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Radnorshire County Council.



# Annual Report

OF THE  
Medical Officer of Health

FOR THE  
Year 1936,

BY

J. W. MILLER, M.D., D.P.H.,  
Barrister-at-Law,  
County Medical Officer of Health.

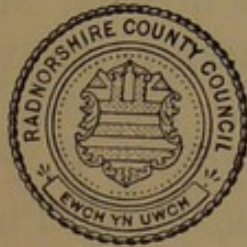
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PRESTEIGNE :

BEDDOES,, COUNTY PRINTING WORKS.



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# County of Radnor.

## PUBLIC HEALTH and HOUSING COMMITTEE.

Chairman : Alderman B. P. Lewis.

Aldermen William Thomas, Major Thompson, and Col. Sir Charles Venables-Llewelyn, Bart. ; Councillors Abberley, T. P. Davies, Ellway, Mrs. Gibson Watt, Hughes, Lloyd, J. P. Price, Richard Price, Protheroe, Reynolds, E. V. Thomas, and Capt. the Hon. Reginald Walsh.

## MATERNITY AND CHILD WELFARE AND MIDWIVES ACT COMMITTEE.

The Members of the Public Health and Housing Committee, and Mrs. E. P. Rogers, Mrs. W. A. Sims, Mrs. Alfred Thomas, Lady Venables-Llewelyn, and Dr. John Murray.

## DISTRICT MEDICAL OFFICERS OF HEALTH.

NAME.	URBAN DISTRICT.
G. H. H. Booth, B.Sc., M.B., Ch.B., Wylcwm Street, Knighton.	Knighton.
Alastair Hair, M.B., Ch.B., Hafod Awen, Llandrindod Wells.	Llandrindod Wells.
R. R. Walker, M.A., M.D., Warden Court, Presteigne.	Presteigne.
	RURAL DISTRICTS.
G. P. Driver, M.R.C.S., L.R.C.P., Tynberllan, Builth Wells.	Colwyn.
J. A. K. Griffiths, M.B., M.R.C.S., The Cottage, Knighton.	Knighton.
P. Wallice, M.R.C.S., L.R.C.P., The Laurels, New Radnor.	New Radnor.
W. W. Wilson, M.B., Ch.B., Broad Street, Hay.	Paincastle.
H. T. Lippiatt, M.D., M.C., Bryncoed, Rhayader.	Rhayader.

## DISTRICT MEDICAL OFFICERS [Poor Law] AND PUBLIC VACCINATORS.

The District Medical Officers of Health, and Drs. †H. C. D. Miller,  
R. F. Jayne, J. Murray, H. W. Powell, \*P. Shankey, and  
O. W. D. Steel.

†Public Vaccinator only. \*District Medical Officer only.

### VACCINATION OFFICERS.

Messrs. W. J. Beavan, G. W. Griffiths, A. R. Hicks, A. J. James,  
J. P. Lingen, D. J. Pugh, and G. P. Weale.

### SANITARY INSPECTORS.

NAME AND ADDRESS.	DISTRICT.	QUALIFICATIONS.
D. J. Phillips, Town Hall, Knighton.	Knighton Urban	Cert. R. San. Inst.
R. J. Morris, Town Hall, Llandrindod Wells.	Llandrindod Wells Urban	Cert. R. San. Inst.
R. P. Morris, Westfield, Kington.	Presteigne Urban	Cert. R. San. Inst.
J. Evans, Victoria House, Erwood.	Colwyn Rural	Cert. R. San. Inst.
D. Davies, Chandos Tem- perance Hotel, Knighton.	Knighton Rural	—
J. P. Lingen, Broad Street, New Radnor.	New Radnor Rural	—
J. J. Price, Hardwick House, Clifford, Hay.	Paincastle Rural	—
R. Worthing, Tegid House, Rhayader.	Rhayader Rural	—

Clerk to the County Council : G. W. Moseley.

Inspector of Midwives : Miss J. Todd, S.R.N.,  
Cert. C.M.B., Cert. R. San. Inst.

Inspector under the Sale of Food and Drugs : C. S. W. Powell.

County Analyst : Herbert J. Evans, B.Sc., F.I.C.

Veterinary Officer : J. P. Railton, M.R.C.V.S.

Clerk to the Medical Officer of Health : R. P. Bufton.

# To the Chairman and Members of the Radnorshire County Council.

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I have the honour to present my sixteenth Annual Report on the Health Administration of the County for the year 1936.

POPULATION.—(Page 7). The population estimated for 1936, by the Registrar General, is given on page 7 ; I consider that of Llandrindod Wells to be rather an under estimate ; this town is favourably situated as a Health Resort and Residential Town.

Information is given in regard to population at certain age periods.

OCCUPATIONS.—Information, based on the 1931 Census, is given on pages 9 to 21. Reference is made to Juvenile employment on pages 17 and 20. Radnorshire stands high in regard to Agricultural Occupations.

BIRTH RATE.—(Pages 21 & 22). The rate for the County was 15·7 (urban districts 14·0, rural 16·4) ; the rate for England and Wales was 14·8. Information in regard to Marriage Rate was given on pages 9-11 of my Annual Report for 1935, and in connection with Fertility Rate on pages 11-14 of the same Report.

DEATH RATE.—(Pages 24-26). The death rate for the County (corrected by the Comparative Mortality Figure '85) was 12·8 compared with 12·1 for England and Wales.

Information in regard to death rates, etc., in connection with Early Childhood, School Age, and Adolescence, was given on pages 15, 32, and 34 respectively of my Annual Report for 1934, and for ages 25-45, 45-65, 65-75, and 75 years and upwards, on pages 24, 26 and 27, Annual Report for 1935.

STILL BIRTHS.—(Pages 23 & 24). The ratio per 1,000 total births for 1936 was 53.

The causes of still births were given on pages 4, 8, and 9, Annual Report for 1933.

MATERNAL MORTALITY.—Pages 35-36). Information in regard to the 5 years 1931-35 showed that the rate for the County was under 5 per 1,000, an improvement on the 5 years 1921-25, and 1926-30. During the period 1931-35 there were no deaths in the urban districts.

Particulars given in regard to Ante-natal examinations show that in not more than one-half of the cases has there been an examination ; in addition the midwives are not booked early enough, only 55 per cent gave at least 3 months notice (page 34).

The rate cannot be reduced materially unless expectant mothers avail themselves to a larger extent of the facilities provided.

INFANTILE MORTALITY.—(Pages 29-33). The rate for the County for 1936 was 66 (urban 51, rural 71) ; the rate for the 10 years 1926-35 was 55 (urban 50, rural 56).

Information is given on page 31 of the rates for the 5 years 1931-35, at periods from one day upwards.

TUBERCULOSIS.—I have given detailed information in regard to this disease on pages 50-58.

It is satisfactory to note that the rate for Pulmonary Tuberculosis for the 5 years 1931-35, was the lowest of any County Borough or County in Wales, but there are lower rates in connection with some of the English Counties. It is difficult to understand why an average of 6 persons—some of them in the age periods 15-25 and 25-35 years—should die annually from the Pulmonary variety, and between 3 and 4 from the Non-Pulmonary forms. Even in an healthy environment, unless there is sufficient fresh-air, sunshine and food, the resistance is lowered, and persons are more susceptible to the disease.



On page 73, I have shown that a definite amount of infection, by the Bovine variety of the Tubercle bacillus, is caused through milk.

Particulars of bacteriological examination of milk are given on pages 72-73 ; the number of persons on the Accredited Roll is only a small proportion of the total number of purveyors, and the results of the bacteriological analyses show that the majority of purveyors have reached a standard equal to that of accredited milk.

HOUSING.—(Pages 74-76). More use is now being made of the Housing (Rural Workers) Act of 1926, as amended, and the erection of additional houses in the urban and rural districts is under consideration. The information obtained under overcrowding, in connection with the Housing Act of 1935, indicates that additional houses are necessary.

In conclusion I desire to express my thanks to those Members of the County Council who have given me their support, and to the members of the staff for their loyal co-operation and assistance.

I have the honour to be,

Your obedient Servant,

J. W. MILLER,

County Medical Officer of Health.

Public Health Department,  
County Buildings,  
Llandrindod Wells,  
July, 1937.

# ANNUAL REPORT.

## AREA AND POPULATION.

Full particulars were given on pages 6 and 8, Annual Report for 1923, and on pages 5 and 6, Report for 1925, and information obtained through the census on page 8, Report for 1931.

The Registrar-General gives the following estimates of the population for 1936 ; Urban Districts, 5,560 ; Rural Districts, 14,580 ; County, 20,140.

The population of the 3 Urban Districts are as follows : Knighton, 1,782 ; Llandrindod Wells, 2,650 ; Presteigne, 1,128. The population of the 5 Rural Districts is given as follows : Colwyn, 1,885 ; Knighton, 3,649 ; New Radnor, 2,444 ; Painscastle, 2,006 ; Rhayader, 4,596.

CHANGES IN AGE-DISTRIBUTION.—Particulars of population, for the county, at certain age groups in 1911 and 1931 are given below :

Age Group.	1911.			1931.		
	M.	F.	P.	M.	F.	P.
Under 25 years	5349	5318	10667	4601	4340	8941
25-45 „	3041	3160	6201	2653	2953	5606
45-65 „	2051	1947	3998	2325	2377	4702
Over 65 „	899	825	1724	986	1088	2074
	11340	11250	22590	10565	10758	21323

The approximate age-distribution of persons of both sexes per 1000 of the population in 1911 and 1931 is as follows :

Age Group.	County.			E&W.	County.			E&W.
	1911.			1901.	1931.			1931.
	M.	F.	P.	P.	M.	F.	P.	P.
Under 25 years	472	473	472	520	436	403	419	414
25-45 „	268	281	275	284	251	275	263	296
45-65 „	181	173	177	149	220	221	221	219
Over 65 „	79	73	76	47	93	101	97	71
	1000	1000	1000	1000	1000	1000	1000	1000

There has been a greater decline in the female population in comparison with the males, under 25 years, but a greater increase of females in the old age group. Other particulars were given on page 4 of my Annual Report for 1935.

In his Annual Report for 1935, the Chief Medical Officer of the Ministry of Health points out (page 15) that the age-distribution since the beginning of the century has greatly

changed, "Though the population has steadily increased the proportion of people in the age group under 25 years, has fallen by nearly 25 per cent. In the young middle-age group, 25-45 years, the change towards increase is evident; it is more evident in the old middle-age group, 45 to 65 years, and still more so in the fourth, the old-age group."

The reasons he gives are the fall in the birth rate, which has reduced the proportion of young lives, and the fall in the general death rate, which has increased the population in the older groups.

He points out that the improvement in the rate of infantile mortality has compensated for the declining birth rate, but this compensation is unlikely to persist; "Hence the present portents, that by the middle of the century the population will have attained its maximum, and will thereafter decline. In the meantime it is probable that the change in age-distribution will continue."

During the 20 years 1911-31, in Radnorshire there has been a decline of 16 per cent in the population under 25 years; at 25-45 years this amounts to 10 per cent. The change towards increase occurs at 45-65 years, being 18 per cent, and is more evident in the old-age group, equal to 20 per cent.

#### RATEABLE VALUE & INHABITED HOUSES.

Area.	Rateable	Product of a		*No. of	
	Value.	Penny Rate.		inhabited	houses.
	1935.	1930.	1935.	1930.	1935.
Radnorshire	†£201489	£576	£812	5291	5586
Urban Districts—					
Knighton	£11366	£37	£47	477	493
Llandrindod Wells	£23734	£111	£92	621	750
Presteigne	£3645	£14	£14	323	423
Rural Districts—					
Colwyn	£6287	£24	£25	461	494
Knighton	£23557	£57	£94	946	952
New Radnor	£7591	£28	£29	628	663
Painscastle	£8693	£34	£33	522	550
Rhayader	£115981	£271	£476	1313	1261

\*According to Rate Books.      †April 1st, 1936.

There has been a large increase in the product of a penny rate, comparing 1930 and 1935, in connection with the County, and this has been most marked in the Rhayader Rural District; there has been a decrease in the product of a penny rate in Llandrindod Wells. The number of inhabited houses in the County has also increased.

## NATURAL & SOCIAL CONDITIONS.

Particulars were given on pages 6-10, Annual Report for 1925, and on pages 8 and 9, Annual Report for 1930.

RAINFALL.—This was referred to on pages 6 and 7, Annual Report for 1932.

### OCCUPATION.

This has an important bearing in connection with the health of the individual.

Information in regard to male and female workers in Radnorshire, according to the 1931 census (enumerated on the night of the 26/27th April), is as follows :

		Males.	Females.
Population	... ..	10,565	10,758
Aged 14 years and over	... ..	7,994	8,394
Operatives (in work) ditto.	... ..	4,498	1,666
Out of work (all classes) :			
Number (I-XXXI)	... ..	378	87
Per cent of Occupied (I-XXXI)	... ..	5·3	4·0
I-XXXI. Occupied, 14 years and over		7,165	2,190
XXXII. Unoccupied and retired, 14 years and over	... ..	829	6,203

AGRICULTURE.—The largest group of male workers in Radnorshire is in connection with agriculture ; particulars in regard to male and female workers are as follows :—

	Radnorshire.		Per 1,000 total aged 14 years & upwards.			
	Total Males.	Total Females.	Males.		Females.	
			Rads.	E&W.	Rads.	E&W.
Agricultural Occupations (II)	3,684	164	457	76	20	3
(1) Farmers	1,494	112	187	16	13	1
(2) Farmers' sons, daughters or other relatives assisting in the work of the farm	563	31	70	5	4	0
(3) Gardeners, Nurserymen, Seedsmen and Florists	165	2	21	15	—	—
(4) Farm Bailiffs & Foremen	56	—	7	1	—	—
(5) Agricultural Labourers, Farm Servants	1,300	14	163	33	2	1
(6) Gardeners' Labourers	21	—	3	3	—	—

The group Agricultural Labourers, Farm Servants, includes :—Males : (a) Shepherds 51 ; (b) employed tending cattle, dairying, etc. 167 ; (c) employed in charge of horses 320 ; and (d) not otherwise distinguished 762. Females : (a) employed in tending cattle, dairying, etc. 8 ; and (b) not otherwise distinguished 6.

Other agricultural sub-groups for which the rates are not given are : Males—Land and Estate Agents 9 ; Agriculture and Fishery Pupils 56 ; Foresters and Woodmen 40 ; and those employed in connection with Agricultural Machine Tractors 4 ; Other Agricultural Occupations 6. For Females—Other Agricultural Occupations 5.

**MALES :** The largest group of male workers is in connection with Agricultural Occupations, the rate (457 per 1,000 total aged 14 years and upwards) is second highest of the 62 Counties in England and Wales ; Holland (Lincolnshire) has the highest rate, 480 ; Wales 2 had a rate of 229. Wales 1 consists of the Counties of Brecon, Glamorgan and Monmouth, and Wales 2 of Carmarthen, Caernarvon, Cardigan, Denbigh, Flint, Merioneth, Anglesey, Montgomery, Pembroke and Radnor.

The County has the highest rates in England and Wales for sub-groups (1) Farmers, and (2) Farmers' sons and daughters, or other relatives on the farm ; the rates were 187 and 70 respectively, the corresponding rates for England and Wales being 16 and 5. Radnorshire has the 4th highest rate in England and Wales, and highest in Wales (with Montgomery) for sub-group (4) Farm Bailiffs and Foremen, and the 8th highest in England and Wales (highest in Wales) for (5) Agricultural Labourers, Farm Servants. The rates for (4) and (5) are 7 and 163 for the County, and 1 and 33 respectively for England and Wales.

**FEMALES :** In regard to female workers, the County has for Agricultural Occupations the 8th highest rate in England and Wales, and 6th in Wales ; 164 (10 per cent of total operatives) were employed, giving a rate of 20 compared with 3 for England and Wales. Radnorshire was the 5th highest in England and Wales (rate 13) for group (1), only 4 Welsh Counties being higher ; and 6th (rate 4) for group (2), Westmoreland and 4 Welsh Counties being higher.

**JUVENILES :** Particulars in regard to Agricultural Occupations in Radnorshire at four age periods are as follows :

	Total Population.				Occupied.				Out of Work†
	14.	15.	16&17.	18-20.	14.	15.	16&17.	18-20.	
Males	180	200	399	567	63	99	225	339	13
Females	190	194	375	537	—	2	7	6	2
<b>Males.</b>									
Gardeners and their Labourers	...	1	1	11	13	3			
Agricultural Labourers	...	29	53	129	226	10			

†Included in previous columns.

It will be seen that nearly one-third of the males at 14 years, one-half at 15, 56 per cent at ages 16 and 17 years, and 60 per cent at 18-20 years were engaged in Agriculture ; over two-thirds of those occupied at 18-20 years, and one-half at earlier ages were employed as Agricultural Labourers. Only a small proportion of females, aged 14-20 years were so employed.

Information in regard to other occupations is as follows :

Occupation of Males.	Radnorshire.		Per 1,000 total aged 14 yrs. and over.		
	No.	Per 1,000 total aged 14 yrs. and over	England and Wales	Wales 1	Wales 2
Commerce, Finance and Insurance (XXIII) (excluding clerks) ...	545	68	100	79	83
Proprietors and Managers of Retail Businesses ...	216	29	34	30	36
Salesmen and Shop Assistants do.	206	27	31	24	27
Builders, Bricklayers, Stone and Slate Workers ; Contractors(XVIII)	502	63	47	37	65
Builders' Labourers ...	15	2	6	3	3
Bricklayers and their Labourers	30	4	11	3	7
Masons, Stonecutters, Dressers and Carvers and their Labourers	54	9	3	8	10
Platelayers ...	62	8	3	5	5
Other Workers (mostly Navvies)	256	32	12	10	18
Persons employed in Transport (XXII)					
1. Railway ...	118	15	18	27	18
2. Road ...	228	29	47	29	35
3. Water ...	5	1	18	30	18
4. Other Workers ...	144	18	24	15	15
Other and Undefined Workers(XXXI)	335	42	99	82	78
General Labourers (so described) and undefined Labourers ...	247	35	54	40	54
Other Unskilled Workers (class of work specified) ...	27	3	34	33	17
Persons engaged in Personal Service (including Institutions, Clubs, Hotels, etc.) (XXVII) ...	265	33	32	17	24
Domestic Servants (Indoor) ...	71	9	5	2	4
Inn, Hotel Keepers, Publicans, Beersellers ...	53	7	5	3	5
Game Keepers & Game Watchers	36	4			
Workers in Wood and Furniture (XV)	215	27	32	16	25
1. Upholsterers ...	3	1	2	1	1
2. Carpenters ...	149	19	17	10	19

Occupation of Males.	Radnorshire.		Per 1,000 total aged 14 yrs. and over.		
	No.	Per 1,000 total aged 14 yrs. and over	England and Wales	Wales 1	Wales 2
Personal Occupations (excluding Clerical Staff) (XXV) ...	217	27	24	22	28
Clergy and Ministers ...	64	8	7	9	9
Teachers (not Music Teachers) ...	57	7	6	8	8
Metal Workers (not Electro Plate or Precious Metals (VII) ...	192	24	92	89	42
Smiths ...	52	7	7	9	7
Fitters (Motor Mechanics, 61) ...	78	1	12	9	5
Mining & Quarrying Occupations(III)	140	18	66	293	101
Stone Miners and Quarriers ...	121	15	2	3	15
Clerks and Draughtsmen, Typists, (XXVIII) ...	116	15	54	32	24
Makers of Textile Goods & Articles of Dress (XIII) ...	83	10	19	7	10
Tailors' Pressers and Machinists	36	5	5	2	4
Boot and Shoe Makers&Repairers	35	4	8	4	5
Makers of Foods, Drinks & Tobacco (XIV) (1) Foods ...	75	9	10	8	10
(2 and 3) Drinks ...	4	1	2	1	1
†Public Administration and Defence (XXIV)					
(1) Public Administration (not Clerks) including (a) Local Authority Administration and ExecutiveOfficers21; (b)Police23	51	6	7	6	6
(2) Defence ...	3	1	12	1	6
*Retired, or not gainfully employed (XXXII) ...	828	104	95	92	118

\*Including (a) Retired from previous gainful occupation, 494 ; (b) Students in Educational Institutions 146 ; (c) Other persons (no gainful occupation stated) 185.

†Excluding Professional Men, Clerical and Typists.

COMMERCE, FINANCE AND INSURANCE.—The number employed was 545 ; the rate (68) being below that of England and Wales (100) and that of the Welsh Counties (Wales 1, 79 ; Wales 2, 83) ; 40 per cent are shopkeepers, and 38 per cent shop assistants. The rates in the Urban Districts are high, being 198 in Llandrindod Wells, 165 in Knighton, and 132 in Presteigne.

BUILDERS, BRICKLAYERS, STONE AND SLATE WORKERS, ETC.—The group rate for the County is high, being 7th in order in the Counties of England and Wales, and 3rd in Wales [being only exceeded by Caernarvon and Merioneth]. The rates [2 and 4 respectively] for Builders' Labourers, and Bricklayers and their Labourers are below those for England and Wales, and Wales, whilst for Masons, Stonecutters, etc., the rate [9] is much higher than for England and Wales [3], and 7th highest in Wales. For Navvies the rate for the County is high.

TRANSPORT.—For Railways, the rate [15] is rather below those for England and Wales, and Wales 2 ; for Roads [29] equal to the rate for Wales 1, rather less than Wales [2], and much less than for England and Wales. A number of workers are included under the term "Navvies".

OTHER AND UNDEFINED WORKERS.—This Group, composed mostly of general labourers, has a rate [42] rather more than one-half in comparison with England and Wales, and Wales 1 and 2. When the rate for General Labourers is compared the difference is less.

PERSONS ENGAGED IN PERSONAL SERVICE.—The group rate (33) is practically the same as for England and Wales, is almost double that of Wales 1, and one-third more in comparison with Wales 2 ; the rate is the highest in Wales. Particulars of numbers and rates are as follows :—

	Urban Districts.	Rural Districts.	Urban Districts. Knighton.	Urban Districts. Llandrindod Wells.	Presteigne.
Number	144	121	24	100	20
Rate	71	20	35	104	54

The largest number of persons are employed in Llandrindod Wells, the rate being 104, over three times that of England and Wales. The rates are higher in the Urban districts.



Indoor Domestic Servants account for over one quarter of the group, with a rate double that for England and Wales, and Wales 2, and over four times that for Wales 1. The rate [7] for Inn, Hotel Keepers, etc., is also higher than that for England and Wales, and Wales 1 and 2.

WORKERS IN WOOD AND FURNITURE.—Carpenters form the majority of this group, the rate [19] being up to the average.

METAL WORKERS.—The group rate [24] is low, but that for Smiths [7] is up to the average; the rate [1] for fitters is very low.

MINING AND QUARRYING OCCUPATIONS.—For the group, the rate [18] for the County is low compared with England and Wales. There are no mines worked in Radnorshire, but in regard to stone quarrying the rate (15) is much higher in comparison with England and Wales (2), and Wales 1 (3), and is the same as Wales 2.

CLERKS AND DRAUGHTSMEN ; TYPISTS.—The rate [15] for this group is much less than that [54] for England and Wales, and less than the rates [32 and 24] for Wales 1 and 2.

MAKERS OF TEXTILE GOODS AND ARTICLES OF DRESS.—These consist of Boot and Shoe Makers and Repairers, and Tailors, Tailors' Pressers and Machinists [in equal numbers]. Boot and Shoe Makers, etc., have a rate [4] one-half that of England and Wales, and practically the same as Wales 1 and 2. In regard to Tailors, the rate [5] is the same as for England and Wales, and exceeds the rate [4] for Wales 2.

MAKERS OF FOOD.—Of the 75 employed, the largest number [50] are bakers and pastrycooks. The rate [9] is very similar to that for England and Wales, and Wales 1 and 2.

PUBLIC ADMINISTRATION [NOT CLERKS].—The total number in the group is 56. In this sub-group the rate [7] is rather higher than that for England and Wales, and the same as for Wales 1 and 2.

FEMALES.—Particulars are given in the Table which follows :—

Occupation of Females.	Radnorshire.		Per 1,000 total aged 14 yrs. and over.		
	No.	Per 1,000 total aged 14 yrs. and over	England and Wales		
			Wales 1	Wales 2	
Persons engaged in Personal Service (including Institutions, Clubs, Hotels, etc.) (XXVII) ...	1443	172	117	85	134
Domestic Servants (Indoor) ...	1099	131	81	64	102
Laundry Workers, etc. ...	46	5	8	3	4
Waitresses ...	60	7	4	2	4
Lodging and Boarding House Keepers ...	121	14	4	2	12
Inn, Hotel Keepers, Publicans, Beer sellers ...	40	5	1	1	3
Professional Occupations (excluding Clerical Staff) (XXV) ...	226	27	24	23	26
Teachers (not Music Teachers) ...	133	17	12	15	15
Sick Nurses ...	64	8	7	6	8
Commercial, Finance and Insurance Occupations (excluding Clerks) (XXIII) ...	173	21	37	36	31
Proprietors and Managers of Retail Businesses ...	64	8	9	9	10
Saleswomen and Shop Assistants	101	12	25	25	19
Clerks and Draughtsmen, Typists (XXVIII) (including Typists (7) and Other Clerks (65) ...	73	9	35	15	10
Makers of Textile Goods and Articles of Dress (XIII) ...	47	6	33	11	10
Dress and Blouse Makers ...	35	4	7	6	6
Persons employed in Transport and Communication (XXII) (Transport 33) ...	42	5	4	2	3
†Retired or not gainfully employed (XXXII) ...	6203	739	661	807	753

†Including (a) Students in Educational Institutions, etc., 152; (b) Retired from previous gainful occupation, 95; and (c) Other Persons (no gainful occupation stated) 5955.

## FEMALES.

PERSONS (FEMALES) ENGAGED IN PERSONAL SERVICE (INCLUDING INSTITUTIONS, CLUBS, HOTELS, ETC.) This is the largest group (87 per cent of total employed). The rate for the County is 172 (per 1,000 total aged 14 years and over); this is 50% more than the rate for England and Wales, over double that for Wales 1, and one-third higher than that for Wales 2. The large majority of workers (76 per cent) in this group are Domestic Servants (indoor); the rate is 131, over as much again as that for England and Wales, double that of Wales 1, and one-third more than Wales 2. The rate is the seventh highest in England & Wales.

The rate for Inn, Hotel Keepers, etc., is also high for the County. For Lodging and Boarding House Keepers, the rate for the County is 14, that for England and Wales being 4, for Wales 1. 2, and Wales 2. 12. The rate for Radnor is the fifth highest of the Counties in England and Wales; the only Counties with a higher rate are the Isle of Wight in England, and Caernarvon, Cardigan and Merioneth in Wales.

In the group the largest number of females employed reside in Llandrindod Wells, the numbers and rates for this group, and some of its subdivisions are given below.

Area.	Personal Service.		Domestic Servants.		Waitresses.		Lodging and Boarding House Keepers.	
	No.	Rate.	No.	Rate.	No.	R'te	No.	Rate.
County ...	1443	172	1099	131	60	7	121	14
Rural Districts	701	255	446	162	46	17	107	39
Urban Districts	742	131	653	116	14	2	14	2
Knighton ...	109	148	92	125	—	—	4	5
Llandrindod Wells	519	336	295	191	45	29	103	67
Presteigne...	73	157	59	127	1	—	—	—

Radnorshire has a high rate (7) for Waitresses, this being the highest of the Counties (excluding London); it is nearly double that for England and Wales, three times that for Wales 1 and nearly double that for Wales 2. The Isle of Wight and Caernarvon have the same rate (7).

It will be seen from the information given in tabular form that the highest rate (255) for the group Personal Services, is in connection with the Urban Districts (nearly double that (131) of the Rural Districts). Llandrindod Wells has the high rate of 336 per 1,000; this group is composed of (a) Domestic Servants, (b) Waitresses and (c) Lodging and Boarding House Keepers, the rates being 191, 29 and 67 respectively.

PROFESSIONAL OCCUPATIONS.—Teachers constitute the largest number (over one-half) in the group; there are over twice as many female teachers as males. The rate (17) for Teachers is as much again as that for England and Wales, and rather higher in comparison with the rates for Wales 1 and 2; it is over double that for male teachers. Sick Nurses have a rate similar to that for England and Wales, and Wales 2, and higher than that for Wales 1.

COMMERCIAL, FINANCE AND INSURANCE.—The rate (21) is over one-third less in comparison with England & Wales (37), and Wales 1 (36). Shopkeepers form 37 per cent of the total, and Shop Assistants 58 per cent.

CLERKS AND TYPISTS.—The majority, 65 (89 per cent) are clerks. The rate (9) is three-fifths that of Wales 1, corresponds to Wales 2, but is only one-fourth of the rate for England and Wales, and is the sixth lowest of the Welsh Counties.

MAKERS OF TEXTILE GOODS & ARTICLES OF DRESS.—The rate (6) is low (one-fifth) compared with England and Wales. The majority of the workers (74 per cent) are dress and blouse makers.

#### JUVENILE EMPLOYMENT.

Particulars in regard to total population at ages 14 to 20, number employed, etc., are given below:

	14		15		16 & 17		18-20		Out of Work (included in previous columns). M. F.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total Population	180	190	200	194	399	375	567	537	—	—
No. occupied ...	91	35	148	69	351	180	545	292	45	31
Students in Edu- cational Insti- tutions, etc. ...	60	67	35	40	34	34	11	9	—	—
Not gainfully occupied ...	89	155	52	125	48	195	22	245	—	—

The number and percentage employed is as follows :

Population aged 14-20	No.		No. of		Total.	
	Occupied.	%	Students	%	Occupied and Students.	
	No.	%	No.	%	No.	%
Male	1346	84	140	10	1275	94
Female	1296	44	150	12	726	56
Total	2642	65	290	11	2001	76

Forty-five males (4 per cent of those employed) and 31 females (5 per cent) were out of work at the time of the Census.

The percentages of those occupied, and Students, in regard to the four age groups are as follows :—

	Age last Birthday.									
	14.		15.		16 & 17.		18-20.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Occupied ...	50	18	74	36	88	48	96	54	84	44
Students ...	33	35	17	21	9	9	2	2	10	12
Total ...	83	53	91	57	97	57	98	56	94	56

The percentage of employed steadily rises with increasing age, and the percentage of students correspondingly falls. The large proportion of males are either occupied, or are students; but this does not apply to females, the proportion being 56 per cent. The total number of females employed is low at the age of 14 years, and even at 18-20 it is only a little more than one-half of the population at this age period. The percentage of female students at the different age periods generally is similar to the males.

I have already referred to Juvenile Employment in connection with Agricultural Occupations. Nearly one-third of the total males at 14 years, one-half at 15, at 16 and 17 years 56 per cent, and at 18-20 years 60 per cent were employed in agriculture; total employed 726 out of 1346. The total number of females employed (15 out of 1296) was very small (2 were employed at age 15 years, 7 at ages 16 and 17, and 6 at 18-20).

MALES.—Particulars are given in the Table which follows:

	Age last Birthday.				Out of work included in previous cols.
	14.	15.	16&17.	18-20.	
Males (total population)	180	210	399	567	45
Agriculture (II) ...	63	99	225	339	13
Agricultural Labourers	29	53	129	226	10
Commerce, Finance and Insurance (XXIII)	7	16	33	44	3
Salesmen & Shop Assist's	6	15	32	37	2
Roundsmen, hawkers and newspaper sellers ...	1	1	1	3	1
Transport Workers (XXII)					
(1) Railway ...	—	—	1	5	—
(2) Road ...	3	—	6	14	2
Drivers of horse vehicles	1	—	1	3	—
Drivers of motor vehicles	—	—	3	9	1
Van boys, bus conductors	2	—	1	2	1
(3) and (4) Other transport and communication workers ...	8	10	11	8	2
Messengers and porters (not railway) ...	8	10	10	3	1
Metal Workers (VII) ...	3	4	12	18	4
Fitters ...	3	4	9	13	4
Personal Service (XXVII)	2	5	11	27	5
Domestic Servants (indoor)	2	5	6	27	5
Workers in Wood and Furniture (XV) ...	3	2	9	18	3
Carpenters ...	2	2	8	12	3
Other and Undefined (XXXI)	—	7	11	11	7
Labourers and unskilled factory, etc. workers	—	6	9	11	4
Clerks, Draughtsmen, Typists (XXVIII) ...	—	—	9	13	4
Building (XVIII) ...	1	—	4	11	1
Makers of Food, Drinks and Tobacco (XIV) ...	—	1	6	6	1
Bakers ...	—	1	6	5	1
Painters & Decorators (XIX)	—	1	2	4	1
Mining and Quarrying (III)	—	1	3	5	—

	Age last Birthday.				Out of work included in previous cols.
	14.	15.	16&17.	18-20.	
Printers and Photographers (XVIII) ... ..	—	1	3	2	—
Textile Goods Workers, etc., (XIII) ... ..	1	1	—	3	—
Tailors ... ..	—	—	—	1	—
Bootmakers and workers	1	1	—	2	—
Entertainment and Sport (XXVI) ... ..	—	—	1	4	2

FEMALES.—Particulars are given in the table which follows :-

	Age last Birthday.				Out of work included in previous cols.
	14.	15.	16&17.	18-20.	
Total population ...	190	194	375	537	—
Personal Service (XXVII)	34	61	148	217	19
Laundry workers ...	—	—	1	4	—
Domestic Servants (indoor)	34	61	139	196	18
Barmaids and Waitresses	—	—	5	14	1
Commerce, Finance and Insurance (XXIII)	1	2	10	25	4
Saleswomen and Shop Assistants ...	1	2	9	24	4
Professional Occupations (XXV) ...	—	—	5	22	1
Teachers ...	—	—	2	14	1
Clerks, Typists, etc. (XXVIII) ...	—	2	3	14	1
Transport and Communication Workers (XXII)	—	1	2	3	1
Telegraph and Telephone Operators ...	—	—	2	3	1

The largest number employed at each of the ages were in domestic service.

There is previous reference to Occupation of the inhabitants of the County on pages 23-27, Annual Report for 1923, on page 9, Report for 1930, and on pages 24-27, Report for 1931.

GENERAL REMARKS.—In the Decennial Supplement issued by the Registrar General, in reference to Occupational Mortality of males, mortality rates are given in regard to the various occupations ; the mortality of all occupied and retired male workers (aged 20-65) is taken as 1,000.

The largest group of male workers in Radnorshire is engaged in agricultural work. In the words of the Registrar-General "Agricultural occupations, as a whole, return as always, a very favourable mortality experience." The rates for agricultural workers are as follows:—Farmers and their relatives 674; farm bailiffs and foremen 526; agricultural labourers (including shepherds) 688; woodmen and labourers in woods and forests 714. The rates for clergymen, ministers and priests are low, being 501, 639 and 780 respectively.

Rates for other occupations are as follows:—Stone miners and quarriers 946; tailors 1015; bootmakers 1014; carpenters 843; bricklayers 854; drivers of motor vehicles and steam wagons 862; shop assistants 973; indoor domestic servants 885; inn and hotel keepers 1,585; clerks, draughtsmen, typists, etc. 1019.

Particulars of certain Professional Workers are as follows: Solicitors 899; registered medical practitioners 1021; dentists 910; local authority officials and clerks 776; teachers 736; bank officials (other than clerks) 603.

It must be recognised that even if an occupation is followed under healthy conditions, the health of the person employed may be undermined through lack of proper nourishment or over eating, insufficient exercise, sunshine and fresh air, through intemperance, and bad housing conditions, more particularly overcrowding. Reference is made to Pulmonary Tuberculosis later in the report, and occupation is referred to in connection with this disease.

## BIRTHS.

LIVE BIRTHS.—The total number of live births registered in the County during 1936 was 317, compared with 281 in 1935; the rate was 15·7 per 1,000 of the population compared with 15·1 for the 5 years 1931-35. There were 293 legitimate births, (males 149, females 144), and 24 illegitimate births (males 10, females 14).

STILL BIRTHS.—The total number of still births registered in the County was 9, compared with 15 in 1935; the rate per 1,000 of the population was '45 (urban '50, rural '41) compared with '61 for England and Wales; rates per 1,000 total births are given in the table below. There were 7 legitimate births (males 4, females 3), and 2 illegitimate births (male 1, female 1); of the total still births, 3 occurred in the Urban, and 6 in the Rural Districts.

ILLEGITIMATE BIRTHS.—Of the 2 illegitimate <sup>still</sup> live births, there were none in the Urban, and 2 in the Rural districts. The percentage of total live births was 8·0 (Urban 3·0, Rural 9·0) compared with 6 (Urban 7, Rural 5) for the 5 years 1931-35. The percentage for England and Wales for 1935 was 4.



Areas.	Live Births.			Still Births.	
	No. of Births	Birth Rates.		No.	Rates per 1,000 total births.
		1936.	1936.		
Urban Districts :					
Knighton ...	20	11·2	13·9	1	39
Llandrindod Wells	40	15·1	10·4	1	70
Presteigne ...	18	15·9	15·9	1	8
Rural Districts :					
Colwyn ...	31	16·4	15·7	1	36
Knighton ...	70	19·2	16·5	3	65
New Radnor ...	32	13·1	16·4	1	65
Painscastle ...	43	21·4	16·8	1	83
Rhayader ...	63	13·1	15·1	0	32
Urban Districts ...	78	14·0	12·6	3	44
Rural Districts ...	239	16·4	15·9	6	55
Administrative County ...	317	15·7	15·1	9	53
England and Wales...	—	14·8	15·0	—	41

The rates for still births per 1,000 total births, for the County in 1936 were 28 (Urban Districts 38, Rural 25) ; the rates for the 5 years 1931-35 were 53 (Urban 40, Rural 57), the rate for the Rural Districts of England and Wales for the 5 years 1931-35 was 41 and for Wales II, 53.

On page 9 of my Annual Report for 1935, I gave the Live Birth Rates per 1,000 of the population of Radnorshire (Registration County) for the 5 yearly periods 1876-80, to 1906-10 ; there was a decline during this period, from 35·3 to 25·4, equal to 25 per cent. The rates for the Administrative County for the 3 years 1911-13 inclusive, and the 5 years 1931-35 are as follows :—

	1911-13.	1931-35.	Decrease.	Per cent.
Urban	20·0	12·6	7·4	37
Rural	23·5	15·9	7·6	32
County	22·6	15·1	7·5	33

The decline was greatest in the urban districts.

MARRIAGE RATES.—On pages 9-11, Annual Report for 1935, I gave information in regard to these rates, per 1,000 unmarried and widowed population aged 15 years and over, for the County (Registration) from 1870-2 (3 years) to 1910-12. During this period the rate for Radnorshire declined from 43·3 to 34·4, and that for England and Wales from 57·2 to 46·3. At both periods the rate for the County was lower than that for England and Wales.

The rates for the Administrative County from 1921 were also given, they were less than England and Wales, and Wales 1 and 2.

FERTILITY RATES.—A birth rate calculated per 1,000 of the population is in some cases misleading, especially if the proportion of unmarried women is high. Particulars of legitimate and illegitimate rates per 1,000 women aged 15-45 years, for the 5 years 1929-33 were given on pages 12 and 13 of my Annual Report for 1935. The rate for the County 70·7, was slightly higher than that (64·3) for England and Wales; the rate for the Rural Districts was 81·3, and that for the Urban Districts of Radnorshire 48·5. The rate for Knighton was 73·3, that for Presteigne 63·5, and that for Llandrindod Wells 32·4. At the census in 1931, the percentage of married females per total females aged 15-45 years was for the county 44·0 (Urban Districts 37·3, Rural 47·2); the percentage for Llandrindod Wells was 31·6, for Knighton 46·3, and for Presteigne 42·7. Not only is the proportion of unmarried women less in Llandrindod Wells, compared with the other two urban districts, but the legitimate rate per 1,000 married women aged 15-45 years is also lower.

Particulars in regard to Legitimate and Illegitimate Fertility Rates for Radnorshire (Registration County) and England and Wales, were given on page 14 of the same Report; the rates for the County were higher.

STILL BIRTHS.—The rates per 1,000 total births have been given in the table, which also includes live births. On page 16, of my last Annual Report particulars were given of rates per total births, and per 1,000 females aged 15-45 years (1931 census) for the 5 years 1929-33; the proportion of illegitimate still births to total still births was high, viz. 13·6 per cent. The rates for Radnorshire, as well as for Wales 1 and Wales 2, are distinctly

higher than those for England and Wales. Enquiries were made by the Health Visitors respecting 9 still births which occurred during 1936. The particulars are as follows :—

No.	Age in years.	Presentations.	Complications, etc.	No. of previous confinements.	No. of previous miscarriages.	No. of previous still births.	No. of children dead.
1	38	Vertex	Contracted pelvis ...	2	—	2	—
2	21	Vertex	Eclampsia ...	—	1	—	—
3	39	Vertex	Albuminuria. ... Toxæmia	6	—	1	1
4	23	Vertex	Prolapsed cord. ... Asphyxia neonatorum.	—	—	—	—
5	19	Vertex	Difficult and prolonged labour, large foetus.	—	—	—	—
6	36	Breech	Ante-partum hæmorrhage	1	—	—	—
7	27	Vertex	Cord around neck. ... Asphyxia neonatorum.	6	—	1	1
8	39	Vertex	Prolapsed cord ...	5	—	—	1
9	42	Breech	Difficult and prolonged labour, large foetus.	5	—	1	1

No. 4 was illegitimate. In No. 1 there were twins still-born at the second confinement; the mother, who belonged to Breconshire, died after delivery by forceps.

The urine was examined in all cases except No. 6. Antenatal supervision by a Doctor was carried out in connection with 8 mothers (5 under the Scheme of the County Council). In Nos. 3 and 7, birth took place before the arrival of the midwife; in the latter case, neither a doctor nor midwife were booked.

Information in regard to the cause of 151 still births, which occurred in the County during the years 1922-31, was given on pages 8 and 9 of my Annual Report for 1931.

#### DEATH RATE.

The total number of deaths, which occurred in the County (after due correction for residents, who died outside the County, and non-residents who died in the County) was 317 compared with 261 in 1935.

Of the deaths 112 (males 58, females 54) occurred in the Urban, and 191 (males 99, females 92) in the Rural Districts.

Particulars in regard to death rates (per 1,000 of the population) for 1936, and for the 5 yearly period 1931-35, are as follows :—

Areas.	Number of Deaths 1936.	Crude Death Rates.		†Comparative Death Rates.	
		1936.	1931-35.	1936.	1931-35.
Urban Districts :					
Knighton ...	33	18·5	13·0	13·7	9·6
Llandrindod Wells	57	21·5	13·2	18·9	11·6
Presteigne ...	22	19·5	15·5	14·4	11·5
Rural Districts :					
Colwyn ...	17	9·0	11·0	7·9	9·7
Knighton ...	56	15·3	10·2	14·1	9·4
New Radnor ...	30	12·3	11·2	10·3	9·4
Painscastle ...	27	13·5	11·7	12·2	10·5
Rhayader ...	61	13·3	13·3	11·0	11·0
Urban Districts ...	112	20·1	13·6	16·1	10·9
Rural Districts ...	191	13·1	12·1	11·4	10·5
Administrative County ...	303	15·0	12·5	12·8	10·6
England and Wales	—	12·1	13·3	12·1	13·3

†Comparability Factors for each Sanitary District and for the County, were given on page 10 of my Annual Report for 1934.

The standardising factors provided by the Registrar-General, and used in previous Reports, corrected differences for age and sex ; but in comparison with the standardised national rate (based upon the 1901 population for England and Wales). For the former comparison the comparability factor must be reduced by multiplying it by '82.

The crude death rate for the Registration County for the 10 years 1899-1908 inclusive was 13·3, and for the 10 years

1926-1935, 12·4 ; there was a reduction of '9 per 1,000 (7 per cent) of the population in the 27 years. The crude death rate for the County was 12·5 for the 5 years, 1931-35, and the comparative death rate 10·6, compared with 11·6 for England and Wales for the same period.

On page 21 of my Annual Report for 1935, I gave particulars for Radnorshire and England and Wales of deaths for each sex at various age periods, for the periods 1904-08 and 1929-32, 25 years later. The decrease in death rates was greatest at the period 0-5 years, and there was a distinct drop in the death rates for both sexes between 5 and 35 years. In connection with population, I mentioned that the proportion of persons aged 45 years and upwards is increasing, and as the death rate is higher in the older group, the effect will be in the future for the death rate to remain stable, and eventually increase.

During the past 20 years there has been a decrease in the birth-rate of 33 per cent (one-third), and this has been greatest (37 per cent) in the urban districts.

The principal causes of death for the year 1936, and the 5 years 1931-35, are given in the table which follows :—

Causes of Death.	1936. No. of Deaths.	1936. Percentage of Total Deaths.	1931-35. Percentage of Total Deaths.
Diseases of Circulatory System (Heart Disease 86, Other Disease 27) ...	113	37·4	28·2
Cancer, Malignant Disease ...	31	10·2	12·7
Disease of Respiratory System (Bronchitis 9, Pneumonia 13, Other 3)	25	8·3	6·9
Cerebral Hæmorrhage ...	13	4·3	6·5
Tuberculosis (Pulmonary 7, Non-Pulmonary 2) ...	9	3·0	5·8
Infectious Disease (other than Tuberculosis) ...	5	1·7	4·2
Congenital Debility, Premature Birth, Malformation, etc. ...	17	5·6	4·2
Violence (Suicide Nil, Other 14) ...	14	4·6	4·0
Diseases of Digestive System (Peptic Ulcer 3, Other 3) ...	6	1·3	3·9
Acute and chronic Nephritis ...	14	4·6	3·7
Diabetes ...	2	·7	1·7
Total ...	249	82	82

The largest number of deaths occurred from diseases of the Circulatory System, followed by Cancer, diseases of the Respiratory System, Congenital Debility, Premature Birth, etc., Nephritis, Violence, Cerebral Hæmorrhage, and Tuberculosis.

In my Annual Report for 1933, I gave detailed information in regard to deaths and death rates under 1 year in the County and England and Wales, during the 10 yearly periods 1911-20 and 1921-30 ; in the Report for 1934, I gave information for the same periods regarding deaths and death rates from 1-5, 5-15 and 15-25 years. Particulars in regard to later age periods from 25 onwards were given in the Report for 1935, for the 5 years 1929-33.

SICKNESS AMONG INSURED PERSONS.—In the Annual Report of the Chief Medical Officer of the Ministry of Health for 1933, particulars are given of sickness among insured persons (National Insurance Act) in England and Wales. The five principal conditions were as follows :—

(1) Respiratory Diseases	...	25	per cent.
(2) Influenza	... ..	11·8	„
(3) Diseases of Digestive System	...	11	„
(4) Lumbago and Rheumatism	...	9	„
(5) Injuries and Accidents	...	8·6	„

The figures of the diseases which cause the heaviest mortality, take a relatively low place in this table. Particulars are as follows :—

	Percentage of Deaths, 15-65 yrs.	Percentage of Sick, 15-65 yrs.
Diseases of Heart	16·8	1·26
Cancer, Malignant Disease	15·6	·18
Bronchitis, Pneumonia and other Respiratory Disease	9·5	†1·36
Diseases of the Nervous System	7·9	—
All forms of Tuberculosis	1·3	·72

†Pneumonia only.

Sir George Newman points out that “morbidity figures have little direct relation in practice, and that, while the general practitioner has occasion to sign death certificates, his day to day work consists in the alleviation and cure of the less fatal ills of life, and staving off, with considerable success, the end which is in store for us.” Comparing the figures for men and women, he states “Owing to the greater exposure of men to stress and risk the figures for this sex are higher in organic disease, pneumonia, injuries and accidents, and lumbago, while the figures for women are higher in anæmia, genito-urinary disease, debility, neuralgia and headache.”

In Scotland for the year 1933-34, the conditions among insured persons were very similar to those found in England and Wales. For Scotland as a whole, the conditions which gave rise to the higher rates of incapacitating sickness (compelling absence from work) were :—

(1)	Influenza	...	...	21·2	per cent.
(2)	Digestive Diseases	...	...	16·6	„
(3)	Rheumatism (principally chronic)	...	...	12·5	„
(4)	Accidents (chiefly minor)	...	...	11·4	„
(5)	Bronchitis and Pneumonia	...	...	6·8	„
(6)	Tonsillitis	...	...	6·6	„
(7)	Superficial Septic or Inflammatory conditions	...	...	8·0	„
(8)	Diseases of the Upper Respiratory Tract	...	...	3·2	„

Since 1930, in the Department of Health for Scotland, a record of incapacitating sickness among insured persons has been kept; in England and Wales this is not available, the figures for 1933 were compiled from areas, which were representative of the whole country. There are no sickness statistics available for Radnorshire apart from notifications of certain infectious disease.

The figures for Radnorshire would probably be very similar to those for England and Wales and Scotland; a large amount of the sickness referred to could be prevented.

#### INFANTILE MORTALITY.

The number of deaths under 1 year in the County during 1936 was 21 compared with 18 in 1935; the infantile mortality rate (number of deaths under 1 year per 1,000 births) was 66 compared with 64 in 1935; the legitimate rate was 68 per 1,000 legitimate births. Of the deaths 4 (male 1, females 3) occurred in the Urban, and 17 (10 males, 7 females) in the Rural Districts.

There was 1 death of an illegitimate child (male) in a Rural District, equal to a rate of 42 per 1,000 illegitimate births.

Particulars in connection with the various districts for 1936, and for the 10 years 1926-35 are as follows :—



Areas.	No. of Deaths under 1 year. 1936.	Rates per 1,000 births.	
		1936.	1926-35.
<b>URBAN DISTRICTS :</b>			
Knighton ...	—	—	32
Llandrindod Wells ...	4	100	56
Presteigne ...	—	—	71
<b>RURAL DISTRICTS :</b>			
Colwyn ...	—	—	41
Knighton ...	6	86	71
New Radnor ...	3	94	43
Painscastle ...	2	47	55
Rhayader ...	6	95	56
Urban Districts ...	4	51	50
Rural Districts ...	17	71	56
Administrative County	21	66	55
England and Wales ...	—	59	65

Information in regard to legitimate and illegitimate rates of infantile mortality for the 10 years 1926-35 was given on pages 30 and 31 of my Annual Report for 1935. The rate for the County has declined from 75 for the 5 years 1911-15, to 53 for the same period 1931-35, a decrease of 29 per cent.

The rate for the rural districts of England and Wales for the 5 years 1931-35 was 55, and for Wales II. (of which Radnorshire is one of the 9 rural counties) 64.

The rates for England and Wales and the County should be lower, it may be of interest to give the rates for some of the dominions which are lower than this country; for the year 1933, the infantile mortality rate for the Commonwealth of Australia (population 6,630,615) was 40, and that for New Zealand (population 1,465,849) 32. Norway has also a lower rate than England and Wales.

The neo-natal rate (infantile deaths under 1 month per 1,000 live births) for the County for the 5 years 1931-35 was 31 (Urban districts 36, Rural districts 30); the rate for England and Wales (Rural Districts) for the same period was 32, for Wales II. 35, and for England and Wales (all areas) 31.

Particulars of rates at different age periods under 1 year, of the County, and England and Wales for 1931-35, are given in the table which follows:—

	4 wks							Total	
	Under 1 day.	1-7 dys.	1-4 wks.	to 3 m's.	3-6 m's.	6-9 m's.	9-12 m's.	Under 1 m'th.	under 1 yr.
Urban Districts	13·9	16·7	5·6	8·3	5·6	2·8	5·6	36	58
Rural do.	10·8	11·6	7·5	12·5	4·2	3·3	1·7	30	52
County ...	11·5	12·8	7·0	11·5	4·5	3·2	2·6	31	53
E. & W. ... (Rural Dist.)	10·5	12·4	9·0	8·6	6·2	5·1	4·5	31	55
Wales II....	11·8	14·5	8·9	10·4	8·3	5·4	4·9	35	64

The rates for the County are higher in comparison with England and Wales (Rural Districts) up to 3 months (except 1-4 weeks), but are lower from 3 to 12 months; they compare favourably with Wales II. The higher rates are for the periods under 1 day and 1-7 days. On the whole the rates are higher in the urban districts.

The illegitimate death rates for the County, for the periods under 1 month, and under 1 year, are as follows:—

Period.	Urban Districts.	Rural Districts.	County.	E. & W. (Rural Districts).	Wales II.
Under 1 month	—	56	41	53	51
Under 1 year	—	83	61	88	87

The rates were less for the County (there were no deaths in the urban districts) in comparison with England and Wales.

Enquiries were made by the Health Visitors in regard to deaths under 1 year, which occurred during 1936; particulars are as follows:—

No.	Sex.	Age at Death.	Cause of Death.	— Feeding. — Breast. Artificial.	Weight at Birth.
1	M.	4 days.	Atelectasis.	Breast. —	5¼ lbs.
2	M.	22 days.	Spina Bifida.	— Artificial.	4½ lbs.
3	F.	40 days.	Pemphigus. Prematurity.	— Artificial.	4¾ lbs.
4	F.	2 days.	Hæmorrhage from Bowel.	Breast. —	7½ lbs.

No.	Sex.	Age at Death.	Cause of Death.	— Feeding. —		Weight at Birth.
				Breast.	Artificial.	
5	M.	3 days.	Injury at Birth.	Breast.	—	—
6	F.	18 days.	Spina Bifida.	—	Artificial.	—
7	M.	2 days.	Injury at Birth.	—	Artificial.	5 lbs.
8	M.	2 months.	Debility.	—	Artificial.	9½ lbs.
9	F.	2 weeks.	Atelectasis.	Breast.	Artificial.	6 lbs.
				(8 days)	(6 days)	
10	F.	3 weeks.	Convulsions. Broncho-pneumonia.	Breast.	Artificial.	5 lbs.
				(12 days)	(9 days)	
11	M.	3 weeks.	Molluscum.	—	Artificial.	—
12	M.	1 dy. 1 hr.	Prematurity. Feebleness.	—	Artificial.	3 lbs.

No. 11 was illegitimate. In No. 3, the ventilation (the family of 4 lived in apartments) was only fair.

In connection with No. 1 the mother was in poor health, she suffered from Nephritis, and the infant was premature.

Six deaths occurred in the first, and 6 during the second quarter of the year.

Information in regard to 152 deaths which occurred during the 10 years, 1922-31, was given on pages 15-17 of my Annual Report for 1933.

Particulars of information obtained in regard to 63 deaths during the 5 years 1931-35 are as follows:—

	Under 1 day.	1-7 dys.	1-4 wks.	4 wks. to 3 m's.	3-6 m's.	6-9 m's.	9-12 m's.	Under 1 year.
Congenital Debility, Premature Birth, Malformations, etc.	12	11	8	7	3			41
Whooping Cough				1	1			2
Bronchitis ...				2		1	1	4
Pneumonia ...					1		1	2
Convulsions ...		1		3		2		6
Rickets ...							1	1
Jaundice ...			1					1
Meningitis ...					1		1	2
Violence ...			1					1
Other ...				1		2		3
<b>Total ...</b>	<b>12</b>	<b>12</b>	<b>10</b>	<b>14</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>63</b>

Over one-half of the deaths occurred under the first month, and one-third within the first week. The largest number of deaths (41, 65 per cent) occurred in the group Congenital Debility, Premature Birth and Malformations (11 were due to Premature Births); the next largest number occurred from Respiratory Disease (Pneumonia and Bronchitis).

#### DIARRHŒA & ENTERITIS (under age of 2 years).

There were no deaths attributed to the above during the year. The rate for England and Wales was 5.9 per 1,000 live births.

#### DEATHS OF INFANTS (aged 1-5 years).

Four deaths occurred in the County; 1 in an Urban district, male, from Whooping Cough, and 3 in Rural districts, male and female from Pneumonia (the former at 1-2 years), and a female from Whooping Cough.

On pages 15-21, of my Annual Report for 1934, I gave information in regard to deaths during early childhood.

Under 1 year, over one-half of the deaths which occur in the County, are due to Congenital Debility, Premature Birth, and Malformations, the other chief causes are Respiratory Disease (chiefly Bronchitis and Pneumonia) approximately one-tenth, Infectious Disease (chiefly Whooping Cough) 5 per cent, and Tuberculosis (under 1 per cent).

From 1-5 years the chief cause of death is Respiratory Disease (one fourth), followed closely by Infectious Disease chiefly (Whooping Cough). Particulars in regard to deaths from 1-15 years, from the various infectious diseases is given on page 17 of the Report for 1934.

#### MATERNITY & CHILD WELFARE.

ANTE-NATAL SERVICE.—A scheme for the ante-natal examination of necessitous uninsured expectant mothers was agreed to by the County Council on August 7th, 1931. Under the scheme doctors practising in the County examine mothers referred to them by midwives in attendance, who do not come under the National Health Insurance, and cannot afford the ordinary medical fees. During 1936, 89 expectant mothers were examined under the scheme (first examinations 89, second 15); 24 resided in the Urban, and 65 in the Rural Districts, compared with 98 (first examinations 98, second 10) in 1935; there has been a decrease in the number of first examinations, and an increase in second examinations.

Sixty-four were examined by their own doctor independently ; the large majority resided in the Rural Districts.

Two mothers were recommended for dental treatment (extractions) and this was carried out in connection with one case during the year.

POST-NATAL SERVICE.—A scheme was agreed to by your Authority on May 1st ; 2 mothers have been examined from Rural Districts.

Of 204 cases in the County, where the Nurse acted as mid-wife, during the year ended 31st December, 1936 ; 6 were not booked ; 3 gave less than one week's notice ; in 18 the notice was 1-4 weeks ; in 65, 1-3 months ; and in 112, 3 months and over (54, 4 months and over).

There are still mothers who do not realise the importance of early booking, with a view to ante-natal examination and supervision, and the detection of any abnormality or defect.

FREE MILK.—On May 1st, a scheme was agreed to by your Authority for supplying free milk to necessitous expectant and nursing mothers. Altogether 48½ gallons were provided.

HOSPITAL.—During the year, 9 cases (3 from the Urban, and 6 from Rural Districts) were treated at the Llandrindod Wells Hospital under arrangements made by your Authority. Cases were admitted for the first time in 1925 ; 102 cases were admitted up to the end of 1936, and there were only 4 deaths, most of the cases were of a serious nature.

Particulars in regard to the cases sent in during 1936 are as follows :—

- (1) Aged 21 years (wife of a carpenter), primipara ; high blood pressure, normal labour and live birth.
- (2) Aged 30 years (wife of an insurance inspector), primipara ; general condition poor, premature birth, instrumental delivery.
- (3) Aged 23 years, (wife of a police constable), primipara ; difficult breech delivery, live birth.
- (4) Aged 41 years (widow of a farmer), multipara ; admitted for induction of labour on account of mental condition, live birth.
- (5) Aged 31 years, (wife of a farmer), multipara ; contracted pelvis, induction, live birth.
- (6) Aged 35 years, (wife of a farmer), multipara ; transverse presentation, delivered extended breech, and live birth.

- (7) Aged 28 years, (wife of a labourer), multipara ; prolonged labour, live birth. Home conditions unsatisfactory, including overcrowding.
- (8) Aged 30 years, (wife of a labourer), multipara ; albuminuria, contracted pelvis ; instrumental delivery, live birth, only lived an hour ; patient anæmic.
- (9) Aged 20 years, (domestic servant, unmarried), primipara ; albuminuria, instrumental delivery and live birth.

Cases are only admitted to Llanidloes Hospital or the Montgomery County Hospital in case of emergency. Two were sent in from Rural Districts during 1936 ; particulars are as follows :—

- (10) Aged 32 years, (wife of a farmer), was admitted to Llanidloes Hospital on account of contracted pelvis and other complications.
- (11) Aged 44 years, (wife <sup>of</sup> a small farmer), was admitted to the same Hospital on account of hæmorrhage due to placenta prævia.

In connection with case No. 8, there was an ante-natal examination under the Scheme ; the remainder were seen by their own Doctors independently.

**MATERNAL MORTALITY.**—There was 1 death included in the statistics furnished by the Registrar-General during the year ; particulars are as follows :—

A married woman, aged 30 years, wife of a small farmer, who lived in a rural district, died at home from shock and post-partum hæmorrhage. There had been four previous pregnancies during 1929-35, and the last one was abnormal ; the placenta was adherent and had to be removed manually, and there was a good deal of anaemia. The infant was stillborn.

Preceding the last pregnancy in December, there had been 2 ante-natal examinations under the Scheme. The Doctor was called in by the midwife immediately after birth, on account of post-partum hæmorrhage ; the placenta was adherent. The hæmorrhage ceased and various means were adopted for improving the patient's condition, but she died of shock ; other factors were the moderate post-partum hæmorrhage, unsatisfactory nutrition, home conditions (fair), and the patient's apprehension (on account of previous difficult pregnancy in 1935).

A married woman, aged 39 years, wife of a farmer, who lived in a rural district, died from shock. There was adherent placenta associated with fibroids. There had been one previous pregnancy in 1933, which was difficult and prolonged (instrumental) ; an operation was performed at the fifth month for the removal of a fibroid.

The Registrar General has included this death under the heading non-malignant tumours (fibroids) of the genital organs, associated with pregnancy and child bearing.

At the last pregnancy she was removed to a general hospital in an adjoining County. The labour was complicated; apart from fibroids there were twins. The placenta was adherent and had to be removed manually.

Particulars of maternal deaths from Puerperal Sepsis and other Puerperal causes in the County since 1911 are given in the table which follows:—

	Puerperal Sepsis.			Other Puerperal Causes.			Total.		
	U.	R.	Cy.	U.	R.	Cy.	U.	R.	Cy.
1911-15	—	2	2	1	7	8	1	9	10
1916-20	—	3	3	3	7	10	3	10	13
1921-25	—	2	2	1	9	10	1	11	12
1926-30	1	2	3	3	5	8	4	7	11
1931-35	—	3	3	—	4	4	—	7	7

Rates per 1,000 live births are given below, I have left out the five years 1911-15 and 1916-20 on account of births which occurred during the Great War.

	Puerperal Sepsis.			Other Puerperal Causes.			Total.		
	U.	R.	Cy.	U.	R.	Cy.	U.	R.	Cy.
1921-25	—	1·32	1·01	2·21	5·92	5·07	2·21	7·24	6·08
1926-30	2·65	1·40	1·66	7·94	3·51	4·44	10·59	4·91	6·10
1931-35	—	2·49	1·92	—	3·33	2·56	—	5·82	4·48

It will be seen that the maternal mortality rate for the 5 yearly period 1931-35 is less than for the periods 1921-25 and 1926-30; the reduction has been in Other Puerperal causes, the rate for Puerperal Sepsis has increased, but in the last period has been confined to the rural districts. The figures are not large enough to make comparisons for 1 year, the rate for England and Wales for 1936 was 3·65 (Puerperal Sepsis 1·34, Other Causes 2·41).

The county has a higher rate for Puerperal Sepsis for the five years, but over a longer period (10 years 1926-35), the rate was 1·78 (urban districts 1·31, rural 1·90), and for other causes 3·56 (urban 4·06, rural 3·42). Total 5·34.

## THE MIDWIVES' ACT.

### Summary of Inspector's work :

Regular Inspections of Midwives	...	101
Special visits of enquiry	... ..	16
Other Visits	... ..	45
Letters and notices sent out	... ..	604
Visits of inspection to Nursing Home	... ..	5
 Notifications received of :		
Intention to practice	... ..	25
Sending for medical help	... ..	74
Artificial feeding of infants	... ..	7
Still-births	... ..	4
Having laid out a dead body	... ..	4
Deaths (mother and child)	... ..	2
Liability to be a source of infection	... ..	7

In connection with sending for medical aid, 32 notifications were received from the three Urban Districts, and 42 from the five Rural. The majority of the notifications were received in regard to abnormalities, and other conditions before labour commenced ; the particulars are as follows :—

#### MOTHER—(a) Ante-natal :

Albuminuria	... ..	2
Contracted pelvis	... ..	1

#### (b) Labour and Puerperium :

Premature labour	... ..	1
Precipitate labour	... ..	1
Delayed first stage of labour	... ..	7
Delayed second " "	... ..	3
Prolonged labour	... ..	5
Malpresentations (prolapsed cord 1, breech 1)	... ..	2
Uterine inertia	... ..	4
Ruptured perineum	... ..	17
Retained placenta	... ..	4
Retained membranes	... ..	1
Ante-partum hæmorrhage	... ..	1
Post-partum "	... ..	2
Miscarriages	... ..	3
Threatened abortion	... ..	1
Abortion	... ..	1
Swelling of limbs	... ..	2
Rise of temperature	... ..	4
Phlebitis	... ..	2
Exhaustion	... ..	3

#### INFANT—

Dangerous feebleness	... ..	3
Discharge from eyes	... ..	1
Water blisters	... ..	2
Hæmorrhage from rectum	... ..	1



In 67 cases (91 per cent) the aid was on behalf of the mother (ante-natal 4 per cent), and in 7 cases (9 per cent) in connection with the infant.

#### MIDWIVES PRACTISING—

Number of trained midwives working under 17 District Nursing Associations (affiliated to Radnor County Nursing Association)	20
Trained midwives in private practice ...	1
Bona-fide midwives practising in Radnorshire	Nil.

Of the 25 midwives who notified their intention to practice in 1936, 5 left the county, 2 were temporary, and there were 20 on the register at the end of the year.

TRAINING.—One candidate was trained during the year.

POST-GRADUATE COURSE.—No nurse-midwife was sent during the year.

I will refer to the Midwives Act, 1936, in my next Annual Report.

#### NOTIFICATION OF BIRTHS.

During 1936, the number of births notified was 318 (live 309, still 9), of these 308 were notified by midwives, 10 by doctors, and 2 by parents.

From the returns supplied by the District Registrars, it was ascertained that 1 had not been notified; altogether 99·7 per cent were notified.

HEALTH VISITING.—At the end of the year there were 20 Nurses in the County, under 17 District Nursing Associations.

The following is a summary of the work of the Health Visitors during 1936 :—

#### MATERNITY AND CHILD WELFARE.—

Expectant mothers (first visits 388) ...	1755
Infants under 1 year (first visits 319) ...	3261
Infants 1-5 years, total visits ...	6349
Attendances at Infant Welfare Centres	66

#### TUBERCULOSIS—

Home Visits (first visits 23) ...	359
Attendance at Stations ...	11

#### OTHER INFECTIOUS DISEASES—

Measles (first visits 58) ...	155
Whooping Cough (first visits 161) ...	231
Chicken Pox ( " 67) ...	153
Mumps ( " 70) ...	160
Influenza ( " 140) ...	209

The large majority of visits re Infectious Diseases were in connection with children of school age. On page 21, Annual Report for 1930, I gave information in regard to visits for the five yearly periods 1921-25 and 1926-30.

FEEDING, ETC.—In connection with 283 infants, information was obtained by the Nurse in regard to feeding ; particulars are given below :—

	No.	Percentage.
Breast-fed (for nine months)	168	59·4
Breast-fed and artificially fed	20	7·0
Breast-fed for a time, and then artificially fed	72	25·4
Artificially fed from birth	23	8·1

Where breast feeding was continued for a time, the period was as follows :—

Months	1	1-2	2-3	3-4	4-6	6-9
Number	18	18	14	11	3	8

Of 79 infants in 1936, who reached the age of 9 months within the year 1936, 46 (58·2 per cent) were entirely breast-fed ; 22 (27·8 per cent) were breast-fed for a time ; 8 (10·1 per cent) were breast-fed and artificially fed, and 3 (3·8 per cent) were artificially fed from birth.

The reasons given for artificial feeding in 97 cases were as follows :—Failure of lactation 52, ill health of mother 18, child's health 16, mother out at work 3, children adopted 2, and social reasons 6.

Of 115 babies artificially fed, the feeding was as follows : Cows' milk 84, condensed milk 7, and patent foods 24.

The kind of feeding bottle in use is very important, the information obtained showed that in every case a boat shaped bottle was used. Three infants were provided with dummies ; these are a frequent source of flatulence and other troubles, and it is satisfactory to note that these are now seldom used.

It was ascertained that 159 infants out of 283 slept in a cot (56 per cent), the remainder slept with the mother ; the danger of over-laying is well known. In regard to 5 infants there was insufficient ventilation in the home, and in 4 cases inadequate light.

Twenty-six houses were damp, 1 was dirty, and in 3 the water supply was inadequate.

I am indebted to Miss J. Todd, Superintendent Nurse and Inspector of Midwives, for summarising the information in regard to the work of the Health Visitors, etc.

## INFANT WELFARE CENTRES—

	Howey.	Knighton.	Llandrindod Wells.	Presteigne.	Total.
‡No. of Sessions	11	10	21	13	55
Total number of individual children who attended at the centres during the year, and who on their first attendance were—					
(1) Under 1 year ...	6	20	21	18	65
(2) 1-5 years ...	4	4	6	10	24
Total number of children who attended at the centres during the year, and who at the end of the year were—					
(1) Under 1 year ...	4	7	19	15	45
(2) 1-5 years ...	21	31	39	68	159
Total attendances—					
(1) Under 1 year ...	9	54	216	170	449
(2) 1-5 years ...	16	53	215	153	437
Total ...	25	107	431	323	886
Average attendance per session ...	2	10	20	25	16

‡ Doctor in attendance at Howey for 8 sessions, at Knighton for 9 (2 meetings not held in last quarter on account of Whooping Cough), at Llandrindod Wells for 12, and at Presteigne for all the sessions.

The percentage of children under 1 year, who attended in 1936 for the first time, per total notified live births in the County was 21.

Particulars of total number of children, who attended at the centres during the years 1933 and 1936, and who at the end of the year were (1) under 1 year, (2) 1-5 years, are as follows :—

	1933.		1934.		1935.		1936.	
	Under 1 year.	1-5.	Under 1 year.	1-5.	Under 1 year.	1-5.	Under 1 year.	1-5.
Howey	4	5	5	11	4	16	4	21
Knighton	15	14	12	46	6	50	7	31
Llan'dodWells	22	15	15	29	7	34	19	39
Presteigne	10	8	28	38	23	59	15	68

In connection with each centre, the number of children who attended under the age of 1 year, has remained about the same, but there has been an increase in the number of children aged 1-5 years, the largest increase being at Presteigne.

As only a minority of infants (less than one quarter) attend the centres, on account of distance, it is left to a large extent to the Health Visitors to give instruction in health matters, including fresh air, sunshine, feeding, etc.

### INFANT PROTECTION.

Under the administration of Part I. of the Children Act, 1908, as amended by Part V. of the Children and Young Persons Act, 1932, there were 5 persons on the Register (1 Urban, 4 Rural), at the end of the year, who were receiving children for reward; the 2 boys were aged 6 and 7 years, and the 3 girls were 1 year, 2 and 4 years respectively, on December 31st.

There were 20 Infant Protection Visitors (all District Nurses) at the end of the year; regular visits were made.

### CLINICS.

Since 1930, the Eye Clinics have been available for infants under school age, and also the provision of operative treatment of enlarged tonsils and adenoids at the Llandrindod Wells Hospital. Three children, a boy aged 4 years, and 2 girls, aged 3 and 4 years respectively, attended Eye Clinics at Llandrindod Wells on account of squint and defective vision.

No operative treatment was carried out at the Llandrindod Wells Hospital.

### ORTHOPÆDIC SCHEME.

On pages 25 and 26 of my Annual Report for 1927, I referred to the County Scheme. Reference was made on pages 25 and 26 of the 1936 School Report, to the treatment of crippled children attending the elementary schools in the County, and on page 58 to children attending the Secondary Schools.

CHILDREN UNDER SCHOOL AGE.—There were 2 new cases (1 boy, 1 girl), total attendances 11 (Llandrindod Wells Centre), and 7 old cases (5 boys, 2 girls) total attendances 24 (Llandrindod Wells Centre).

Of the new cases, a boy aged 2 years suffered from Rickets, and a girl aged 7 months from Scoliosis.

In connection with the old cases the defects were: Congenital Calcaneo-valgus (2), knock knee, elevation of scapula, bowed legs, flat foot, and congenital deformities of both hands.

From the commencement of the scheme in January 1927, up to December, 1936, 54 children (34 boys, 20 girls) attended the Centres ; total attendances 625.

Seven children (5 boys, 2 girls) were treated at the Robert Jones and Agnes Hunt Orthopaedic Hospital.

ADULTS.—There were 8 new cases (4 males, 4 females), total attendances 22 (Llandrindod Wells); and 15 old cases (6 males, 9 females), total attendances 75 (Llandrindod Wells 41, Hereford 12, Newtown 11, Leominster 6 and Craven Arms 5).

Of the new cases, the defects were : female (21 years) Dorsal Kyphosis ; female (26 years) Round Shouldered ; female (38 years) Thickening of Mandible ; female (39 years) Double Hallux Valgus ; male (17 years) Slipped Epiphysis (left hip) ; male (35 years) Flat Foot ; male (59 years) Osteo-arthritis ; and male (62 years) Residual Muscle Toxicity.

Up to February 1931, cases were treated under voluntary arrangements, the cost being borne by the County Orthopaedic Committee, after any contribution by the relatives. On February 6th, 1931, the County Council agreed to provide for examination and treatment of adults.

Up to the end of December, 1936, 69 adults (42 males, 37 females) attended Centres ; total attendances 629. Two females were treated at the Orthopaedic Hospital under voluntary arrangements, 1 in 1927, 1 in 1928, and 12 (5 males, 7 females) under arrangements by the County Council.

The majority of cases (under school age and adults) were in Hospital for an average of a few weeks ; a few cases were in for periods extending from a few months to one year and over.

In the majority of cases improvement was marked. By provision for treatment at an early age gross deformities in adult life are avoided, and children who reach adult life, with few exceptions, are able to earn their living in the ordinary way.

DERWEN CRIPPLES TRAINING COLLEGE.—Two youths, aged 18 and 19 years are at present in the Institution. The male (aged 18 years) was admitted on September 30th, 1934 ; he suffers from defects of the muscles of the left arm and hand, following hemiplegia. A male (aged 19 years), who suffers from the effects of infantile paralysis affecting the right leg, was admitted on May 22nd, 1935.

A male, aged 20 years, admitted on January 25th, 1933, was discharged on December 16th, 1936; he had some loss of power in the muscles of his right leg as a result of infantile paralysis.

### INFECTIOUS DISEASE.

Number of Cases notified in each District, year ended 2nd January, 1937.

Districts.	ScarletFever	Diphtheria	Acute Pneumonia	Puerperal Fever	Puerperal Pyrexia	Ophthalmia Neonatorum	Encephalitis Lethargica	Erysipelas
Urban Districts :								
Knighton ...			3					
Llandrindod Wells								
Presteigne ...								2
Total Urban ...			3					2
Rural Districts :								
Colwyn ...			1					
Knighton ...			1		1			
New Radnor ...	2	1				1	1	
Painscastle ...			1					
Rhayader ...	1	1	8	1				2
Total Rural ...	3	2	11	1	1	1	1	2
Total County ...	3	2	14	1	1	1	1	4

Particulars of notifications and of admission to Hospital during 1936, are given in the accompanying Table.

Disease.	Total cases notified.	Cases admitted to Hospital.	Total Deaths.
Smallpox ...	—		—
Scarlet Fever ...	3		—
Diphtheria ...	2		—
Enteric Fever (including Para-typhoid)	—		1
Puerperal Fever ...	1		—
Puerperal Pyrexia ...	1		—
Pneumonia ...	14		13
Encephalitis Lethargica	1	†1	1
Acute Polio-myelitis ...	—		
Other Diseases generally notifiable ...	—		

†Admitted to Hay Isolation Hospital

SCARLET FEVER.—The disease was not in epidemic form in any of the districts during the year ; 3 cases occurred in the Rural Districts, and there were no deaths. The cases were treated at home.

DIPHTHERIA.—The disease was not in epidemic form during the year ; there were 2 cases in Rural Districts, and no deaths. The cases were treated at home.

There were no cases in Presteigne during the year, in my last Annual Report (page 48) I referred to the outbreak there ; throat swabs were taken in December, 1935, by Dr. Walker, from all the children and the teachers at Presteigne (Church) School with negative results.

TYPHOID FEVER.—There were no cases of Typhoid or Paratyphoid notified during the year. There was a death of a female, in the age period 35-45 years, from Typhoid, belonging to Rhayader Rural District, she was an inmate of the Mid-Wales Mental Hospital.

MEASLES.—The disease was present in epidemic form in the parish of Llanelwedd during the third quarter, and in the parish of Beguildy during the last quarter. There were no deaths. Particulars of mortality in connection with this and other infectious diseases were given on pages 46-49, Annual Report for 1935.

WHOOPIING COUGH.—The disease was in epidemic form in Knighton Urban District during the third and fourth quarters. A death of a male in the age period 2-5 years occurred in the Knighton Urban District, and of a female in the same age period in the Knighton Rural District.

CHICKEN POX.—This was present in epidemic form in Glasbury parish during the first quarter, and in Llanbister Parish during the second and third quarters.

MUMPS.—This disease was present in epidemic form in Nantmel parish during the first quarter, and in Glasbury parish during the last quarter.

INFLUENZA.—This disease was present in epidemic form during the first and second quarters. There was conjunctivitis (pink eye) in association with the disease in Heyope and Llanyre Schools during the first quarter, and in Beguildy, Crugybyddar, Knighton, Llansaintfraed and Whitton Schools during the second quarter.

There was one death of a female, in the age period 65-75 years in the Colwyn Rural District.

Particulars of deaths in the rural districts during the ten years 1921-30, are given on page 30, Annual Report for 1933.

ENCEPHALITIS LETHARGICA.—A male, in the age period 35-45 years, was notified in the New Radnor Rural District; the case proved fatal.

ERYSIPELAS.—There were two cases in the Presteigne Urban District, and two in the Rhayader Rural District.

SMALLPOX.—On page 20, Annual Report for 1921, and in succeeding reports, there has been reference to this disease, which has not been notified in the County during the last 25 years.

The percentage of children unvaccinated in connection with children medically inspected in 1936 in the elementary schools was 38·9 per cent. Particulars in regard to vaccination of infants under 1 year, for the year ended 31st December, 1935, are as follows :—



Particulars in regard to vaccination of children whose births were registered from January 1st to December 31st, 1935, inclusive.

Name of Sub-District.	No. of Births.	Successfully vaccinated.	Percentage vaccinated.
<b>EAST RADNORSHIRE :</b>			
KNIGHTON, comprising (a) the Parishes of Knighton, Presteigne, Beguildy, Cascob, Litton, Discoyd, Heyope, Norton, Pilleth, Whitton, Stanage ... ..	64	27	42·2
(b) Bleddfa, Llananno, Llanbadarn-fynydd, Llanbister, Llandewy Ystradenny, Llanfihangel-Rhydithon, Llangunllo ... ..	42	18	42·8
(c) Colva, Ednol, Evenjobb, Gladestry, Glascwm, Harpton, Kinnerton, Llandegley, Llanfihangel-Nantmellan, Michaelchurch-on-Arrow, Newchurch, New Radnor, Old Radnor, Trewern and Gwaithla, Walton and Womas-ton, Salford and Badland ...	37	26	70·3
<b>WEST RADNORSHIRE :</b>			
LLANDRINDOD WELLS, comprising the parishes of (a) Bettws Disserth, Disserth and Trecoed, Llandrindod Wells Urban, Llandrindod Wells Rural, Llanelwedd, Llansaintfraed-in-Elvel, Llanfaredd ...	34	12	35·3
(b) Cefnlllys Urban, Cefnlllys Rural, Llanbadarn-fawr, Llanfihangel Helygen, Llanyre ... ..	41	15	36·6
RHAYADER, comprising the parishes of (a) Abbeycwmhir, Cwm-dauddwr, Rhayader, St. Harmon ...	22	18	81·8
(b) Nantmel ... ..	12	8	66·7
PAINSCASTLE, comprising the parishes of (a) Aberedw, Bryngwyn, Cregrina, Clyro, Llanbedr Painscastle, Llanbadarn-y-Garreg, Llandewi-fach, Llowes, Rhulen ...	18	11	61·1
(b) Boughrood, Glasbury, Llandilo Graban, Llanstephan ...	6	1	16·7
<b>TOTAL</b> ... ..	<b>276</b>	<b>136</b>	<b>49·3</b>

DEATH RATES FROM INFECTIOUS DISEASE.—The following are rates per 1,000 of the whole population for the 10 years 1899-1908 (Registration County of Radnor) and 1926-35 (Administrative County).

Period.	Smallpox.		Scarlet Fever.		Diphtheria.	
	Rads.	E. & W.	Rads.	E. & W.	Rads.	E. & W.
1899-1908	·010	·014	·069	·114	·261	·210
1926-1935	—	·001	·005	·017	·015	·078
	Typhoid.		Measles.		Whooping Cough.	
	Rads.	E. & W.	Rads.	E. & W.	Rads.	E. & W.
1899-1908	·038	·117	·098	·320	·173	·299
1926-1935	·005	·007	·009	·082	·052	·077

Information in regard to rates per 100,000 of the population under 15 years, for the 10 years 1926-35, is as follows :—

Area.	Scarlet Fever.	Diphtheria.	Measles.	Whooping Cough.
Radnorshire	19	57	38	207
England & Wales	56	301	334	313

England and Wales includes all areas, and as the rates are higher in the towns, one would expect them to be higher compared with Radnorshire,

On pages 44-52 of my Annual School Report for 1936, I gave information of an enquiry in regard to epidemics of infectious diseases in the County since 1920 ; it was found that, on account of the County being sparsely populated, epidemics occurred at less frequent intervals in comparison with large and moderate sized towns.

The death rates for the County were much less in comparison with England and Wales, with the exception of Diphtheria in the period 1899-1908, and Whooping Cough and Typhoid in 1926-35 ; deaths from Paratyphoid Fever are included under the heading Typhoid in the latter period. With the exception of Whooping Cough the rates under 15 years of age are also distinctly lower in the County. There have been no cases nor deaths from either Typhus Fever or Smallpox during the last 28 years. The death rate for Typhus Fever for 1899-1908, was ·001 for England and Wales, and there were no deaths in the County during this period. In the year 1910, the death rate from Diphtheria of children aged 0-5 years, for the County, was 2·01 per 1,000 living, the highest of any county in England and Wales, and this also applied in connection with Infant Mortality, to wasting diseases (Premature Births, Congenital Debility, Malformations, etc.) the rate being 56 per 1,000 births.

PUERPERAL FEVER.—There was one notification during the year, particulars are as follows :—A married woman, aged 34 years, who resided in a Rural District, had a miscarriage (4½ months) on June 19th. The midwife was called in for the first time on the 17th, on account of a rise in temperature, and a doctor was called in by the midwife on the same day. Throat and nose swabs from the nurse midwife, and a swab from the cervix uteri were negative as regards hæmolytic streptococci. The temperature reached normal in 12 days.

PUERPERAL PYREXIA.—There was one case notified. A married woman, aged 28 years, who resided in a Rural District, gave birth to a live infant on October 28th. The labour was prolonged and the temperature rose on the second day. The patient developed Bronchitis, and this was the probable cause, as other conditions were normal; she had been medically examined under the ante-natal scheme.

Another case of Puerperal Pyrexia was notified by a nurse-midwife. A married woman, aged 20 years, who resided in an urban district, gave birth to a live infant on July 2nd, she was attended by a nurse midwife and a doctor; the delivery was normal, but was followed by slight post-partum hæmorrhage. The temperature rose on the third day, and a small piece of membrane was passed on the fourth day; the temperature dropped to normal in a few days.

There were no deaths from Puerperal Sepsis during the year.

In Table XLVI., on page 64 of the Statistical Review of the Registrar-General for 1934, the case rates of Puerperal Fever, Scarlet Fever and Erysipelas are given for the 4 years 1921-24 and 1931-34; particulars are as follows:—

Area.	Cases per 1,000 births.		Inc. or decr. %
	1921-4.	1931-4.	
Puerperal Fever—			
Radnorshire	1·19	3·90	+ 228
England & Wales	2·80	3·72	+ 33
Rutland ...	·76	—	—
Area.	Average annual rate per 1,000 living.		Inc. or decr. %
	1921-4.	1931-4.	
Scarlet Fever—			
Radnorshire ...	1·69	1·40	- 17
England & Wales	2·72	2·79	+ 3
Rutland ...	1·41	·73	- 48
Erysipelas—			
Radnorshire ...	·02	·22	+ 1000
England and Wales	·34	·43	+ 26
Rutland ...	·11	·28	+ 155

It is difficult to make comparisons in Counties such as Radnor and Rutland for 4 years, on account of the limited population. There is often a difficulty of diagnosis in regard to Erysipelas, hence no significance can be attached to the increase, on account of the small numbers.

The rate for Puerperal Fever was rather higher in the County during the period 1931-4, but the other rates were all lower in comparison with England and Wales. There does not appear to be any relation between the rates for Erysipelas and Scarlet Fever in Table XLVI. taking into consideration the rates for all the Counties. In Radnor there was a decrease in the rate from Scarlet Fever in the second period (1931-4).

OPHTHALMIA NEONATORUM.—There was one case notified during the year in June, a female aged 3 days, who resided in a rural district, the particulars are as follows :—

— Treated —		— Vision —		Total	
At home.	In hospital.	Unimpaired.	Impaired.	blindness.	Death.
Yes.	No.	Yes.	—	No.	No.

The infant was born before the arrival of the nurse-midwife, and the inflammation was present on the following day ; the ophthalmia cleared in 6 days.

A small amount of 1% silver nitrate is dropped into the infant's eyes after birth, and this preventive treatment had been carried out in the above case.

ERYSIPELAS.—One case was notified from a rural district.

PNEUMONIA.—Fourteen cases were notified, 3 were in the urban, and 11 in the rural districts.

There were 13 deaths from Pneumonia, 3 occurred in the urban districts (a male in the age period 5-15, and females 0-1 and 35-45), and 10 in the rural districts, 5 males (in the age periods 1-2, 55-65, 65-75 (2), and 75 and upwards) and 5 females (in the age periods 0-1, 2-5, 45-55, and 75 and upwards (2)). The majority of deaths occur in the early and late periods of life.

On pages 52 and 53, Annual Report for 1935, I gave particulars of notifications and deaths for the 10 years 1926-35, I also referred to circular 1499 (Wales). and Memo. 189 of the Welsh Board of Health, which contained information in regard to prevention, etc., and also treatment at home and in hospital.

### ISOLATION HOSPITALS.

Full particulars were given on pages 27-29, Annual Report for 1932, in regard to the 3 Isolation Hospitals in the County at Llandrindod Wells, Knighton and Rhayader. I mentioned in my last Annual Report that the Hospital near Knighton had been closed. The Isolation Hospital near Rhayader has now been furnished, and is available for admission of cases from Colwyn and Rhayader Rural Districts. Cases from the Knighton Urban and Rural Districts, and the Presteigne Urban Districts can be admitted under arrangements, to the Shrewsbury and Atcham Hospital.

## TUBERCULOSIS.

During 1936, reports of 21 cases of Tuberculosis, notified on Form A. (14 Pulmonary, 7 Non-Pulmonary), were received through the District Medical Officers of Health.

NON-NOTIFICATION.—Information from the death returns of the Registrar General did not reveal any unnotified cases.

DEATHS.—During the year there were 7 deaths from Pulmonary (2 males, 5 females), and 2 (males) from Non-Pulmonary Tuberculosis. Particulars in regard to districts and age periods, are given in Tables I. and II. Appendix.

NON-PULMONARY TUBERCULOSIS.—Information was received on Form A. in regard to 7 cases.

There were four males, aged 16, 17, 18 and 32 years respectively, and 3 females, aged 27, 32 and 59 years respectively.

The males suffered from Tuberculosis of the left hip, glands of neck, peritoneum, and abdomen, and the females from affection of the spine (2) and uterus respectively.

On page 56 of my Annual Report for 1935, I gave particulars of cases notified during the 10 years 1926-35, and in this connection referred to the importance of milk being free from Tubercle bacilli.

Particulars of new cases of Tuberculosis, and of all deaths in the area, during 1936, are given below :—

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0-								
1-								
5-								
10-	1							
15-	1		3			3		1
20-	1	2						
25-	4	1	1	2	1	1		
35-	1	2			1	1		
45-	1							
55-				1				
65 & over								1
Total ...	9	5	4	3	2	5		2

During the 5 years 1931-35, 83 cases of Pulmonary Tuberculosis (males 42, females 41) were notified in the County.

Particulars in regard to age periods (at time of notification) are given below :—

Age Periods.	Males.		Females.		Persons.	
	No.	Rate per 1,000 population.	No.	Rate per 1,000 population.	No.	Rate per 1,000 population.
0-	—	—	—	—	—	—
1-	—	—	—	—	—	—
5-	—	—	—	—	—	—
10-	3	3·29	2	2·31	5	2·81
15-	7	7·16	7	7·54	14	7·34
20-	9	10·33	7	8·17	16	9·26
25-	6	4·06	10	6·49	16	5·30
35-	7	3·96	3	2·13	10	3·87
45-	4	3·36	4	3·11	8	3·23
55-	3	2·64	5	4·59	8	3·60
65 & over	3	3·04	3	2·76	6	2·41
	42	3·98	41	3·81	83	3·89

It will be seen that the highest rates were at ages 15-20, and 20-25 years, the period of adolescence, the rate being higher for males at 20-25 years ; the rates decline rapidly, after 25 years, but are higher in connection with females at 25-35 years in comparison with males.

Of the 35 notifications of Pulmonary Tuberculosis in the urban districts, 9 belonged to districts outside Radnorshire, and had only resided for a short time in the County.

Four were notified in Knighton ; 3 males aged 51, 66 and 74 years, were in the Public Assistance Institution, and had no fixed address before admission. A female, aged 31 years, had only resided 6 months before notification, and died 6 months later.

Particulars of the remaining 5 cases in Llandrindod Wells are as follows :—

(1) A male (married) aged 35 years, suffered from the disease at the time he took up an occupation in the town. He had previously resided in another part of Wales ; he was notified on April 8th, 1932, and died on July 26th, 1935.

(2) A male (married) aged 43 years, a commercial traveller, had only resided in the town two months before notification on April 30th, 1935, and died on August 31st of the same year.

(3) A male (married) aged 44 years, who had worked in a factory, had only resided in the town a week before notification on June 21st, 1934 ; he left the county later in the same year.

(4) A female (single), aged 23 years, domestic servant, had only resided in the town a few months before notification on September 9th, 1933 ; she later returned to her native county of Herefordshire.

(5) A female (single), aged 23 years, domestic servant, was only a short time in the town before notification on May 25th, 1931 ; she has now returned to her native county of Monmouthshire.

Of the 48 notifications in the Rural Districts, 3 were in respect of persons who belonged to districts outside the County ; particulars are as follows :—

(1) A male (single), aged 22 years, a student at a Welsh University, had only resided in the county a short time before notification on November 7th, 1935.

(2) A female, aged 27 years, wife of a motor lorry driver, had only resided in the county 3 months before notification on June 27th, 1933 ; the family has now moved into another county.

(3) A female (single) aged 33 years, had only resided in Radnorshire 3 weeks before notification on January 5th, 1935 ; she has now returned to her native county of Breconshire.

OCCUPATION.—Males. In the urban districts 3 were farm labourers, and 1 had previously followed this occupation ; the others followed miscellaneous callings (one each) : labourer, gardener and labourer, surveyor, stone mason, pump room attendant, grocer, motor mechanic, commercial traveller, coal agent, draper's assistant. One was a retired railwayman ; another who did not belong to the county, and was only resident for a short time, had worked in a factory. Three were school children (fathers' occupations—butcher, draper, upholsterer).

In the rural districts, 8 were farmers, 4 farm labourers, 3 gardeners, 2 clerks ; the other occupations (one each) were motor driver, commercial traveller, carpenter and butcher. One served in the Guards, and another was a student at a university.

FEMALES.—In the urban districts 4 followed the occupation of domestic servant, and one was a shop assistant ; the remainder did house work. In 7 cases the husband's occupation was as follows : Farm labourer, labourer, builder's labourer, hawker, grocer's assistant, fitter, and electrician ; in 4 cases the father's occupation was grocer's assistant, musician, shop assistant, and caretaker. One was a widow and lived on a small income.

In the rural districts, 4 were domestic servants, and 3 were respectively nurse, nurse maid, and assistant to father who was an undertaker. Of the remaining cases 4 were occupied in house and farm work (2 wives and 2 daughters of farmers). Ten carried out house work, the occupation of the husband being in 3 cases farm labourer, and in 4, waggoner, gardener, motor lorry driver, and signalman ; two school children were the daughters of labourers. A married woman, aged 30 years, had no occupation, and the husband was unemployed.

REMARKS.—There was no particular occupation which in itself was detrimental to health. I have previously referred to "Occupation" earlier in the Report.

**HOUSING.**—Accurate information was obtained by the Health Visitors in connection with 60 cases.

Of 25 houses in the urban districts, in 18 there was a separate bedroom available for the case. The majority of the houses (14), had 3 bedrooms and over (six had 3 bedrooms, five 4, two 5, and one 6). In 8 houses there were 2 bedrooms.

In 3 cases the accommodation, according to number of occupants, was inadequate. One house had sufficient accommodation, but was damp, and in 2 there was no back door and insufficient through ventilation.

Of 35 houses in the rural districts, in 23 there was a separate bedroom available. Twelve houses had 2 bedrooms, (7 houses had one living room, and 5 two); thirteen had 3 bedrooms, (three 1 living room, 7 two, and 3 three). Three houses had 4 bedrooms, three 5, and two 6 bedrooms.

The majority of the houses 23, had 3 bedrooms, and 12 had 2 bedrooms.

In 4 houses the accommodation was inadequate, according to the number of occupants. Four had no proper through ventilation.

One house was overcrowded, it contained 1 living room and 2 bedrooms, and the occupants were 7 adults and 2 children.

**REMARKS.**—In connection with one third of the houses, there were only 2 bedrooms, and this would make the use of a separate bedroom for the case difficult.

**PREVIOUS ILLNESSES, ETC.**—In a certain number of cases (a small proportion), there was a history of previous illness such as Influenza, Gastritis, etc., and in some cases Defective Nutrition and Anaemia. There was a history of intemperance in connection with 5 persons (4 males and 1 female); 3 males resided in urban districts, and a male and female in rural districts. A male who resided in an urban district was fairly temperate. Illness or intemperance lowers resistance and predisposes to the disease.

In a small proportion of cases, there was a history of definite infection from another member of the family, particulars of some of the cases are as follows:—Urban Districts: Female, aged 18 years, from mother; male, aged 23 years, from half-brother, who died in the same house, 2 years previous to notification; male, aged 11 years, developed Pleurisy, mother died 2 years previously.

Rural Districts: Female, aged 27 years, probably from husband (farmer) at the time family resided in Merionethshire; female 28 years, probably from brother aged 38 years (family belonged to Breconshire).



A history of infection from another member of the family, is usually found in about one half of the cases ; in Radnorshire it would appear difficult to obtain a history in as large a proportion of cases.

GENERAL REMARKS.—In some parts of Wales, infection remains in households over a large period of years, infection passing from one person to another ; this happens in villages, where the houses are close together, and where there is kinship between the people due to intermarriage. Apart from the infection there are the occupations of coal mining and quarrying ; slate quarrying is an occupation which predisposes to Phthisis.

In Radnorshire the houses are scattered, for the most part, and there is not the same opportunity for infection, even among families who are closely connected. The large majority of the people are engaged in healthy occupations and are temperate, but among a certain percentage of families, as I have pointed out previously in Annual School and Health Reports, the nutrition is defective, on account of the lack of a sufficient amount of milk, butter, eggs, fish, green vegetables, and fruit in the diet.

#### DEATH RATES.

In previous Annual Reports, I have referred to the rates at various ages of males and females ; on page 34, Report for 1933, I gave particulars for the Rural Districts, for the 10 years 1921-30. In my last Annual Report I mentioned that the rate for the County (Administration) for the 10 years 1926-35 was for Pulmonary Tuberculosis '586 (urban '855, rural '487) per 1,000 of the population ; for the 10 years 1899-1908 (Registration County) it was '894. The rate for all forms of Tuberculosis for the 5 years 1931-35, for Radnorshire was '752 (Pulmonary '530, Non-Pulmonary '222), this rate was the third lowest in Wales for the same period, only Flint and Montgomery being lower.

Tuberculosis mortality statistics for Wales presented by Mr. J. E. Tomley, of Montgomery, to the Governors on July 31st, 1936, were submitted for his observations to Mr. W. T. Russell, Division of Epidemiology, London School of Hygiene and Tropical Medicine. Mr. Russell points out that the tuberculosis death rate in England is composed of elements drawn from (1) London, (2) County Boroughs, (3) Urban Districts, and (4) Rural Districts, and that its final composition must inevitably be dominated by elements 1, 2, 3 ; in consequence "its application to specific Counties in Wales, which are overwhelmingly rural in character (he points out) is hardly a connected procedure. The results as obtained by Mr. Tomley can only be approximate ones and probably he only intended them to be so. The more accurate method is to

classify the population in each county into sex and age groups for (a) the aggregate of County Boroughs in each County, (b) the aggregate of Urban and (c) the aggregate of Rural Districts in each County, and then apply the corresponding rates of mortality at ages in the similar areas in England. The sum total of all the products will yield the total deaths that would be expected to occur in the particular County on the basis of the mortality prevailing in England."

Mr. Russell has carried out this method of analysis for Wales, and the Counties of Montgomery and Radnor. He used the average tuberculosis mortality (for all forms) in age periods based on the four years 1931-34, as the figures for 1931-35 were not available.

The results are given in the table below :

Expected Tuberculosis Deaths, 1931-35.

	County Boroughs.	Urban Districts.	Rural Districts.	Total.	Actual Tuberculosis Deaths 1931-35.	Difference.
Wales	2713	2315	4605	9635	12490	+ 2855
Montgomery		57	88	145	175	+ 30
Radnor		21	45	66	78	+ 12

"The results (Mr. Russell states) differ from those given by Mr. Tomley ; the difference arises not so much for allowance of age constitution of the population, as for allowance of the urban and rural aspect of the population within the whole county, and within each county."

It will be seen that in Radnor, there were for the five years 1931-35, 12 more deaths (18 per cent) in comparison with corresponding districts in England.

For Pulmonary Tuberculosis the rate for Radnorshire was the lowest County rate in Wales, the rate being '530 per 1,000 of the population, Flintshire being '581, and Montgomeryshire '625 ; the adjoining counties of Cardigan, Herefordshire and Salop, were '977, '588, and '579 respectively.

The rate is higher than a number of Counties in England; Rutland, the smallest county, with a population of 17,700 had a rate of '346 per 1,000 for the same period (1931-35) ; Westmorland had a rate of '488, Norfolk '462, East Suffolk '504, West Suffolk '563, East Sussex '484, and West Sussex '488.

The average number of deaths per year from Pulmonary Tuberculosis for the period 1931-35 was 6, the other Infectious Disease with a similar average was Influenza with 9, but while Influenza takes a toll of persons usually at the later stages of life, Phthisis causes the greatest mortality in persons from 15 to 45 years. Apart from the valuable work carried out by the Welsh National Memorial Association, including the special work done by Dr. Jordan, I consider that the measures taken in

connection with defective nutrition, including improvement of the diet, and instruction in other health matters, have had a material effect in reducing the incidence and mortality of the disease. In my last School Report for 1936, I mentioned that the percentage of children with defective nutrition had declined from 41 per cent for the 5 years 1921-25, to 22 per cent for 1931-35; with a county so favourably placed as Radnor, the rate should be lower. From the particulars I have already given, it will be seen that the housing is unsatisfactory in a definite proportion of cases, more particularly in regard to suitable accommodation, which should include a separate bedroom for the case. More could also be done in regard to "after-care."

CARE AND AFTER-CARE.—In his Annual Report for for 1935, the Chief Medical Officer of the Ministry of Health, Sir Arthur S. MacNalty refers to Care and After-care. He states "Tuberculosis is a disease which brings privation in its train, privation which affects dependents as well as patients, and is therefore of grave economic importance. In other words, early attention to the sociological problems arising from the occurrence of tuberculosis in a household is often as urgent in the interests of the patient and of the family as the medical treatment of the individual sufferer." Reference is made under the following headings :—

(1) Assistance in the prevention of the spread of infection. One of the functions of the care organisation is to help by lending "beds and bedding to enable the patient to sleep alone, and assistance may also be given by persuading or making it possible for the patient to enter a sanatorium" if this is recommended. "In some cases the family may need to be transferred to a larger house," district councils can help in this matter.

"In other instances, it may be desirable for arrangements to be made for the boarding-out of the children of infected patients with relatives, or otherwise; to allow of a mother going away for treatment."

(2) Helping the patient to take advantage of Sanatorium or Hospital Treatment. "If the patient is a breadwinner, he may not be able or may be unwilling to leave home unless his mind is set at rest as to how those he leaves behind will fare." It is shown in what way help can be provided, and reference is made to remunerative employment for the wife or elder children, "if they are able to go out to work without detriment to the care of any younger members of the family. If the patient is

the mother of a family, she will in many instances, require advice and assistance in the direction of arrangements for the care of her children and her home before she will feel free to consent to go to a sanatorium.

Whenever there is a boarding-out scheme for children by a Local Authority, this will be a great help to a Care Committee. Occasionally, also, a patient may need a suitable outfit of clothing in order to enter a sanatorium or hospital. In some cases the Local Authority arranges to provide clothing to patients entering an institution who are unable to make adequate provision for themselves."

(3) Assisting patients upon the completion of sanatorium or hospital treatment. It is pointed out that "in considering after-care work, it cannot be too strongly emphasised, that the benefit derived from treatment in residential institutions may be and frequently is undone, and early relapse invited if the patient returns to unsatisfactory conditions of life and work. This has been demonstrated to be one of the main causes of the "so called failure" of sanatorium treatment.

In the new concept of the fight against tuberculosis, an essential point is that the consumptive must remain under medical observation for a number of years; his is a damaged life and must be regarded as such. The first two years after leaving a sanatorium are very critical years. From this it follows that the patient at first should only work under sheltered circumstances in occupations suitable for his condition. He must live in as healthy an environment as practicable, and his labour may need to be subsidised in order that he may maintain his dependents and himself. Usually these requirements can only be entirely satisfied by life in a village settlement." Reference is made to Popworth Village Settlement, Cambridgeshire. "Transfer to a settlement" it is pointed out "is not applicable to every case, for not every patient is suitable for admission, nor is every patient able or willing to enter.

The care organisation should carefully consider the needs of the patient and his family (the family being the unit for care work), at an early stage, as soon as or even before he is admitted to a residential institution, for the creation of suitable conditions to which the patient can return frequently requires much time. The consumptive's needs may include (a) the re-housing of the family, (b) the finding of new and suitable work or of a more suitable occupation than his old one, (c) negotiations to secure suitable modifications in the former conditions of employment."

Reference is made to other schemes ; including "provision of workshops at sanatoria at which the ex-patient could attend daily and work under constant medical supervision..... Midway between the sanatorium workshops for patients and ex-patients and the village settlement, is a proposal which sets up workshops in connection with the sanatorium, and also makes provision for the housing in cottages and hostels of patients who have completed their course of sanatorium treatment. The aim here is not to settle the ex-patient permanently, but to re-establish his health, to obviate his being a source of infection at home, to preserve him from temptations which would prejudice his complete recovery, and, if possible, to fit him to earn his own living outside at a later date."

The importance of the co-operation of the Tuberculosis Officer with the care organisation is pointed out.

"In dealing with necessitous cases of tuberculosis the work of the Public Assistance Committee comes into intimate relationship with that of the care organisation. Both bodies alike need the expert advice of the Tuberculosis Officer and they should work in close co-operation."

Reference is made to the organisation of the care body, and of the working in close liaison with the Public Assistance Committee, and with all public and charitable organisations which can afford help in individual cases. In Radnorshire the Health Visitors make regular visits to the homes, and keep in touch with the needs of the cases and families.

PREVENTION AND TREATMENT.—Full particulars were given on pages 21-25, Annual Report for 1924, and on pages 34-39, Report for 1925. No action was taken during the year under the Public Health Regulations 1925, or under Section 62 of the Public Health Act, 1925.

TABLE I.

Return showing the work of the Clinics during the Year, 1936.

Diagnosis.	Pulmonary				Non-Pul'y				Total				Grand Total
	Ad'ts		Chil-dren		Ad'ts		Chil-dren		Ad'ts		Chil-dren		
	M	E	M	F	M	F	M	F	M	F	M	F	
A. NEW CASES examined during the year (excluding contacts)													
(a) Definitely Tuberculous ...	9	4	1	-	2	3	1	-	11	7	2	-	20
(b) Diagnosis not completed	-	-	-	-	-	-	-	-	7	4	-	3	14
(c) Non-Tuberculous ...	-	-	-	-	-	-	-	-	18	17	14	3	52
B. CONTACTS examined during the year—													
(a) Definitely Tuberculous ...	-	-	-	-	-	-	-	-	-	-	-	-	—
(b) Diagnosis not completed...	-	-	-	-	-	-	-	-	-	1	-	-	1
(c) Non-Tuberculous ...	-	-	-	-	-	-	-	-	9	6	2	3	20
C. CASES written off Register as—													
(a) Recovered ...	2	-	2	1	1	-	2	1	3	-	4	2	9
(b) Non-Tuberculous (including any such cases previously diagnosed and entered on the Register as tuberculous) ...	-	-	-	-	-	-	-	-	38	37	23	11	109
D. NUMBER OF CASES on Register on 31st December—													
(a) Definitely Tuberculous ...	36	24	7	2	13	7	4	3	49	31	11	5	96
(b) Diagnosis not completed...	-	-	-	-	-	-	-	-	13	18	17	16	64

TABLE I.—continued.

1. Number of cases on Register on Jan. 1st.	180		
2. Number of cases transferred from other areas and cases returned after discharge under Heading 3 in previous years	4	8. Number of visits by Tuberculosis Officers to homes (including personal consultations)†	448
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of."	6	9. Number of visits by Nurses or Health Visitors to homes of patients	—
4. Cases written off during the year as dead (all causes)	7	10. Number of—	
5. Number of attendances at the Clinics (including contacts)	141	(a) Specimens of sputum, etc., examined	43
6. Number of Insured Persons under Domiciliary treatment on 31st December	13	(b) X Ray examinations made in connection with Clinic work	227
7. Number of consultations with Medical Practitioners—		11. Number of "Recovered" cases restored to Register and included in A (a) and A (b) above	—
(a) Personal†	100	12. Number of "T.B.plus" cases on Register on 31st Dec.	22
(b) Other	299		

†All personal consultations, whether held at the homes of patients, or elsewhere, are included in item 7 (a), and all visits by Tuberculosis Officers to homes, whether or not accompanied by a personal consultation already included in item 7 (a), are entered in item 8.

TABLE II.

Return showing the extent of Residential Treatment and Observations in Institutions during the year ended 31st December, 1936.

		In Insti- tutions on Jan. 1st, 1936	Admitted during the Year	Dis- charged during the Year	Died in Institu- tions	In Insti- tutions on Dec. 31st 1936
Number of doubtfully Tuberculous cases admit- ted for observation	Adult Males	—	—	—	—	—
	Adult Females	—	—	—	—	—
	Children	1	2	2	—	1
	Total	1	2	2	—	1
Number of patients suffering from pulmonary tuberculosis	Adult Males	6	4	4	1	5
	Adult Females	2	4	3	1	2
	Children	—	1	—	—	1
	Total	8	9	7	2	8
Number of patients suffering from non-pul- monary tuberculosis	Adult Males	—	4	2	—	2
	Adult Females	2	2	1	1	2
	Children	—	2	1	—	1
	Total	2	8	4	1	5
Grand Total ...		11	19	13	3	14



In the preceding Tables an account has been given of the work carried out by the Welsh National Memorial Association ; Dr. Jordan is the Tuberculosis Physician for Brecon and Radnor. On pages 36-39, Annual Report for 1925, a summary of the arrangements made by the above Association in regard to Sanatorium, Hospital, and Dispensary Treatment was given, and also an account of the arrangement for examinations of contacts, etc.

In the Annual Report of the Welsh National Memorial Association for the year ended 31st March, 1936, a Report by Dr. Jordan, for the Breconshire and Radnorshire Area is included ; the report generally deals with the two counties. During 1935 in Radnor there were 82 total new cases, and 21 new cases of definite Tuberculosis in Radnorshire ; the number of cases on the Register was 92.

Referring to diagnosis and other matters Dr. Jordan states "The problem of early diagnosis of tuberculosis is still one of outstanding importance and considerable difficulty. A number of cases are seen in which the disease is well established when the patient is first examined. In many of the cases the patients have only themselves to blame for this unfortunate state of affairs, whilst in others the insidiousness of the disease, or in a few cases the acuteness of the onset, makes early diagnosis almost impossible. Pulmonary tuberculosis is comparatively unknown in children, but it is in the adolescent and young adult that the disease frequently makes its first attack, and it is at this age that we must be on the look-out for the early signs and symptoms of the disease. Modern X-ray apparatus has added considerably to our facilities in early diagnosis, and in individuals of this age, suffering from conditions associated with lowered vitality and malnutrition, a radiograph of the chest is generally desirable."

#### VENEREAL DISEASES.

Full particulars in regard to prevention and treatment were given on pages 42 and 43 of my Annual Report for 1925, and on pages 40 and 41, Annual Report for 1930 ; in the latter report information was given in regard to treatment at Clinics during the periods 1921-25 and 1926-30. For the period 1921-25, 4 cases of Syphilis, 2 of Gonorrhœa, and 4 other cases were treated ; total attendances 28.

Information in regard to the number of cases treated at Clinics during the 5 yearly period 1931-35 is as follows :—

	Number.			Attendances.		
	M.	F.	T.	M.	F.	T.
Syphilis ...	6	9	15	15	75	90
Gonorrhœa ...	9	1	10	70	6	76
Other (suspicious cases)	3	1	4	5	1	6
	18	11	29	90	82	172

The majority of the cases were treated at the Venereal Diseases Clinic of the Herefordshire County Council, held at the Isolation Block of the Hereford Public Assistance Institution, Commercial Street ; some attended the clinic at the Provident Dispensary, Shrewsbury.

During 1936, 3 cases (2 males, 1 female) suffered from Gonorrhœa, and attended the Hereford Clinic on 1, 2 and 4 occasions respectively ; 2 of the cases (male and female) attended for the first time during the year. No Radnorshire patients attended the Shrewsbury Clinic during the year.

Two females, single, aged 21 years, and married, aged 24 years, were admitted on account of Gonorrhœa, to Cleveland Hostel, Wolverhampton, during the year ; they were in for periods of 11 months and 10 weeks respectively. The single female was admitted from the Rhayader Public Assistance Institution.

#### CANCER MALIGNANT DISEASE.

Particulars in regard to deaths during the 5 years 1921-25 were given on page 44 of my Annual Report for 1925, and similar information for 1926-30, on page 41, Annual Report for 1930.

I gave particulars of deaths and rates per 1,000 of the population in the Rural Districts of the County, at different age periods for 1921-30, on page 59, of my Annual Report for 1933.

Information in regard to rates (per 1,000 population) for 1931-35, for the County, at different age periods is given in the table which follows :—

Age Periods.	Radnorshire, 1931-35.				England & Wales, 1934.			
	Males.		Females.		Rates—			
	No. of deaths	Rate	No. of deaths	Rate	Males.		Females.	
					Urban Dist.	Rural Dist.	Urban Dist.	Rural Dist.
0-5	—	—	1	·25	·06	·05	·04	·02
5-15	1	·11	—	—	·03	·02	·02	·01
15-25	—	—	1	·11	·05	·04	·04	·06
25-35	2	·27	—	—	·12	·12	·14	·13
35-45	3	·51	1	·14	·38	·37	·72	·67
45-55	8	1·34	13	2·02	1·55	1·33	2·10	1·90
55-65	19	3·35	13	2·39	4·45	3·71	4·06	3·81
65-75	32	9·28	22	6·04	9·91	8·49	7·51	7·54
75 and up.	20	13·51	29	16·16	14·07	13·52	11·64	11·34
Total	85	1·61	80	1·49	1·50	1·47	1·60	1·63

Particulars for total males and females, urban and rural districts in the County, are given below, the rates are in brackets.

Urban Districts : Males 31 (2·41) ; females 24 (1·46).

Rural Districts : Males 54 (1·35) ; females 56 (1·50).

The male rate in the urban districts is rather high, but the figures are not large enough to make accurate comparisons.

The numbers for the County are small up to the age of 45 years. At the age period 45-55 years, the male rate is less than that for the Urban Districts, England and Wales, and the female rate is lower than the Urban Districts, but rather higher in comparison with the Rural Districts, E. & W. At 55-65 years, the male rate is less in comparison with both Urban and Rural Districts, E. & W., and this applies to an even greater extent to the females for the County.

At 65-75 years the male rate for the County is higher in comparison with the Rural Districts, E. & W., and the female rate is less in comparison with both Urban and Rural Districts, E. & W.

The male rate at 75 years and upwards, is practically the same as the Rural, and less than the Urban Districts, and the female rate is distinctly higher in comparison with both Urban and Rural Districts, E. & W.

**FACILITIES FOR DIAGNOSIS.**—Provision is made (including X-rays) at the following Hospitals:—Breconshire War Memorial, Herefordshire General, Llandrindod Wells, Montgomery County Infirmary, the Royal Salop Infirmary, and the Swansea General Hospital.

**FACILITIES FOR TREATMENT.**—This is provided by X-rays at the Herefordshire General Hospital, the Royal Salop Infirmary, and at the Swansea General Hospital. There are arrangements for deep X-ray therapy.

Radium treatment is provided at the Royal Salop Infirmary, and Swansea Hospital, and also at Much Wenlock Hospital, Shropshire. There is a Radiologist on the staff of the Herefordshire General Hospital, Salop Infirmary and Swansea General Hospital.

At the Salop Infirmary radium is supplied from the National Centre, Birmingham. At Much Wenlock Hospital there are available 150 milligrams of radium element mounted in the form of tubes, needles and plaques. The Swansea Hospital has a supply of 100 to 200 milligrammes; this is in almost constant use, and is sometimes booked in advance.

**PREVENTION.**—It is important that any source of irritation should be avoided, and that any tumour, or growth should be seen by a doctor at the earliest stage. If treated at an early stage either by operation, by X-rays, or by radium, there is a good chance in a proportion of cases of recovery.

In 1923, copies of the printed memorandum on Cancer, issued by the Ministry of Health in July of that year were widely circulated. Arrangements are being made for circulation of similar leaflets to the public.

## RESPIRATORY DISEASE.

Information in regard to deaths in the 5 years 1921-25, was given on pages 44 and 45, Annual Report for 1925, and for the 5 years 1926-30, on pages 38 and 39, Report for 1930; and for 1931-35 on pages 63 and 64, Report for 1935. Particulars of deaths and rates per 1,000 of the population, in the Rural Districts, at various age periods, were given on page 40, Annual Report for 1933, and on pages 55 and 56, Report for 1934. Reference is also made on pages 24 and 25, Report for 1935.

## HEART DISEASE.

The largest number of deaths occur from this cause. On pages 24 and 25, Report for 1935, information was given in regard to rates at different age periods. During the 10 years 1921-30, there were no deaths attributed to diseases of the Circulatory System (chiefly Heart Disease). The rate, per 1,000 of the population, at 5-15 years was '10, and for Rheumatic Fever '15; at 15-25 years, the rate had increased to '13, and was '11 for Rheumatic Fever; there were no deaths attributed to Rheumatic Fever in the later age periods. For the period 1929-33, the rate was '28 at 25-45 years, 2'67 at 45-65, 16'2 at 65-75, and 52'5 at 75 years and upwards.

Rheumatic Fever is the commonest cause of valvular disease of the heart. Reference is made on page 27, of my School Report for 1936, in regard to Rheumatism in Children, and to the importance of prevention, and treatment in the early stages.

## MENTAL DISEASE.

Reference was made on pages 45 and 46, Annual Report for 1925, on pages 28 and 29, Report for 1928, and on pages 40 and 41, Report for 1933.

## OTHER DISEASES.

On pages 41-43, Annual Report for 1930, information was given in regard to Diabetes, Nephritis and Rheumatic Fever.

Information in regard to deaths from the various causes at ages 1-5 during 1911-20 and 1921-30, were given on pages 20 and 21, Annual Report for 1934, and at ages 5-15, and 15-25, on pages 36 and 37 of the same report. Particulars in regard to deaths during the age periods from 25-45 years to 75 years and upwards, were given on pages 22-29, Annual Report for 1935.

## HOSPITALS, CLINICS, SPA TREATMENT, Etc.

Information was given on pages 43 and 44, Annual Report for 1930.

## POOR LAW INSTITUTIONS.

The total number of beds (excluding cots in maternity wards) provided for sick, maternity, and mental cases on 31st December, 1936, was as follows :—

	Knighton.	Rhayader.	Total.
Men	26	6	32
Women	11	12	23
Children (under 16 years).	2	1	3
	<hr/> 39	<hr/> 19	<hr/> 58

Information in regard to (A) In-patients (year ended 31st December, 1936) is given below :—

	Knighton.	Rhayader.	Total.
1. Total No. of Admissions (including infants born in hospital).	44	16	60
2. No. of women confined in hospital ...	4	1	5
3. No. of live births ...	4	1	5
4. No. of still births ...	—	—	—
5. No. of deaths among the newly born (i.e. under 4 weeks of age) ...	—	—	—
6. Total number of deaths among children under 1 year (including those given under 5.)	—	—	—
7. No. of maternal deaths among women admitted to hospital for confinement ...	—	—	—
8. Total No. of deaths ...	13	6	19
9. Total No. of discharges (including infants born in hospital)	32	10	42
10. Duration of stay of patients included in 8 and 9 above :			
(a) Under 4 weeks ...	30	5	35
(b) 4 weeks and under 13 weeks	4	5	9
(c) 13 weeks or more ...	10	6	16
11. No. of beds occupied :			
(a) average during the year	28	10	38
(b) highest ...	35	15	50
	(Dec. 3rd)	(Feb. 8th)	
(c) lowest ...	26	8	34
	(Aug. 4th)	(April 25th)	
12. No. of surgical operations under general anæsthetic (excluding dental operations)	—	—	—
13. No. of abdominal sections	—	—	—

(B). Out-patients.—There is no provision in either institution.

There is a well equipped maternity ward in each institution ; insufficient use is made of this, there was only one woman confined in the Rhayader Institution. Cases are suitable for admission in which the home conditions are unsatisfactory and the financial circumstances restricted.

The majority 35 (58 per cent) of the patients remained in institution for a period under 4 weeks, and 16 (27 per cent) for 13 weeks or more.

There is one (non-resident) medical officer attached to each Institution (Dr. Booth at Knighton, and Dr. Shankey at Rhayader).

The matron at the Knighton Institution had training in nursing, but was not state-registered, she was assisted by a nurse who had the certificate of the Central Midwives Board. The matron of the Rhayader Institution is state-registered and has the C.M.B. certificate.

Information in regard to classification of accommodation for sick, maternity, and mental cases, and the number of beds occupied in the two Public Assistance Institutions on 31st December, is as follows :—

Classification of Wards.		NUMBER OF BEDS.							
		Men.		Women.		Children.		Total.	
No. of Wards.		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
1 & 2. Medical and Surgical :									
(a) Knighton	6	7	7	5	4	2	1	14	12
(b) Rhayader									
3. Chronic Sick :									
(a) Knighton	3	*10	6	*5	5			15	11
(b) Rhayader	2	6	6	6	3			12	9
4. Children :									
(a) Knighton									
(b) Rhayader									
5. Venereal :									
(a) Knighton									
(b) Rhayader									
6. Tuberculosis :									
(a) Knighton									
(b) Rhayader									
7. Isolation :									
(a) Knighton	1		1						1
(b) Rhayader									
8. Maternity :									
(a) Knighton	1			1					1
(b) Rhayader	1			1					1

Classification of Wards.	No. of Wards.	Men.		Women.		Children.		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
9. Mental :									
(a) Lunacy Act, 1890.									
(i) Short stay									
Knighton									
Rhayader									
(ii) Long stay									
† Knighton									
Rhayader	1			5	4			5	4
(b) Mental Treatment									
(i) Voluntary									
(ii) Temporary									
10. Mental Defectives									
11. Other									
(a) Knighton	1	8	8					8	8
(b) Rhayader									

\*Three male and 2 female mental defectives are included.

†No wards are set aside for mental patients, three cases are nursed in the medical wards, and are included in the beds occupied.

||Ambulatory cases, chiefly senile.

On page 59, Annual Report for 1934, I gave particulars of Mental Defectives in the two institutions.

No beds are set aside in either institution for Tuberculosis. There was one case of non-pulmonary tuberculosis, adult male, in the Knighton Institution at the end of the year ; he suffered from disease of the kidney.

Acute surgical cases are sent to Voluntary Hospitals ; the majority to the Royal Salop Infirmary.

Reference to classification of cases in the two institutions on the lines indicated on pages 164-167 of the Annual Report of the Chief Medical Officer of the Ministry of Health for 1932, were given on pages 59-62, Annual Report for 1934. Improved equipment was referred to on pages 62 and 63 of the same Report.

### BACTERIOLOGICAL WORK.

During 1936, 23 throat swabs were examined by the Clinical Research Association, London, for the presence of Diphtheria bacilli ; in one case these were detected.

Three throat, and 2 nose swabs were also examined for the presence of Hæmolytic Streptococci ; these were not detected.



Two swabs were examined at the Birmingham University Laboratory for detection of Gonococci, in one instance a positive result was obtained.

Seven specimens of blood were sent to the Birmingham University Laboratory for the Wasserman Reaction, one was of doubtful reaction, and 6 were negative.

Information in regard to Milk samples is given under "Milk Supply."

### SALE OF FOOD AND DRUGS.

The following are particulars of the samples taken for analysis during the year, by Mr. Powell, Inspector under the Food and Drugs Acts.

PUBLIC HEALTH CONDENSED MILK REGULATIONS, 1923 and 1927.—Two samples were taken.

PUBLIC HEALTH DRIED MILK REGULATIONS, 1923 and 1927.—No samples were taken.

ARTIFICIAL CREAM ACT, 1929.—No samples were taken.

PUBLIC HEALTH (PRESERVATIVES IN FOOD) REGULATIONS, 1925-27.—Particulars are given in the table which follows; all the samples of milk and other food were free from preservatives, or contained the permissible amount.

Twenty-eight samples of cream were taken under the same regulations. The amount of fat in the tinned cream varied from 22·9 to 25·9 per cent (one contained 19·7 per cent). Most of the firms (chiefly foreign) do not state the amount of fat in the cream, a few (British) do so.

The term "full cream" in connection with tinned cream is not an accurate description.

The following table shows the number of samples taken, and the number found to be genuine.

Nature of Sample.	No. of samples taken.	Number found to be genuine.	Nature of Sample.	No. of samples taken.	Number found to be genuine.
New Milk ...	114	110	Sweets ...	3	3
Condensed Milk	2	2	Oxo ...	4	4
Butter ...	8	8	Mincemeat ...	2	2
Cheese ...	6	6	Meat Paste ...	5	5
Lard substitute	1	1	Tinned Meat ...	3	3
Coffee & chicory	2	2	Sausage ...	1	1
Coffee Essence	1	1	Fish Paste ...	2	2
Cocoa ...	2	2	Tinned Fish ...	3	3
Ovaltine ...	1	1	„ Vegetables	1	1
Bourneville ...	1	1	„ Peas ...	1	1
Tea ...	5	5	Sandwich Spread	1	1
Sugar ...	2	2	Custard Powder	1	1
Syrup ...	1	1	Egg Substitute...	1	1
Honey ...	1	1	Rennet ...	1	1
Marmalade ...	2	2	Lemon Curd ...	1	1
Rolled Oats ...	1	1	Tomato Relish	1	1
Prepared Oats	1	1	Mixed Spice ...	1	1
Groats ...	1	1	Pickling „ ...	1	1
Rice Flour ...	2	2	Mustard ...	2	2
Tapioca ...	1	1	Baking Powder	1	1
Macaroni ...	1	1	Bicarbonate of		
Spaghetti ...	1	1	Soda ...	2	2
Bread ...	4	4	Tartaric Acid ...	2	2
Marmite ...	1	1	Cream of Tartar	1	1
Beef Suet ...	1	1	Olive Oil ...	1	1
Cake ...	1	1	Liver Salts ...	4	4
Table Jelly ...	3	3	Liquorice and		
Tinned Fruit ...	2	2	Menthol Pellets	1	1

The total number of samples taken was 217, and of these, 2 were formal (new milk).

One sample of new milk was low in solids not fat, but the freezing point determination indicated that the deficiency was due to natural causes, and not to the presence of extraneous water.

Two samples were defective in fat to the extent of 1 and 3 per cent, but in both there was excess of solids other than fat, indicating that no water had been added, and this was confirmed when further formal samples were taken within a few days of the results of the first analysis.

Two other samples were below the limit in fat, to the extent of 4 and 6 per cent respectively. Further samples were taken and the amount of fat was above the average ; no proceedings were taken.

### MILK SUPPLY.

Information in regard to number of registered cow-keepers in each district in Radnorshire is given on page 31 of my Annual Report for 1928. The number of registered purveyors in 1936 was 148.

The number on the Accredited Roll at the end of the year was 24 ; Urban Districts 8 (Knighton 6, Llandrindod Wells 2) and Rural Districts 16 (Colwyn 5, Knighton 7, Rhayader 4).

BACTERIOLOGICAL EXAMINATION OF MILK.—During the year ended 31st December, 1936, 114 samples were taken by Mr. Powell, Inspector of Food and Drugs, and sent to the Public Analyst for examination ; particulars are as follows :—

#### Urban Districts—

Knighton	...	16	samples taken from	9	purveyors.
Llandrindod Wells	...	10	..	6	..
Presteigne	...	10	..	8	..

#### Rural Districts—

Colwyn	...	34	..	18	..
Knighton	...	4	..	4	..
New Radnor	...	—	..	—	..
Paincastle	...	20	..	16	..
Rhayader	...	20	..	13	..

The total number of organisms developed on agar in 48 hours, at a temperature of 37°c. is given below ; the numbers refer to colonies developed in thousands, e.g. 20-30,000 organisms per c.c. of the milk.

2 or less	2-10	10-20	20-30	30-50	50-100	100-200
3	32	17	9	8	21	24

One hundred and fourteen samples conformed, as regards number of organisms and presence of B.Coli, to "Accredited" milk.

In 50 milks B.Coli was present in 1/10 c.c. but was absent in 1/100 c.c. To conform to the standard of "Accredited" milk, in regard to organisms only, the number must not exceed 200,000 per c.c. and B.Coli must not be present in 1/100 c.c.

Particulars in regard to samples taken during the period 1924-30 were given on page 48, Annual Report for 1930.

**TUBERCLE BACILLI IN MILK.**—Thirteen samples were taken by Mr. Powell in 1936 ; tubercle bacilli were not found in any of the samples.

The only method of eliminating tuberculosis from a herd, is to have the cows tested with the tuberculin test, and to separate the reactors. A cow infected with tuberculosis, even when no bacilli are detected in the milk, is a source of danger, as at any time the disease may extend to the udder and infect the milk.

Dr. A. S. Griffith, Bacteriologist to the Ministry of Health, as the result of investigation for some years in regard to type of tubercle bacillus found in organs affected, came to the conclusion that a considerable amount of disease and loss of life, especially in childhood, was caused by the bovine variety of the bacillus. The percentages were as follows :—

Variety of Tuberculosis.	All Ages. Percentage.	0-4 years. Percentage.	5-14 years. Percentage.
Glands of Neck	45·7	85·7	48·1
Lupus ...	48·6	57·3	47·1
Meningitis ...	30·1	34·8	31·0
Bones and Joints	18·0	27·3	18·5
Genito-urinary System	17·4	—	14·3

In my Annual Report for 1935, on page 56, I gave particulars of cases of Non-pulmonary Tuberculosis, during the 10 years 1926-35. I consider that some of the reduction in non-pulmonary tuberculosis, referred to in an earlier part of this report, is due to the instructions given by the Health Visitors in regard to heating milk in a double saucepan, or scalding it before use. Pasteurisation is the raising of milk to a temperature, not less than 145° F., and not more than 150°, for 30 minutes. Accredited milk comes from cows which have passed a veterinary inspection, but not a test for tuberculosis ; this is a distinct advance, but the tuberculin test is also necessary.

### NUTRITION.

A proper diet is essential in order that normal nutrition may be attained. I have discussed nutrition in connection with tuberculosis earlier in this report. Information is given at the homes by the Health Visitors in regard to feeding, food values, etc., and printed leaflets on suitable meals are distributed. The elder girls are taught cooking in the schools, and a knowledge of food and cooking is disseminated through the Women's Institutes.

## MEAT INSPECTION.

This was referred to in detail on page 51, Annual Report for 1925 ; some of the slaughter-houses do not come up to a reasonable standard. There is no Public Abattoir in the County.

Four of the 8 Sanitary Inspectors possess the Certificate of the Royal Sanitary Institute as Sanitary Inspectors, but none have the Certificate in regard to Meat and Food.

## HOUSING.

During the year additions and alterations, etc., were carried out in connection with 5 houses under the Housing (Rural Workers) Act, 1926, (as amended) after approval, a grant of £75 was approved, except where otherwise stated.

Particulars are as follows :—(1) Conversion of a stable into a cottage, including the erection of a bedroom over the stable etc.

(2) Raising of roof so as to allow of more air space and the division of the first floor into 3 bedrooms.

(3) Addition of a third bedroom over a washhouse.

(4) In connection with three cottages, extra bedrooms provided in two. £60 grant was approved.

(5) Bedroom ceiling raised, dormer windows provided ; sink provided in kitchen, and repairs to drains, etc.

Since the Act came into force 19 applications have been received for grants up to March 31st, 1936, and 18 have been made.

Particulars in regard to erection of new houses during the year ended 31st December, are given in the table below.

The problem of Overcrowding is dealt with under the Housing Act, 1935, in two ways :

(a) Sex separation standard.

(b) Capacity standard, based on—

(i) rooms per person.

(ii) floor space per person.

**SEX SEPARATION STANDARD.**—Where it is impossible to properly separate the sexes in a house containing more than one room, the house would usually be overcrowded on account of the number of persons being in excess of the permitted number.

Two persons are permitted to occupy a room of 110 square feet, and when it is considered that such a room may contain as a minimum a double bed, two chairs, sink, cupboards for food and clothes, locker for coal, and fireplace, etc., the amount of floor space is very small.

**CAPACITY STANDARD.**—This is based on the floor space per person, where the rooms are less than 110 square feet in area ; if above that figure on the number of rooms (living and sleeping) in the house. It will be seen that the living room is included, and in consequence the standard is low, especially in the case of small houses of two rooms or less.

Full information in regard to Overcrowding will be given in my next Annual Report.

1936.	No. authorised to be erected.				No. completed.				Number under construction.			
	Local Authorities.	Private Enterprise.	Public Utility Societies, etc.	Total.	Local Authorities.	Private Enterprise.	Public Utility Societies, etc.	Total.	Local Authorities.	Private Enterprise.	Public Utility Societies, etc.	Total.
URBAN :												
Knighton...	20	3	—	23	—	3	—	3	8	—	—	8
Llandrin-dod Wells	—	9	—	9	—	4	—	4	—	2	—	2
Presteigne	—	—	—	—	—	—	—	—	—	—	—	—
RURAL :												
Colwyn ...	—	2	—	2	—	1	—	1	—	1	—	1
Knighton...	—	3	—	3	—	3	—	3	—	—	—	—
New Radnor	6	—	—	6	—	1	—	1	—	—	—	—
Painscastle	—	—	—	—	—	—	—	—	—	—	—	—
Rhayader...	—	7	—	7	—	7	—	7	—	1	1	1
Total ...	26	24	—	50	—	19	—	19	8	4	—	12
1935 ...	62	83	—	145	62	45	—	107	—	—	—	—

The majority of the houses, during 1935, under the heading "Local Authorities," were erected by the Rhayader Rural District Council.

In my Annual Report for 1932, full particulars were given in regard to inspection, etc., during 1931, and in my quarterly Report ended 31st December, 1935, I gave particulars of housing during 1934. On pages 48-50, Annual Report for 1933, I gave information in regard to overcrowding.

The erection of further houses in the County is necessary, under the Housing Acts, 1935 and 1936, on account of overcrowding and insanitary conditions.

#### WATER SUPPLIES.

Detailed particulars were given on pages 68-71, Annual Report for 1934. During the year water supplies for Howey and Aberedw were under consideration by the Colwyn Rural District Council.

#### SWIMMING POOL.

There is no public swimming bath in the County. There is a privately owned swimming pool in the grounds of the Hotel Metropole, Llandrindod Wells ; this is made of concrete, and is 120' x 20,' with a depth varying from 7' 6" to 2' 6".

Purification is provided for, and also chlorination ; the water is filtered daily when in use. Samples for bacteriological analysis are taken periodically.

#### POLLUTION OF RIVERS AND STREAMS.

This was referred to on page 72, Annual Report for 1934, and on page 51, Report for 1930.

#### SCAVENGING.

Refuse should not be dumped near river banks, with the object of the material being washed into the river ; if not destroyed by burning in a destructor, it should be deposited on a dump, some distance from any river or stream. All tins and solid material should be packed closely at the bottom of the dump, so as to avoid burrows for rats.

In the Urban Districts, sanitary bins with covers should be provided ; boxes and other receptacles are unsuitable.

#### BLIND PERSONS' ACT, 1920.

During the year 3 cases were registered, 2 males ages 63 and 86 years, and 1 female aged 77 years. A boy, aged 3 years, who was an Idiot, was admitted to Stoke Park Colony on March 5th, and a male, aged 55, who resided in Herefordshire was removed from the Register.

Three females, aged 79, 82 and 90 years died during the year. On December 31st, 1936, there were 41 persons (21 males, 20 females) on the Register. The ages of the males were as follows : 29, 30, 32, 33, 42, 59, 61 (2), 63, 69, 70, 71 (2), 72, 73, 75, 80, 81 (2), 86 and 87 ; and of the females : 26, 29, 47, 48 (2), 51, 61, 66, 67, 70, 71, 73, 75, 77, 79, 80, 81, 86 and 87 (2).

On page 51, Annual Report for 1933, I gave the ages of each sex ; the large majority are over 60 years.

TRAINING.—There are no persons being trained at the present time.

EMPLOYED.—A male, aged 32 years, repairs boots and sells tea ; 2 males, aged 30 and 33 years, are employed in brush making and basket making respectively (the latter also does piano tuning).

These 3 adults were, at the end of the year, in a Home Workers Scheme supervised through the Birmingham Royal Institution for the Blind. One male, aged 29 years, assists in farm work.

UNEMPLOYABLE.—There were 34 (15 males, 19 females) at the end of the year.

PREVENTION OF BLINDNESS.—No action was taken under Section 66 of the Public Health Act, 1925, for the prevention of blindness, or for the treatment of persons suffering from any disease or injury to the eyes ; such persons are admitted to the Shrewsbury Eye, Ear and Throat Hospital, or to the Victoria Hospital, Hereford.

### MENTAL DEFICIENCY.

At the end of the year there were 68 (34 males, 34 females) on the Register, (including those in Public Assistance Institutions, but not including those in the Mid-Wales Mental Hospital), compared with 72 (33 males, 39 females).

INSTITUTIONS.—There were on December 31st, 14 persons (6 males, 8 females) under Order in Institutions ; 3 males were under the age of 16 years.

A male, aged  $2\frac{1}{2}$  years, Idiot (blind), was admitted to Stoke Park Colony on March 5th, and a male aged 3 years, Idiot, to Hortham Colony on Nov. 6th. A female, aged 16 years, Idiot, was admitted on Jan. 22nd, to Forden Institution ; a female, aged 12 years, Idiot, was admitted to Caersws Institution on March 2nd, and died there on April 24th. Two females, aged 16 years, were admitted to Pantglas Hall Institution on April 18th and June 17th respectively ; the former was transferred to Rampton State Institution on Aug. 13th.

A male, aged 30 years, Imbecile, is in Forden Institution, and 3 males, aged 15 and 24 (2) years, were in Stoke Colony, at the end of the year ; this is in addition to new admissions already referred to.



There were 6 females, aged 18, 24, 25, 40, 41 and 42 years, in Pantglas Hall Institution, in addition to those admitted during the year. Accommodation is available in Pantglas Hall Institution for trainable females from 7 years upwards.

Your Council joined the West Wales Joint Board in November, 1928, and it was hoped at the time that there would be no delay in providing accommodation for males, and for lower grade cases of both sexes.

PUBLIC ASSISTANCE INSTITUTIONS.—There were 16 persons (5 males, 10 females) in Public Assistance Institutions at the end of the year as follows:—Hay (male); Knighton 8 (4 males, 4 females), one male and 2 females were certified under Sec. 24 of the Lunacy Act, 1890; Rhayader, 6 females, 5 of which were certified under the Lunacy Act, 1890. A female, aged 10 years (Idiot), died in Rhayader Institution on December 29th.

The remainder of the cases are under supervision. A male, aged 12 years (Imbecile), and 3 females, aged 9 (Imbecile), 11 (Idiot), and 12 years (Idiot), were notified to the Local Education Authority, and were placed under Statutory Supervision.

Fifteen persons (7 males, 8 females) who are under supervision, received outdoor poor relief.

GUARDIANSHIP.—There are no cases who come under this heading.

There are no Occupation Centres, and no Home Training is carried out. There were no cases out under Licence during the year, and none were discharged.

Information in regard to ages was given on page 46, Annual Report for 1931, and in addition, particulars of cases in the Mid-Wales Mental Hospital.

TABLE I.  
Causes of Death in Administrative Areas in the County of  
Radnor for 1936.

Causes of Death	Urban Districts				Rural Districts.								County.						
	Knighton.		Llandri'dod Wells.		Presteigne		Colwyn.		Knighton.		New Radnor.		Painscastle		Rhayader.		M.	F.	Total.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
Typhoid and Paratyphoid Fevers. . .																1		1	1
Whooping Cough	1								1								1	1	2
Influenza . . .								1										1	1
Encephalitis Lethargica . . .											1						1		1
Tuberculosis of respiratory system	1		1	2		1		1						1			2	5	7
Other tuberculous diseases . . .									1		1						2		2
Cancer, malignant disease . . .	2	1	4	2	1	1	1		3	3	2	2	4	1	4	21	10	31	
Diabetes . . .		1		1														2	2
Cerebral hæmorrhage, &c. . .	1	1	1	2				1				3	1	1	1	1	4	9	13
Heart disease . . .	2	5	8	8	5	5	5	2	8	4	5	4	6	2	3	14	42	44	86
Aneurysm . . .												1						1	1
Other circulatory diseases . . .	4	1	1	5	2	2						4	1		4	2	12	14	26
Bronchitis . . .	2	1			1				1	1		1				2	4	5	9
Pn'monia(allforms)			1	2				1	1	1					4	3	6	7	13
Other respiratory diseases . . .	1											1			1		2	1	3
Peptic ulcer . . .	1	1	1														2	1	3
Diarrhœa, etc. (under 2 yrs.)																			
Cirrhosis of liver . . .																			
Other diseases of liver, etc. . .										1								1	1
Other digestive diseases . . .	1		1												1		3		3
Acute and chronic nephritis . . .		1	2				1		2	1	1			2	1	3	7	7	14
Puerperal Sepsis . . .																			
Other Puerperal causes . . .										1								1	1
Congenital debility premature birth, malformations, &c.			1	2					3	3	3		1	1	2	1	10	7	17
Senility . . .							1	1	8	6			2			3	11	10	21
Suicide . . .																			
Other violence . . .	2		1	4	1	1			2							3	6	8	14
Other def'd diseases	2	1	5	2	1	1	1	1	3	2	1		3	1	5	2	21	10	31
All causes . . .	20	13	27	30	11	11	9	8	32	24	14	16	18	9	26	35	157	146	303





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