ...	1,789	1,878	3,667	1,999	1,964	3,963
Aggregate of R.D.s ...	52,548	47,102	99,650	62,480	60,995	123,475
Apthill R.D. ...	11,504	11,453	22,957	12,978	13,032	26,010
Bedford R.D. ...	16,861	13,852	30,713	16,937	16,788	33,725
Begleswade R.D. ...	14,397	12,030	26,427	14,197	13,081	27,278
Highton R.D. ...	9,786	9,767	19,553	18,368	18,094	36,462

Between 1951 and 1961 the population of the County increased by 68,900 representing a rate of 2.01 per cent per year. Nearly two-thirds of this increase was accounted for by net inward migration and the rest by the excess of births over deaths. Table IX analyses the population of the County by country of birth both for 1951 and 1961. Those born in colonial territories and Commonwealth countries taken together, accounted for 1.6 per cent of the population compared with 0.7 per cent in 1951, while the percentage born in foreign countries increased from 1.9 to 3.3. The proportion born in England, Wales and Scotland decreased from 94.5 to 90.7 per cent.

Table XI gives the sex-age distribution of the census population in the various districts and shows that the excess of males over females in the County extends through all age groups up to and including 45-54. In fact, it extends to the 55-59 age group but is more than reversed in the group 60-64 so that taking these two groups together

there are more females than males. Table X shows that the age distribution of Bedfordshire is younger than that of England and Wales as a whole. The proportion aged 65 or over (10.0 per cent) was not only less than in England and Wales (12.0 per cent) but had fallen compared with the proportion in 1951 (10.5 per cent).

TABLE IX—POPULATION OF BEDFORDSHIRE BY COUNTRY OF BIRTH, 1951 AND 1961

Birthplace	Enumerated Population		Distribution per 1,000 enumerated population	
	1951	1961	1951	1961
England	281,697	328,783	901	863
Wales	6,652	7,487	21	20
Scotland	6,506	9,255	21	24
Northern Ireland	1,140	2,584	4	7
Irish Republic	3,911	9,793	13	26
Ireland (part not stated) ...	162	622	1	2
Isle of Man, Channel Islands	162	198	1	1
Colonies and Protectorates ...	405	2,337	1	6
Commonwealth Countries ...	1,857	3,568	6	9
Foreign Countries and at Sea	5,855	12,693	19	33
Birthplace not stated ...	3,590	3,517	12	9
Total	311,937	380,837	1,000	1,000

TABLE X—POPULATION OF BEDFORDSHIRE AND ENGLAND AND WALES BY AGE GROUPS, 1951 AND 1961

Age Group	Percentage distribution of population			
	Bedfordshire		England and Wales	
	1951	1961	1951	1961 Mid-year estimate
0—4	8.3	9.0	8.5	7.9
5—9	7.2	7.4	7.2	7.0
10—14	6.3	7.8	6.4	7.9
15—24	13.4	13.2	12.9	13.2
25—34	14.8	14.6	14.5	12.6
35—44	16.1	14.0	15.3	13.6
45—54	13.5	13.7	13.7	14.0
55—64	9.9	10.2	10.4	11.8
65—74	6.9	6.3	7.4	7.7
75 and over ...	3.5	3.7	3.6	4.3
Total	100.0	100.0	100.0	100.0

		MALES										
AREA		0—4	5—14	15—24	25—34	35—44	45—54	55—64	65—74	75—84	85+	All ages
Aggregate of M.B.s and U.D.s	...	17,642	29,919	25,761	28,906	27,607	26,766	18,823	10,072	4,328	725	190,549
Administrative County	...	11,759	19,970	16,964	19,360	18,738	18,609	12,793	6,723	2,697	456	128,069
Amphill U.D.	...	182	309	214	274	241	265	197	113	77	25	1,897
Bedford M.B.	...	2,882	4,893	3,975	4,870	4,823	4,174	2,885	1,769	699	119	31,089
Biggleswade U.D.	...	277	640	478	529	609	570	446	251	128	29	3,957
Dunstable M.B.	...	1,274	2,097	1,553	2,099	2,030	1,748	1,157	592	205	41	12,796
Kempston U.D.	...	330	669	627	569	612	765	521	259	129	26	4,507
Leighton Buzzard U.D.	...	647	1,016	735	910	877	722	478	271	145	21	5,822
Luton M.B.	...	6,015	10,010	9,131	9,863	9,283	10,049	6,865	3,349	1,253	184	66,002
Sandy U.D.	...	152	336	251	246	263	316	244	119	61	11	1,999
Aggregate of R.D.s	...	5,883	9,949	8,797	9,546	8,869	8,157	6,030	3,349	1,631	269	62,480
Amphill R.D.	...	1,031	2,143	1,729	1,817	1,849	1,804	1,387	794	358	66	12,978
Bedford R.D.	...	1,496	2,745	2,266	2,392	2,314	2,320	1,779	1,003	516	106	16,937
Biggleswade R.D.	...	1,039	2,068	2,604	1,971	1,914	1,836	1,467	826	429	43	14,197
Luton R.D.	...	2,317	2,993	2,198	3,366	2,792	2,197	1,397	726	328	54	18,368
FEMALES												
Administrative County	...	16,500	28,208	24,588	26,611	25,864	25,242	20,149	14,092	7,474	1,560	190,288
Aggregate of M.B.s and U.D.s	...	10,946	18,803	17,100	17,683	17,486	17,564	13,859	9,623	5,166	1,063	129,293
Amphill U.D.	...	171	266	237	265	254	259	217	157	104	25	1,955
Bedford M.B.	...	2,675	4,554	4,263	4,415	4,433	3,982	3,450	2,610	1,491	372	32,245
Biggleswade U.D.	...	318	629	479	513	565	508	483	346	203	49	4,093
Dunstable M.B.	...	1,228	1,995	1,677	1,965	1,878	1,623	1,215	825	362	81	12,849
Kempston U.D.	...	342	651	569	560	630	732	542	397	200	60	4,683
Leighton Buzzard U.D.	...	568	976	783	853	821	674	546	411	242	49	5,923
Luton M.B.	...	5,495	9,463	8,845	8,867	8,669	9,478	7,176	4,719	2,467	402	65,581
Sandy U.D.	...	149	269	247	245	236	308	230	158	97	25	1,964
Aggregate of R.D.s	...	5,554	9,405	7,488	8,928	8,378	7,678	6,290	4,469	2,308	497	60,995
Amphill R.D.	...	976	2,094	1,545	1,625	1,846	1,696	1,505	1,043	568	134	13,032
Bedford R.D.	...	1,422	2,487	2,101	2,269	2,241	2,255	1,804	1,347	698	164	16,788
Biggleswade R.D.	...	1,051	1,910	1,530	1,761	1,771	1,722	1,504	1,128	582	122	13,081
Luton R.D.	...	2,105	2,914	2,312	3,273	2,520	2,005	1,477	951	460	77	18,094

SOCIAL CONDITIONS

This is the last Annual Report which will deal with the health of the whole of geographical Bedfordshire, which was co-terminus with the Administrative County until the Borough of Luton became a County Borough on the 1st April, 1964.

In 1963 Bedfordshire, with an area of 302,940 acres and a population of 403,790, had an average of 1.3 persons per acre. About half of the population resided in the Boroughs of Bedford and Luton, about one-third of it in Luton and one-sixth in Bedford.

For many years, Luton has been the main industrial area of the County, with the Vauxhall Motors as the principal employer of labour, but there is an appreciable amount of engineering in Bedford and many of the people residing in the surrounding areas find employment in these towns. South of Bedford, the several brickworks provide a considerable amount of employment and there are local industries in the other towns in the County. Most of the County is still rural in character, however, and there is extensive farming and market gardening, but less than ten per cent of the population is employed on the land.

There has been very little unemployment in the area and that has been infrequent. Indeed, for years the general picture has been one of full employment and this fact has encouraged immigration from other parts of this country and also from abroad, notably the West Indies and Italy. In the south of the County at Houghton Regis some of the London overspill has been accommodated.

The tremendous increase in population, 26 per cent in ten years, has brought its problems. There is, for example, a shortage of housing notwithstanding the large amount of building that has taken place. According to the 1961 Census, there were 120,020 structurally separate dwellings in the County, an increase of 34.6 per cent since 1951. 3.4 per cent of these were in houses divided into flats or in blocks of flats and 1.5 per cent were caravans. The number of private households was 120,042, an increase of 29.2 per cent since 1951. The proportion of households sharing a dwelling fell from 9.1 per cent in 1951 to 3.3 per cent in 1961, but the degree of overcrowding was not greatly decreased. In 1951, 3.4 per cent of households lived at a density of more than 1.5 persons per room; in 1961 the percentage was 3.2.

As to household arrangements, 71.2 per cent of households in 1961 had exclusive use of a cold water tap, hot water tap, fixed bath and water closet. Altogether, 112,281 or 94.8 per cent of households had exclusive use of a cold water tap in the building but 3,569 or 3.0 per cent were entirely without such use. In 1951, the proportion without a cold water tap was 9.2 per cent.

The number of households with exclusive use of a water closet in the building or attached to it was 104,133 or 87.9 per cent. The number without the use of a water closet in the building was 10,758 or 9.1 per cent.

The rapid increase in population and number of dwellings, particularly in villages, have brought with them problems of water supply and main drainage. The rationalisation of water supplies has received considerable attention. Thus, there has been the formation of the Mid-Bedfordshire and North Bedfordshire Water Boards to replace a multiplicity of water undertakings, and the creation of the Great Ouse Water Authority. This Authority has undertaken the construction of a reservoir near Buckden in Huntingdonshire to which water will be pumped from the River Great Ouse. The reservoir will be able to supply 40 million gallons of water daily, an amount which it was thought would be sufficient to meet the requirements until the end of the century.

A satisfactory disposal of waste water and sewage in villages without main drainage is difficult to achieve, and some of them are much troubled. The absence of an adequate labour force to empty cesspools aggravates the problems.

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ADMINISTRATION

The County Council continued to be the Local Health Authority for the whole of the geographical County, but the Borough Councils of Bedford and Luton were authorities exercising delegated functions under the Local Government Act, 1958. All functions under the National Health Service Act, 1946 were delegated with the exception of the Ambulance Service and the care and after-care in residential accommodation of persons suffering from mental disorders.

The remainder of the County was divided into Divisions as follows:—

North-Eastern (with an office in Biggleswade); comprising Ampthill Urban and Rural Districts; Bedford Rural District; Biggleswade Urban and Rural Districts; Kempston Urban District; Sandy Urban District.

Southern (with an office in Dunstable); comprising Dunstable Borough; Leighton Buzzard Urban District; Luton Rural District.

For each Division there was a Divisional Committee to which was referred the day-to-day management of the following services: care of mothers and young children; health visiting; home nursing; domiciliary midwifery; domestic help; and vaccination and immunisation. Prevention of illness, care and after-care was administered divisionally to some extent. Each Divisional Committee had a medical adviser.

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA

In addition to the Divisional Committees there were three sub-committees responsible for the following services: the Ambulance Sub-Committee, which dealt with the development of the services and matters of administration; the Mental Health Sub-Committee; and the Maternity and Relaxation Sub-Committee.

CARE OF MOTHERS AND YOUNG CHILDREN

Ante-Natal Care

One of the effects of the National Health Service over the years has been to increase the number of maternity cases supervised by hospitals and general medical practitioners. This has led to a gradual reduction in the number of the Authority's ante-natal clinics with a medical officer in attendance. In 1948 there were 11 medical officers' clinics; with the closure of two more in February, 1963, only one remained at the end of the year, at Dallow Road in Luton. However, at six centres in Luton and at one in Leighton Buzzard the midwives hold clinics for the patients they have booked.

Maternity and Relaxation

Although there is no longer a demand for ante-natal clinics, there is a demand for information and instruction. All the midwives have been trained to teach relaxation exercises to expectant mothers and

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In addition to the Divisional Committees there were three sub-committees responsible to the County Health Committee. They were the General Purposes Sub-Committee, which dealt with the development of the services and matters of administration ; the Ambulance Sub-Committee ; and the Mental Health Sub-Committee.

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Mothercraft and Relaxation

Although there is no longer a demand for ante-natal clinics, there is a demand for information and instruction. All the midwives have been trained to teach relaxation exercises to expectant mothers and

at the end of the year classes were being held in 14 centres. One of the main difficulties in the way of expanding this work is the lack of suitable premises. The usual practice is to combine relaxation with instruction to the mother on such things as the physiology of labour, preparations for the confinement and for the baby, and infant care. To this end the midwife and health visitor work as a team. Table XII gives details of the classes being held at the end of the year, together with the numbers of women attending. It will be seen that the Leighton Buzzard class in particular provides for a number of women who are booked for hospital confinement but find it inconvenient to attend the hospital regularly for instruction.

TABLE XII—ATTENDANCES AT RELAXATION AND MOTHERCRAFT CLASSES, 1963

Address	No. of women who attended during year		Total No. of attendances
	Hospital booked	Domiciliary booked	
Bedford—			
Brickhill Clinic	—	5	8
Putnoe Clinic	3	41	172
Union St. Clinic	4	34	155
Bromham, Village Hall ...	1	14	34
Clapham, Estate Office ...	2	50	99
Dunstable, Health Centre ...	11	198	1,412
Flitwick, Village Hall ...	8	22	109
Leighton Buzzard Clinic ...	35	52	485
Luton—			
Beechwood Clinic	—	37	128
Dallow Road	—	21	56
Gooseberry Hill	9	81	493
Leagrave High St.	1	25	101
Stopsley	1	51	148
Sundon Park, Skefco Sports Pavilion	2	45	319
TOTALS	77	676	3,719

Premature Births

All infants weighing $5\frac{1}{2}$ lbs. or less at birth are regarded as being premature and they need the most skilled attention if they are to survive. The great majority are born in hospital. For those born and nursed at home, the Authority have available special cots with appropriate equipment for use when required. There is close co-operation with the hospital authorities. Where it is necessary for a premature baby to be admitted to hospital, arrangements have been made for nursing care *en route* and the equipment required for such a journey has been provided.

During 1963 of the 9,115 live births notified, 529 or 5.8 per cent were premature. Of these 26 died within 24 hours and a further 20 by the end of 6 days. The number who survived for 28 days was 482 or 91.1 per cent. It will be seen from Table XIII that over half the premature babies weighed more than 4 lbs. 15 ozs. There were 86 premature stillbirths notified (83 in hospital), representing 53.75 per cent of all notified stillbirths.

The Unmarried Mother and Her Child

There were 561 illegitimate live births and 18 illegitimate stillbirths registered in 1963. It is not known how many, if any, multiple births were included. Assuming there were none, we can say there were 579 illegitimate pregnancies during the year. Little information is available concerning the ages of the mothers involved or of the circumstances attaching to the pregnancies. The figures do not include births where the mother married during pregnancy, but they do include births to married women where the husband was not the father.

The ante-natal, midwifery and other services provided by the Authority are available to all expectant and nursing mothers, whether or not they are married. Additional care, where necessary, is provided for unmarried mothers and their babies by Diocesan bodies.

The St. Albans Diocesan Council for Moral Welfare, the constituent bodies of which provide an outdoor welfare service covering the whole County, receives substantial grants from the Local Health Authority. In addition, two Mother and Baby Homes are provided—"Widecombe" at Streatley and Holt House in Bedford. These Homes provide accommodation for the periods immediately preceding and following confinement. During the year they admitted 99 unmarried mothers, including 16 Bedfordshire residents for whom the Authority accepted financial responsibility. St. Faith's in Luton is a shelter provided by the South Bedfordshire Branch of the Diocesan Council for any girl who finds herself stranded and with nowhere to spend the night.

The Northampton Diocesan Catholic Child Protection and Welfare Society also does much good work in Bedfordshire, engaging in outdoor social work and arranging for unmarried mothers to be admitted to suitable homes.

During the year, the Authority approved 47 applications for financial assistance to enable unmarried expectant mothers resident in the County to be admitted to homes outside Bedfordshire.

TABLE XIII—NUMBER OF PREMATURE BIRTHS NOTIFIED IN THE COUNTY DURING 1963, SHOWING WHERE BORN AND NURSED, AND SUBDIVIDED ACCORDING TO WEIGHT AND PERIOD OF SURVIVAL

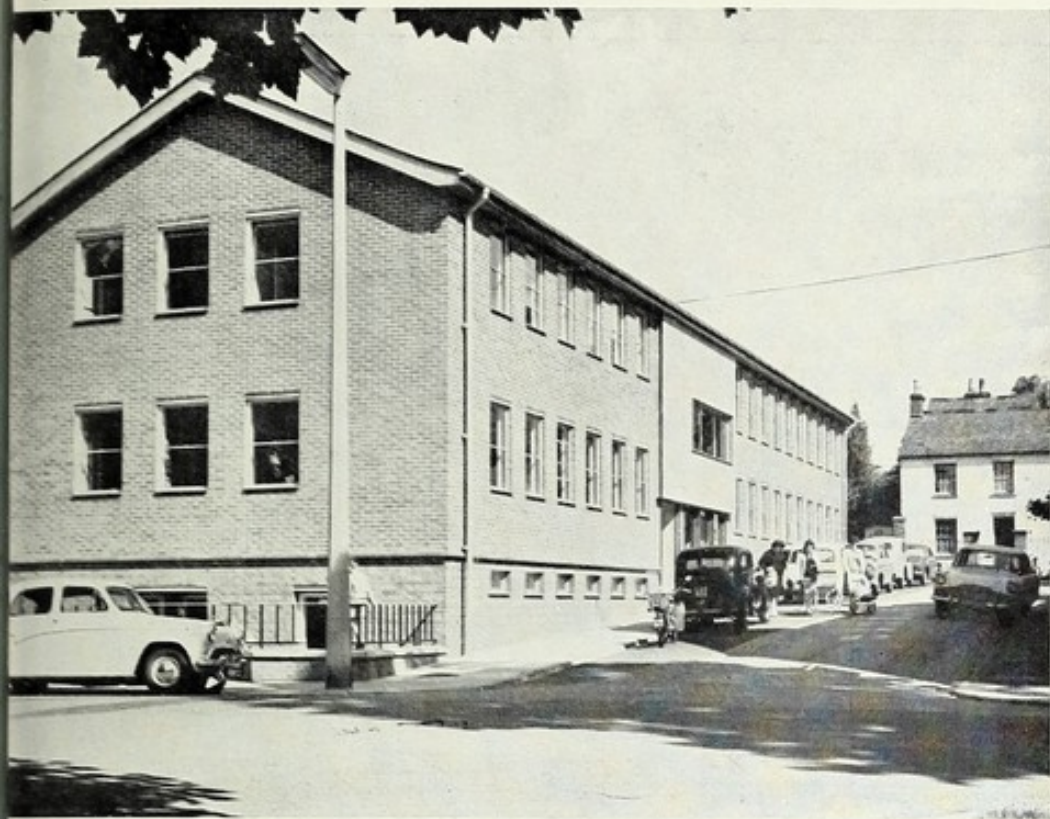
	BORN AT HOME OR IN PRIVATE NURSING HOME							BORN IN HOSPITAL						Grand Total								
	Total	Nursed entirely at Home or in Nursing Home						Transferred to Hospital														
		2 lb. 3 oz. or less	Over 2 lb. 3 oz. to 3 lb. 4 oz.	Over 3 lb. 4 oz. to 4 lb. 6 oz.	Over 4 lb. 6 oz. to 4 lb. 15 oz.	Over 4 lb. 15 oz. to 5 lb. 8 oz.	TOTAL	2 lb. 3 oz. or less	Over 2 lb. 3 oz. to 3 lb. 4 oz.	Over 3 lb. 4 oz. to 4 lb. 6 oz.	Over 4 lb. 6 oz. to 4 lb. 15 oz.	Over 4 lb. 15 oz. to 5 lb. 8 oz.	TOTAL									
Died in first 24 hours ..	4	1	1	—	—	—	3	—	1	—	—	—	1	8	4	4	3	3	—	—	22	26
Died 2nd - 6th day ..	3	—	—	—	—	—	—	—	—	—	—	3	—	4	6	3	3	1	—	—	17	20
Died 7th - 27th day ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Survived 28 days ..	146	—	9	16	106	131	—	3	7	3	2	15	—	—	20	60	76	180	—	—	336	482
TOTALS ..	153	1	10	16	106	134	—	3	8	3	5	19	—	13	30	67	82	184	—	—	376	529

Child Welfare Centres

There is a tendency today to criticise Child Welfare Centres as outmoded and rather useless. It is, happily, quite true that the conditions of poverty, ignorance of infant care, and high infant mortality that were responsible for the setting up of the first Centres no longer obtain. However, in the changed circumstances of today, even in the context of a National Health Service, the Centres still have a part to play. Not only are dietary supplements and baby foods available for those who need them, but no less important are the opportunities for mothers to obtain sound advice concerning their children's health and progress, for routine tests for the early detection of abnormalities and for planning an immunisation programme. What the critics overlook is that child welfare centres do not create the demand but are set up in response to popular demand and exist for just so long as there is a demand. Thus in the smaller villages, where the number of children is never very large and tends to fluctuate, centres sometimes have a limited life. In some of the more rural areas, one clinic often serves two or more villages. Where there is not a convenient public service, transport is provided by the Authority. The frequency with which a clinic is held varies from twice a week in the towns to once a month in the smaller villages. A Health Visitor is present at each session and a doctor attends at regular intervals depending on the size of the centre. The running of the centres is facilitated by the splendid assistance given by voluntary workers.

There was sufficient demand to justify opening a centre in the village of Ickwell at the beginning of the year and the Club Room was rented for this purpose. In November a purpose-built centre was opened on the Brickhill Estate in Bedford. As no Centres were closed during the year there were 76 Centres in the County at the end of the year, compared with 48 in 1948. Of the 28 additional Centres, five were in Luton and three were in Bedford. In some instances, Centres moved to new and more suitable premises during this period. Details of the number of children who attended the Centres in 1963 and of the number of sessions held are given in Table XIV. The last column of the Table shows that during the year 381 children were referred elsewhere for advice or treatment as a result of a medical examination. These did not include children found to have a temperature or a cold or some other minor condition warranting a visit to the family doctor. Where specialist diagnosis or treatment was considered advisable the child was referred to the General Practitioner in the first instance.

In some villages it is inevitable that work is carried on in premises that are unsuitable or inadequate in some respect. In a village, where a centre is held on only one or two half-days a month, premises have to be rented and usually these are either village or church halls. However suitable they may be for the purpose for which they were designed, not many of them provide conditions which facilitate the work of health education. Where conditions justify it, new accommodation is being provided by the Authority in association



THE MEDICAL CENTRE, UNION STREET, BEDFORD.



A WET DAY AT THE VILLAGE CLINIC.



FOOD FOR SALE IN A CHURCH HALL.



THE CLINIC, BASSETT ROAD, LEIGHTON BUZZARD.

TABLE XIV—ATTENDANCES AND SESSIONS AT CHILD WELFARE CENTRES,
1963

Centre	Type of Premises	No. of children who attended during year born in			No of Sessions held by			No. of children referred elsewhere
		1963	1962	1958-61	Medical Officers	Health Visitors	Others	
Amphill	R	71	84	97	24	25	—	1
Arlesey	R	76	47	49	25	25	—	—
Aspley Guise ..	R	22	18	24	25	—	—	—
Barnton	R	110	107	117	66	3	—	—
Barford— Barford Avenue..	P	149	133	108	26	49	25	7
Brickhill* .. .	P	93	51	33	—	7	9	—
Goldington .. .	R	47	53	49	13	22	15	7
Harewood Road ..	R	86	54	47	11	27	13	4
Putnoe	P	222	199	154	—	51	50	22
Queen's Park ..	R	86	84	61	—	25	24	—
Union Street .. .	P	442	274	130	28	13	63	6
Wiggleswade .. .	A	128	108	89	40	12	—	—
Wottonham .. .	R	8	16	12	12	—	—	—
Wottonham .. .	R	56	60	70	24	25	—	—
Wottonham .. .	R	80	87	63	21	28	—	—
Wottonham .. .	R	44	49	49	13	14	—	—
Wottonham .. .	R	88	77	71	25	25	—	—
Wottonham .. .	R	22	21	18	7	7	—	—
Wottonham .. .	R	30	29	47	13	14	—	1
Wottonham College ..	R	12	23	20	—	13	—	—
Wottonham .. .	P	464	370	440	92	64	—	—
Wottonham Bray ..	R	37	28	58	11	14	—	4
Wottonham Socon ..	R	61	51	61	25	26	—	—
Wottonham .. .	R	118	104	100	25	26	—	—
Wottonham .. .	R	29	10	8	12	13	—	—
Wottonham .. .	R	19	21	49	10	4	—	—
Wottonham .. .	R	12	11	32	12	13	—	—
Wottonham and Reach ..	R	33	14	34	12	13	—	3
Wottonham, R.A.F. ..	R	93	80	37	—	25	—	—
Wottonham Village ..	R	35	38	29	13	13	—	—
Wottonham Conquest ..	R	17	14	20	12	12	—	—
Wottonham Regis .. .	R	292	239	218	76	26	—	14
Wottonham .. .	R	13	14	12	12	13	—	—
Wottonham .. .	R	130	125	91	76	26	—	—
Wottonham .. .	R	20	21	23	11	13	—	—
Wottonham .. .	R	31	29	13	13	13	—	—
Wottonham Buzzard ..	P	284	269	109	60	62	—	28
Wottonham .. .	R	13	8	40	12	13	—	—
Wottonham— Beechwood .. .	P	300	170	143	47	51	—	44
Wottonham .. .	R	156	159	90	24	27	—	7
Wottonham Dallow Road ..	P	390	186	156	45	54	—	61
Wottonham Farley Hill ..	R	108	72	85	24	26	—	6
<i>Carried forward</i>		4,527	3,607	3,156	997	932	199	215

Centre	Type of Premises	No. of children who attended during year born in			No. of Sessions held by			No. of children referred elsewhere
		1963	1962	1958-61	Medical Officers	Health Visitors	Others	
<i>Brought forward</i>		4,527	3,607	3,156	997	932	199	215
<i>Luton continued</i>								
Gooseberry Hill	P	292	64	46	12	94	—	14
Leagrave, High Street ..	P	334	171	262	14	88	—	30
Leagrave, Marsh Road ..	R	135	65	57	36	16	—	22
Limbury ..	R	208	136	136	23	73	—	11
Park Street ..	R	96	76	44	12	38	—	15
Round Green ..	R	190	105	31	23	28	—	16
St. Anne's ..	R	104	87	37	25	24	—	8
Stopsley ..	A	285	46	29	52	54	—	25
Vauxhall Park ..	R	90	15	3	10	40	—	—
Marston Moretaine	R	13	17	33	13	13	—	—
Marston Shelton ..	R	11	10	21	12	13	—	—
Maulden ..	R	35	25	30	12	13	—	—
Potton ..	R	42	31	34	26	—	—	—
Ridgmont ..	R	6	9	27	12	13	—	—
Riseley ..	R	15	14	27	6	6	—	—
Sandy ..	R	48	30	31	13	13	—	—
Sharnbrook ..	R	35	37	52	12	12	—	—
Shefford ..	R	78	75	89	25	26	—	—
Shillington ..	R	28	35	48	13	12	—	—
Slip End ..	R	37	43	31	24	2	—	—
Stevington ..	R	8	15	7	13	—	—	—
Stewartby ..	R	19	17	30	12	12	—	—
Stotfold ..	R	82	67	36	24	25	—	—
Studham ..	R	19	12	47	12	13	—	—
Sundon Park ..	R	217	175	98	44	58	—	10
Tempsford ..	R	9	15	14	13	—	—	—
Thurleigh ..	R	32	32	43	14	—	—	—
Toddington ..	R	78	95	67	48	—	—	10
Turvey ..	R	8	5	15	13	—	—	—
Westoning ..	R	18	20	20	13	13	—	—
Wilstead ..	R	46	9	8	12	—	—	—
Woburn ..	R	25	20	28	13	13	—	—
Wootton ..	R	38	43	36	13	13	—	—
Wymington ..	R	14	12	24	13	—	—	—
TOTALS ..		7,222	5,235	4,697	1,629	1,657	199	38

NOTE: Type of premises P—purpose-built.
A—adapted.
R—occupied on sessional basis.

† Opened January, 1963.

* Opened November, 1963.

with another service. Reference to Table XIV shows that of the 76 Centres, ten were held in premises built for the purpose, two were in adapted premises and the remaining 64 were in premises occupied on a sessional basis.

Children " At Risk "

It is now realised that some children are more likely to be born with, or to develop, disabilities than others. By picking these out and paying particular attention to them, the disability may be arrested or even prevented from developing. And where this cannot be done, early recognition will enable suitable treatment and education to be instituted as early as possible.

The following is a list of factors which place a child at risk :—

Ante-natal

1. Virus infection (esp. Rubella) during the first three months of pregnancy.
2. Hyperemesis.
3. Toxaemia of pregnancy such as to necessitate induction of labour.
4. Severe illness necessitating chemotherapy or major surgery (esp. under gen. anaesthesia).
5. Threatened abortion.
6. Use of abortifacients.
7. Glycosuria.
8. Diabetes.

Labour

9. Prematurity.
10. Postmaturity.
11. Abnormal labour.

Peri-natal

12. Anoxia.
13. Neonatal Jaundice (Rh. incompatibility).
14. Undue lethargy, convulsions, or any signs of possible cerebral damage.
15. Other severe illness or accident.
16. Congenital abnormality.

Infancy

17. Severe illness (e.g. meningitis, encephalitis, or where Streptomycin has been used for any illness).
18. Mother's suspicion that child is deaf.
19. Speech : (a) Delayed at two years or any speech defects from 2-5 years.
(b) Inattention to sound.
20. Otitis Media or chronic upper respiratory tract infection up to 5 years.
21. Family history of deafness.

Careful consideration was given to the problem locally during 1963 and a scheme was devised so that whenever one of the factors 1-16 is present it is indicated on the birth notification card. The other factors are recorded whenever they come to light.

Deafness in Children

One of the disabilities is defective hearing and in recent years it has come to be recognised that this is more common in children than had been supposed and is the cause of much educational retardation. It has been found that very few children are totally deaf at birth and that most deaf children have the ability to hear some sound. This "residual" hearing will only be used if special training is given. Assisted in suitable cases by a hearing aid, many such children can be successfully taught to speak, but auditory training to be effective must be given continually during the first three or four years of life. Thus early diagnosis is of the utmost importance.

For this reason the Health Visitors have been trained to apply a routine hearing test to infants. The intention is to apply a routine hearing test to infants when they reach the age of approximately seven months. This scheme will enable proper educational provision to be made without undue delay.

Welfare Foods

To safeguard the nutrition of expectant mothers and young children during the war, a Welfare Foods Scheme was developed. This proved to be so successful that it was continued after the war and when the local offices of the Ministry of Food were closed in 1954, the local distribution of welfare foods was transferred to Local Health Authorities.

Today, the term "Welfare Foods" embraces national dried milk, orange juice, cod liver oil and vitamin A and D tablets which are supplied to expectant and nursing mothers, children up to the age of five years, and handicapped children.

Milk tokens which are supplied through the Ministry of Pensions and National Insurance can be used to obtain liquid milk at 4d. a pint or national dried milk at 2s. 4d. a tin. Where necessary additional supplies of dried milk can be obtained for children under one year of age.

Concentrated orange juice, which costs 1s. 6d. a bottle and is only obtainable through the Welfare Foods Service, has a very high content of vitamin C, one bottle being equivalent to nine good oranges, and it is particularly recommended for expectant mothers and children under two years of age as their diet may not provide enough vitamin C. It is also recommended for handicapped children where there may be feeding difficulties.

Cod liver oil contains vitamin A which is essential for health and vitamin D which is required for sound bone formation and the normal development of teeth. Young children often need more vitamin D than is obtained from ordinary food and mothers are recommended to begin giving their babies cod liver oil at the age of one month. Under the Welfare Foods Scheme cod liver oil costs 1s. 0d. a bottle.

During pregnancy an expectant mother needs extra amounts of vitamins A and D to maintain her own health and to help build the baby's bones and teeth. Tablets are supplied for this purpose at 6d. a packet. It is advisable for the mother to continue taking them for some months after the baby is born.

In the Annual Report for 1961 attention was drawn to the fact that there had been a drastic reduction in the demand for orange juice, cod liver oil and Vitamins A and D. Since then, the position has improved remarkably, particularly with regard to orange juice. An investigation carried out by Dr. L. G. Nicol, then an Assistant County Medical Officer, revealed some interesting information which is contained in an appendix to this Report.

There were, at the end of the year, 108 distribution centres in the County, 67 of them being Child Welfare Centres. Included in the others are village shops and private houses. The efficient distribution of Welfare Foods, particularly in the rural areas, is not easy. Nevertheless, it has been achieved and this is due to the activities of the voluntary workers who man the majority of the distribution centres, and the constant attention of the Welfare Foods Officer.

Dental Care

Under the National Health Service Act, 1946, priority in dental treatment is given to expectant and nursing mothers, and children. This treatment is provided free of charge. In Bedfordshire, the Local Health Authority provide facilities for the dental care of these classes in conjunction with the School Dental Service. Details of the work done during the year are given in Tables XV and XVI.

The following report is the last to be submitted by Mr. R. B. T. Dinsdale, Senior Dental Officer, who retired at the end of the year :—

“ Treatment is still available at all static clinics within the County for expectant and nursing mothers as well as pre-school children. General anaesthetics are now given at these clinics by doctors who hold specialist qualifications or have anaesthetic experience. During the year treatment by the Dental Auxiliaries of pre-school children has been introduced. These girls are specially trained for this work and during the first experimental year have proved a great asset to the Service. The amount of work actually done is no indication of the usefulness of these girls as they spend quite a time introducing

TABLE XV—EXPECTANT AND NURSING MOTHERS AND CHILDREN UNDER FIVE PROVIDED WITH DENTAL CARE AT DENTAL CLINICS DURING 1963

	Examined	Needing Treatment	Treatment commenced during year	Courses of Treatment complete during year
BEDFORD—				
Expectant and nursing mothers ...	1	1	1	1
Children under 5	27	24	15	17
BIGGLESWADE—				
Expectant and nursing mothers ...	—	—	—	—
Children under 5	19	17	17	15
DUNSTABLE—				
Expectant and nursing mothers ...	22	22	21	14
Children under 5	94	92	94	62
LEIGHTON BUZZARD—				
Expectant and nursing mothers ...	21	21	21	17
Children under 5	98	95	93	70
LUTON—				
Expectant and nursing mothers ...	11	9	9	9
Children under 5	190	136	135	133
TOTALS—				
Expectant and nursing mothers ...	55	53	52	41
Children under 5	428	364	354	297

dental treatment to the young child. The Dental Auxiliaries have also visited the Mothercraft Classes and Child Welfare Centres to give instruction in the care of the teeth and have been well received.

“During the year, more dental staff has been recruited, and the County Service should increase in proportion. Mr. Burman joined the staff during 1963 and Mr. Palmer will be joining early in 1964. It is with regret that the death of our loyal and conscientious colleague, Mr. Gardner, has to be reported.

“I would like to thank the Committee, colleagues and staff for all their support given to me during my 34 years' service.”

TABLE XVI—FORMS OF DENTAL TREATMENT PROVIDED AT DENTAL CLINICS DURING 1963

	Extractions (teeth)	General Anaesthetics	Fillings	Sealings and gum treatment	Silver nitrate treatment	Crowns or Inlays provided	Radio- graphs	Dentures provided	
								Full upper or lower	Partial upper or lower
DORFORD—									
Expectant and nursing mothers	—	—	—	1	—	—	—	—	—
Children under 5 ..	11	5	21	4	2	—	—	—	—
DORSETSWADE—									
Expectant and nursing mothers	—	—	—	—	—	—	—	—	—
Children under 5 ..	2	1	41	—	4	—	—	—	—
DORSETTABLE—									
Expectant and nursing mothers	62	20	99	17	—	—	9	4	9
Children under 5 ..	131	51	97	13	11	—	—	—	—
DORSETTON BUZZARD—									
Expectant and nursing mothers	27	10	7	31	—	—	3	—	2
Children under 5 ..	84	34	95	69	17	—	—	—	—
DORSETTON—									
Expectant and nursing mothers	4	1	9	6	—	—	1	2	1
Children under 5 ..	251	113	40	1	13	—	—	—	—
DORSETTALS—									
Expectant and nursing mothers	93	31	115	55	—	—	13	6	12
Children under 5 ..	479	204	294	87	47	—	—	—	—

Day Nurseries

Day Nurseries were of paramount importance during the war in making it possible for mothers to go out to work. However, in normal circumstances it is accepted that the child's needs should come first and that, generally speaking, the best place for the young child is at home, preferably with his mother. However, there are occasions when it is in his interest that daily care of some other kind should be provided for him. It may be that there are relatives able and willing to care for him but sometimes it is desirable for facilities to be made available by the Local Health Authority, either by way of day nurseries or daily minders.

In 1948, there were six nurseries providing accommodation for 332 children, three being in Luton and one in each of the towns Bedford, Dunstable and Leighton Buzzard. Declining demand led to the closure of the Dunstable Nursery in 1952 and the Leighton Buzzard Nursery in 1958. Moreover, the accommodation has been reduced at the Bedford Nursery, and at Manor Road and Alder Crescent Nurseries in Luton. By the end of 1963 the number of approved places was 180 and the average daily attendance was 114. The Bedford Nursery is in requisitioned premises and the unsuitability of the building has long given concern. A new building has been contemplated for many years but for a number of reasons it has not yet been built. The conditions for admission to the Nurseries are strictly enforced and, in the main, a child is only admitted if the mother is obliged to work or there is no mother and the father is endeavouring to keep the family together.

The Nurseries and Child-Minders Regulation Act, 1948, requires the Local Health Authority to register premises, other than premises wholly or mainly used as private dwellings, where children are received to be looked after for the day or a substantial part thereof or for any longer period not exceeding six days. Also, the persons who for reward receive into their homes more than two children under the age of five years to be similarly looked after must be registered. At the end of the year four nurseries, providing for 101 children, and 38 daily minders were so registered.

Daily Minders

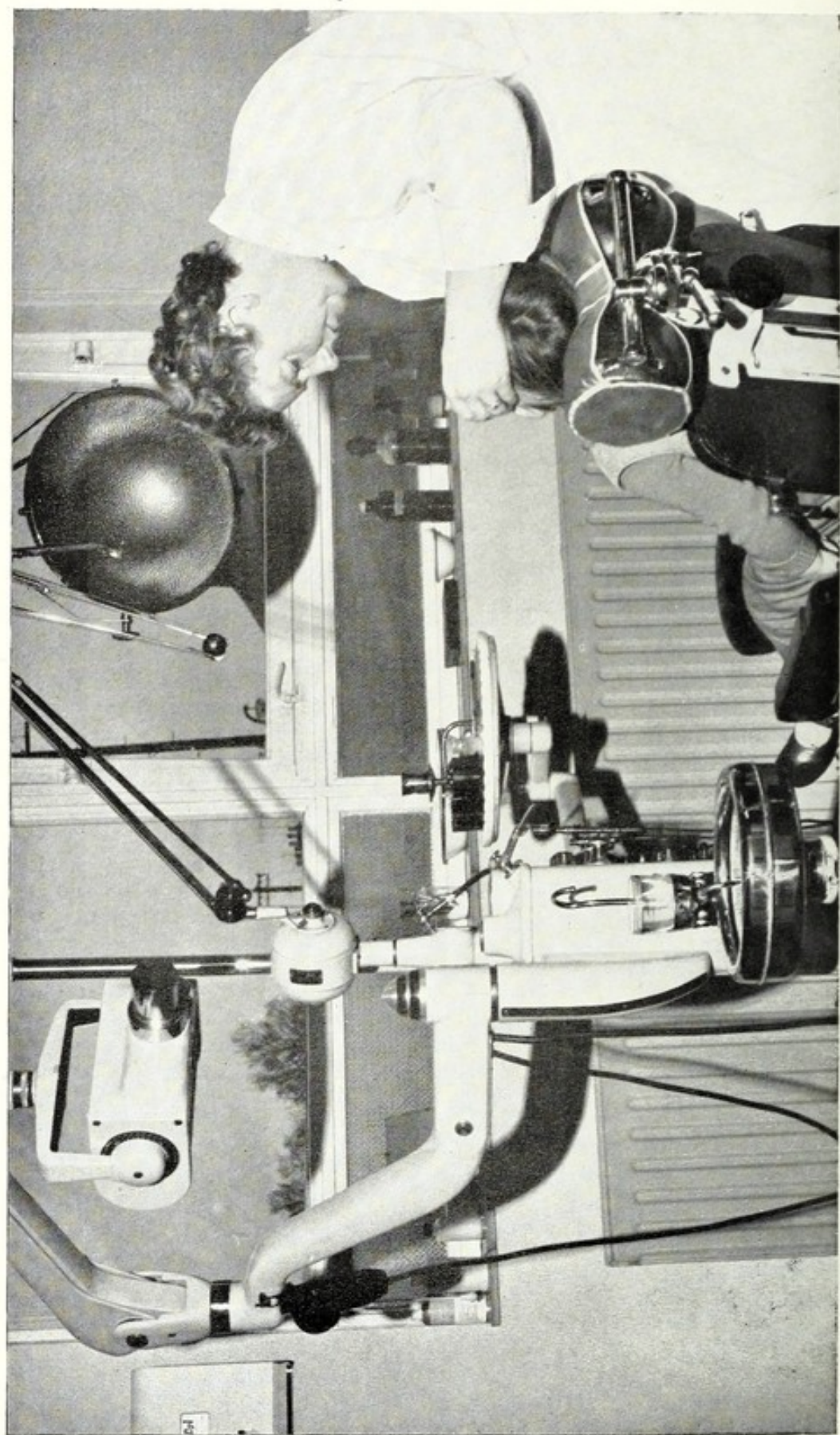
To deal with children not living within easy access of a Day Nursery and who require to be cared for during the day, the County Council have a Daily Minders' Scheme. Under this Scheme a register is maintained of persons approved by the Council as suitable to receive children by day. For each day that a minder has a child she receives 4s. 6d. from the Authority and 1s. 6d. from the parent. The main difference between persons registered under this Scheme and under the Nurseries and Child Minders Regulation Act, 1948, previously mentioned is that a child minder for the purposes of the Act is a person caring for three or more children. A child minder under the Authority's scheme must be registered even though she takes only one child. In addition the scheme allows the Authority to be selective



A SCENE IN THE PUTNOE CLINIC, BEDFORD.



ONCE A MONTH IN THE CHURCH HALL.



"SMILE PLEASE"—LEIGHTON BUZZARD DENTAL CLINIC.

and to choose those persons considered to be best fitted for the task, whereas persons applying to be registered under the Act must be registered provided they fulfil the requirements.

So far the Scheme has only operated in the Southern Division where, at the end of the year, there were 10 daily minders caring for 12 children. Close supervision is maintained by the Health Visitors.

Children in Care

The provision of residential homes and nurseries for children is a responsibility of the Care of Children Committee, the services of the Health Department's medical staff being utilised as and when required. Regular visits are paid to the homes to ensure that everything is in order from a health point of view.

The Health Department also arranges for children who are boarded out to be medically examined in accordance with Home Office Regulations. The usual practice is for the examinations to be carried out by the general practitioner who attends the household.

Birth Control

It has for long been recognised that there are many cases where pregnancy or further pregnancy would be detrimental to a woman's health. To assist such women the Authority provide clinics where expert advice on birth control may be obtained. Two clinics, one in Dunstable and the other in Luton, were in existence at the end of 1948. With the opening of a fourth clinic in Luton in 1963 there were six at the end of the year. Details of the attendances at each clinic are given in Table XVII.

TABLE XVII—ATTENDANCES AT BIRTH CONTROL CLINICS, 1963

	Number of women who attended for the first time	Total number of women who attended	Total number of attendances	No. of sessions
Bedford, Barford Avenue	47	177	334	24
Dunstable, Kingsway ...	6	188	204	24
Luton—				
Beechwood Road ...	209	693	800	47
Gooseberry Hill ...	59	152	178	12
Leagrave High Street	3	3	17	2
Stopsley ...	75	319	376	24
TOTALS ...	399	1,532	1,909	133

It may be added that the Family Planning Association operates a number of clinics in Bedfordshire. The scope of their activities is wider than that of this Authority.

MIDWIVES SERVICE

Prior to the 5th July, 1948, a domiciliary midwifery service was provided by the Boroughs of Bedford and Luton who employed four and eight midwives respectively, and by voluntary associations who, supported financially by the County Council, employed in all eight midwives and 42 nurse-midwives. On the appointed day, the Local Health Authority assumed responsibility and a County Nursing Officer was appointed.

At the end of 1963, whole-time midwives were employed in Bedford, Dunstable and Luton Boroughs, Kempston and Sundon Park, while in the remainder of the County nurse-midwives combined midwifery with home nursing. Altogether, there were 33 whole-time and three part-time midwives and 38 nurse-midwives (four being part-time). In addition, there were three health visitor-nurse-midwives undertaking midwifery as part of their comprehensive duties in rural areas. There were two non-medical supervisors of midwives, Mrs. Furse for Luton and Miss Frost, Superintendent Nursing Officer, for the remainder of the County including Bedford.

Of the midwives employed by the Authority, 25 are approved as training midwives by the Central Midwives Board and take pupils for the three months' district training that they are required to do for Part II of their course. During the year 79 pupil midwives completed their district training. A further 15 were in training at the end of the year.

Nationally there is an acute shortage of midwives, both for hospital and domiciliary work, and Bedfordshire has not been without its problems. It has been necessary to appoint more relief Nurses and Midwives to cope with sick leave, post-graduate courses and annual leave. The provision of accommodation at a reasonable rent is essential to attract staff, particularly young midwives whose financial resources are very limited. A further incentive that has proved helpful is the partial furnishing of the accommodation.

Most expectant mothers are normally seen at least twice by a doctor during the ante-natal period. In Luton and Leighton Buzzard the domiciliary midwives have regular ante-natal sessions at the clinics. In the remainder of the County ante-natal supervision is undertaken either in the patients' homes or at joint ante-natal clinics held in the doctors' surgeries. Maternity outfits are supplied free to all domiciliary patients. As already mentioned, the number of relaxation and mothercraft classes has increased and all the midwives have been trained to teach relaxation.

The number of domiciliary confinements attended by the Authority's midwives during 1963 was 3,954 compared with 4,028 in 1962 and in all but 62 cases, a doctor had been booked to provide maternity medical services. The proportion of all notified Bedfordshire births (live and still) that took place at home was 44.0 per cent compared with 44.7 per cent in the preceding year. Some idea of the

expansion that has had to take place in the Service during the past fifteen years can be obtained from the fact that the total number of domiciliary births in the County in 1948 was 2,091.

Under the National Health Service Act, local health authorities are required to provide an adequate service of midwives to attend all women in their respective areas during the lying-in period. The minimum lying-in period is ten days and the maximum 28 days. In recent years, particularly in the south of the County, there has been a substantial increase in the number of cases delivered in hospital and discharged before the expiry of the minimum lying-in period. They then come under the care of the domiciliary midwives. In 1963 there were 1,272 women discharged before the tenth day, compared with 978 in 1962 and 698 in 1961. Before a woman can be discharged early, it is necessary to ensure that the home conditions are suitable. Thus there has been a considerable increase in the time spent on home assessment by the midwives for this purpose and for the cases they will themselves deliver.

During 1963, 13 midwives attended refresher courses organised by the Royal College of Midwives.

Analgesia in Childbirth

All the midwives employed by the Authority are qualified to administer both Trilene and gas and air. In addition, they all carry pethidine. Many women have pethidine as well as inhalational analgesia; in other cases that is the only relief that is required. In cases where a doctor attends the confinement he often administers some form of analgesic himself. During 1963, Trilene, which was already being used extensively in Luton M.B. began to be used in the County area. It is hoped to have each midwife equipped with it before May, 1965. The following statement shows what was done by domiciliary midwives in 1963. The total represents 90.1 per cent of the confinements attended.

Gas and Air only	...	...	...	599
Trilene only	...	...	...	467
Pethidine only	...	...	...	269
Gas and Air and Trilene	...	...	...	5
Gas and Air and Pethidine	...	...	...	1,504
Trilene and Pethidine	...	...	...	693
Gas and Air, Trilene and Pethidine	...	...	...	26
				3,563

HOME NURSING

For many years a home nursing service was provided by voluntary associations. The National Health Service Act made it the duty of the County Council to provide such a service, adequate in all respects,

for the whole of the County. Accordingly, on the 5th July, 1948, the County Council assumed responsibility for the service, filling in gaps where necessary and providing additional equipment.

The nurses deal with any emergency to which they may be called but the general practice is for them to place on their lists only patients referred to them by the general medical practitioners under whose direction they work. The existence and availability of the Local Health Authority's home health services are known to the hospitals and the general practitioners and the services are called upon as required for any purpose. Patients on discharge from hospital are referred to their own doctors, from whom the nurses take instructions. Occasionally, however, it is necessary for reference to be made both to doctor and to nurse. Message forms are left at the patient's home to facilitate interchange of information between doctor and nurse. No all-night service is provided, but the nurses are available for night calls if required urgently.

The establishment is reviewed from time to time in order to ensure that it is adequate to meet the requests made. There is no difficulty about accepting patients on discharge from hospital, doing dressings for them and giving them injections when necessary.

In the case of children, the same system is in operation although it is a matter of experience that not so many children as formerly are now admitted to hospital. That may account for the fact that not many are referred to the domiciliary services. There is no difficulty in dealing with those who are referred, e.g. for dressings or teaching a patient to give an insulin injection.

Home nursing is more and more concerned with the care of the aged. Thus of the 5,680 patients attended in 1963, 2,650 or 46.7 per cent were 65 years of age or over. Only 160 children under 5 required home nursing.

As stated in the paragraphs dealing with the Midwives Service, in most of the County area nurse-midwives combine home nursing with midwifery. At the 31st December, 1963, there were, in addition to the 38 nurse-midwives (four part-time) and three health visitor-nurse-midwives already mentioned, 41 full-time and two part-time nurses. Of the full-time nurses, nine were men.

In order to maintain the high standard of efficiency of the Service, nurses who are recruited may be sent away for district training if this has not already been undertaken. In many cases, housing is provided for nurses and the Authority are very grateful to the various District Councils who have made suitable houses available.

The Queen's Institute of District Nursing arranges refresher courses for district nurses and eight nurses attended such courses during 1963.

HEALTH VISITING

The duties laid on the Health Visitor by the introduction of the National Health Service have continued to grow. Her work is in the main still concerned with families where there are young children. However, the aged and specialist services require more and more of her time. There is a tendency for her work to become more selective and for a close association to develop with hospitals and with general practitioners and other professional workers in the domiciliary field. There has been very little progress in making arrangements for health visitors to work with particular general practitioners or groups of practitioners. In only one locality has a beginning been made. In the case of patients discharged from hospital, they are followed up whenever notification is received. Visits are also paid to persons who fail to keep out-patient appointments. These, in the main, are antenatal and post-natal patients. In most parts of the County the health visitors also serve as school nurses.

As in so many branches of the Health Service there is a shortage of staff. To help overcome this, the Authority have a scheme for recruiting suitable nurses and sending them for health visitor training on condition that they remain in the Council's service for at least one year after qualifying.

At the 31st December, 1963, there were three full-time health visitors, 40 full-time and one part-time health visitor-school nurses and three health visitors undertaking comprehensive duties, i.e. health visiting, school nursing, home nursing and midwifery. There were also five full-time tuberculosis visitors. There was a superintendent health visitor in Luton (Mrs. Langford) and another for the remainder of the County (Miss Martin).

During the year, 24,455 children under five years of age were seen in their homes and visits were paid to 435 persons aged 65 or over. There were 84 persons visited after discharge from hospital and visits were also paid to 49 mentally disordered persons. In addition to home visiting 3,485 attendances were made at Child Welfare Centres, nearly half of them without a doctor being present. As described in the relevant paragraphs, the health visitors co-operate with the midwives in the mothercraft classes and also attend the sessions of the birth control clinics.

Arrangements are made for attendance at refresher courses and nine health visitors were sent during the year.

DOMESTIC HELP SERVICE

In 1948, the Local Health Authority exercised their power of providing a Home Help Service. Due regard was paid to the experience of the Bedfordshire Women's Voluntary Services in this matter and the help received in the early years was a major factor in building up a successful service.

Home Helps are provided for households where assistance is needed because of illness, confinement, old age, etc. The amount of help given varies according to the needs of the individual assisted. Thus in some cases whole-time assistance is given, while in others one or two hours a day are all that is necessary. This service meets a great social need, and by enabling a great many people to remain in their own homes, reduces the pressure on hospital accommodation. A charge is made, this being based on the family income and liabilities.

New housing in some villages is causing an increased demand for home helps, particularly in maternity cases, but not always sufficiently to warrant the regular employment of home helps in these places. In general, it is possible to provide a service throughout the County but there are a few places where lack of public transport creates difficulties.

In some families, difficulties arise on account of the fecklessness of the mother. Such a mother needs instruction in housecraft, including the proper spending of whatever money is available, and a specially selected home help can do much in this direction.

At the end of the year, nine full-time and 322 part-time Home Helps were employed, under the supervision of three Organisers, one each for Luton M.B., the Southern Division, and Bedford and the North-Eastern Division combined. The number of cases where help was provided during the year was 2,571, of whom 1,684 were aged 65 or over. Of the remainder, 515 were maternity cases.

In addition to the Home Help Service, a Sitters-up Scheme was introduced in 1955 covering the whole County but demand has been negligible. Sitters-up may be defined as individuals who undertake to be present in the homes of other people during the night for the purpose of rendering assistance of a personal nature to individuals who through age or illness need such assistance and cannot otherwise secure it.

VACCINATION AND IMMUNISATION

Smallpox Vaccination

Vaccination against smallpox ceased to be compulsory on the 5th July, 1948. Instead, a programme of education and persuasion was embarked upon. Until 1962, the policy of vaccinating infants at about 3 months of age was continued but parents are now advised to have smallpox vaccination done during the second year of life. Although health education achieved results insofar as the proportion of infants reported to have been vaccinated, expressed as a percentage of babies born during the year, increased from 11.5 in 1949 to 42.3 in 1961, more than half still remained unprotected. An outbreak of smallpox in another part of the country early in 1962 was a much more potent incentive, although even then, the percentage only increased to 56.7.

All routine vaccination against smallpox under the Scheme is undertaken by general practitioners. Details of primary vaccinations are given in Table XVIII.

TABLE XVIII—NUMBER OF PERSONS VACCINATED FOR THE FIRST TIME DURING 1963, SUBDIVIDED ACCORDING TO AGE

	Age					Total
	0-	1-	2-4	5-14	15+	
North-Eastern Division	111	110	37	19	23	300
Southern Division ..	235	118	24	49	74	500
Bedford M.B.	96	64	26	11	14	211
Luton M.B.	574	153	59	54	95	935
TOTALS ..	1,016	445	146	133	206	1,946

Diphtheria Immunisation

Arrangements for immunisation against diphtheria were already in existence in 1948 and these were continued, with the general practitioners being given the opportunity of participating in the Scheme.

Diphtheria immunisation affords a high degree of protection against a very serious disease and during the twenty years that it has been in general use in this country the incidence of diphtheria has declined tremendously. So much so, in fact, that many young parents today know nothing of the disease and do not always appreciate the continued need for children to be protected. Every effort is made to stress the importance of immunisation and mothers are urged to take their babies either to the family doctor or the child welfare centre to be immunised when they are about four months old. The general practice now is to offer a triple antigen giving protection against diphtheria, whooping cough and tetanus.

After about five years the protection given against diphtheria falls below the completely safe level and needs to be reinforced by a "booster" injection. The practice has developed of giving these injections when the child enters school at the age of five, and again at the age of ten; i.e. in the last year at primary school. Nowadays, the reinforcing injections protect against tetanus also if required. It cannot be emphasised too strongly that parents who fail to ensure that their children are properly protected in this safe and painless way are not only endangering the lives of those children but may also endanger the lives of others.

Table XIX shows the number of children immunised during 1963. There was a welcome increase both in the number of primary immunisations and in the number of "booster" injections given. As a guide to the success or otherwise of local efforts, the Ministry have calculated that at the 31st December, 1963, the percentage of children born in 1962 and immunised at any time since birth was 74 for Bedfordshire compared with 65 for England and Wales.

TABLE XIX—NUMBER OF CHILDREN WHO RECEIVED A FULL COURSE OF PRIMARY DIPHTHERIA IMMUNISATION IN 1963 SUBDIVIDED ACCORDING TO YEAR OF BIRTH, TOGETHER WITH NUMBER OF CHILDREN WHO RECEIVED "BOOSTER" INJECTIONS

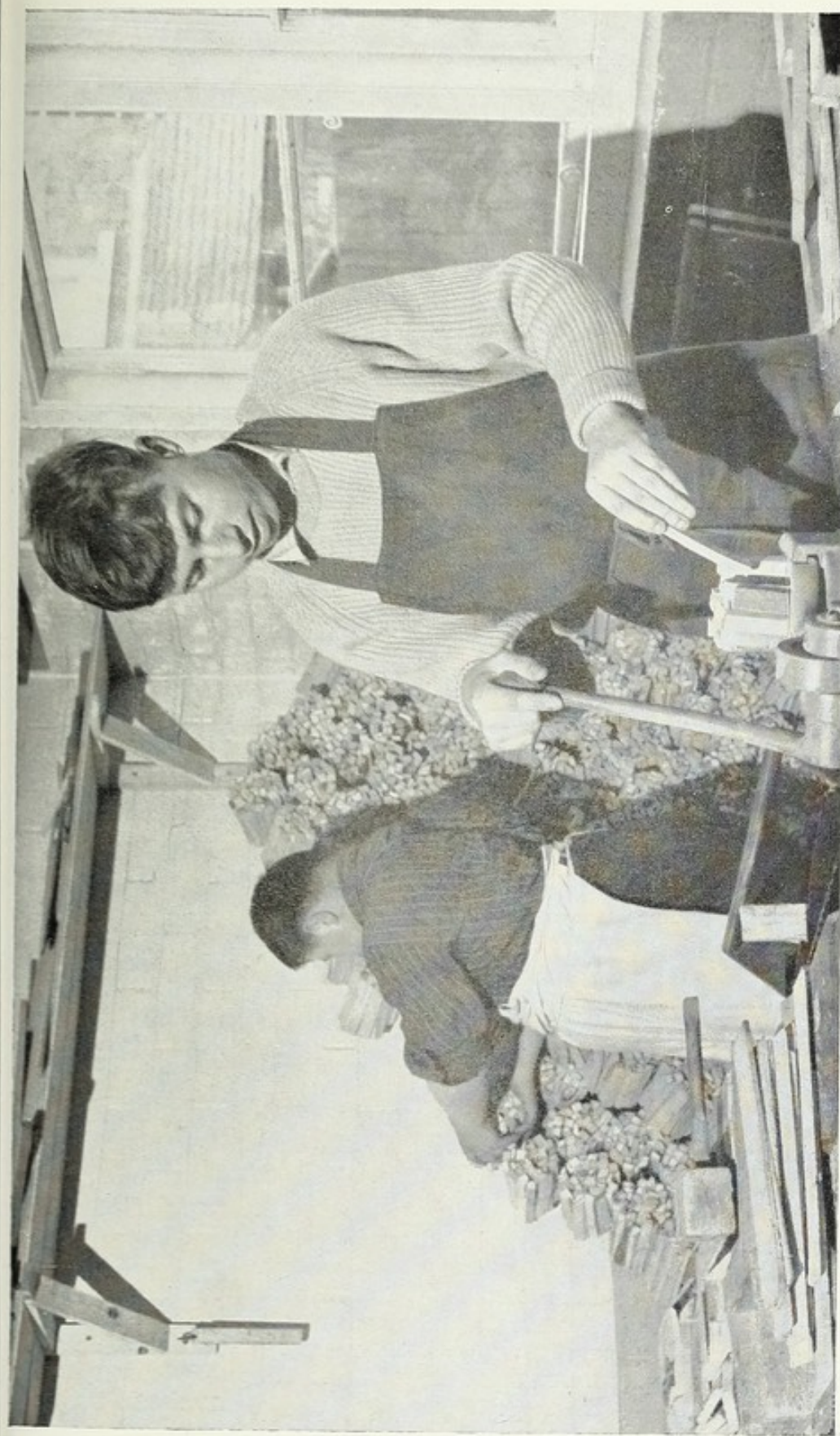
	Children born in years—							Total
	1963	1962	1961	1960	1959	1954-58	1949-53	
Primary Immunisation	2,517	4,130	505	162	109	625	156	8,204
"Booster" Injections	2	13	34	20	116	5,503	4,241	9,929

Protection Against Whooping Cough

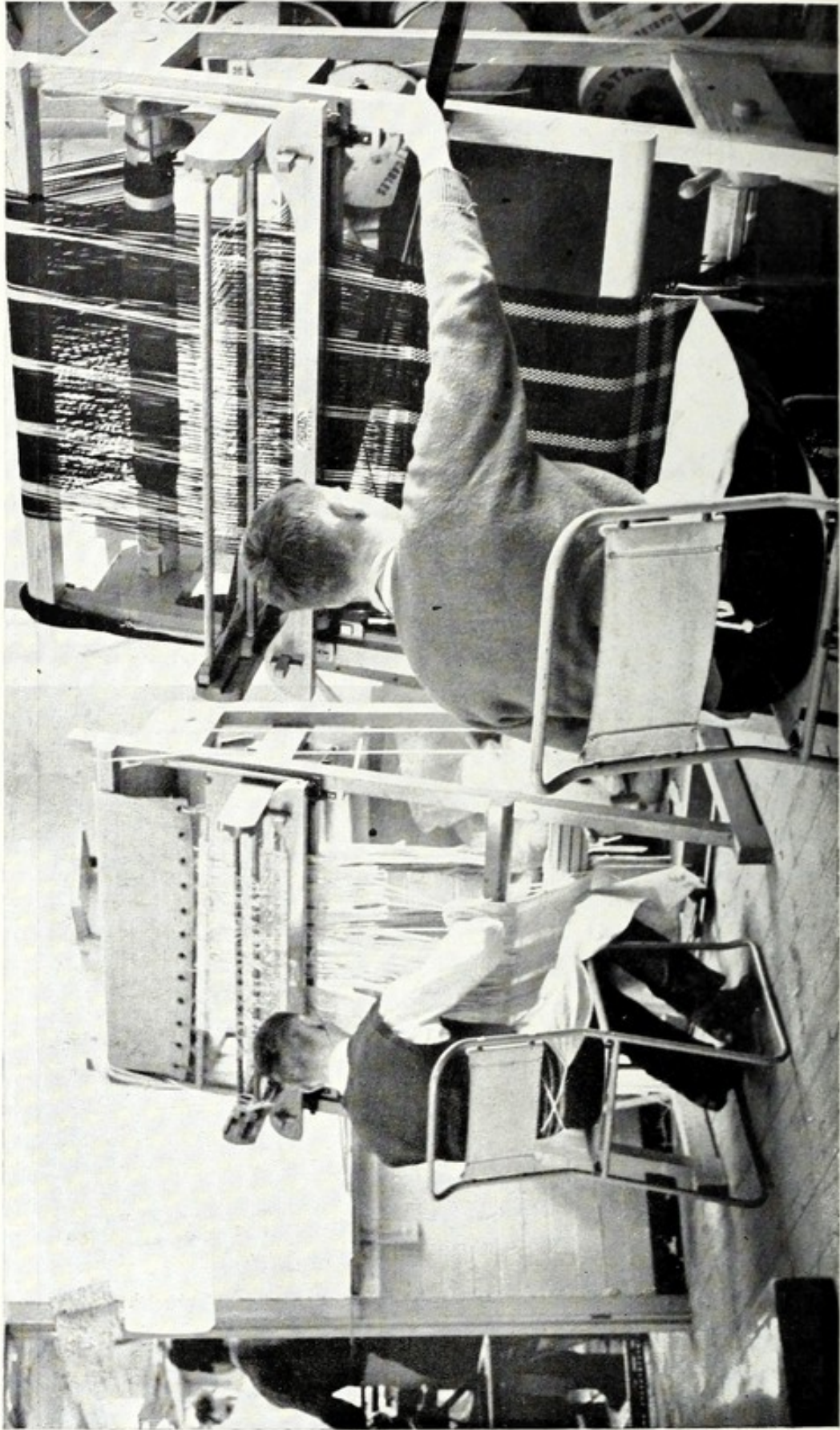
Since the 1st November, 1954, the Authority have provided facilities for protection against whooping cough, primarily for children under the age of two years. The vaccine may be given alone but in most cases has been given either combined with diphtheria prophylactic or, more recently, in the form of a triple antigen which protects against tetanus also. Table XX gives the number of children who completed a primary course of whooping cough vaccine, singly or in combination during the year.

TABLE XX—NUMBER OF CHILDREN PROTECTED AGAINST WHOOPING COUGH IN 1963, DIVIDED ACCORDING TO YEAR OF BIRTH

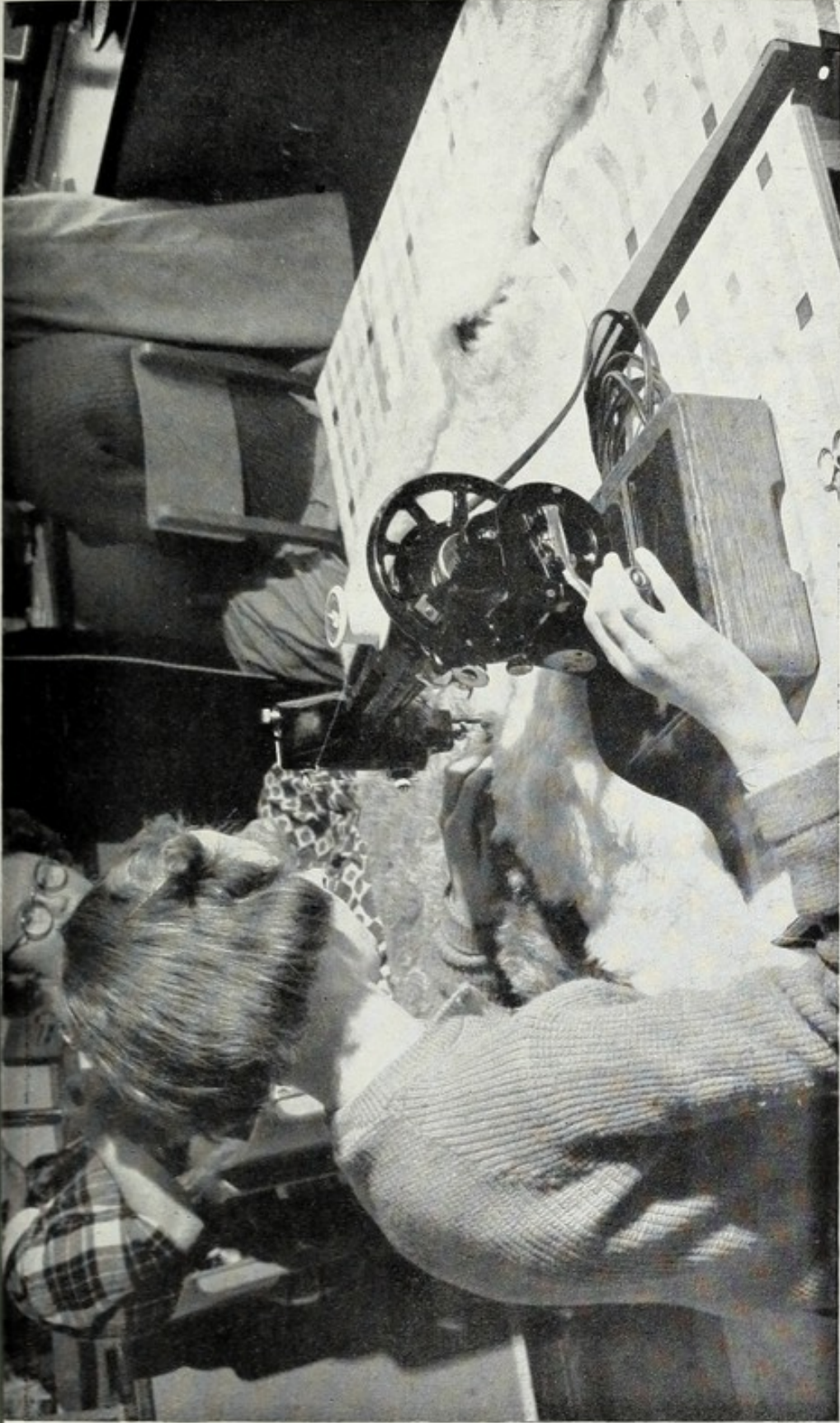
Year of Birth	No. of Children
1963	2,476
1962	4,072
1961	485
1960	147
1959	97
1954-58	142
1949-53	15
Total	7,434



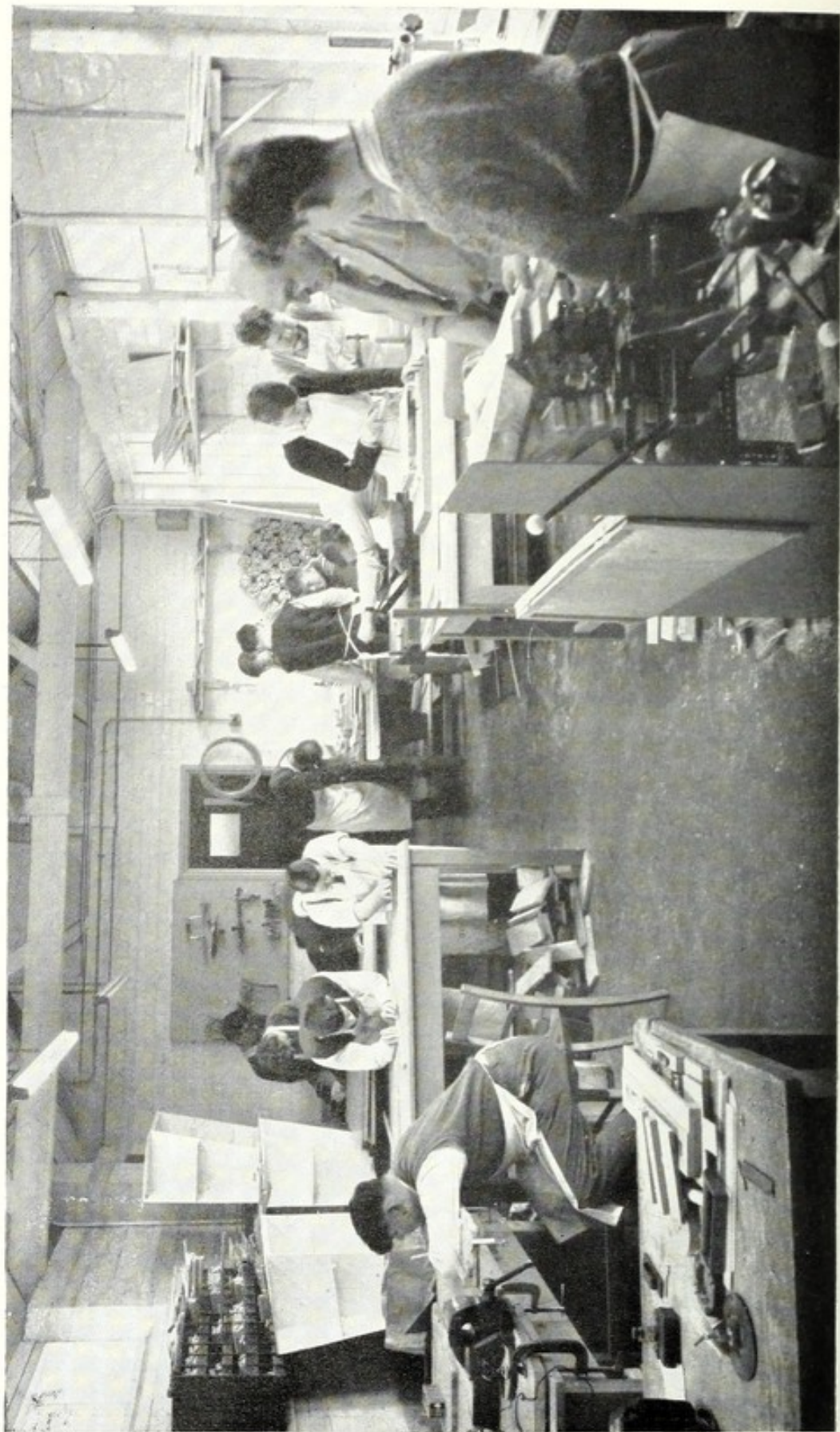
MEANINGFUL OCCUPATION IN THE MEN'S TRAINING WORKSHOP, KIRBY ROAD, DUNSTABLE.



WEAVERS AT WORK AT THE KIRBY ROAD WORKSHOP.



ACQUIRING SKILL AT THE MIXED TRAINING CENTRE, RIDGEWAY AVENUE, DUNSTABLE.



Of the 161 cases of whooping cough notified in 1963, the surprisingly large number of 31 were known to have had a complete course of protection. Of these, three were under one year of age. Of the others, nine had been protected four or more years before and a further six had had their injections three years previously. It is recognised that whooping cough vaccination does not offer as good a protection as can be obtained against some other diseases but the declining incidence of Whooping Cough in Bedfordshire in recent years suggests very strongly that this vaccination has had an effect.

Tetanus

In 1961 it was decided, with the approval of the Ministry of Health, to go a stage further and to add tetanus to those diseases against which immunisation is undertaken under Section 26 of the National Health Service Act, 1946. This is offered in conjunction with diphtheria and whooping cough and most parents are now having their babies immunised with the triple antigen. For "booster" injections, a double antigen of diphtheria and tetanus is being used.

Poliomyelitis Vaccination

One of the most dramatic stories of the past fifteen years concerns the fight against poliomyelitis. Starting in 1941, several severe epidemics occurred in the countries of the Western hemisphere, this country being badly hit in 1947 when 7,646 cases were confirmed. In the next ten years, 42,868 cases occurred. In Bedfordshire, 94 cases occurred in 1947 compared with a total of 90 notified during the preceding 28 years.

The United States of America had been affected by the disease and it was there that Dr. J. E. Salk and his associates developed an inactivated poliomyelitis vaccine which was found to be safe and effective in a carefully controlled large-scale field trial carried out in 1954. A similar vaccine was subsequently developed in this country and a supply was offered to local health authorities by the Ministry of Health in 1956. The County Council decided to avail themselves of the offer and the scheme under Section 26 of the National Health Service Act was amended accordingly. As production of the British vaccine was relatively small it was available initially only for selected children between the age of two and nine years but with the importation of vaccine from Canada and the U.S.A., it soon became possible to give these children a second injection and then to offer vaccination to all children under nine. By the end of 1957 the scheme had been extended to cover all children up to the age of 15, expectant mothers and certain other groups who were regarded as being at special risk. Moreover, sufficient vaccine was available to give three injections. The next step was to extend the age limit to 25 in 1958. In February, 1960 the age limit was raised once again, this time to 40, and certain other persons beyond that age were brought into the scheme. Finally in November, 1960 the Minister of Health announced that while the

arrangements of local health authorities for the vaccination of persons up to 40 years of age would continue unchanged, any person beyond that age would in future be able to apply to his own doctor for vaccination, the vaccine being obtained through the pharmaceutical service of the Executive Council.

In April, 1961, the Minister of Health decided that, in view of the markedly greater risk of infection to which children at school are exposed, a fourth reinforcing dose should be offered to children when they enter school. In addition, children of five and over but who had not attained the age of twelve years were offered a fourth dose.

At the same time, the Minister announced that a stock of oral vaccine was available for emergency use in the control of serious outbreaks of poliomyelitis. In 1962, this oral vaccine ("Sabin" vaccine, named after the American doctor who developed it) was introduced for general use. It is administered either on a lump of sugar or in syrup and has almost entirely ousted Salk vaccine. Primary vaccine now consists of two injections of Salk vaccine or three doses of oral vaccine. The number of primary vaccinations carried out in 1963 is given in Table XXI.

The effectiveness of the protection conferred by poliomyelitis vaccination can be gauged from the decline in the incidence of the disease. In Bedfordshire, in the eleven years 1948-1958, there were 261 confirmed cases and 26 deaths. From 1959 to 1963 inclusive, there were 16 cases and one death. Fourteen of the cases were in unvaccinated persons.

TABLE XXI—NUMBER OF PRIMARY VACCINATIONS AGAINST POLIO-MYELITIS COMPLETED IN 1963 IN VARIOUS AGE-GROUPS

Type of Vaccine	Year of Birth					
	1963	1962	1961	1943-60	1933-42	Before 19
Salk ...	42	23	6	7	2	1
Oral ...	591	1,098	249	495	90	111
Totals	633	1,121	255	502	92	112

Vaccination Against Tuberculosis

Although B.C.G. vaccination is provided under Section 28 of the National Health Service Act, 1946 (Prevention of Illness) and not Section 26 (Vaccination and Immunisation), it seems appropriate to deal with the various protective processes under one heading. When it was first introduced in 1950, it was limited to suitable contacts of tuberculous persons but in 1957 a scheme came into operation for

vaccinating children at 13 years of age so that they would have protection before starting work. In 1959 this scheme was further extended to children of 14 years and over who are still at school and also to students attending universities, technical colleges and other establishments of further education.

Contact with the disease often stimulates the body's defensive mechanism and a skin test is available to determine if this has happened. Anyone giving a positive result does not require vaccination but must be referred for further investigation.

Altogether 1,777 contacts were skin tested during the year and 870 were found to be positive. Of those that were negative 417 were vaccinated.

The number of schoolchildren who were skin tested was 3,699. All but 22 of the 3,326 who were negative were vaccinated. Of the 305 who were positive, 12 were already under observation by the Chest Clinics. Of the remainder, only two children were found to have active infection. There were 21 students skin tested of whom 17 were negative and were vaccinated. The remainder were referred to the Chest Clinics but none was found to have active infection.

AMBULANCE SERVICE

The County Council already had experience of providing an ambulance service when it became their duty to do so under the National Health Service Act. For a number of years they had provided a fairly substantial free service which, however, was not complete in all respects. On the appointed day, the whole of the area of the Administrative County was covered by the Authority's own service, with the exception of two small areas on the Buckinghamshire border, and one on the Northamptonshire border. For these areas, agency agreements existed with the Buckinghamshire County Council and the Rushden and District Motor Ambulance Association. In 1949 it became possible to cover the area near Woburn Sands, leaving the Leighton Buzzard area to Buckinghamshire. When the Northamptonshire County Council took over the Rushden and District Motor Ambulance Association in 1960 they continued the agreement. Building has now started on a new Ambulance Station in Leighton Buzzard and when this is operational the arrangements with Buckinghamshire will cease.

At the end of 1963 there were five Ambulance Stations, as there were in 1948, but tremendous changes had been made. The Ampthill Station moved to commodious adapted premises in 1949. In 1954 a new station was completed at Kempston to replace the one in Bedford. Two years later the Luton Station was rehoused in newly-built premises and in 1961, the Biggleswade Station was replaced. The Dunstable Station has for many years been inadequate and at the time of writing a new station is about to be opened.

In 1952, radio-telephony was installed in the south of the County for an experimental period. It proved so successful that a permanent installation was made covering the whole County, with control centres at Kempston and Luton. The Ampthill and Biggleswade stations were linked to Kempston, and Dunstable to Luton.

During the last fifteen years the number of vehicles has remained more or less the same, but dual-purpose vehicles have gradually replaced cars for sitting cases. At the 31st December, 1963, there were 25 ambulances, 10 dual-purpose vehicles and two cars. By replacing vehicles at intervals the fleet has been kept up-to-date.

The total ambulance personnel directly employed at the end of 1963 was 81. It comprised one superintendent, one maintenance officer, five station officers, two deputy station officers and 72 driver-attendants. In 1948 the personnel numbered 59. As far as possible all personnel hold a recognised first-aid qualification. Those that do so qualify for an additional weekly payment on condition that they attend a recognised refresher course every two years.

Emergencies constitute a relatively small proportion of the work of the Service, particularly with regard to mileage. Much of the work is concerned with the conveyance of patients. The Ministry found it necessary, very early on, to make it clear that where a person who needs to attend hospital can reasonably be expected to make his own way there, he should do so; the ambulance service should only be asked to provide transport for a walking patient to get to or from hospital if the patient cannot reasonably be expected to make the journey in some other way, such as on foot, or partly on foot and partly by train, bus or tram.

From the beginning, considerable use has been made of the Hospital Car Service. This is a voluntary scheme whereby private motorists give their services but receive a mileage payment in respect of running expenses. In 1948, these drivers travelled 93,000 miles; by 1963, the figure had increased to 236,602 miles, which was 25.8 per cent of the total mileage travelled.

Wherever possible patients who have to travel long distances are sent by train. The need for this has gradually declined and it was done on only 37 occasions during the year, seven of the patients being stretcher cases. In 1957, 172 patients, of whom 22 were stretcher cases, were conveyed in this way. Where it is possible for a relative to accompany the patient, the Authority pay the fare. It is pleasing to record that the arrangements made by British Railways are satisfactory. It is fitting also that tribute should be paid to the London County Council for the help given to patients sent to London by train, either by transporting them to their final destinations or to other main-line stations from which they continue their journeys.

At first, Car Hire Services were used to convey patients to and from the Chest Clinic in Bedford but the need diminished to such an extent that no calls have been made upon them since 1961.

As to the emergency side of the work, the aim is to be prepared at all times for any eventuality. Some years ago, arrangements were made with adjoining counties, the Brick Companies in the County and the various Armed Forces stationed in the County whereby they can be called upon in an emergency. This scheme is complementary to one drawn up by the North West Metropolitan Regional Hospital Board for dealing with major accidents occurring within the Board's area in which Bedfordshire is situated.

The opening, at the end of 1959, of the M.1 motorway with an 18-mile stretch within the County created problems for the Ambulance and allied services quite different from any previously experienced. The speed at which traffic moves and the disregard by some drivers of warning signs, make rescue and first aid operations extremely hazardous, particularly in conditions of poor visibility. All the calls to the Motorway are dealt with by the Luton Control and the vehicles are equipped with flares and Scotch-lite harness and cuffs for the men to wear. Every ambulance is fitted with a blue flashing light.

Table XXII shows the number of persons carried and miles travelled in 1963 by vehicles at each of the five stations and by other Services acting on the Council's behalf. Altogether, the Council's vehicles recorded 658,162 miles and of that total 4,723 miles were travelled on behalf of other authorities.

Table XXIII shows the total mileages travelled in the years 1958-63 in providing an ambulance service for Bedfordshire, and includes mileages recorded by other Ambulance Services acting on the Council's behalf.

TABLE XXII—MILEAGE TRAVELLED AND PERSONS CARRIED BY COUNTY AMBULANCE SERVICE AND OTHER SERVICES, 1963

Station or service	Mileage	Persons carried			
		Accident	Sickness	Other	Total
County Council—					
Ampthill	110,566	926	10,140	—	11,066
Kempston	171,476	2,178	23,021	—	25,199
Biggleswade	120,724	1,196	12,972	9	14,177
Dunstable	109,905	2,334	11,336	9	13,679
Luton	145,491	4,577	22,944	—	27,521
	658,162	11,211	80,413	18	91,642
Bucks. C.C. (Linslade) ..	16,382	62	2,922	—	2,984
Hospital Car Service ..	236,602	—	7,966	1,073	9,039
	911,146†	11,273	91,301	1,091	103,665

† A further 11,745 miles were travelled by other Ambulance Services in conveying Bedfordshire patients, making a grand total of 922,891 miles.

TABLE XXIII—MILES TRAVELLED IN PROVIDING AMBULANCE
SERVICE FOR BEDFORDSHIRE, 1958-63

Work done by	1958	1959	1960	1961	1962	1963
County Council Stations* ..	550,553	554,236	586,026	619,633	631,429	653,439
Hospital Car Service	160,052	182,153	180,732	203,029	223,538	236,600
Car Hire Services	3,111	2,079	1,289	35	—	—
Bucks. C.C. (Linslade Station)	32,988	32,089	34,754	30,622	31,355	16,382
Other Authorities	13,318	10,778	10,289	13,042	12,867	11,745
TOTALS	760,022	781,335	813,090	866,361	899,189	918,168

* Excluding mileage travelled on behalf of other Authorities.

PREVENTION OF ILLNESS, CARE AND AFTER-CARE

Section 28 of the National Health Service Act, 1946, empowered local health authorities to make arrangements, subject to Ministerial approval, for the purpose of the prevention of illness, the care of persons suffering from illness or mental defectiveness or the after-care of such persons. Before this, there was already some service rendered to the community in Bedfordshire. Thus, the British Red Cross Society carried out some after-care work for the tuberculous, and the Society and the St. John Ambulance Brigade provided Medical Comforts Depots. Moreover, the Public Health Committee of the County Council administered an after-care service for the tuberculous, as well as providing a Sanatorium at Mogerhanger Park and Chest Clinics in Bedford and Luton.

Tuberculosis and the Tuberculous

With the coming into force of the Act, the arrangements for the treatment of tuberculosis became the responsibility of the Regional Hospital Board to which the Chest Clinics and Sanatorium were transferred. However, part of the work of the Chest Clinics is concerned with prevention, care and after-care, so that arrangements were made for the Senior Chest Physicians working at and from the Clinics to be employed jointly by the Regional Hospital Board and the Authority. Six full-time tuberculosis visitors were appointed and approval was given to the appointment of a Welfare Officer at each Clinic. Both appointments were made but early in 1956 the post at Luton became vacant. In 1957, the Bedford Welfare Officer also left and it was found impossible to recruit suitable replacements. Alternative arrangements had to be made for the duties to be performed and these have continued ever since.

As far as tuberculous patients being nursed at home are concerned domestic help, occupational therapy and medical comforts are available to them in common with those suffering from other illnesses. In addition, beds and bedding are available if required. Originally garden shelters were also available but these are no longer needed. Extra nourishment in the form of milk and eggs is provided in necessitous cases.

Many of the provisions made for the tuberculous in the original scheme have, fortunately, not been required in recent years. These relate to the maintenance of suitable patients in settlements when they are sufficiently recovered to embark on rehabilitation; to the boarding-out of children of infectious parents; and to the segregation of babies of tuberculous parents prior to B.C.G. vaccination.

Protection of contacts, schoolchildren and others against tuberculosis by means of B.C.G. vaccination is carried out as part of these provisions but the details have been given earlier in the Report under the general heading of Vaccination and Immunisation.

Medical Comforts

For the care and after-care of sick persons being nursed at home, the Authority provide certain nursing equipment and apparatus on loan. This is mainly done indirectly through the St. John Ambulance Brigade and the British Red Cross Society who, between them, were operating 27 Medical Comforts Depots in the County at the end of the year, an increase of eight since 1948. The Authority make a small grant to the Bedfordshire Headquarters of each body and pay 100 per cent of the cost of initial equipment, as well as 85 per cent of the cost of replacements.

Occupational Therapy

An occupational therapist was appointed in 1948 to work mainly with the chronic sick and tuberculous being cared for in their homes. Patients are referred by hospitals, general practitioners, welfare officers and mental welfare officers. In all cases a medical certificate is required. Patients who are given craft work to do receive an initial gift of materials to the value of 16s. 0d.

In the early years, the tuberculous comprised the largest single group, accounting for nearly half the patients visited. It became apparent that there was a far greater demand for this service than could be met by one person and a second occupational therapist was appointed in 1953. In January, 1961, the occupational therapist for the south of the County left and it was not possible to replace her until June, 1963. This, coupled with the fact that the other occupational therapist had been handicapped by ill-health for the past few years, was a set-back to the development of the Service. Under their schemes of delegation, both Bedford and Luton Boroughs made provision for the appointment of an occupational therapist and these posts have been filled.

Problem Families

The term "problem family" has come into general use in the last fifteen years or so but there has been a wide divergence of views as to what it means. Many attempts at definition have been made, either in terms of failure to improve through contact with the social services or of failure to attain certain minimum social standards. The difficulty is that the social services available vary in different localities as do the social standards and refuge is sought in the statement that the problem family is hard to define but easy to recognise.

What is indisputable is that certain families, because of their conditions of life and their failure to respond to the social assistance available, present many difficulties to local authorities. Whatever label is applied to such a family, the difficulties are there and sooner or later the local authority is faced with the problem of dealing with them. Then, too, there are the families with problems which may well reach the point of causing a disruption of normal home life with consequent risk to the mental health of the children.

In Bedfordshire, when a health visitor becomes aware of the difficulties of a family she does what she can to help. If she feels that unaided she cannot resolve the difficulties, the health visitor calls on officers from other Services to play a part. If this does not achieve results, the problem is placed before the Divisional Medical Officer who may then bring the matter before the local co-ordinating committee. This committee consists of representatives of the various official and voluntary bodies who may be able to assist in finding a solution.

Because the amount of time that a health visitor or any other officer can give to these families is severely restricted by the officer's normal duties, it became clear that there was a very great need for *ad hoc* social workers such as those trained by the Family Service Units, to supplement the efforts made by the existing Services to prevent the break-up of family life and to rehabilitate families where serious problems have already arisen. A suitably experienced social worker was accordingly appointed to the staff of the Health Department towards the end of 1957. The success he achieved led the Authority to appoint two more social workers in 1959. Three further appointments have since been made.

Specially selected home helps are a great help with some families, giving the mother practical instruction in housecraft, including the proper spending of whatever money is available.

In suitable cases, the Authority send mothers and their children (if under 7 years) to a recuperative centre (e.g. Brentwood) for a period. The aims are to improve the health of the mother; give personal assistance with her problems and to encourage a higher standard of home management; and to encourage the healthy and happy development of the children.



THE IMPOSING FACADE OF THE OLD DUNSTABLE STATION HIDES OVERCROWDED AND CRAMPED CONDITIONS.



THE PATTERN OF THE NEW STATIONS WAS SET BY THE KEMPSTON AMBULANCE STATION.



THE CONTROL ROOM AT THE OLD DUNSTABLE AMBULANCE STATION.



INSIDE THE NEW LUTON AMBULANCE STATION.

Convalescence

The Authority have a scheme for the provision of such convalescent facilities as lie outside the scope of the Regional Hospital Board, a charge being made depending upon the family's financial circumstances. It is under this scheme that the mothers mentioned in the preceding paragraph are sent to recuperative centres when the need arises. In most cases, however, the scheme is used for those mothers who are overburdened to such an extent that their health is suffering.

Chiropody Service

In 1960 the Scheme under Section 28 was amended to provide a Chiropody Service either directly or through voluntary organisations. In view of the shortage of qualified chiropodists, it was decided to limit the provision in the first instance to the elderly (i.e. women aged 60 and over, and men aged 65 and over), to the handicapped and to expectant mothers. A service was already being provided in some areas by voluntary organisations and these bodies were invited to participate in the Scheme in accordance with the following conditions :

- (i) All chiropodists with whom Clubs enter into contract in future must be duly qualified ;
- (ii) The Clubs shall be free to pay chiropodists whatever fees they wish, but reimbursement will not exceed the amount the County Council would pay for a chiropodist directly employed by them for a similar service ;
- (iii) Grants will be made for all new treatments only on a certificate of a doctor, nurse, health visitor, midwife or welfare officer ;
- (iv) Charges to patients shall be the same as those charged for the directly provided County Council service ;
- (v) Rents paid specifically for chiropody purposes will be refunded, subject to their being reasonable ;
- (vi) Wherever possible arrangements made by Clubs with chiropodists shall provide for the work to be done on a sessional basis in premises provided by the Clubs, either by arrangement with the Authority or otherwise.

In order to provide a service for expectant mothers and the handicapped, as well as for elderly persons in those parts of the County area not served by the voluntary bodies, a whole-time chiropodist was appointed to the staff in 1961. A second appointment was made in 1963.

At the end of 1963 there were, in the County area, 26 Clubs for the elderly which were providing a chiropody service subsidised by the Authority and a further five Clubs which were being visited by the Council's chiropodists. A residential home for the elderly run by the W.V.S. had also been brought into the Scheme.

During the year 1963 the following treatments were carried out :—

		<i>Treatments</i>
(a)	Directly-provided service—	
	(i) At club premises	1,264
	(ii) At the homes of patients	379
	(iii) At Local Authority Clinics	604
		2,247
(b)	Voluntary Organisations service—	
	(i) At club premises	8,553
	(ii) At the homes of patients	3,187
		11,740
	Total	13,987

In a few areas where there are no Clubs, arrangements are made for elderly people to be treated by private chiropodists on a *per capita* basis. The work done by this means is included under (b) above.

The service in Luton is provided by the Luton Old People's Welfare Committee who are reimbursed in full, by the Local Authority, all expenditure incurred. During the year 2,680 treatments were given. Similarly, in Bedford the Old People's Welfare Committee operate a chiropody service, including the provision of a clinic, all the expenses being borne by the Local Authority. There were 2,096 treatments given at the clinic and 630 in patients' homes. In addition, a County Chiropodist spends one day a week at Barford Avenue Clinic, Bedford. He undertook 311 treatments of Bedford persons there during 1963. Also, he did 77 domiciliary treatments in the Borough.

MENTAL HEALTH SERVICE

The National Health Service Act made it possible for local health authorities to provide a comprehensive domiciliary service for the care and after-care of the mentally ill and mentally sub-normal. Subsequent legislation has shifted the emphasis even more towards domiciliary care and has aimed at breaking down the barrier between mental and physical illness and handicap. There have been changes in nomenclature so that, for example, mental health workers are now mental welfare officers and the term mentally subnormal is used instead of mental defective. To avoid confusion in this brief review of the development of the Service only the current expressions are used.

In Bedfordshire, five mental welfare officers were appointed in 1948, one being designated as senior. For operational purposes, an Area office was opened in Luton to cover the Southern part of the County and this system was still in operation at the end of 1963, although Luton M.B. had become an authority exercising delegated functions. The development of the Service, together with increases in population, has required the establishment to be gradually increased

so that at the end of 1963 it comprised thirteen, including the Chief Mental Welfare Officer and his Assistant. In October, 1963, Dr. L. G. Nicol was appointed as Senior Medical Officer for Mental Health.

Three of the mental welfare officers have qualified as psychiatric social workers, having been sent by the Authority for full-time university training. Use has also been made of courses of training arranged by the National Association for Mental Health. For newcomers to the Service there is a scheme of In-service Training.

Mental Handicap

At the end of 1948 there were two Training Centres providing for 60 mentally handicapped children, one at Dunstable and the other at Turvey. Both were in leased, adapted premises and served the Luton-Dunstable and Bedford-Kempston areas respectively, transport being provided.

In 1957, a new purpose-built centre in Kempston replaced the Turvey centre and provided 35 places. Three years later, the South Bedfordshire Training Centre was transferred from Kirby Road, Dunstable, to newly-built premises at Ridgeway Avenue, Dunstable, with accommodation for 60. The old premises were retained and converted into a workshop for older boys and men. Here they undertake woodwork, rubber link mat-making, weaving and other crafts, in a work rather than a school environment. This change in attitude and approach achieved remarkable results. In 1962, a 15-place workshop for older boys and men was opened next door to the North Bedfordshire Centre. The increased provision of accommodation in the Centres has made it possible for children and adults from the rural areas to attend. Details of attendances at the Centres are given in Table XXIV. The adult workshops that are planned should reduce the waiting list to negligible proportions.

TABLE XXIV.—SEX-AGE DISTRIBUTION OF MENTALLY SUBNORMAL PERSONS ATTENDING TRAINING CENTRES AT 31ST DECEMBER, 1963, TOGETHER WITH NUMBERS WAITING FOR PLACES

	Under 16		16+		All ages		
	M.	F.	M.	F.	M.	F.	T.
NORTH BEDS. CENTRE							
From Bedford Borough ..	8	5*	7	7	15	12	27
„ County area ..	10	5	8	6*	18	11	29
	18	10	15	13	33	23	56
SOUTH BEDS. CENTRE, RIDGEWAY AVENUE, DUNSTABLE							
From Luton Borough ..	13	10	2	15	15	25	40
„ County area ..	9	5	—	6	9	11	20
	22	15	2	21	24	36	60
MEN'S TRAINING WORKSHOP KIRBY ROAD, DUNSTABLE							
From Luton Borough ..	—	—	16	—	16	—	16
„ County area ..	1	—	13	—	14	—	14
	1	—	29	—	30	—	30
Total attending in County ..	41	25	46	34	87	59	146
Attending Centre in Northants.	—	—	1	—	1	—	1
ON WAITING LIST							
Bedford Borough ..	—	—	6	5	6	5	11
Rest of North Beds. ..	4	1	9	12	13	13	26
Luton Borough ..	1	—	10	11	11	11	22
Rest of South Beds. ..	—	—	6	6	6	6	12
Total waiting ..	5	1	31	34	36	35	71

*1 part time in each Group.

There is a small number of persons who need training but whose physical or emotional disabilities preclude attendance at a Centre or Workshop. Moreover, in the early days there were some who lived too far from the Centres to make attendance possible. For these groups a home teacher was appointed in 1955 and considerable progress was made, so much so that in 1957 it was decided to make a second appointment. All attempts to fill this post failed and when the home teacher died in 1960 this part of the Service collapsed. At last, in 1963, a home teacher was once more appointed.

The rise in the number of mentally handicapped persons under care in the community from about 300 in 1948 to just over 500 at the end of 1963 has corresponded with the increase in the population. The figures do not necessarily reflect the incidence in the community of mental handicap but they are indicative of the numbers where the clinical condition, social problems or both make necessary some measure of support and guidance from the Service. Over the years, the emphasis has changed from that of straightforward oversight of the patient's welfare, to that of affording guidance and help, both practical and emotional, to the whole family. Contact with families is regulated by the demands of each individual situation and not by any set number of visits in a given period.

Mental Illness

In the early years of the Service a large proportion of the work related to the admission of mentally ill people to hospital. In rather more than half the cases compulsory action had to be taken to secure admission. Increasingly, the Service has become concerned with and has worked on the concomitant social disruption of the whole family, until over the past six years work directly related to hospital admissions has accounted for only just over one-third of the total. There were 205 cases of mental illness receiving prolonged support from mental welfare officers at the end of 1963. This form of care, together with referral to psychiatric out-patient clinics, accounts for about half of the Service's work in cases where direct admission to hospital is not arranged.

Compulsory admissions have shown, in proportion to the whole work of the Service, an almost continuous decline over the years to just under 16 per cent in 1963. Over the past ten years the annual number of compulsory admissions has remained in the region of 200 although the population of the area has risen by nearly 84,000.

There has been no significant change in the *total* figures for compulsory admissions in the three full years of the operation of the Mental Health Act, 1959, but long-term admissions have shrunk to insignificant proportions in comparison with short-term admissions, the annual averages being 22 and 178 respectively. Under the old legislation these two forms of admission were used in roughly equal proportions with the weighting slightly on the long-term side. Informal admissions to hospital arranged through the Service have risen fairly steadily from 129 in 1949 to 267 in 1963. Details of actions taken in 1963 are given in Table XXV.

Liaison

A very close and harmonious relationship has always obtained between the Service and the general practitioners by whom over half the cases are referred. All work done with patients in the community is undertaken in close liaison with the general practitioner who, except in emergencies, is always consulted before first contact is made, is

brought into discussions and kept informed of developments. During 1963 arrangements were made, at the request of the Consultant Psychiatrist, for the Mental Welfare Officers to provide social work services at the Bedford Psychiatric Out-Patient Clinic. This proved most helpful in improving liaison and for the first time Three Counties Hospital (now the Fairfield Hospital) was the second largest source of primary referral. There are many additional subsequent referrals, e.g. during or after treatment. The numbers of patients referred from various sources in 1963 are given in Table XXVI.

Social work for patients discharged or on leave from hospitals for the subnormal is also undertaken by the Service at the hospital's request. Close liaison is maintained with other Social Services—Health Visitors, Welfare and Children's Departments, Probation Service, etc. and with voluntary organisations in the area.

TABLE XXV.—NUMBER OF ACTIONS TAKEN IN RESPECT OF CASES OF MENTAL ILLNESS AND SUBNORMALITY REFERRED IN 1963.

	Mental Illness		Subnormality	
	M.	F.	M.	F.
COMPULSORY ACTION				
Admitted to Hospital—				
for Observation Emergency	46	68	1	—
for Observation	20	36	1	—
for Treatment	10	13	2	—
NON-COMPULSORY ACTION				
Admitted to Hospital Informally ..	125	142	14	10
Placed under Community Care ..	67	106	45	28
Other Action	218	365	13	15
Totals ..	486	730	76	53

Voluntary Societies

In the past ten years there has been considerable voluntary activity in the County and at the end of 1963 there were four Societies for Mentally Handicapped Children—Bedford and District; Biggleswade and District; Luton; and Dunstable and District—all of them affiliated to the National Society for Mentally Handicapped Children. Two Clubs for the mentally handicapped—one in Bedford and one in Luton—are provided under the direction of independent, voluntary committees, sponsored and supported respectively by the Bedford and District and Luton Societies for the Mentally Handicapped. In addition, the Societies have been very active and have made substantial contributions to the welfare of the mentally handicapped. They have

TABLE XXVI—SOURCES FROM WHICH CASES OF MENTAL ILLNESS AND MENTAL SUBNORMALITY WERE REFERRED, 1963.

Source	Mentally Ill	Mentally Subnormal & Severely Subnormal
General Practitioners	554	10
Three Counties Hospital (i.e. Fairfield)	110	—
Police	84	—
Relatives	56	27
General Hospitals	54	11
Patients	35	3
Other Departments (excluding Welfare Dept.)	33	—
Welfare Department	25	—
Probation Officers	17	—
Bedford Psychiatric Out-Patient Clinic	14	—
Neighbours	10	—
Psychiatric Hospitals outside County	9	2
Health Visitors	7	4
National Assistance Board	5	—
School Health Service	—	21
Hospitals for the Subnormal	—	17
Other Local Health Authorities	—	5
Other Sources	19	15
Totals	1,032	117

made gifts of apparatus, etc., to the Training Centres, and have joined together to provide holidays at the seaside and other outings for children and their parents.

The Authority work in close and harmonious association with the Societies and have co-opted on to the Mental Health Sub-Committee three representatives from them. Apart from the results of the practical work which the Societies do, it has been found that other less tangible benefits ensue. Parents find in the Societies mutual support which helps to relieve anxieties and break down the feeling of isolation which is so marked a feature of these families. A great deal of very good work has also been done by the Societies in bringing the problem of mental handicap to the notice of the public, enlisting their sympathy and understanding and breaking down fears and prejudices.

HEALTH EDUCATION

Although health education is a function of the Local Health Authority under that section of the National Health Service Act dealing with the prevention of illness, it should not be regarded as having a narrowly limited field of action. It is an integral part of the fabric of social medicine, the aim of which should be to enable each

individual to make the most of his natural endowments, physical and mental, so that as far as possible, he is self-reliant and able not only to enjoy life but to cope with difficulties when they occur.

Thus, although a Health Education Officer was appointed in 1948, every member of the Health Department staff who has contact with the public is a health educator to some degree and the most effective results are achieved when all work together as a team. Medical officers, health visitors, nurses, mental welfare officers, etc. all have a part to play. In fact, one of the Health Education Officer's main functions is to provide visual aids and other material for use by members of the staff. The Authority contributes to the Central Council for Health Education and considerable use has been made of that body's services and publications.

Much of the work is done by personal contact both in the home and in the clinic, but there is also a steady demand from various groups, particularly women's organisations, for talks and film shows. Most of these groups have evening meetings and many members of the staff give freely of their time. The Mothercraft and Relaxation Classes to which reference has already been made are well attended and afford an opportunity for systematic and continuous health education. This aspect of the work is growing, with evening meetings being held from time to time so that the husbands can attend.

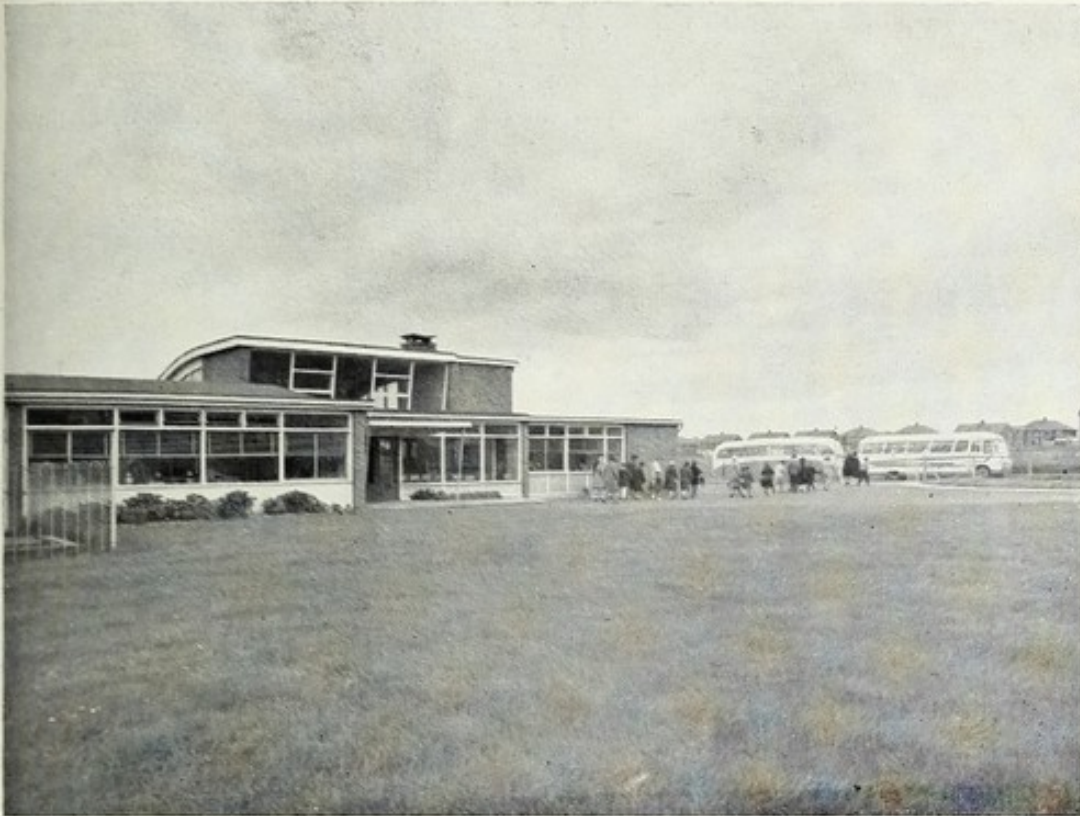
Student teachers are frequent visitors to the County Health Department and are provided with information and material. The Health Education Officer is always willing to assist any of the District Councils in the furtherance of their work in the health field. In Luton, health education has been undertaken throughout by the Borough Health Committee.

Food Hygiene

The District Councils are directly concerned with food hygiene but the services of the Health Education Officer are available and are used. He also lectures regularly on food hygiene at the training courses organised for their staff by the School Meals Service.

Home Safety

For many years particular attention has been paid to the prevention of home accidents and this continued in 1963. The Authority make a contribution to the Royal Society for the Prevention of Accidents and receive information and material from that organisation. There are five voluntary Home Safety Committees in the County and the County Health Department is represented on the Bedford, Biggleswade, Dunstable and Sandy Committees by the Health Education Officer. The other Committee is in Luton. Many talks were given by the Health Education Officer.



THE TRAINING CENTRE, RIDGEWAY AVENUE, DUNSTABLE.



THE NORTH BEDS. CENTRE, KEMPSTON WITH THE MEN'S WORKSHOP
ON THE LEFT.



LIGHT AND SPACE ARE FEATURES OF TRAINING CENTRE, RIDGEWAY AVENUE, DUNSTABLE.



PERSONAL GROOMING IS AN IMPORTANT PART OF MAKING THE BEST OF ONESELF.

Smoking

At the end of June, 1957, the Medical Research Council issued a statement on tobacco smoking and cancer of the lung. The conclusions were : —

1. A very great increase has occurred during the past 25 years in the death rate from lung cancer in Great Britain and other countries.
2. A relatively small number of the total cases can be attributed to specific industrial hazards.
3. A proportion of cases, the exact extent of which cannot yet be defined, may be due to atmospheric pollution.
4. Evidence from many investigations in different countries indicates that a major part of the increase is associated with tobacco smoking, particularly in the form of cigarettes. In the opinion of the Council, the most reasonable interpretation of this evidence is that the relationship is one of direct cause and effect.
5. The identification of several carcinogenic substances in tobacco smoke provides a rational basis for such a causal relationship.

Early in 1962, the Royal College of Physicians issued a report on the subject which reviewed all the available evidence and reiterated the conclusions of the Medical Research Council. More recently an official United States report has done the same in much greater detail. Considerable publicity has been given to these statements in the press and on radio and television. But publicity has also been given to any statement casting doubt on the relationship between cigarette smoking and lung cancer, even though little or no evidence has been produced in substantiation. People believe what they want to believe and herein lies one of the problems facing health education—getting the facts accepted. And even if the facts are accepted, it does not follow that action will be taken.

Ever since 1957, the Ministry of Health have been urging local health authorities to take appropriate action to inform the general public, whilst at the same time undertaking national publicity, of the risks attached to smoking. In the main, action in Bedfordshire has been concentrated in the schools, talks having been given by the Health Education Officer in many of the junior and senior schools. These activities were reinforced in 1963 by a visit from one of the mobile anti-smoking units sponsored by the Ministry of Health and operated by the Central Council for Health Education. Visits were paid to eleven schools in various parts of the County, including Bedford Borough, as well as to the Training College in Bedford.

Dental Care

In 1962, consideration was given to ways of doing dental health education on a continuous basis instead of sporadically as in the past. Here again it was decided to concentrate on the schoolchildren, with

the co-operation of the County Director of Education and the Bedford Borough Education Officer. All head teachers were asked to help in two ways ; firstly, by ensuring that the children received instruction in dental hygiene and secondly, by encouraging the children in reasonable eating habits. Rather than advocate the closing of school tuck-shops, it was suggested that they could be used to set a good example by selling hard-crusted wholemeal rolls with butter or margarine instead of buns and cakes ; potato crisps instead of biscuits ; nuts of all types, raw and roasted, salted and unsalted, in place of sweets ; raisins, and, where possible, fresh fruit and carrots.

The launching of the campaign in the schools coincided with the appointment of two dental auxiliaries and there has been a steady demand from the schools for them to talk to groups of infants and juniors. Leaflets and posters have been supplied to all schools, much use being made of the excellent material provided by the Oral Hygiene Service.

In the mothercraft classes, the opportunity is taken to explain the importance of diet in pregnancy for the formation of sound teeth in the baby and to persuade mothers to inculcate sensible feeding habits in their children from the very beginning.

Human Relations

Referring to senior pupils in secondary modern schools, the Newsom Report "Half Our Future" states : "As young adults, they will have to begin to learn how to manage more complex human relations, with their fellows, of the same and of the opposite sex, with older people, in their private lives and in their future jobs. They will need guidance on social manners, in every sense. They will need to acquire some awareness of a wider world beyond the limits of themselves and their jobs. They will need to be helped to understand, at whatever level of comprehension is possible to them, some of the issues of our time. Their full vocation is to grow up as people who can take their place in the world with some degree of proper pride in what they are and in what they hope to attain."

Much thought had already been given to ways in which the Health Department can be of assistance to schools in this work and some courses for girls have been held in which health visitors have participated by giving talks on such subjects as growing up, having a baby, infant care and care of the sick person at home. It is hoped to widen the scope of these talks, particularly in the field of human behaviour, and to provide facilities for boys as well as girls. The important thing is that these talks should be integrated into a course with the health visitor working with the teachers as a member of a team.

It is in this context that children should learn about sex and not by way of specific lectures on sex education or related subjects. For this reason, therefore, it is not proposed to arrange special talks on venereal disease in schools. There is, understandably, much concern about promiscuity and venereal disease, particularly among young

people, but these things should not be dealt with in isolation. Outside school, of course, it is almost impossible to reach the persons who most need information. With the co-operation of the District Councils, posters are displayed in public conveniences warning against venereal disease and giving information about the local Special Clinics.

THE NEXT TEN YEARS

The preceding pages contain an account of the activities of this Local Health Authority in the geographical county (i.e. including the Borough of Luton) in the past year, together with a brief outline of the way in which the various Services have developed locally since 1948.

Some years ago, the Central Government resolved that co-ordination and long-term planning of the National Health Service on a national basis were essential to secure a cohesive and comprehensive service and decided that the hospital and domiciliary services should be planned at the same time in order that they might be truly complementary. As a first step, a Hospital Plan was published in January, 1962, setting out plans for the development of hospitals over the next ten years. This emphasised that "where illness or disability cannot be forestalled by preventive measures, care at home and in the community, rather than in hospital, should always be the aim except where there is a need for diagnosis, treatment and care of a type which only a hospital can provide. This is true throughout the whole range of the health and welfare services, from ante-natal care to the provision made for old age; and it applies whether an illness or disability is physical or mental. The plan for the development of the hospital service is therefore complementary to the expected development of the services for prevention and for care in the community and a continued expansion of those services has been assumed in the assessment of the hospital provision to be aimed at."

Local Health Authorities, therefore, were invited to review their health and welfare services and to draw up plans for developing them over the ten years, 1962-72. These plans were to be broken into two five-year periods, the earlier period being dealt with in more detail. Information was required about estimated cost, buildings to be erected and staff needed. As to cost, it was proposed that in the first five years growth in current expenditure should be of the order of 2.5 per cent in real terms over the National Health Service as a whole. By restricting hospital current expenditure growth to 2 per cent, this would enable a rather higher rate of growth in Local Health Authorities' expenditure. An important aspect of the scheme was that the plans were to be reviewed annually and could thus be amended in the light of events.

The Plan for Bedfordshire

With a rate of population growth during the preceding years of approximately 2 per cent and the likelihood of this continuing for some time to come, it was evident that increased provision would have

to be made to maintain services at their present level, without considering the effect of increased community care. As for community care, this needed to be looked at in two ways :—

- (a) what gaps and shortcomings existed in the present services ;
- (b) what further services would be required in the light of the change of emphasis from hospital to community care.

With these points in mind, proposals were formulated for the County, including Bedford and Luton, and submitted to the Ministry for inclusion in "Health and Welfare : The Development of Community Care".

Mental Health Service

With an increasing population, an increase in the numbers both of mentally ill and mentally subnormal was to be expected. The hospital accommodation envisaged locally in the Hospital Plan was felt to be inadequate for both groups, even though modern methods of treatment of mental illness have shortened the length of hospital stay in many cases and even made it unnecessary in others. In the case of the mentally subnormal it is now known that with suitable training and proper care and attention, many of them can not only live in the community but can make a useful contribution to society. Thus the Mental Health Service now had its horizons considerably widened.

It was proposed, therefore, to increase the number of mental welfare officers to 15 in 1971-72 and to make more provision for training. Two new centres for adults were planned to come into use in 1964-65—one in Luton with 120 places and the other in the north of the County with 75 places and provision for extension to 90 places.

The elderly mentally infirm have always presented a problem because they are unsuitable for ordinary welfare homes and do not require hospital treatment. For them, three residential homes of 35 places each were planned, and the first of these, "Rivermead" in Kempston, has now been opened. No initial provision was made for hostels for the mentally subnormal and the mentally ill, but the matter would be kept under review.

The Ambulance Service

Plans were already in existence for the replacement of the Ambulance Station in Dunstable and this has now been accomplished. With the long-standing arrangement whereby the Leighton Buzzard area had been served by Buckinghamshire County Council due to cease at the end of March, 1965, a Station needed to be built in that town.

For this new Station, another station officer and seven driver-attendants would be required. In addition it was expected that over the next five years a further seven driver-attendants would be needed to meet increased demands. Further increases in personnel during

the second half of the period would probably bring the total to 103 in 1971-72. No account was taken of Luton becoming a County Borough but it was probable that this would result in the need to reinforce the personnel at the Dunstable Station.

Increased demands on the Service would require more vehicles to be provided, in addition to the need for a regular programme of replacement to ensure both reliability and maximum comfort for patients. Two ambulances and two dual-purpose vehicles would be required for Leighton Buzzard. Five additional vehicles were envisaged for the remainder of the County during the next ten years bringing the total in 1971-72 to 46.

Other Services

Undoubtedly one of the greatest direct results of the policy underlying the Hospital Plan will be increased demands on the Domiciliary Nursing Service and the Home Help Service. The Plan provided for an increase in the number of home nurses from 60 to 75 and of home helps from 154 to 204, in terms of full-time equivalents. There would probably be more than enough work in 1971-72 for four chiropodists and six occupational therapists of whom there are at present two and four respectively. The midwives at present employed would be reinforced by a further eight over the period and the health visiting strength increased to 57. The number of doctors would be brought up to 12. An expanding population brings many problems, some of them social, and a further three social workers would be required.

In the villages, where child welfare centres are held on only one or two half-days a month, premises are rented which are often unsuitable or inadequate in some respect. Where conditions justify it, the intention was to provide new accommodation in association with another service. For the purposes of the Plan only capital projects likely to commence within the first five years were included. Fifteen centres were planned altogether—four in the County area, nine in Luton and two in Bedford. One of the last-mentioned, that at Brickhill, has been completed. One of the Luton centres was to be provided in conjunction with a new day nursery to replace a "Wartime" nursery. The Bedford Day Nursery is unsatisfactory and its replacement was planned. In Luton, the Midwives Hostel was to be replaced.

The Cost

It was anticipated that the net revenue expenditure for the whole of the County, including Luton, estimated at £640,657 in 1962-63, would rise to £921,810 in 1971-72. As might be expected, the rate of increase would be greatest in respect of the Mental Health Service, rising from £50,763 to £132,580.

Revision of the Plan

The first review of the Plan has recently been undertaken and covers the ten years commencing the 1st April, 1964. With Luton becoming a County Borough on that day it means that the County Council will no longer be concerned about development in that area. Thus, the provisions have been reviewed and amended only in respect of the County area and Bedford.

Inevitably, some increases were recommended in all the Services as a result of the rapid increase in total population and a consequent increase in the number of old people. Moreover, the emphasis on community care continues. These factors have expressed themselves in great pressure on the Services for which the Authority are responsible. Although there are several formulae which can be used in calculating the number of personnel needed, they can only be a guide. The final decision must be dictated by local circumstances and actual experience of the operation of the Services. The important point to be borne in mind is that there is an opportunity annually to bring the Plan up-to-date by deletions, additions and alterations.

The main change effected by the revision was to increase by seven the number of child welfare centres to be built in the County area. The revised net revenue expenditure is now estimated as £559,005 for 1964-65, rising to £685,850 in 1973-74.

The Cost

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NOTIFIABLE DISEASES

A brief history of the notification of infectious diseases in this country was given in the Annual Report for 1961, and it was observed that the completeness of notification varies considerably according to the nature of the disease. In practice, notification is only ever made by a doctor, which means that the figures relating to notification refer only to cases in which medical assistance has been sought. While a true indication is probably obtained of the incidence of the more serious diseases, in the case of the other diseases the figures tell only part, sometimes only a small part, of the story. Nevertheless, even with partial notification it is possible to follow the trends of the various diseases both in time and place.

TABLE XXVII—NUMBER OF CASES OF INFECTIOUS AND OTHER NOTIFIABLE DISEASES NOTIFIED AND CONFIRMED IN EACH DISTRICT OF BEDFORDSHIRE, 1963

SECTION III											
Disease	City		Rural		Total		Confirmed		Notified		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
Smallpox	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	2	23	—	—	2	23	—	—	—	—	2
Whooping Cough	1	6	—	—	1	6	—	—	—	—	1
Mumps	7	197	—	—	7	197	—	—	—	—	7
Poliomyelitis—	—	—	—	—	—	—	—	—	—	—	—
Paralytic	—	—	—	—	—	—	—	—	—	—	—
Non-Paralytic	—	—	—	—	—	—	—	—	—	—	—
Meningococcal Infection	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	1	3	—	—	1	3	—	—	—	—	1
Acute Pneumonia—	—	—	—	—	—	—	—	—	—	—	—
(Primary or Inf.)	—	—	—	—	—	—	—	—	—	—	—
Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—
Paratyphoid Fever	—	—	—	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—	—	—	—
Food Poisoning	—	—	—	—	—	—	—	—	—	—	—
Infective Hepatitis (including Jaundice)	—	—	—	—	—	—	—	—	—	—	—
Bacterial Pyrexia	—	—	—	—	—	—	—	—	—	—	—
Ophthalmia Neonatorum	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis—	—	—	—	—	—	—	—	—	—	—	—
Respiratory	—	—	—	—	—	—	—	—	—	—	—
Meninges and C.N.S.	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—
TOTALS	42	237	112	244	154	481	25	392	324	112	436

NOTIFIABLE DISEASES

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TABLE XXVII—NUMBER OF CASES OF INFECTIOUS AND OTHER NOTIFIABLE DISEASES NOTIFIED AND CONFIRMED IN EACH DISTRICT OF BEDFORDSHIRE, 1963

	Amphill		Bedford		Biggleswade		Dunstable Borough	Kempston Urban	Leighton Buzzard Urban	Luton		Sandy Urban	
	Urban	Rural	Borough	Rural	Urban	Rural				Borough	Rural		
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	2	23	57	30	—	8	—	3	8	11	4	—	1
Whooping Cough	1	6	31	11	6	16	11	2	14	46	17	—	1
Measles	7	197	848	414	42	354	328	106	198	1,073	397	38	4,000
Poliomyelitis—													
Paralytic	—	—	—	—	—	—	—	—	—	—	—	—	—
Non-Paralytic	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningococcal Infection	—	—	1	—	—	—	—	—	—	1	—	—	—
Erysipelas	—	1	3	4	—	—	—	—	1	3	1	—	—
Acute Pneumonia—													
(PPrimary or Infl.)	—	—	24	11	1	5	2	1	8	2	3	4	6
Typhoid Fever	—	1	11	7	1	—	—	1	—	2	—	—	2
Paratyphoid Fever	—	—	—	—	1	—	—	—	—	—	—	—	—
Dysentery	—	—	10	15	1	1	7	—	—	45	28	14	12
Food Poisoning	—	—	1	—	—	—	1	—	1	3	1	—	—
Infective Hepatitis (including Jaundice)	—	1	31	—	—	1	—	—	1	3	—	—	3
Puerperal Pyrexia	—	1	117	4	—	—	—	—	—	29	1	—	15
Ophthalmia Neonatorum	—	—	1	1	—	—	—	—	—	1	1	—	—
Tuberculosis—													
Respiratory	2	7	31	9	—	7	5	2	9	81	7	—	16
Meninges and C.N.S.	—	—	—	—	—	—	—	—	—	1	—	—	—
Other	—	—	6	3	—	—	—	—	—	10	5	—	2
TOTALS	12	237	1,172	509	52	392	354	115	241	1,312	466	57	4,915

Notifications are made to the Medical Officers of Health for the County Districts, and they in turn inform the County Medical Officer. In addition, they submit quarterly returns, in which the figures are corrected for any changes in diagnosis and are, therefore, assumed to relate to confirmed cases. Table XXVII has been compiled from these quarterly returns.

Diphtheria

In Bedfordshire there has only been one case of diphtheria since 1949 and that was in 1957 when an Italian child became ill and died on return from a holiday in Italy. These figures demonstrate clearly the efficacy of immunisation in this disease and the necessity for ensuring that children are immunised regularly. Details of immunisation are given in Section II of this Report.

Scarlet Fever

Scarlet fever is essentially a disease of childhood but fortunately today the majority of cases are very mild. In fact, it is likely that many cases are so mild that they remain undiagnosed and the incidence is probably much greater than the declining number of notifications suggests. The figure for 1963 was 147 and the average for the five years 1959-63 was 170, compared with 410 for the period 1949-53.

Whooping Cough

Whooping cough is mainly a disease of early childhood and can be extremely distressing. Respiratory complications are not uncommon. The introduction at the end of 1954 of vaccination against the disease (described in Section II) was welcomed by parents. In that year there were 1,103 cases notified. Since then there has been a considerable decline. The average number of notifications over the past five years was 165, compared with 970 over the period 1949-53. The actual number of cases notified in 1963 was 161. One death occurred, the first in six years. In the period 1949-53 there were 13 deaths.

Measles

Although it is customary to say that an epidemic of measles occurs every two years, this periodicity has not been evident in the figures for Bedfordshire for many years. For one thing, the disease does not occur in all parts of the County at the same time; for another, the annual figures take no account of an epidemic which carries on from one year to the next. With the exception of 1954 when only 68 cases were notified throughout the County, there has not been one year in the past fifteen when the number of notifications has been less than 1,000. In fact, on eleven occasions the number has exceeded 2,000. Taking the five-year periods 1949-53, 1954-58 and 1959-63, the average number of notifications annually was 3,168, 2,437 and 3,897 respectively. The total deaths in these periods numbered seven, three and four. Of the last group, three occurred in 1961 and there has been no death since.

Poliomyelitis

In the paragraphs dealing with Vaccination and Immunisation in Section II of this Report, reference is made to the fact that a severe epidemic of poliomyelitis was experienced in this country for the first time in 1947. In Bedfordshire in that year 94 cases occurred of whom 18 died. In the following year there were 17 cases and seven deaths. In the five years 1949-53, there were 127 cases confirmed of whom nine died, followed by 117 cases in the next five years, with ten deaths. In the last five years, only 16 cases occurred, with one fatality.

Infective Hepatitis

In order to facilitate the work of a committee appointed by the Medical Research Council, "jaundice" was made compulsorily notifiable in November, 1943, in the region roughly comprising East Anglia, and including Bedfordshire. "Jaundice" in this context covers catarrhal jaundice, acute inflammation of the liver, acute necrosis of the liver, toxic jaundice and infective jaundice. Past experience in Luton Borough suggests that only 10 per cent of cases are notified. The number of cases notified annually in the County is given in Table XXVIII, together with the figures for Bedford and Luton Boroughs. The figures indicate that the disease occurs in cycles. It is known that infective hepatitis is spread by close personal contact and by food and there is no doubt that scrupulous attention to personal hygiene, particularly the washing of hands before touching food, might do much to eliminate the disease.

TABLE XXVIII—NUMBER OF CASES OF "JAUNDICE" IN BEDFORD AND LUTON BOROUGH AND WHOLE COUNTY, 1944-63

Year	Whole County	Bedford	Luton
1944	131	52	48
1945	108	14	71
1946	29	7	20
1947	34	8	12
1948	47	8	27
1949	69	29	12
1950	146	102	6
1951	65	32	4
1952	29	16	3
1953	26	16	2
1954	81	9	9
1955	59	7	41
1956	223	95	101
1957	173	112	32
1958	30	9	8
1959	18	6	4
1960	24	2	11
1961	120	3	7
1962	44	4	3
1963	37	31	3

Typhoid Fever

Typhoid fever is predominantly a water-borne infection and is prevalent in those countries where the water supplies are contaminated by sewage and no efficient means of purification exist. The introduction of pure water supplies in this country practically eliminated the disease but occasionally outbreaks occur as the result of foodstuff becoming infected, usually by a "carrier". This is a person who having had the infection at some time continues thereafter to excrete the germ. This may happen intermittently and continue for the rest of the person's life. If such a person handles food and fails to observe the highest standards of personal hygiene, outbreaks of typhoid fever will occur. The popularity of holidays abroad in recent years, particularly in areas where typhoid is endemic, has resulted in a number of persons returning with the disease. People going to these areas would be well advised to have inoculations against the disease beforehand.

There was a small outbreak of typhoid fever in Biggleswade Rural District in 1949 in which 15 cases occurred. From 1950 to 1962 inclusive there were only seven sporadic cases, but in the autumn of 1963 a small outbreak occurred in the Bedford area. Dr. Darlow, who in addition to being a Senior Assistant County Medical Officer, is Medical Officer of Health of three of the four Districts affected, has contributed the following report :—

"In October some Bedford doctors reported the occurrence of cases of typhoid in their practices and notification was eventually received of 15 cases with dates of onset ranging from the 3rd to 15th of the month. Two cases were reported from Newport Pagnell in Buckinghamshire. It was not possible to get accurate histories from all cases as their ability to remember the events of about a fortnight before varied.

"There were two constantly recurring factors : most of the cases did some shopping at a certain store in Bedford and of these, the majority purchased corned beef there on the 5th October. One of the cases worked in the store itself and handled corned beef. Subsequently, it was discovered from blood tests that her mother at sometime had had typhoid. The evidence of two cases from Newport Pagnell was particularly useful. Being a young working couple, they did practically the whole of their shopping once a week at the store. It seems reasonable to conclude that the infection originated in that store and was largely conveyed by corned beef. Subsequently, all the employees of the store were examined bacteriologically and were found to be free from infection.

“ After the original outbreak there were five further cases, making a total of 22 distributed as follows :—

	<i>Primary Outbreak</i>	<i>Secondary Cases</i>
Bedford Borough	10	1
Bedford R.D.	3	4
Kempston U.D.	1	—
Amphill R.D.	1	—
Newport Pagnell, Bucks. ...	2	—

“ During the course of investigations two people in Bedford Borough were found to be excreting typhoid bacilli and were kept under observation until they ceased to do so.

“ In an investigation of a small outbreak such as this, there are some difficulties in tracing the source : the incubation period is variable ; apparently healthy people may excrete typhoid whilst showing no other signs of the disease ; blood tests may be upset by previous inoculation with T.A.B. Because of these factors, it is sometimes difficult to be dogmatic about the source of the infection.”

The other three cases that occurred during the year, one in Biggleswade and two in Luton, were unconnected with the Bedford outbreak. This outbreak, fortunately, was very small but it received considerable publicity. Typhoid, like smallpox, has a dramatic quality that causes the public to be deeply concerned. If this concern will cause people, particularly food-handlers, to improve their standards of hygiene so that, for example, washing the hands thoroughly after using the lavatory becomes a reflex action, all well and good. Then at last there would be a decline in the incidence of two other diseases that are far more prevalent but that seem to be taken for granted, dysentery and food poisoning. Thus in England and Wales in 1963, whilst there were 242 confirmed cases of typhoid fever and 341 of paratyphoid fever notified, there were 31,730 cases of dysentery and 5,860 cases of food poisoning.

TUBERCULOSIS

In the last thirty years, there has been a drastic reduction in the mortality from tuberculosis as mentioned in Section I of this Report. It is now possible to render the majority of cases of respiratory tuberculosis non-infectious in a comparatively short time, thus reducing the opportunities of infection in adolescents. This factor, coupled with the numbers of adolescents and young adults protected by B.C.G., has undoubtedly contributed to the steep decline in the national incidence of the disease in those aged between 15 and 34 years. Full details of B.C.G. vaccination are given in Section II. It seems, however, that there is still some undetected infection, especially among men over 45 years of age. In Bedfordshire, the Chest Clinics do all they can to control the disease by following up all contacts, not only of notified cases but of cases coming to light posthumously. During the past fifteen years the Mass Radiography Unit provided by the

Regional Hospital Board has visited the County periodically. The various factories and other employers of labour are always very co-operative in providing facilities for employees to be X-rayed. Public sessions are also held and these are reasonably well-attended.

The number of new cases of respiratory tuberculosis notified in 1963 was 160. Cases of non-respiratory tuberculosis numbered 25. Table XXIX shows the numbers of cases of respiratory and non-respiratory tuberculosis notified in males and females each year since 1949. There are still a few cases of tuberculosis that only become known to the Medical Officer of Health after death has occurred and the disease is mentioned on the death certificate. The reasons for non-notification are always investigated.

TABLE XXIX—NUMBER OF NEW CASES OF RESPIRATORY AND NON-RESPIRATORY TUBERCULOSIS NOTIFIED 1949-63, SUBDIVIDED ACCORDING TO SEX

	Respiratory			Non-Respiratory		
	M.	F.	Total	M.	F.	Total
1949	203	147	350	21	28	49
1950	256	137	393	25	25	50
1951	188	123	311	29	47	76
1952	213	168	381	14	32	46
1953	197	135	332	23	26	49
1954	135	105	240	17	24	41
1955	159	106	265	18	34	52
1956	109	74	183	19	22	41
1957	120	87	207	10	17	27
1958	118	96	214	10	17	27
1959	133	53	186	10	14	24
1960	147	72	219	15	28	43
1961	88	48	136	15	23	38
1962	119	62	181	19	29	48
1963	96	64	160	9	16	25

From Table XXX it will be seen that at the end of 1963 there were 2,729 cases of respiratory and 172 cases of non-respiratory tuberculosis on the Registers of the Chest Clinics, either for treatment or supervision.

TABLE XXX—NUMBER OF MEN, WOMEN AND CHILDREN WITH RESPIRATORY AND NON-RESPIRATORY TUBERCULOSIS ON THE CHEST CLINIC REGISTERS AT 31ST DECEMBER, 1963

	BEDFORD		LUTON		TOTAL	
	Resp.	Non-resp.	Resp.	Non-resp.	Resp.	Non-resp.
Men ..	789	34	615	35	1,404	69
Women	673	60	433	26	1,106	86
Children	86	12	133	5	219	17
Total	1,548	106	1,181	66	2,729	172

VENEREAL DISEASES

The venereal diseases are a group of infections which have in common the same means of transmission. The causative organisms are usually acquired during sexual intercourse with an infected person. Syphilis and gonorrhoea are the major venereal diseases but there are others, including chancroid, lymphogranuloma venereum and granuloma inguinale, which have been relatively uncommon in this country. In recent years, other sexually acquired conditions, particularly non-gonococcal urethritis, have become prevalent but although they can sometimes lead to serious complications, they are not usually serious.

Venereal diseases are not notifiable and it is not possible to ascertain accurately the incidence of the various conditions within the County. Diagnosis and treatment are the responsibility of the Regional Hospital Board and Special Clinics are held at Bedford General Hospital (South Wing) and Luton and Dunstable Hospital. The numbers of new cases of venereal disease presenting themselves to the two Special Clinics each year since 1950 are given in Table XXXI. Cases of re-infection after successful treatment are counted as new cases but cases which have already been seen elsewhere are not. No information is available concerning those who have been treated by their own doctors.

There were only five cases of primary syphilis, all males aged 20 or over. Of the remaining 20 males with syphilis, 15 had been infected for at least one year and possibly for considerably longer in some cases. Similarly, six of the ten females were not recent

infections. Of the cases of gonorrhoea, 25 males and 24 females were under 20 years of age; 61 males and 21 females were aged 20-24 years; and 218 males and 25 females were 25 years or over.

TABLE XXXI—NEW CASES OF VENEREAL DISEASE TREATED AT SPECIAL CLINICS IN BEDFORDSHIRE, 1950-63

	Syphilis		Gonorrhoea		Other Conditions	
	M.	F.	M.	F.	M.	F.
1950	57	39	113	33	261	192
1951	19	31	79	18	244	198
1952	27	31	60	23	228	176
1953	21	23	55	28	249	173
1954	21	11	50	26	284	152
1955	12	14	53	30	233	188
1956	12	17	47	12	250	149
1957	18	10	96	16	258	121
1958	20	12	120	25	298	109
1959	17	10	135	21	325	133
1960	14	16	202	39	376	171
1961	23	13	225	50	476	245
1962	12	10	277	35	425	250
1963	25	10	304	70	556	285

It will be seen that the majority of cases who attend the Clinics are suffering from other conditions and again there is a preponderance of males. This is partly attributable to non-gonococcal urethritis.

Prevention of these diseases depends upon the avoidance of promiscuous sexual intercourse.

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The Food and Drug Administration is the principal agency for the enforcement of the Federal Food, Drug, and Cosmetic Act. It is responsible for the safety, efficacy, and labeling of all human and animal drugs, biologics, medical devices, and food and cosmetics. The agency also regulates the manufacture, distribution, and use of these products. The Food and Drug Administration is a part of the Department of Health and Human Services.

SECTION IV

INSPECTION AND SUPERVISION OF FOOD

The Food and Drug Administration is responsible for the inspection and supervision of food. This includes the inspection of food processing plants, the supervision of food products, and the enforcement of food safety regulations. The agency also conducts research and testing to ensure the safety and quality of food. The Food and Drug Administration is a part of the Department of Health and Human Services.

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INSPECTION AND SUPERVISION OF FOOD

Under the Food and Drugs Act, 1955, the County Council are the Food and Drugs Authority for the Administrative County less the Boroughs of Bedford and Luton and are responsible for enforcing those provisions of the Act designed to secure that food intended for human consumption is not so treated as to render it injurious to health; that drugs are not adulterated; that no food or drug is falsely labelled or advertised; that milk intended for sale for human consumption is not adulterated or misrepresented; and that there shall be no misuse of the designation "cream". In addition, the Council have a duty throughout the County to prohibit the sale of milk from diseased cows. All the other provisions of the Act are enforced by the district councils.

As a Food and Drugs Authority, the County Council are required by law to appoint a public analyst to whom samples taken for analysis shall be submitted. Mr. J. S. Lea, B.Sc., F.R.I.C., of London is part-time County Analyst, and Mr. J. H. E. Marshall, M.A., F.R.I.C., also of London, is Deputy County Analyst.

Following the resignation of the County Health Inspector at the beginning of 1963, fresh arrangements were made for the inspection and supervision of food in the County area. Responsibility for direction remained with the County Medical Officer but the work of sampling is now shared between the Milk Sampling Officer on the staff of the Health Department and the Chief Inspector of Weights and Measures. In general terms, the former deals with all samples relating to milk, liquid cream and ice-cream except for flavoured milks and milk drinks in cafes. The Chief Inspector of Weights and Measures and his assistants take other samples in accordance with the Food and Drugs Act and are also responsible for the enforcement of the relevant sections of the Merchandise Marks Acts and the Pharmacy and Poisons Act.

The Food and Drugs Act also affects the County Council in their capacity as caterers on a considerable scale. Thus the school meals service is subject to the provisions of the Act and the Food Hygiene (General) Regulations, 1960. Assistant County Medical Officers make routine inspections of school canteens on the occasions of routine medical inspections.

SPECIALLY DESIGNATED MILK

There are at present three special designations for milk—pasteurised, sterilised and tuberculin tested—and as the whole of Bedfordshire is a specified area as defined in the Food and Drugs Act, 1955, all milk sold by retail in the County must be specially designated.

Under the Milk (Special Designation) Regulations, 1960, the County Council are responsible for licensing dealers in milk. The standard of the County milk supply continues to be satisfactory, and there has been no necessity for prosecutions under the Regulations.

QUALITY OF MILK

Samples of milk are taken in order to ensure that the consumer receives milk that has not been adulterated either by the extraction of fat or by the addition of water. The law presumes, until the contrary is proved, that milk is not genuine if it contains less than 3 per cent of milk-fat or less than 8.5 per cent of milk solids other than fat. The presumptive standard of milk-fat is low and most milks have a much higher fat content. Thus the average for all unadulterated samples taken in 1963 was 3.89 per cent, as shown in Table XXXII. Excluding Channel Islands and South Devon milk, the average was 3.68 per cent.

The term "Channel Islands and South Devon milk" covers any milk described as Channel Islands, Jersey, Guernsey or South Devon which comes from cows of the breed specified. Under the Milk and Dairies (Channel Islands and South Devon) Milk Regulations, 1956, it is an offence to sell for human consumption, any milk so described unless it contains at least 4 per cent of milk-fat. Table XXXII shows the monthly fat content of samples of Channel Islands and South Devon milk taken during 1963.

Altogether 402 samples of milk were taken, of which seven were abnormal. In two cases the milk contained extraneous water and the remaining samples were deficient in milk fat. Appropriate action was taken.

EXAMINATION OF PASTEURISED MILK

To determine the keeping quality of milk and the efficiency of pasteurisation, samples are examined regularly from retailers supplying milk to the 164 maintained schools in the County (excluding Bedford and Luton) and from pasteurising plants. During the year, 239 routine samples from schools were taken, 20 of which did not conform to the prescribed standards for keeping quality. Further samples were taken which were satisfactory. Of 63 routine samples taken from pasteurising plants, two were unsatisfactory. Further samples taken proved satisfactory.

TABLE XXXII—MONTHLY AVERAGE FAT CONTENT OF
UNADULTERATED SAMPLES OF MILK, 1963

	Channel Islands and South Devon Milk		Other Milk		All Milk	
	No. of samples	Milk fat %	No. of samples	Milk fat %	No. of samples	Milk fat %
January ..	4	4.84	16	3.95	20	4.12
February ..	7	4.70	17	3.85	24	4.10
March ..	4	4.62	24	3.64	28	3.78
April ..	6	4.38	17	3.51	23	3.73
May	9	4.26	42	3.45	51	3.59
June	10	4.48	25	3.53	35	3.80
July	7	4.36	22	3.41	29	3.64
August ..	8	4.36	28	3.67	36	3.80
September ..	8	4.52	29	3.64	37	3.83
October ..	10	4.85	36	3.80	46	4.02
November ..	6	4.58	25	3.94	31	4.07
December ..	10	5.24	25	3.82	35	4.23
TOTALS ..	89	4.60	306	3.68	395	3.89

BIOLOGICAL EXAMINATION OF MILK

Since the 1st October, 1959, Bedfordshire has been an Attested Area, which means that tuberculosis is practically non-existent in cattle in the County. There is always a possibility of tuberculosis re-appearing in a Tuberculin-Tested herd and to guard against this, the Ministry's veterinary officers undertake periodical inspections. In addition the County Milk Sampling Officer takes samples from the herds of producer-retailers. 122 samples of milk were taken during the year and tested by Guinea Pig inoculation. All were found to be satisfactory.

ICE-CREAM

The manufacture and sale of ice-cream are controlled by the Food Standards (Ice-Cream) Regulations, 1959, and the Labelling of Food (Amendment) Regulations, 1959. Samples are taken to ensure that ice-cream offered for sale complies with both sets of Regulations.

During 1963, 27 samples of ice-cream and six of dairy ice-cream were taken and were found to be satisfactory. It is of interest to record that the fat content of the 33 samples ranged from 6.2 per cent to 15.2 per cent, with an average of 10.9 per cent.

To ensure that ice-cream is bacteriologically satisfactory, the district councils have samples taken and submitted to the Public Health Laboratory Service.

SAMPLES OTHER THAN MILK AND ICE-CREAM

There were 33 formal and 257 informal samples of food and drugs, other than milk and ice-cream, taken during the year. Of these, eight formal and ten informal samples were adulterated, particulars of which are given in Table XXXIII.

In addition to routine sampling, complaints by members of the public are investigated and proceedings instituted where necessary.

MERCHANDISE MARKS ACTS

During the year, 243 routine visits were made to premises and samples were taken where necessary. In 82 cases verbal warnings were given.

WASTE FOODS

Waste Foods may, if not boiled for at least one hour, spread foot and mouth and other diseases. The Diseases of Animals (Waste Foods) Order, 1957, makes it necessary for substantial collectors of waste food to obtain a licence imposing on them an obligation to use an approved boiling plant which would be periodically inspected. The licensing authorities in Bedfordshire are the Bedford and Luton Borough Councils, and the County Council for the remainder of the County. The Sampling Officer has been authorised to act on behalf of the County Council for the purpose of inspecting plant and equipment. The number of licences in force at the 31st December, 1963 was 34. All the premises were inspected during the year.

TABLE XXXIII—DETAILS OF ADULTERATED SAMPLES OF FOOD, WITH ACTION TAKEN, 1963

Article	Sample No.	Nature of adulteration or irregularity	Action taken
Fruit Cake Mix	3174 (Informal)	List of ingredients incorrect. Sultanas (8.9%) listed before currants (13.1%)	Warning letter sent to wholesalers
Sausages, Pork (Preserved, skinless)	3229 (Informal)	Contained 35 parts sulphur dioxide in excess of statutory maximum of 450 parts per million	Warning letter sent to wholesalers. Formal sample taken which was satisfactory
Milk Chocolate Cigarettes	3502 (Informal)	Milk fat not more than 0.5%. Should contain not less than 3.5% milk fat	Formal sample taken. See 3518
Milk Chocolate	3518	Do.	Firm fined £5, plus £7 7s. 0d. costs
Cream Doughnuts	3527	Contained imitation cream	Firm fined £5, plus £2 2s. 0d. costs
Cream Doughnuts	3528	Do.	Do.
Glycerine, B.P.	3532 (Informal)	Contained 1.0% excess water	Formal sample taken which was satisfactory
Meat Pie	3561 (Informal)	Meat deficient 40.0%	Baker agreed to sell as "Meat and Vegetable" pie
Pork Dripping	3710	Contained 2.1% excess water. Saponifiable matter deficient 6.3%	Butcher cautioned
"Robinade" Soft Drinking Powder	3715 (Informal)	Vitamin C deficient 16.0% declared amount	Formal sample taken which was satisfactory
"Cydrax" (Non-alcoholic)	3907 (Informal)	Contained 1.2% proof spirit. Description "non-alcoholic" false	Firm agreed to change the label
Home Bread Mix	3911 (Informal)	Contained 164 mg. chalk per 100 gm. flour in excess of statutory maximum. Not declared in list of ingredients	Formal sample taken which was satisfactory
Zinc & Castor Oil Cream, B.P.	3587 (Informal)	Contained 8.33% zinc oxide. B.P. maximum is 8.0%	Formal sample taken which was satisfactory
Chocolate Whisky Bottle, full strength spirit	3927	The filling contained only 15.1% proof spirit. Description "full strength" false and misleading	Legal proceedings instituted
Milk, Hot	3928	Contained 26.0% added water	Retailer cautioned
Zinc & Castor Oil Cream, B.P.	3934 (Informal)	Contained 8.49% zinc oxide. B.P. maximum is 8.0%	Firm cautioned in writing
Milk, Hot	3941	Contained 25.3% added water.	Retailer cautioned
Zinc & Castor Oil Cream, B.P.	3958	Contained 8.5% zinc oxide. B.P. maximum is 8.0%	Firm cautioned in writing

SECTION V

MISCELLANEOUS

BLIND PERSONS

Under the National Assistance Act, 1948, the Welfare Committee of the County Council is responsible for the welfare of blind persons in the County, but in Bedford and Luton the responsibility during 1963 was delegated to the respective Borough Councils.

Before a person is admitted to the Blind Persons Register he is examined by an ophthalmic specialist who completes a form B.D.8. Forms B.D.8 in respect of 52 blind persons who were registered in the County area in 1963 have been examined and details are given in Table XXXIV. Of the persons with cataract for whom operation was recommended, three were successfully treated, two have died and three are awaiting admission to hospital. At the end of 1963 the number of blind persons in the County area was 382, comprising 148 men, 222 women, and 12 children.

A great many of the persons registered as blind give no history of any previous treatment for their eye condition. In some cases, of course, advice is not sought until the sight has almost failed. In the case of glaucoma, for instance, one eye sometimes becomes completely blind without the patient realising it and he only becomes aware of the fact when the other eye becomes seriously affected. The incidence of blindness could undoubtedly be reduced if expert advice were sought in all doubtful cases of visual disability, however vague and indeterminate. The work now being done in Bedford Borough on the early detection of diabetes and glaucoma is also of value in reducing the incidence of blindness.

Four infants were notified as suffering from *Ophthalmia Neonatorum* during the year. All made a complete recovery.

STAFF MEDICAL EXAMINATIONS

In addition to their normal duties in connection with maternity and child welfare and the school health service, the medical officers are called upon to carry out medical examinations of successful applicants for posts with the County Council, including the Police. Examinations are also undertaken when required to determine whether an individual is fit to carry on his normal duties. Altogether 192 persons were examined in 1963. In many cases, an examination is not required if the candidate can furnish a satisfactory statement of health. These statements, of which there were 285 in 1963, are scrutinised by a medical officer. In four cases during the year, the applicant was required to undergo a medical examination.

TABLE XXXIV—CAUSES OF BLINDNESS IN PERSONS REGISTERED IN
THE COUNTY AREA OF BEDFORDSHIRE, 1963 AND TREATMENT RECOMMENDED

	Cause of Disability						Total
	Cataract	Glaucoma	Retrolental Fibroplasia	Diabetes	Senile Macular Degen.	Other	
No. of cases in which no treatment recommended	5	3	—	1	13	8	30
No. of cases in which treatment recommended:							
(i) Medical	—	2	—	1	—	4	7
(ii) Surgical	9	—	—	1	—	—	10
(iii) Optical	1	1	—	—	1	2	5
No. of cases who received treatment:							
(i) Medical	—	2	—	1	—	4	7
(ii) Surgical	3	—	—	—	—	—	3
(iii) Optical	1	1	—	—	1	2	5

NURSING HOMES

Under the Public Health Act, 1936, the County Council are the responsible authority for the registration and supervision of nursing homes, but under Section 194 of the Act their powers and duties in respect of premises in Bedford and Luton were during 1963 delegated to the respective Borough Councils. At the end of 1963 there were seven nursing homes registered in Bedfordshire, providing accommodation for seven maternity and 80 other patients. One home closed during the year.

NURSES AGENCIES

There is only one Agency in the County and it is licensed and supervised by the County Council under the Nurses Agencies Act, 1957.

SWIMMING BATHS

Eleven swimming baths in the County are approved for the use of schoolchildren, of which three are in Bedford Borough, two in Luton Borough and two in Dunstable Borough. In addition, there is a swimming bath at the Council's residential special school at St. Margaret's, Great Gaddesden, Hertfordshire. During the year, samples of water were taken and all were found to be satisfactory.

FLUORIDATION OF WATER SUPPLIES

The case for fluoridation rests on the fact that where fluoride in the right amount is added to water in which it is naturally deficient, dental decay in young children is reduced by about half. The optimum level recommended by the Minister of Health is one part per million. The water supplied in Bedfordshire contains less than this amount of fluoride in varying degrees.

In Circular 28/1962, the Minister indicated that he was prepared to approve under Section 28 of the National Health Service Act, 1946, the making of arrangements with water undertakings for the addition of fluoride to those water supplies which were deficient in it naturally. This approval would enable Authorities to meet the cost, estimated at about tenpence per head per annum, as expenditure under Section 28. For the whole of Bedfordshire this would amount to approximately £16,500.

Since District Councils have a duty under the Public Health Act, 1936, to ascertain the wholesomeness of water supplies in their districts, their views of fluoridation were sought. In some cases, parts of the County are supplied by water undertakers who also supply

adjoining areas from the same source. The fluoridation of these supplies is dependent upon the Councils of the adjoining Counties also being prepared to make arrangements.

After due consideration, the Authority approved in principle the making of arrangements for the fluoridation of water supplies in the County. The Mid-Bedfordshire Water Board, however, deferred further consideration pending the result of a legal action being taken by a consumer against the Watford Corporation for a declaration by the High Court that the Corporation in fluoridating its water supplies was acting *ultra vires*. In addition the Luton Rural District Council requested that the introduction of fluoride be deferred until the opposing opinions in the matter had been resolved or at least clarified. The result of the legal action is still awaited.

THE CIVIL DEFENCE AMBULANCE AND FIRST-AID SECTION

The Civil Defence Ambulance and First-Aid Section will be expanded in case of war and will be linked with the peace-time ambulance service provided by the Authority under the National Health Service. The Section has as its Head the County Medical Officer and he is responsible for its organisation and for the training of volunteers.

Although Luton is a separate Corps Authority they were not made responsible for the organisation of the Ambulance Section. It was agreed, however, that the Medical Officer of Health for Luton should be responsible for the training of volunteers after they had been recruited by the Civil Defence Officer. At the time of writing, the County Borough of Luton is completely responsible for its Civil Defence matters.

In order to provide the necessary training certain members of the County Ambulance Service have undertaken an Instructors' Course and become qualified to train volunteers in accordance with the syllabus laid down by the Home Office. The County Ambulance Superintendent plays an important part in the organisation of the Section and training of volunteers and is the liaison officer between the Head of the Section and the volunteers. Valuable assistance and co-operation from the staff of the Civil Defence Headquarters at Kempston Manor, and from the delegated areas of Bedford, Dunstable, Luton Rural, Leighton Buzzard and Biggleswade, continues and this is much appreciated.

Membership of the Section continued to rise in 1963 and nine classes were under training in the County at the end of the year. Following a local Home Office Instructors' Joint Refresher and Qualifying Course, six qualifying members took the examination and five passed. Also ten out of eleven persons were successful in an examination that followed a Lay Instructors' Course in First Aid. In addition to instruction in First Aid, facilities are provided for ambulance driving practice and many members take advantage of this.

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STANDARD PRACTICES BY THE BOARD OF DIRECTORS OF THE COMPANY
 The Board of Directors of the Company has adopted the following
 standard practices for the management of the Company's affairs:
 1. The Board of Directors shall have the authority to declare
 dividends on the Company's capital stock.
 2. The Board of Directors shall have the authority to borrow
 money for the Company and to mortgage the Company's property
 to secure such loans.
 3. The Board of Directors shall have the authority to lease
 real estate for the Company's use.
 4. The Board of Directors shall have the authority to employ
 and discharge any and all officers and employees of the
 Company and to determine their compensation.
 5. The Board of Directors shall have the authority to execute
 all contracts and agreements on behalf of the Company.
 6. The Board of Directors shall have the authority to do all
 things which the Company is authorized to do by its
 charter and the laws of the State of New York.

APPENDIX

The following is a list of the names of the persons who
 have served as officers and directors of the Company since
 its incorporation on the 15th day of January, 1900:
 Officers:
 President: [Name]
 Vice President: [Name]
 Secretary: [Name]
 Treasurer: [Name]
 Directors:
 [List of names]
 The following is a list of the names of the persons who
 have served as officers and directors of the Company since
 its incorporation on the 15th day of January, 1900:
 Officers:
 President: [Name]
 Vice President: [Name]
 Secretary: [Name]
 Treasurer: [Name]
 Directors:
 [List of names]

VITAMIN SUPPLEMENTS IN PRE-SCHOOLCHILDREN

By Dr. L. G. Nicol

Concern was expressed locally about the substantial decline in sales of welfare orange juice and cod liver oil which followed the removal of the subsidy from these preparations in June, 1961. This decline in England and Wales is shown in the following figures :—

<i>Year</i>		<i>Orange Juice</i> (Bottles)	<i>Cod Liver Oil</i> (Bottles)
1959	... ..	22.37 million	2.64 million
1960	... ..	21.48 ..	2.62 ..
1961	... ..	13.83 ..	1.77 ..

In order to discover the effects of this decline, mothers living in several areas in Bedfordshire were questioned during the months of August and September, 1962, as to whether they were regularly giving supplementary vitamins to their children up to the age of five years. Altogether 714 mothers were questioned concerning 989 children. Of this number, 374 mothers of 565 children were questioned at child welfare centres and 340 mothers of 424 children, who did not attend the centres, were interviewed in their own homes by health visitors.

As far as Vitamin C was concerned, it was found that 72 per cent of all children aged between one and six months were receiving some form of supplement. This figure was maintained for the age-group six months to two years but among children aged two to five years there was a fall to 45 per cent. Overall, 63 per cent of children under five years of age were receiving Vitamin C supplement. There was no great difference between those who attended child welfare centres and those who did not, the figures being 68 per cent and 55 per cent respectively.

Of all the children who were receiving Vitamin C supplement, just under half (45 per cent) were having it in the form of welfare orange juice. As is known, certain proprietary preparations are sold at child welfare centres in addition to welfare foods and 381 or 62 per cent of the children received their supplies of Vitamin C from the centres.

A number of foodstuffs (e.g. margarine and dried milk) are fortified with Vitamin D so that the enquiries in this case were concerned with supplements other than these. Of all children aged between one and six months, 51 per cent were receiving some form of Vitamin D supplement. In the two to five year group there was a marked falling off to 27 per cent. Altogether, supplements were being given to 40 per cent of children under five years of age, and again there was no great difference between those who attended and who did not attend child welfare centres, the percentages being 44 and 34 respectively.

Cod liver oil was the source of Vitamin D for 36 per cent of the children. In the case of 248, or 62 per cent, of the children receiving Vitamin D either in the form of cod liver oil or otherwise, the source of supply was the child welfare centre.

Of all the children in the sample, one-third (326) were receiving both Vitamin C and D supplements, 53 of them being given a multi-vitamin preparation. If a multivitamin preparation had always been given instead of single vitamin preparations, the number of children receiving Vitamin D would have been doubled.

The 397 mothers who were either not giving any supplement or only one, were questioned as to their attitude and the greater number were unable to give a satisfactory reason for not giving vitamins and appeared to hold no firm views on the subject. Many gave the impression of not being interested. One-third (135) appeared to consider extra vitamins unnecessary; 22 gave fresh fruit instead of Vitamin C preparations; 21 gave Vitamin D preparations during the winter months only. In 43 cases, the mothers said that their children either refused or were upset by cod liver oil but they had not considered giving an alternative preparation. Only 12 mothers gave cost as the reason for not giving vitamin supplements.

Mothers were questioned as to the form in which their children received their vitamin supplements. The great majority used welfare orange juice, rose hip syrup, cod liver oil, and A and D concentrate. Fluctuations in the sales of other preparations would, therefore, have little influence on the number of children receiving vitamin supplements.

Following the price changes in June, 1961, sales of welfare orange juice and cod liver oil fell abruptly in the County. Between the second half of 1960 and the second half of 1961 there was a 58 per cent fall in sales of orange juice and a 66 per cent fall in sales of cod liver oil. At the child welfare centres there was a corresponding 25 per cent increase in sales of rose hip syrup and a 12 per cent increase in sales of A and D concentrate.

It was clear that the alternative forms of vitamin supplements did not compensate for the decline in the sales of welfare vitamins. The health visitors were instructed to give special attention to the matter and the consumption of vitamins, particularly orange juice, has gradually improved.

One of the things that this investigation demonstrated very clearly was the need for better education of mothers regarding vitamin supplements. Some of those interviewed did not know what vitamins were or what purpose they served. Moreover, they had no real idea of which vitamins were contained in the various preparations.

