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COUNTY COUNCIL OF NORTHUMBERLAND.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

(WM. F. J. WHITLEY, M.D., D.P.H.),

for the Year 1928.

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CONTENTS.

TEH MEDICAL

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				10	2051	OCIA PAG	311
Administrative County					-	111	8
Annual Reports of district me		ficers					7
Anthrax	***				***		12
Bacteriological examinations							40
Bacteriological Laboratory							39
Births and Birth rates							8
Blind Persons Act							53
Boroughs			***			***	8
Cerebro-spinal meningitis	***					10,	
Chicken-pox							13
Cholera				***	***		12
Deaths and Death rates	***						16
Diarrhoea and Enteritis	···	***	***	***	***		14
Diphtheria and Membranous	Croup	***				10,	
Dispensaries (Tuberculosis)	***					21-	
Districts, Urban			***				8
Districts, Rural	***						8
Encephalitis Lethargica		***			***		10
Enteric Fever		***				10,	
Erysipelas						0.00	10
Housing and Housing Acts	***						43
Infant Mortality	***		***			9,	
Infant Welfare Centres	111				***		50
Infectious Diseases	***		***		***		10
Influenza		***					15
Isolation Hospitals	***						43
Maternity and Child Welfare	***	***					47
Measles	***				1.44		14
Midwives					***	47-	
Milk and Dairies	and M	00000000	de		**		38 6
Ministry of Health—Circulars	s and M		ida			10	100
Ophthalmia neonatorum	***		***			10,	
Plague				11.5			12 10
Delia anambalitia				***	***		
				1.4.4		10,	
Poliomyelitis						10,	
Port Sanitary Authorities	***						8
Public Health Legislation		***			1.4.4		6
Puerperal Fever and Puerpera				***		10, 14,	
				***	***		15
D: D 11 4:			***				12
Sale of Food and Drugs Acts	***						40
Sanatorium Treatment	***		***				26
Sanatorium (Wooley) Report			***	***			28
Scarlet Fever						10	
0 11		***	***			70	
Statistics, Vital and Mortality		13.1	***		***	opp.	
Tuberculosis		***		***		15-	
Tuberculosis (Treatment of)							21
Typhus Fever							12
Venereal Diseases Regulations					***		46
Whooping Cough		***					14
Zymotic Diseases and Death ra			***		***		12
aj mono Discases and Death 18	2003	111			***		

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NORTHUMBERLAND COUNTY COUNCIL.

REPORT OF THE COUNTY MEDICAL OFFICER OF HEALTH FOR THE YEAR ENDED 31st DECEMBER, 1928.

To the Chairman and Members of the County Council of Northumberland.

MR. CHAIRMAN, MY LORDS, LADIES AND GENTLEMEN,

I beg to present my annual report for the year 1928. It is an "ordinary" report as defined by the Ministry of Health and is of a less exhaustive character than the full Survey Report required for 1925. No digest of the sanitary circumstances of county districts has been made but the vital and mortality statistics applicable to these areas have been summarised and the rates calculated.

Administration.—The official, technical and administrative staff under the direction of the County Medical Officer consists of :—

Assistant County Medical Officer and County Bacteriologist who is also Medical Officer of Health of the Newburn Urban District.

The Medical Superintendent of the Council's Sanatorium at Wooley.

Assistant Medical Superintendent of the Council's Sanatorium at Wooley.

The Matron of the Council's Sanatorium at Wooley.

The County Tuberculosis Officer (clinical).

5 Assistant County Medical Officers.

School Dentist.

County Sanitary Inspector.

Lady Superintendent of Health Visitors.

There were also, during 1928, 32 Health Visitors, and, at the central office, a clerical staff of thirteen.

Vital and Mortality Statistics.—The variations in the principal county rates during recent years are indicated in the following table. The corresponding rates for England and Wales are given for comparison:—

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Birth rate (per 1,000 -										
living) Administrative										
eounty	22.1	28.3	25.5	22.5	22.5	22.2	20.8	20.02	17.90	18:37
England and Wales	18.5	25.4	22.4	20.6	19.7	18.8	18.3	17.8	16.6	16.7
General death rate (per										
1,000 living)										
Administrative county	14.1	12.9	12.4	12.7	11.3	12.1	11.6	11:37	11.53	11:39
England and Wales	13.8	12.4	12.1	12.9	11.6	12.2	12.2	11.6	12.3	11.7
Infant mortality rate (per				*						
1,000 births)								- 1		
Administrative county	102	90	95	87	76	83	82	77	77	67
England and Wales	89	80	83	77	69	75	75	70	70	65

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Zymotic death rate (per 1,000 living)		1								
Administrative county	0.92	0.76	1.04	0.41	0.74	0.40	0.67	0.53	0.27	0.28
England and Wales	0.52	0.71	0.70	0.60	0.50	0.45	0.54	0.44	0.38	0.40
Death rate from Respir- atory Tuberculosis (per 1,000 living)										
Administrative county	0.97	0.92	0.87	0.88	0.85	0.82	0.78	0.73	0.81	0.68
England and Wales	0.97	0.86	0.88	0.88	0.84	0.84	0.83	0.77	0.79	0.76

A slight rise in the birth rate is indicated, though the rate for 1928 (18.37) is still lower than that for any of the eight years preceding the year 1927.

The general death rate was slightly lower than that for the previous year.

The infant mortality rate (67 per 1,000 births) was appreciably lower than that in 1927, and was the lowest recorded in the county. In this respect it coincided with the rate for England and Wales which reached the low figure of 65 per 1,000 births.

The death rate from Zymotic diseases was practically the same as the rate in the previous year, which latter was the lowest recorded for the administrative county since County statistics were tabulated.

In commenting, in the Annual Report for 1927, upon the slight rise which was shewn in that year in the death rate from Respiratory Tuberculosis, it was stated that this was possibly one of those periodic variations which might be without particular significance; the rate recorded for 1928 (0.68) is not only lower than, that for 1927 but is the lowest recorded for the county.

PUBLIC HEALTH LEGISLATION.

The only Act of administrative interest which was passed during the year was the Food and Drugs (Adulteration) Act, 1928, which repeals and consolidates the provisions of the Sale of Food and Drugs Acts 1875 to 1927, together with a number of amending provisions in other statutes, notably, the Milk and Dairies (Consolidation) Act, 1915. The date upon which the Act came into operation was January 1st, 1929.

ORDERS, CIRCULARS, ETC. (MINISTRY OF HEALTH.)

The following are the principal Orders, etc., made during the year, of administrative interest to County Councils:—

The Alkali, etc., Works Order, 1928, No. 26, extends the provisions of the Alkali, etc., Works Regulation Act, 1906, and the Public Health (Smoke Abatement) Act, 1926, in respect of certain specified works.

The Public Health (Ophthalmia Neonatorum) Amendment Regulations, No. 419.

The Public Health (Puerperal Fever and Puerperal Pyrexia) Amendment Regulations, No. 420, and Circular 893, indicate a modification of the Orders of 1926; notifications of these diseases will now be sent to the M.O.H. of the district in which the patient is actually living at the time of notification.

Compensation to Midwives.—Circular 857 indicates the procedure to be adopted for the payment of compensation to midwives suspended from practice owing to their having been in contact with infectious disease.

Nursing Homes Registration Act, 1927.—Circular 862 indicates the lines upon which this Act shall operate.

Maternal Mortality.—Circulars 888 and 911 outline methods of procedure which should be adopted in the investigation of maternal deaths; Circular 911 also makes a suggestion with regard to a wider publicity of the existence of Infant Welfare Centres.

Training of Health Visitors.—Circular 879 outlines the qualifications which a candidate for an appointment as Health Visitor will be required to hold, and also indicates facilities which have been authorised with regard to training.

Small-pox among Casuals.—Circulars 859, 880, 908 and 930 indicate the precautions to be taken with a view of preventing the spread of Small-pox through the medium of Casuals.

Registers of Cases in Small-pox Hospitals.—Circular 890 urges upon Hospital Authorities the importance of a strict adherence to the requirements of Sec. 8 of the Vaccination Act, 1898, with regard to the keeping of a Register of all Small-pox patients treated in hospital.

Food and Drugs (Adulteration) Act, 1928, etc.—Circular 950 together with Memo. 36/Foods (January, 1929) indicate the method of procedure with regard to the operation of this Act.

The Public Health (Preservatives, etc., in Food) Regulations consolidates the principal Regulations made in 1925 and amending Regulations made in 1926 and 1927, and show the effect of the new Food and Drugs Act on the construction of the Regulations.

Housing (Rural Workers) Act, 1926.—Circulars 839 and 849 refer to the necessity for expediting the operation of the Act.

Pollution of Rivers.—Circular 922 draws attention to the recommendation, contained in the first report of the Joint Advisory Committee on River Pollution, that steps should be taken to secure the establishment of Joint Committees empowered to exercise the powers of the Rivers Pollution Prevention Act, 1876, over wide areas with jurisdiction ove the whole river and its tributaries at least to the extent of non-tidal waters.

Treatment of ex-Servicemen suffering from Tuberculosis,—Circular 900 draws attention to the arrangements of the Ministry of Pensions, with regard to the treatment of ex-service pensioners in institutions, which cover liability for charges for treatment as distinct from vocational training or settlement, and also indicates, in this connection, that the Ministry of Pensions should not be put to extra cost, unnecessarily, through pensioners being required to travel long distances for the purpose of receiving residential treatment.

Welfare of the Blind.—Circular 883 requires a return to be furnished shewing the general and financial circumstances of unemployable blind persons over 16 years of age.

Circular 912 directs that the Head Postmaster of the district be notified of all deaths, removals from the Register and changes of address of blind licensees who hold a licence under the provisions of the Wireless Telegraphy (Blind Persons Facilities) Act, 1926.

Annual Reports of District Medical Officers.

Two reports were still outstanding at the time of going to press, viz., those for the Borough of Blyth and the Rural District of Haltwhistle.

I am, my Lords, Ladies and Gentlemen,

Your obedient servant,

WILLIAM F. J. WHITLEY.

THE ADMINISTRATIVE COUNTY.

AREA.

The area of the County is 1,278,690 acres, divided as follows:—Boroughs, 14,456 acres; urban districts, 59,807 acres; rural districts, 1,204,427 acres.

POPULATION.

The civil population of Northumberland (exclusive of the county boroughs of Newcastle-on-Tyne and Tynemouth) was estimated by the Registrar-General to be 407,300 in the middle of 1928. On this population the birth and mortality rates are calculated.

CHANGES IN AREA.

No alteration in the area of sanitary districts or of the administrative county was made during the year under review.

Boroughs, Urban and Rural Districts, and Port Sanitary Authorities.

The County at the end of 1928 was divided for the purpose of sanitary administration into 31 districts, four of which were municipal boroughs, seventeen urban districts, and ten rural districts. There are also the Blyth and Tyne Port Sanitary Authorities. The authorities for the Tweed and Coquet Ports are the Council of the Borough of Berwick-on-Tweed and the Amble Urban District Council respectively.

BOROUGHS.

Berwick-on-Tweed, Bryth, Morpeth and Wallsend.

The civil population of the boroughs was estimated to be 95,367 in the middle of 1928.

URBAN DISTRICTS.

Alnwick, Amble, Ashington, Bedlingtonshire, Cramlington, Earsdon, Gosforth, Hexham, Longbenton, Newbiggin-by-the-Sea, Newburn, Prudhoe, Rothbury, Seaton Delaval, Seghill, Weetslade, and Whitley and Monk-

The civil population of the urban districts was estimated to be 207,483 in the middle of 1928.

RURAL DISTRICTS.

Alnwick, Belford, Bellingham, Castle Ward, Glendale, Haltwhistle, Hexham, Morpeth, Norham and Islandshires, and Rothbury.

The civil population of the rural districts was estimated to be 104,450.

The area and population of each sanitary district in the administrative county will be found in a table opposite page 14 of this report.

BIRTHS.

According to the statistics supplied by the Registrar-General the net births belonging to the administrative county numbered 7,486—3,795 males and 3,691 females (5,854 of the births occurred in urban districts and 1,632 in rural districts).

Of the 7,486 births above-mentioned (4.8%) were illegitimate.

The birth rate for the county was 18.37 (17.90 in 1927 and 20.02 in 1926).

The following table shews the comparative rates :-

	Birth rate.	Increase since 1927.	Decrease since 1927.	Mean rate 1918-1927.
Administrative County	18:37	0.47	_	22:31
Urban districts	19.36	0.62		23.62
Rural districts	15.62	0.26	-	18.45
England and Wales	16.7	0.1		

DEATHS.

Net deaths.—According to information supplied by the Registrar-General the net deaths numbered 4,642—2,465 males and 2,177 females (3,479 in urban and 1,163 in rural districts).

The following table shews the comparative rates :-

	Death rate.	Increase since 1927.	Decrease since 1927.	Mean rate 1918-1927.
Administrative County .	. 11:39		0.14	12.65
Urban districts	11.48		0.53	12.85
Rural districts	. 11.13	0.13	_	12:08
England and Wales .	. 11.7	-	0.6	-

Details of the deaths and death rates in the several districts are given in the table opposite page 14 of this report.

The diseases causing the greatest mortality in the administrative county during 1928 were as follows:—

Disease.	No. of deaths.	Percentage of total deaths.
Heart Disease	 614	13.2
Cancer	 570	12.3
Tuberculosis	 384	8.3
Pneumonia	 305	6.6
Cerebral Hæmorrhage	 294	6.3
Arterio-sclerosis	 255	5.5
Bronchitis	 206	4.4
	2,628	56.6

As during the preceding year, the above-named seven diseases were responsible for more than half the deaths in the administrative county.

INFANT MORTALITY.

	Number of deaths.	Death rate per 1000 births	Increase since 1927.	Decrease since 1927.	Mean rate 1918–1927
Administrative County	 501	67	_	10	87
Urban districts	 420	72		9	93
Rural districts	 81	49		11	67
England and Wales	 42,960	65	-	5	_

The subjoined tables indicate the rates among legitimate and illegitimate infants respectively:—

	Legitimate	e Infants.	Illegitimat	e Infants.
	No. of deaths under 1 year.	Death rate per 1000 births.	No. of deaths under 1 year.	Death rate per 1000 hirths
Administrative County	. 453	63	48	133
Urban districts	. 386	68	34	139
Rural districts	. 67	4.4	14	119

Deaths under 5 Years and at 65 Years and Upwards. The rates (per 1,000 population) were as follows:—

			Under 5 years.	65 years and upwards.
Administrative County	***		1.75	4.69
Urban districts		4.4.4	1.97	4.36
Rural districts			1.11	5.62

Infectious Diseases.

Notifications of Infectious Diseases received during the year 1928, under Article 14 (2) of the Sanitary Officers Order, 1926.

				-							_					_
Sanitary districts.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Pneumonia.	Puerperal Fever.	l'uerperal Pyrexia.	Ophthalmia Neonatorum.	Erysipelas.	Tuberculosis (Respiratory.)	(Other Forms).	Encephalitis Lethargica.	Acute Polio-myelitis.	Cerebro-Spinal Fever.	Anthrax.	Totals.
MUNICIPAL BOROUGHS— Berwick-on-Tweed Blyth Morpeth Wallsend	127 9 5	25 26 8 100	6 11 1 15	1 1 1 2	7 113 22 103	3 - 2	3 2 - 11		7 15 - 27	16 75 12 152	3 26 4 74	3 2 2		1 		69 412 59 497
URBAN DISTRICTS— Alnwick Amble Ashington Bedlingtonshire	- 1 6 9	4 1 56 41	1 8 2 6	- - 5 5	- 1 59 136	1 - 1 2	- 8	- 82	- 2 20 15	12 3 62 70	1 3 26 29	_ 1 1	- 2 -	-		19 22 254 319
Cramlington Earsdon Gosforth Hexham Longbenton	3 10 1 3	17 17 27 5 46	13 4 - 12	- 1 7 1 1	29 16 4 39 40	_ _ _ _	2 2 1 2	2 - 2 -	2 7 7 2 4	11 28 13 29 21	4 8 10 5 7	1 1 - 1	11111	=		69 96 84 86 137
Newbiggin-by-the-Sea Newburn Prudhoe Rothbury Seaton Delaval	1 - - 1	37 28 33 — 10	8 2 -4	1 1	12 63 12 5 63	_ _ _ _	4 2 - 1 3	1 1 1 1	7 9 3 2 9	27 30 51 1 17	9 29 30 — 11	1 1 —		=======================================	11111	98 172 135 10
Seghill Weetslade Whitley& Monkseaton RURAL DISTRICTS— Alnwick	7 2 3 31	2 4 104 5	1 19 14	5	23 9 23	- 4 1	1 3	1 -	1 11 2	2 7 27 16	13 11 6		_ 1			35 57 206 75
Belford	3 1	20 14 9 18	5 20 1 5	_ 1 	10 17 33 6 2	1 -	_ 1 2 1		3 1 13 —	3 9 22 3	2 10 1	_ _ _ _	_ _ 1 _	===		16 55 119 23 26
Hexham	4	17 14 5 3	- 6 - 5	- 1 2 -	25 8 4 14	- - -	3 4 1 -	4 4 -	11 2 3 3	12 34 1 5	5 16 6 2		2 	=	11111	82 93 22 32
Totals	228	696	181	37	899	18	61	41	188	771	351	16	6	1	1	3498

The attack rate per 1,000 population, for the administrative county was 8.58, for boroughs and urban districts 9.76, and for rural districts 5.18.

The following are the attack rates, per 1,000 population, of the undermentioned infectious diseases, in each sanitary district in the administrative county:—

Sanitary Districts.	Small- pox.	Scarlet fever.	Diph- theria.	Enteric fever.	Puer- peral fever.	Puer- peral pyrexin	Erysi pelas.
Municipal Boroughs.							
Berwick	—	2.10	0.50	0.08	_	0.25	0.58
Blyth	3.98	0.81	0.34	0.03	0.09	0.06	0.47
Morpeth	1.25	1.11	0.13	0.13	_	-	
Wallsend	0.11	2.25	0.33	0.04	0.04	0.24	0.60
Urban Districts.							
Alnwick	—	0.58	0.14	-	0.14	-	-
Amble	0.24	0.24	1.98	-	-		0.49
Ashington	0.20	1.92	0.07	0.17	0.03	0.27	0.68
Bedlingtonshire	0.32	1.45	0.21	0.17	0.07	0.14	0.53
Cramlington	—	1.96	0.23	_		-	0.23
Earsdon	0.23	1.32	1.01	0.07	_	0.15	0.54
Gosforth	0.61	1.65	0.24	0.43	-	0.12	0.43
Hexham	0.11	0.58	-	0.11	0.11	0.11	0.23
Longbenton	0.21	3.31	0.86	0.07	-	0.14	0.29
Newbiggin	0.14	5.19		0.14	_	0.56	0.98
37 1		1.36	0.39	0.04	-	0.09	0.44
Prudhoe		3.52	0.21	0.10	0.10	-	0.32
Rothbury		_	_	-	_	0.83	1.67
Seaton Delaval	0.13	1.33	0.53	-		0.39	1.19
Seghill	2.86	0.81	0.41	_			
444 . 4 4	0.26	0.52	2.47	_	-	0.13	0.13
Whitley & Monkseato	on 0.12	4.43	0.59	0.21	0.17	0.12	0.46
Rural Districts.							
41 11	2.46	0.39	1.03	_	0.07		0.15
Belford		-		-			0.63
TO 111: 1		3.67	0.91	_	0.18	_	0.18
Ct at MT 3	0.22	1.00	1.44	0.07	_	0.07	0.93
(11 1 1 1	0.12	1.11	0.12	_	-	0.24	-
TT 1: 11:11	—	2.01	0.56	-	_	0.11	
TT 1	0.04	0.79	_	_	0.04	0.14	0.51
35 (1	0.20	0.70	0.30	0.05	_	0.20	0.10
Norham & Islandshir		0.97	_	0.39	_	0.19	0.58
D 411	—	0.65	1.08	_	_		0.65

The highest attack rates were, it will be observed, as follows:-

Small-pox.—Blyth, 3.98; Seghill, 2.86; and Alnwick rural, 2.46.

Scarlet Fever.—Newbiggin, 5.19; Whitley & Monkseaton, 4.43; and Bellingham, 3.67.

Diphtheria.—Weetslade, 2.47; Amble, 1.98; and Castle Ward, 1.44.

Enteric Fever.—Gosforth, 0.43; Norham & Islandshires, 0.39; and Whitley & Monkseaton, 0.21.

Puerperal Fever.—Bellingham, 0.18; Whitley & Monkseaton, 0.17; and Alnwick urban, 0.14.

Puerperal Pyrexia.—Rothbury urban, 0.83; Newbiggin, 0.56; and Seaton Delaval, 0.39.

Erysipelas.—Rothbury urban, 1.67; Seaton Delaval, 1.19; and Newbiggin, 0.98.

ZYMOTIC DISEASES.

The Zymotic diseases which are generally notifiable are Small-pox, Scarlatina, Diphtheria, Fevers (Typhus, Enteric. Continued and Relapsing). The seven principal Zymotic diseases, upon which the Zymotic death rate is calculated, are the four just mentioned, and in addition Whooping Cough, Measles, and Diarrheea and Enteritis (under 2 years).

One hundred and seventeen deaths were caused by the seven principal Zymotic diseases, being an increase of one compared with the number registered in 1927. Of these 97 took place in the urban and 20 in the rural districts.

The Zymotic diseases which caused the greatest mortality were :-

Di	Number of deaths.						
Diseases. —	1928.	1927.	1926.				
Diarrhœa, etc. (under 2 years)	39	43	72				
Whooping Cough	38	14	108				
Diphtheria	13	8	10				

As Diarrhea and Enteritis, Measles and Whooping Cough are not generally notifiable, no information can be given as to the number of cases which occurred.

The comparative rates for Zymotic diseases are set out in the following table:—

	Death Rate.	Increase since 1927.	Decrease since 1927.
Administrative County	 0.58	0.01	
Urban districts	 0.31	-	0.02
Rural districts	 0.19	0.07	
England and Wales	 0.40	0.03	

Table shewing death rates, per 1,000 living, from each of the seven principal Zymotic diseases for the seven years ended Dec. 31st, 1928:—

Diseases.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Small-pox	Nil.	Nil.	0.002	Nil.	0.002	0.004	Nil.
Scarlatina	0.032	0.037	0.012	0.019	0.038	0.026	0.025
Diphtheria	0.059	0.029	0.036	0.041	0.024	0.019	0.031
Enteric Fever	0.009	0.009	0.015	0.019	0.002	0.016	0.014
Measles	0.335	0.332	0.036	0.271	0.031	0.074	0.055
Whooping Cough	0.114	0.189	0.131	0.111	0.259	0.033	0.093
Diarrhœa&Enteri (under 2 years)		0.224	0.219	0.266	0.173	0.103	0.089

Small-pox.—No deaths occurred from this disease during the year. Two hundred and twenty-eight notifications were received, an outbreak in the Borough of Blyth being chiefly responsible, 127 of the cases having been notified from that area.

Anthrax (in human subjects).—One case was reported from the urban district of Cramlington.

Typhus, Cholera, Plague.—No cases were reported.

Cerebro-spinal Meningitis.—One case was notified; one death was reported.

Poliomyelitis.—Six cases were notified; no deaths were reported. Polio-encephalitis.—No cases were notified; one death occurred. Chicken-pox was reported from 26 sanitary districts.

SCARLET FEVER.

The notifications numbered 696 (591 from urban and 105 from rural districts). The mortality from this disease was 9 (7 deaths occurring in urban and 2 in rural districts). In 1927, 11 deaths were reported, and in 1926, 16.

	Death rate per 1000 population.	Increase since 1927.	Decrease since 1927.	Attack rate per 1000 living.
Administrative County	 0.022		0.004	1.70
Urban districts	 0.023	_	0.002	1.95
Rural districts	 0.019	_	_	1.00
England and Wales	 0.012	_	_	2.61

The greatest number of cases occurred in Whitley & Monkseaton (104), and Wallsend (100).

ENTERIC FEVER.

Thirty-seven cases (33 from urban and 4 from rural districts) were notified, resulting in 6 deaths (5 occurring in urban and 1 in rural districts). In 1927 the mortality was 7, and in 1926, 3.

	Death rate per 1000 population.	Increase since 1927.	Decrease since 1927.	Attack rate per 1000 living.
Administrative County	 0.014		0.002	0.080
Urban districts	 0.016	0.001	_	0.108
Rural districts	 0.009	_	0.010	0.038
England and Wales	 0.011	0.005		0.09

The greatest number of cases occurred in the urban districts of Gosforth (7) and Ashington, Bedlingtonshire and Whitley & Monkseaton (5 each).

DIPHTHERIA AND MEMBRANOUS CROUP.

The notifications numbered 184 (129 from urban and 55 from rural districts). The diseases (one or both) were notified from 25 districts, i.e., from all districts except the urban districts of Hexham, Newbiggin and Rothbury, and the rural districts of Belford, Hexham and Norham & Islandshires.

Thirteen deaths occurred (9 in urban and 4 in rural districts); 8 deaths were reported in 1927 and 10 in 1926.

	Death rate per 1000 population.	Increase since 1927.	Decrease since 1927.	Attack rate per 1000 living.
Administrative County	 0.031	0.015	_	0.45
Urban districts	 0.029	0.010	-	0.42
Rural districts	 0.038	0.019		0.52
England and Wales	 0.081	0.011	- 1015	1.55

MEASLES.

Twelve deaths occurred (8 in urban and 4 in rural districts); 31 deaths were reported in 1927 and 13 in 1926.

		Death rate per 1,000 population.	Increase since 1927.	Decrease since 1927.
Administrative County	 	0.029	_	0.045
Urban districts	 	0.026	_	0.066
Rural districts	 	0.037	0.018	1
England and Wales	 	0.109	0.012	-

WHOOPING COUGH.

The deaths numbered 38 (34 in urban and 4 in rural districts); 14 deaths were reported in 1927 and 108 in 1926.

		Death rate per 1,000 population.	Increase since 1927.	Decrease since 1927.
Administrative County	 	0.093	0.060	
Urban districts	 	0.115	0.074	
Rural districts	 	0.038	0.018	-
England and Wales	 	0.075	-	0.018

PUERPERAL FEVER.

This disease caused 6 deaths (4 in urban and 2 in rural districts), compared with 12 in 1927 and 5 in 1926.

			Death rate per 1,000 population.	Increase since 1927.	Decre 1927.
Administrative Co	unty	 	0.014	_	0.014
Unban districts		 	0.013	-	0.015
Rural districts		 	0.019	_	0.019

The distribution of the 6 deaths was as follows:—Blyth, 1; Wallsend-1; Ashington, 1; Whitley and Monkseaton; 1; Hexham (rural), 1; and Rothbury (rural), 1.

DIARRHEA AND ENTERITIS.

At all ages.

The number of deaths at all ages was 69 (56 in urban and 13 in rural districts). In 1927, 73 deaths occurred, and in 1926, 87.

		Death rate per 1,000 population.	Increase since 1927.	Decrease since 1927.
Administrative County	 	0.169		0.006
Urban districts	 	0.184	-	0.004
Rural districts	 	0.124		0.011

Bight P. S.	W. Madhani Olicora of Health, W. Madhani, R.A. Ch. a. L.R., D.J.A T. German, R.A. Ch. a. L.R., D.J.A T. German, R.A. Ch. a. L.R., D.J.A Annex Statement (S.L.), R.A., R	6,300 4,312 220 3,420 4,777 1,206 3,041 8,033		00 001 07 120 00 001	89 371 8 100	Enterior Person.	1 to Measing.	m m Souther Peres.	Topkhens.		Tabercalouis of Registratory System. Colour Tabercalous (Colour Tabercalous (Newson).	g Current, Malignant Dissesse. Ribermantic Peret.	Ti Disheten. Condent.	Ment Disease, Arterio adenses, Arterio adenses a.	Persolatio, December 1811 Ferrand	Other Respiratory Diseases, User of Stansach or Diseases,	(modes 2 percent) Appetition and Typicition	Acretic and Chronic Separitie. Footpered Supers.	Other Accidents and Diseases of Pregnancy and Perturbation. Compression Debatity and Mathematics tools from	Presentary Birth. Reside. Other Deaths from	Other Indeed Diseases Owners III defined	Or unknown. Polion politis. Polio Energhalitis.	Tena.	10.5	death.	threne.	Philipse Death Retails	Hespiratery Death Mate- per 1,600 Sating.	Infant Mortality Rate sender I year; per 1,000 hieths,	Greenal Death Rate Decrease schee 1986, Greenal Dayst Bras II.	Tymotic Dunth Rate Decrease	Rymothic Death Rate Increases sense 1896.	Number of Cases position. Attack late per 1,000	Inclusive Houghts! Accommodation?	Number of Classe Sottless well to Include Mogital. Percenture of partiful Class.
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THE RESERVE OF THE PARTY OF THE



Under 2 years.

The deaths from this cause, under 2 years of age, numbered 39 (43 in 1927, and 72 in 1926); 34 occurred in urban and 5 in rural districts.

			Rate per 1,000 births.	Increase since 1927.	Decrease since 1927.
Administrative Co	unty	 	5.2	_	0.2
Urban districts		 	5.8	1.6	
Rural districts		 	3.1	_	8.2

RESPIRATORY DISEASES.

Respiratory diseases (exclusive of Respiratory Tuberculosis) caused 559 deaths in the administrative county during the year; 449 occurred in urban and 110 in rural districts. 709 deaths were reported during 1927 and 663 during 1926. The following table shews the comparative rates:—

			N.	Death Rate per 1,000 population.	Increase since 1927.	Decrease since 1927.
Administrative (County			1.37	_	0.33
Urban districts				1.48	_	0.35
Rural districts	***	***		1.05	_	0.25

INFLUENZA.

One hundred and sixteen deaths were recorded (83 in urban and 33 in rural districts) as directly attributable to this disease during the year. The deaths during 1927 numbered 195, and during 1926, 105. The following table indicates the comparative rates:—

			Death Rate per 1,000 population.	Increase since 1927.	Decrease since 1927.
Administrative C	ounty	 	0.58	_	0.18
Urban districts		 	0.27		0.19
Rural districts		 	0.31	-	0.16

TUBERCULOSIS.

Table 1. Deaths and death rates.

	r	Respi	ratory	8.	Otl		abercu ases.	ılar	3	Cubero (all fo	rms).	5
	Deaths.	Death rates per 100,000 living.	Increase in rates since 1927.	Decrease in rates since 1927.	Deaths.	Death rates per 100,000 living.	Increase in rates since 1927.	Decrease in rates since 1927.	Deaths.	Death rates per 100,000 living.	Increase in rates since 1927.	Decrease in rates since 1927.
Administrative County Urban districts Rural districts England and Wales	277 240 37 29809	68 79 35 76		13 9 24 3	107 86 21 6830	26 28 20 17	4 5 3	_ _ _ 1	384 326 58 36639	94 107 55 93		9 4 21 4

Table 1 shews the number of deaths and the death rates per 100,000 living from all form of Tuberculosis. It will be noticed that in Respiratory Tuberculosis there is a decrease of 13 in the administrative county, 9 in the urban districts and 24 in the rural districts. In the other forms of Tuberculosis it will be observed that in every instance an increase in the rate is shewn in comparison with that for the previous year. For all forms of the disease the decrease in the administrative county is 9; in the urban districts 4; in the rural districts 21.

As indicated above, the death rate from all forms of Tuberculosis in the administrative county during 1928 was 94 per 100,000 persons living. Of the 384 deaths, 326 occurred in boroughs and urban districts (population 302,850) equivalent to a death rate of 107 per 100,000 living, and 58 in rural districts (population 104,450) corresponding to a death rate of 55 per 100,000 living. Among the sanitary districts in the administrative county the highest death rate per 100,000 living from Respiratory Tuberculosis was recorded in the municipal borough of Wallsend (144), and the lowest in Amble U.D., Rothbury U.D., and Norham & Islandshires R.D. (nil).

Table 2.

Deaths and death rates, 1900—1928.

Administrative County of Northumberland.

	Respin Tubero	ratory culosis.		abercular ases.		culosis orms).	Total	% of
Year.	No. of Deaths.	Death rate per 100,000 living.	No. of Deaths.	Death rate per 100,000 living.	No. of Deaths.	Death rate per 100,000 living.	Deaths from all causes.	Deaths from Tuber- culosis
*1900	537	138	244	62	781	200	6,822	11.4
*1901	495	125	280	71	775	196	7,261	10.6
*1902	498	125	240	60	738	185	6,605	11.1
*1903	485	119	323	79	808	198	6,826	11.8
*1904	490	117	317	76	807	193	7,131	11.3
1905	344	102	239	71	583	173	5,016	11.6
1906	362	104	208	60	570	164	5,026	11.3
1907	355	100	197	55	552	155	4,790	11.5
1908	344	95	220	60	564	155	5,377	10.5
1909	377	101	207	55	584	156	4,994	11.6
1910	355	93	225	60	580	153	4,917	11.7
1911	366	98	200	54	566	152	5,159	10.9
1912	328	86	193	50	521	136	4,861	10.7
1913	353	91	189	48	542	139	5,175	10.4
†1914	360	92	180	47	540	139	5,125	10.5
†1915	376	103	197	54	573	157	5,786	9.9
†1916	394	110	187	52	581	162	4,915	11.8
†1917	378	106	194	54	572	160	4,851	11.7
±1918	434	122	164	46	598	168	6,129	9.7
1919	367	97	136	36	503	133	5,335	9.4
1920	363	92	144	37	507	129	5,072	9.9
1921	347	87	151	38	498	125	4,944	10.1
1922	355	88	127	31	482	119	5,113	9.4
1923	345	85	122	30	467	115	4,599	10.1
1924	337	82	126	31	463	113	4,951	9.3
1925	324	78	123	30	447	108	4,807	9.3
1926	303	73	120	29	423	102	4,735	8.9
1927	337	81	90	22	427	103	4,812	8.9
1928	277	68	107	26	384	94	4,642	8.3
Mean 1918-1927.	351	89	130	33	482	122	5,050	9.5

Table 2 shews the deaths and death rates from 1900 to 1928 in the administrative county from Respiratory Tuberculosis, other tubercular diseases, and all forms, with the total number of deaths from all causes and the percentage of deaths due to tuberculous disease. It will be noted that the death rate per 100,000 living from all forms of Tuberculosis is 94, whilst in 1900 it was 200. The percentage of deaths from Tuberculosis in 1900 was 11.4 against 8.3 in 1928. It is necessary to emphasise that the total number of deaths in 1900 was 6,822, whilst in 1928 it was 4,642.

During the five years 1923-1927, the mean mortality rate from all forms of tubercular disease in the administrative county was 108; from Respiratory Tuberculosis the mean rate was 80, and from Tuberculosis (other forms) 28 per 100,000 living. In the preceding quinquennial period (1918-1922) the mean rates were—from Tuberculosis (all forms) 135, Respiratory 97, and other forms 38 per 100,000 living.

In the following table are indicated notifications and mortality, at specified age periods, during the year 1928.

Table 3.

	New	Cases.	Dea	ths.
Age Periods.	Pulmonary.	Non- pulmonary-	Pulmonary.	Non- pulmouary.
Years.				
0-1		9	1	6
1-5	18	59	10	27
515	179	170	22	20
15—25	216	63	79	20
25-45	269	44	105	21
4565	87	8	57	10
65 and upwards	11	4	3	3
	780	357	277	107

Table 3 has been set out in compliance with the requirements of the Ministry of Health.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912. TABLE 4.

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170	
1928,	
DURING THE PERIOD FROM THE 1ST JANUARY, 1928, TO THE	ERLAND.
THE 1sr	3ER, 1928, IN THE COUNTY OF NORTHUMBERLAND
FROM	OFN
PERIOD	COUNTY
THE	THE
DURING	1928, IN
TICATIONS	DECEMBER,
F NOTH	29тн
SUMMARY O.	

	Total	Notifications on Form A.	426	422	184	191		
		Total Primary Notifications.	384	388	164	180	1,116	
		65 and upwards.	9	20	67	¢1		
,		55 to 65	15	1-	I	1		
Form A	ions.	45 to 55	90 70	30	1	9		
Notifications on Form A.	Number of Primary Notifications,	0 to 1 1 to 5 5 to 10 10 to 15 15 to 20 20 to 25 25 to 35 35 to 45 45 to 55 55 to 65	54	53	00	9		
Notifica	rimary	25 to 35	68	94	11	19		
	ber of F	20 to 25	42	99	œ	15		
	Num	15 to 20	58	50	19	21		
		10 to 15	42	33	20	34		
		5 to 10	54	42	55	48		
		1 to 5	10	80	35	24		
		0 to 1	1	1	5	খ		
		Age-periods.	Pulmonary (Males)	" (Females)	Non-pulmonary (Males)	", " (Females)		

		Z	otificatio	Notifications on Form B.		Number of Notifi	Number of Notifications on Form C.
	Numl	ber of Pr	imary N	Number of Primary Notifications.	Total	,	
· Age-periods.	Under 5	5 to 10	10 to 15	Under 5 5 to 10 10 to 15 Primary Notifications.	Notifications on Form B.	Foor Law Institutions.	Sanatoria.
Pulmonary (Males)		67	00	õ	7.0	15	183
" (Females)		3	1	3	4	10	172
Non-pulmonary (Males)	1	00	52	5	5	3	27
", " (Females)	1	9	23	00	6	23	222

Deaths from pulmonary and non-pulmonary tuberculosis.

83 cases of tuberculosis (39 pulmonary and 44 non-pulmonary) were not notified prior to death. Of this number 30 died in institutions, etc., outside the County.

This number (83) compares very favourably with the year 1927 when no fewer than 149 cases were unnotified.

Administration.

For convenience, the following data is given categorically in order to meet the requirements of the Ministry of Health:—

Public Health (Prevention of Tuberculosis) Regulations, 1925.—Following upon an application by the County Council, authority for enforcing these Regulations, within the area of the administrative county, was given to the County Council through the medium of the County of Buckingham (Prevention of Tuberculosis) Order, 1926. It was not found necessary to take any action under the Regulations during the year.

Public Health Act, 1925, Section 62.—No action was found to be necessary during the year.

As previously indicated, the mean death rate from Respiratory Tuber culosis in the administrative county during the previous five years 1923—1927) is 80 per 100,000; this rate is greater than that recorded from all the deaths arising from the seven principal Zymotic diseases, which shewed a mean rate of only 0.52 per 100,000 during the same period.

Table 5.

Incidence of Tuberculosis in the Administrative County according to Districts.

			10	Dist	MICIS	•						
DISTRICTS.	on a me	ive " o Regis at com- encem of year	ters 1- ent	No	imber rimar tificat ring y	y ions	R	Death egister ring y	red	on	ive '' (Regis at end of yea	ters d
	Respiratory.	Other forms.	Total	Respir- atory.	Other forms.	Total	Respiratory.	Other forms.	Total	Respiratory.	Other forms.	Total
Municipal Boroughs. Berwick-on-Tweed Blyth Morpeth Wallsend	137	20 80 6 165	46 217 27 466	17 74 11 153	7 26 4 75	24 100 15 228	11 31 5 64	3 12 2 18	14 43 77 82	32 166 26 389	24 85 5 220	56 251 31 609
Urban Districts. Alnwick	5 133 202 53 54 43 124 27 34 141 117 - 37 3 43	5 5 57 98 31 28 17 9 13 15 108 51 1 20 1 31 30	25 10 190 300 84 82 60 133 40 49 249 168 1 57 4 74 98	11 3 65 71 11 22 10 29 32 51 17 2 10 25	2 3 26 28 3 11 6 5 9 5 27 32 - 9 - 14 12	13 6 91 99 14 33 16 34 30 34 59 83 1 26 2 24 37	5 -29 15 5 10 6 8 9 7 7 6 -6 1 4 11	4 -7 10 -3 2 6 4 5 2 1 2 5	9 -36 25 5 13 8 8 9 13 11 11 2 7 1 6 16	25 7 141 256 57 70 48 146 28 58 167 142 - 48 2 52 88	7 6 56 122 32 39 17 14 17 18 135 63 	32 13 197 378 89 109 65 160 45 76 302 205 - 75 3 96 126
Rural Districts. Alnwick Belford Bellingham Castle Ward Glendale Haltwhistle Hexham Morpeth Norham & Islandshires Rothbury	7 21 57 6 27 144 56	10 8 2 27 8 4 42 36 5 2	35 15 23 84 14 31 186 92 14 6	17 3 8 19 3 6 22 42 2 3	$ \begin{array}{r} 7 \\ -1 \\ 10 \\ 1 \\ 1 \\ 4 \\ 20 \\ 5 \\ 1 \end{array} $	24 3 9 29 4 7 26 62 7 4	6 2 3 5 3 6 6 5 -	6 - 2 2 2 - 2 5 - 2	12 5 7 5 6 8 10 -	37 8 26 70 8 31 149 90 8 5	13 8 3 37 8 5 46 54 10	50 16 29 107 16 36 195 144 18 6
TOTALS	1,945	935	2,880	790	354	1,144	277	107	384	2,380	1,155	3,535

COUNTY OF NORTHUMBEALAND. YEAR 1988.

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Compiled from crude Returns supplied by Local Registrars, the official groups supplied by the Registrar General being too large and unequal to furnish useful comparison.

TREATMENT OF TUBERCULOSIS.

The undermentioned consolidated return shews the work of all dispensaries during the year 1928; succeeding Tables give an outline of the work of individual dispensaries. It will be observed that of 1,462 new cases (including contacts) examined, 586 were definitely tuberculous, 7 cases were written off the dispensary registers as cured, 127 died, and at the end of the year 1,918 definite cases were on the dispensary registers.

TUBERCULOSIS SCHEME OF THE NORTHUMBERLAND COUNTY COUNCIL.

RETURN SHEWING THE WORK OF THE DISPENSARIES DURING THE YEAR 1928.

		PULMO	NARY.		No	N-Pul	LMONA	RY.		Тот	AL.	
DIAGNOSIS.	Adu	lts.	Chil	dren.	Adı	ılts.	Chile	dren.	Ad	ults.	Chil	ldren.
	М.	F.	М.	F.	м.	F.	М.	F.	М.	F.	М.	F.
A.—New Cases examined during the year (excluding contacts): (a) Definitely tuberculous (b) Doubtfully tuberculous (c) Non-tuberculous	158	162 	49 —	48 —	13 —	13 —	45	32 	171 52 75	175 32 56	94 44 72	80 47 100
B.—Contacts examined during the year:— (a) Definitely tuberculous (b) Doubtfully tuberculous (c) Non-tuberculous	19	17 —	11 	8 _	=	Ξ	5 —	6 _	19 8 32	17 8 67	16 19 121	14 10 143
C.—Cases written off the Dispensary Register as (a) Cured (b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)	7-	1	2	-	-	1	1	2	168	2 145	3 257	283
O.—Number of Persons on Dispensary Register on December 31st:— (a) Diagnosis completed (b) Diagnosis not completed	580	499	221	239	20	27	183	149	600 16	526 17	404 28	388

Number of persons on Dispensary Register on January 1st	1,682
Number of patients transferred from other areas and of "lost sight	
of " cases returned	56
Number of patients transferred to other areas and cases "lost sight	
of"	225
Died during the year	127
Number of observation cases under A (b) and B (b) above in which	
period of observation exceeded 2 months	
Number of attendances at the Dispensary (including contacts)	4,356
Number of consultations with Medical Practitioners :-	
	202
(b) Otherwise	
	357

Number of visits by Nurses or Health V			
sary purposes			12,732
Number of specimens of Sputum, &c.,			945
Number of insured persons on Disper December	sary Regis	ter on the	662
Number of insured persons under Dor 31st December			the 262
Number of reports received during the	year in re-	spect of ins	ured
persons :—			
(a) Form G.P. 17			19
(b) Form G.P. 36			549
Cases written off in a previous year as been entered on Register as New Co	"cured" w	hich have a	gain Nil.
RETURN SHEWING THE WORK OF	THE WALLS	END DISPEN	NSARY
DURING THE Y	EAR 1928.		
Diagnosis,	Pulmonary.	Non-	TOTAL.
Diagnosis,	I dimonary.	Pulmonary.	TOTAL.
A.—New Cases examined during the			
year (excluding contacts) :—			
(a) Definitely tuberculous	138	42	180
(b) Doubtfully tuberculous	-		59
(c) Non-tuberculous			83
B.—Contacts examined during the year:			
(a) Definitely tuberculous (b) Doubtfully tuberculous	15	2	17 26
(c) Non-tuberculous			142
C Comment that Discourse			
C.—Cases written off the Dispensary Register as :—			
(a) Cured	2	4	6
(b) Diagnosis not confirmed or non-			
tuberculous (including cancella- tion of cases notified in error)			294
D.—Number of Persons on Dispensary			
-Register on December 31st :— (a) Diagnosis completed	480	114	594
(b) Diagnosis not completed	_		13
Number of persons on Dispensary Regis	ster on Janu	arv 1st	501
Number of patients transferred from ot of "cases returned			Section 1997
Number of patients transferred to other of "			sight 64
Died during the year			53
Number of observation cases under A (period of observation exceeded 2 more			10
Number of attendances at the Dispensa	ry (includin	g contacts)	1,408

RETURN SHEWING THE WORK OF THE BLYTH DISPENSARY DURING THE YEAR 1928.

Diagnosis.	Pulmonary.	Non- Pulmonary.	TOTAL.
A.—New Cases examined during the			
year (excluding contacts) :-			
(a) Definitely tuberculous	80	13	93
(b) Doubtfully tuberculous	-	-	22
(c) Non-tuberculous			68
B.—Contacts examined during the year:			
(a) Definitely tuberculous	10	2	12
(b) Doubtfully tuberculous	_	-	1
(c) Non-tuberculous	_	-	83
C.—Cases written off the Dispensary Register as :—			
(a) Cured		-	
(b) Diagnosis not confirmed or non-			
tuberculous (including cancella- tion of cases notified in error)			161
tion of cases nothied in error)	_		101
D.—Number of Persons on Dispensary Register on December 31st:—			
(a) Diagnosis completed	195	46	241
(b) Diagnosis not completed	-		5
Number of persons on Dispensary Regist Number of patients transferred from oth			
of " cases returned			7
Number of patients transferred to other of "	areas and c	ases "lost s	ight 52
D:-1 1			24
Number of observation cases under A (b			hich
period of observation exceeded 2 mon		··· ···	10

RETURN SHEWING THE WORK OF THE HEXHAM DISPENSARY DURING THE YEAR 1928.

Diagnosis.	Pulmonary.	Non- Pulmonary.	TOTAL.
A.—New Cases examined during the year (excluding contacts) :—			
(a) Definitely tuberculous	59	11	70
(b) Doubtfully tuberculous	_		64
(c) Non-tuberculous	_	-	24
B.—Contacts examined during the year:			
(a) Definitely tuberculous	8	1	9
(b) Doubtfully tuberculous	-	-	15
(c) Non-tuberculous			25

Diagnosis.	Pulmonary.	Non- Pulmonary.	TOTAL.
C.—Cases written off the Dispensary Register as :— (a) Cured (b) Diagnosis not confirmed or non- tuberculous (including cancella- tion of cases notified in error)	1	-	1 62
D.—Number of Persons on Dispensary Register on December 31st:— (a) Diagnosis completed (b) Diagnosis not completed	314	30	344 32
Number of persons on Dispensary Regist			308
Number of patients transferred from oth of " cases returned		d of Tost s	ight 19
Number of patients transferred to other	areas and	eases "lost s	ight
of "			85
Died during the year			10
Number of observation cases under A (b			
	ths		21
period of observation exceeded 2 mon Number of attendances at the Dispensar			

RETURN SHEWING THE WORK OF THE NEWBURN DISPENSARY DURING THE YEAR 1928.

Diagnosis.	Pulmonary.	Non- Pulmonary.	TOTAL.
A.—New Cases examined during the year (excluding contacts) :—			
(a) Definitely tuberculous	25	14	39
(b) Doubtfully tuberculous	-	_	14
(c) Non-tuberculous	-	-	3
B.—Contacts examined during the year:			-
(a) Definitely tuberculous	4	5	9
(b) Doubtfully tuberculous	_	-	3
(c) Non-tuberculous	-	-	22
C.—Cases written off the Dispensary Register as :— (a) Cured (b) Diagnosis not confirmed or non-		_	_
tuberculous (including cancella- tion of cases notified in error)		-	30
D.—Number of Persons on Dispensary Register on December 31st :—			
(a) Diagnosis completed	115	85	200
(b) Diagnosis not completed	_		14

Number of persons on Dispensary Register on January 1st		169
Number of patients transferred from other areas and of "lost s	ight	
of " cases returned		3
Number of patients transferred to other areas and cases "lost s	ight	
of"		12
Died during the year		6
Number of observation cases under A (b) and B (b) above in w	hich	
period of observation exceeded 2 months		8
Number of attendances at the Dispensary (including contacts)		414

RETURN SHEWING THE WORK OF THE ASHINGTON DISPENSARY DURING THE YEAR 1928.

Diagnosis.	Pulmonary.	Non- Pulmonary.	TOTAL.
A.—New Cases examined during the			
year (excluding contacts) :-	115	20	100
(a) Definitely tuberculous (b) Doubtfully tuberculous	115	23	138 16
(c) Non-tuberculous	=	=	125
B.—Contacts examined during the year:			
(a) Definitely tuberculous	18	1	19
(b) Doubtfully tuberculous (c) Non-tuberculous	=	=	91
C.—Cases written off the Dispensary Register as :— (a) Cured (b) Dispension not confirmed or non		_	_
(b) Diagnosis not confirmed or non- tuberculous (including cancella- tion of cases notified in error)	_	-3	306
D.—Number of Persons on Dispensary Register on December 31st:— (a) Diagnosis completed (b) Diagnosis not completed	435 —	104	539
Number of persons on Dispensary Regis	ter on Janu	ary 1st	50
Number of patients transferred from other of "cases returned	her areas ar	d of "lost s	sight 1
Number of patients transferred to other of "	areas and	cases "lost s	sight 1
Died during the year			3
Number of observation cases under A (beginning period of observation exceeded 2 months)		above in w	hich
Number of attendances at the Dispensa	ry (includin	g contacts)	1,22

RESIDENTIAL INSTITUTIONS.

AVERAGE NUMBER OF BEDS AVAILABLE FOR PATIENTS DURING THE YEAR 1928.

	Observe	Pulmonary Tuberculosis.			Non-Pulmonary Tuberculosis.				
	Observa- tion.	"Sana- torium" Beds	" Hospital " Beds	Disease of Bones and Joints.	Other Conditions.	Total.			
Adult Males	 8	78	20	_	2	108			
Adult Females	 8	42	20	-	2	72			
Children under 15	 . 8	57	_	27	22	114			
TOTAL	 24	177	40	27	26	294			

RETURN SHEWING THE EXTENT OF RESIDENTIAL TREATMENT DURING THE YEAR 1928.

			In Institutions on Jan. 1.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31.
	Its	M.	107	204	202	14	95
Number of Patients	Ad'Its	F.	71	168	170	7	62
	- i	M.	54	119	110	1	62
	Chill-dren.	F.	51	94	94	-	51
	(23 M	M.	_	20	10	-	10
Number of	Ad'Its	F.	_	14	6	-	8
Observation . Cases	-i d	M.	5	30	34	_	1
	Chil-dren.	F.	1	28	28	-	1
	Тот	AL	289	677	654	22	290

RETURN SHEWING THE IMMEDIATE RESULTS OF TREATMENT OF PATIENTS* AND OF OBSERVATION OF DOUBTFUL CASES DISCHARGED FROM RESIDENTIAL INSTITUTIONS DURING THE YEAR 1928.

ion ion	Condition at time of discharge.		Di	ıratio	n of	Resi	denti	al Tr	eatm	ent i	n the	Ins	tituti	on.
Classification on admission to the Institution.			nder		3-6	mon	ths.	6—1	2 mo	nths.	More	e tha	n 12	TOTAL
On On		М.	F.	Ch.	М.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
	Quiescent	3	6	21	31	38	54	32	14	23	15	2	-5	244
T.B	Improved	10	20	-	12	6	1	8	2	8	3	1	4	75
Class T.B.	No material improvement	- 6	1	-	_	_		-	_	_	_	-	-	7
0	Died in Institution	2	-	1	-	-	_	-	-	_	-	_	-	3
SIS Ins	Quiescent	_	-	-	1	4	2	-	5	-	-	1	-	13
B.phus p 1.	Improved	_	1	_	_	3	_	_	1	_	_	_	1	6
Class T.B. Group	No material improvement	_	_	-	-	-	-	-	_	-	_	-	_	_
TUBERCULOSIS Class T.B.plus Group 1.	Died in Institution	-	-	-	-	-	_	-	_		-	_	-	_
	Quiescent	-	-	-	3	3	_	3	-	1	1	_	_	11
Class T.B.plus Group 2.	Improved	6	5	-	17	15	-	20	16	1	6	5	3	94
EMO S T.	No material improvement	3	2	1	2	3	_	3	5	-	_	1	-	20
Clas	Died in Institution	1	-	-	_	_	_	-	-	_	_			1
is.	Quiescent	_	-	-	_	_	_	-	_	_	_	_	-	_
ClassT.B.plus. Group 3.	Improved	_	-	_	1	-	-	-	1	-	_	_	-	2
sT.]	No material improvement	8	5	1	5	1	1	-	_	1	_	_	_	22
Clas	Died in Institution	7	4	_	2	3	_	2	_	_	_	_	_	18
	Quiescent or Arrested	_	_	1	-	_	1	1	-	2		_	4	9
Bones and Joints.	Improved	_	_	1	_	_	_	_	_	_	_	_	3	4
Join	No material improvement	-	_	_	-	_	_	_	_	1	_	_	-	1
	Died in Institution	_	_	-	-	-	_	_	_	-	_	_	_	
- 0818	Quiescent or Arrested	_	_	11	_	_	19	_	_	10	_	_	1	41
dinal.	Improved	_	2	2	_	1	3	-	_	6	_		-	14
TUBERCI	No material improvement	1	_	_	_	_	-	-	_	1	_	_	_	2
4	Died in Institution	_	_	_	_		_	_		_		_	_	_
KAR	Quiescent or Arrested		_	_	_	_	_	=	_	_	_	_	-	_
Other Abdominal.	Improved	_	_	_	_	_	_	_	_			_	_	_
Other Organs.	No material improvement	_	_	_	_	_	_	-	_	1	_	_	-	1
NON	Died in Institution	_	_	_	-		_	-	_	_	-	_	-	-
	Quiescent or Arrested	_	_	2	-	_	4	-	_	3	-	-	_	9
ieral	Improved	_		_	1		_		_	_	_	_	_	1
Peripheral Glands.	No material improvement	_	_	_	-		_	_	_	_	_	_	-	
Pe	Died in Institution		_	_	_	_	-	-	-	_	_	_	_	_
		Ur	der 1	wk.	1-	-2 we	eks.	2-	-4 w	eeks.	M ₄	ore t	han ks.	
on is.	m.11							1		-	-		10	0.5
Observation for purpose of diagnosis.	Tuberculous	-	-	1	-	-	-	4	1	7	1	-	12	25
r pu	Non-tuberculous	-	-	-	-	-	-	-	2	3	5	3	31	144
of to o	Doubtful	-	-	-	1-	_	-	-	1-	-	-	-	9	1

[•] It should be borne in mind that the definition of "patient" does not include persons in whom a definite diagnosis of tuberculosis has not been made.

REPORT OF THE MEDICAL SUPERINTENDENT,

WOOLEY SANATORIUM,

FOR THE YEAR ENDED 31ST DECEMBER, 1928.

The annual report of an institution for the treament of Pulmonary Tuberculosis necessarily involves a certain amount of repetition.

As usual the immediate results of treatment were good in the majority of cases, and as usual it is to be feared that many of those who were discharged as "improved" will sooner or later relapse on returning to their previous habits and surroundings.

During the year 403 cases were discharged from the institution classified as follows:—

Quiescent			 		163
Improved			 		163
No material	improve	ment	 		46
Died			 		21
Non-Tubercu	lous		 	/	10

It will be seen from the above table that while 163 were considered to be quiescent on discharge, 67, or roughly one-sixth of the total shewed "no material improvement" or actually died in the institution.

Emphasis is placed on this figure in view of the opportunities which the Local Government Act may afford in the near future for making some provision for such cases elsewhere. It is hoped that beds will be available in the local institutions in the different areas for advanced cases. Various reasons can be advanced for this policy.

- (1). Such cases are better in a hospital within easy reach of their relatives.
- (2). There is no special point in subjecting them to the rigours of winter at Wooley.
- (3). An excessive number in the Sanatorium proper tends to damage its prestige as a curative institution.

It is not suggested that provision should be made for all advanced cases. Many of them prefer the accustomed comforts of their own homes, and if the conditions are suitable and the necessary precautions are taken there is little risk of grown-ups contracting the disease.

There is, however, a considerable danger of infection in the case of young children when there is an open case of Pulmonary Tuberculosis in the house, and this danger is greatest, as will be readily appreciated, when the mother is the victim.

It is unfortunately this class of patient who most frequently terminates her period of sanatorium treatment prematurely owing to domestic difficulties. The reason is not far to seek. Relatives and friends find the care of other people's children burdensome, particularly when the patient in question has the appearance of rude health characteristic of most sanatorium convalescents.

Some interesting work has been done recently in the County of Lancashire on the fate of young children in tuberculous households. It was shewn that the death rate from non-Pulmonary Tuberculosis in children under five years in households with a sputum positive case was considerably higher than normal. The death rate was nine times higher in the age group 0-1, fourteen times in the age group 1-2, and nineteen times in the age group 2-5. The principal cause of death was Tuberculous Meningitis which accounted for two-thirds of the total.

The danger of infection is not nearly so great in the case of adults. Even in the case of husband and wife, the mortality is only slightly higher than normal among the partners exposed to innumerable chances of infection and some of this increase may possibly be attributed to assortive mating.

Average duration of stay.

The average period of treatment compared with previous years was as follows:—

	1923-24.	1924-25.	1925-26.	1927.	1928.
M.	 189.6	167.1	183.3	177.3	183.01
F.	 145.8	149.9	151.5	156.1	151.84

It will be noted that the male average invariably exceeds the female.

Waiting List.

The full number of beds, 180, have been practically all occupied throughout the period, the average being 178.18.

The waiting list is liable to fluctuate, but the number awaiting admission has never been high. It is very desirable for patients to be admitted as soon as possible after notification. Priority has been given to early cases and to acute cases where the home conditions were unfavourable.

Treatment.

Treatment has been conducted on the usual lines of rest, good food, graduated exercise and occupational therapy. Strict adherence to the routine is regarded as highly important.

Individual advice is supplemented by lectures when the importance of sputum disinfection and the examination of contacts at the dispensaries is emphasised. With few exceptions patients are very anxious to cooperate on the preventive side.

As explained in previous reports, the physical and psychological benefits of purposive occupation while undergoing treatment are considerable. The object of treatment is to restore working capacity to as high a degree as possible, and the various departments of the Settlement are a great boon to the institution in this respect. One marked feature has been the growing popularity of gardening as an occupation of choice, and the results, under the capable direction of the head gardener, have made a vast improvement in the amenities of the institution. Untidy surroundings lead to untidy and slovenly habits, a bad object lesson to consumptives who should be taught the special importance of strict personal hygiene. The mental effect of beautiful surroundings cannot be estimated.

Artificial Pneumothorax.

This form of treatment is perhaps the most dramatic advance in the treatment of Pulmonary Tuberculosis since Sanatorium principles were established.

It consists of inducing collapse of the affected lung by introducing air with a special apparatus into the pleural cavity. The beneficial effects are believed to be due to several factors.

- (1). The diseased area is reduced enormously in size.
- (2). The damaged lung is to a large degree put to rest.
- (3). The absorption of toxins is considerably lessened by pressure on the lymphatic vessels and by compression of the diseased areas.

The case of J.J., aged 23, is a striking illustrative example. This man was admitted on the 16th August, 1927, with very active disease involving practically the whole of his left lung. On complete rest under sanatorium conditions he was gradually retrogressing. He had the young adult type of Pulmonary Tuberculosis which is usually a very fatal form of the disease. Collapse was induced with very satisfactory results. His condition steadily improved from that date, and he is now earning his living as a settler in the woodwork department. Collapse is maintained by refills at intervals for several years and patients attend at Wooley for the necessary refills after discharge.

Unfortunately this form of treatment is not generally applicable. The disease is very frequently bilateral and the condition of the opposite lung must be carefully considered. The presence of extensive pleural adhesions, also, may interfere with a satisfactory collapse. Every case of active disease is considered for this form of treatment which appears to offer the greatest hope for certain advanced cases.

Sanocrysin.

This so-called "gold treatment" was recently introduced from Denmark and consists in the injection into the veins of a gold compound, viz., the double theosulphate of gold and sodium. It was originally stated that this salt acted as a specific in that it attacked the under-lying cause of the disease by killing the tubercle bacillus in the tissues. Consequently large doses were considered necessary, and while striking results were claimed by the originators, it was admitted that disasters sometimes occurred and that complications, such as gastro-enteritis, skin rashes, albumen in the urine and fever were frequent. It has been doubted whether the drug acts in the manner suggested and smaller doses are now considered advisable. A series of cases has been treated by this method, and while it is too early to speak with any confidence as to the ultimate results, the patients treated certainly gained weight, the quantity of sputum was definitely reduced and in some the bacilli disappeared from the sputum.

It is proposed to continue this form of treatment in selected cases and a further report will be submitted in due course. No untoward results have been experienced.

X-Ray.

The existing old-fashioned screening apparatus has been in regular use, but the results cannot be said to be satisfactory. Provision has been made in the estimates for the installation of an up-to-date apparatus, which can be used for screening the chest or for the taking of photographs. This is a real necessity in a modern institution.

Laboratory.

Repeated examination of the sputum is carried out as a routine measure and other examinations are made as occasion arises. For special bacteriological work which cannot be done on the spot, material is sent to the County Bacteriologist.

Complications.

The following complications have been noted:-

Tuberculous.		Non-Tuberculous.
Addisons disease	 1	Gallstones 1
Laryngitis	 10	Asthma 3
Pericarditis	 1	Silicosis 1
Peritonitis	 1	Valvular disease of Heart 3
Intestinal Ulceration	 6	Bronchiectasis 2
		Syphilis 1
		Pregnancy 5

Discipline.

The discipline of the patients has been very good. There have been relatively few dismissals for breaches of discipline and the number of patients leaving against advice has not been large. The chief reason for such departures has been domestic difficulties. Generally speaking patients are anxious to remain for a reasonable period, and the opposite type who is very reluctant to leave the Sanatorium in not uncommon.

The Assistant Medical Superintendent, J. R. Paterson, M.B., Ch.B., resigned his appointment on the 19th September, 1928, having been appointed to the Winter Street Hospital, Sheffield. W. Ferguson, M.B.,

Ch. B., was appointed to the vacancy and assumed duty on the 3rd November, 1928.

Statistical.

The table taken from the Ministry of Health return Memo. 37/T., shewing the classification of the cases discharged during the year is appended.

I have the honour to be,

Ladies and Gentlemen,

Your obedient servant,

R. CUNNINGHAM,

Medical Superintendent.

							Med	tical S	Superin	ntender	nt.
	assification admission to the	Condition at time of discharge.		ler 3 nths.		-6 nths.		-12 oths.		than onths.	TOTAL
In	stitution.	discharge.	M.	F.	M.	F.	M.	F.	M.	F.	
	Class T.B. Minus	Quiescent Improved No material improvement Died in Institution	3 10 6 2	6 20 1	31 12 —	38 6 —	32 8 —	14 2 —	15 3 —	2 1 —	141 62 7
PULMONARY TUBERCULOSIS.	Class T.B. Plus. Group 1.	Quiescent Improved	= -		1 - -	4 3 —	=	5 1	= -	<u>1</u> 	11 5 —
PULMONARY	Class T.B. Plus. Group 2.	Quiescent Improved No material improvement Died in Institution	6 3 1	5 2	3 17 2	3 15 3 —	3 20 3 —	16 5	1 6 -	5 1	10 90 19
	Class T.B. Plus. Group 3.	Quiescent Improved No material improvement Died in Institution	- 8 7		1 5 2	_ 1 3	_ _ _	- - -	= -	= -	19 17
LOSIS.	Bones and Joints	Quiescent or Arrested Improved No material improvement Died in Institution	=	= -	_	= -	<u>-</u> -	_		= -	1 -
NON-PULMONARY TUBERCULOSIS.	Abdominal	Quiescent or Arrested Improved No material improvement Died in Institution	_ 1 -		= -	ī -	=	= -	= -	= -	- 3 1
NON-PUL	Peripheral Glands	Quiescent or Arrested Improved No material improvement Died in Institution	= -	= -	<u></u>	= -	=	=	= -	= -	1 -
				ler 1 ek.		-2 eks.		-4 eks.		than eeks.	
Observation for purposes of diagnosis.		Tuberculous Non-tubercul- ous Doubtful	=	=	_		4 =	1 2 —	3	5	10

AFTER-HISTORY OF TUBERCULOUS PATIENTS.

The following tables indicate the present condition of patients who applied for treatment in 1919 to 1923.

Table Giving Classification at the Time of First Examination and Present Condition of Patients Applying for Treatment in 1919.

Adults.

						Present Condition.						
Sex.	Classification.			No. of applicants.	Well, working or fit to work.	Well, working or fit to work. Improved or moderately well.		Dead.	Lost sight of or left the district.	Total.		
Male		arly)		11	10	_	-	_	1	11		
Female	Do.			34	15	6	-	2	11	34		
Ex-service men	Do.			46	18	9	-	11	8	46		
Male	Stage II. (In	termed	iate)	31	4	2	1	21	3	31		
Female	Do.			30	3	3	-	21	3	30		
Ex-servicemen	Do.			77	9	12	2	44	10	77		
Male	Stage III. (Advanc	ced)	11		_	_	11	_	11		
Female	Do.			-16		_	-	16	-	16		
Ex-servicemen	Do.			11	-	-	-	10	1	11		
Male	Surgical			2	2	_	_	_	_	2		
Female	Do.			1		-	-	1	_	2		
Ex-servicemen	Do.			-	-	-	-	-	-	-		
	Tot	tals		270	61	32	3	137	37	270		
	Per	rcentage			22.6	11.9			13.7			

Children.

				· é	Present Condition.						
Sex.		Classification.		No. of applicants.	Well, working or fit to work.	Improved or moderately well.	Relapsed.	Dead,	Lost sight of or left the district.	Total.	
Male		Pulmonary		 32	16	2 2	_	11	3	32	
Female		Do.	•••	 30	13	2	-	11	4	30	
Male		Surgical		 8	4	2	_	1	1	8	
Female		Do.		 13	8	1	-	2	2	13	
Male		Glands		 9	6	1	_	1	1	9	
Female		Do.		 11	3	3	-	2	3	11	
		Total	is	 103	50	11		28	14	103	
		Perce	entages		48.5	10.7		27.2	13.6		

Table Giving Classification at the time of First Examination and Present Condition of Patients Applying for Treatment in 1920.

Adults.

		**	Present Condition.							
Sex.	Classification.	No. of applicants.	Well, working, or fit to work.	Improved, or moderately well.	Relapsed.	Dead.	Lost sight of or left the district.	Total.		
Male	Stage I.	15	8	2		4	1	15		
Female	(Early)	18	8	2	-	4	5	18		
Ex-service men	(47	21	12	-	4	10	47		
Male	Stage II.	34	6	1	1	24	2	34		
Female	(Inter-	34	4	2	-	24	4	34		
Ex-service men	mediate)	83	17	16	1	38	11	83		
Male	Stage III.	8	_	_	_	8	_	8		
Female	(Advanced)	22	-	-	-	21	1	22		
Ex-service men		17	-	-	-	17	-	17		
	Totals	278	64	34	2	144	34	278		
	Percentages		23.0	12.2	0.8	51.8	12.2			

Children.

		oć.	Present Condition.						
Sex.	Classification.	No. of applicants.	Well, working, or fit to work.	Improved, or moderately!	Relapsed.	Dead.	Lost sight of or left the district.	Total.	
Male Female	Pulmonary	20 34	13 16	2 5	_	3 10	2 3	20 34	
Male Female	The state of the s	17 14	7 9	3 3	_	2	5 2	17 14	
Male Female		9 7	6	=	=	2 1	1	9 7	
Female	Skin	1	1	_		_	_	1	
	Totals Percentages	102	58 56.9	13 12.7	=	18 17.7	13 12.7	102	

Table Giving Classification at the time of First Examination and Present Condition of Patients applying for Treatment in 1921.

Adults.

		,		Present	Con	dition.		
Sex.	Classification.	No. of applicants.	Well, working, or fit to work.	Improved, or moderately well.	Relapsed.	Dead.	Lost sight of or left the district.	Total.
Male Female Ex-service men	Stage I. (Early)	11 22 25	7 12 16	1 4 5		3 2 1		11 22 25
Male Female Ex-service men	Stage II. (Intermediate)	28 38 34	3 6 7		_	21 30 15	4 - 8	28 38 34
Male Female Ex-service men	Stage III. (Advanced)	10 14 13	Ξ	=	=	10 14 12		10 14 13
Male Female Ex-service men	Surgical	1 3 3	Ξ		=	1 2	Ξ	1 3 3
	Totals Percentage	202	51 25.3	20 9.9		111 54.9	20 9.9	202

Children.

						Present	Con	dition.		
Sex.		Classification		No. of applicants.	Well, working, or fit to work.	Improved, or moderately well.	Relapsed.	Dead.	Lost sight of or left the district.	Total.
Male Female		Pulmonary		34 31	21 10	4 3	=	8 16	1 2	34 31
Male Female		Surgical		17 7	9	4	=	2 1	2 2	17
Male Female		Glands		6 10	6 8	=	_	=		6 10
Male Female	:::	Skin		1 2		=	=	=	1	1 2
Male Female	:::	Miliary		2 1	=	1	=	1	=	2
		Totals Percentag	es	111	59 53.2	12 10.8	_	29 26.1	11 9.9	111

Table Giving Classification at the time of First Examination and Present Condition of Patients Applying for Treatment in 1922.

Adults.

				Present	Cond	ition.		
Sex.	Classification.	No. of applicants.	Well, working, or fit to work.	Improved, or moderately well.	Relapsed.	Dead.	Lost sight of or left the district.	Total.
Male Female Ex-service men	Stage I. (Early)	20 7 11	11 3 4	$\frac{1}{1}$	=	5 1 3	3 3 3	20 7 11
Male Female Ex-service men	Stage II. (Inter- mediate)	40 40 21	10 9 3	4 2 —	=	21 24 11	5 5 7	40 40 21
Male Female Ex-service men	Stage III. (Advanced)	16 16 5	=	=	=	15 14 5	1 2 —	16 16 5
Male Female Ex-service men	Surgical	4 2 6	2 2 2	<u>-</u>	=	2 2	Ξ	4 2 6
	Totals Percentages	188	46 24.5	10 5.3	=	103 54.8	29 15.4	188

Children.

	1					Present	Cond	lition.		
Sex.		Classification		No. of applicants.	Well, working, or fit to work.	Improved, or moderately well.	Relapsed.	Dead.	Lost sight of or left the district.	Total.
Male Female		Pulmonary		22 25	16 12	1 5	=	4 7	1	22 25
Male Female		Surgical		20 16	17 9	1 4	=	1	1 2	20 16
Male Female		Glands		17 13	12 11	2 1	=	1	2	17 13
Female		Skin		1	1	_	_	-	_	1
Male Female		Miliary		1 2	=	1	=	_	=	1 2
		Totals Percentag	es	117	78 66.6	16 13.7	=	16 13.7	7 6.0	117

Table Giving Classification at the time of First Examination and Present Condition of Patients Applying for Treatment in 1923.

Adults.

				Present	Con	dition.		
Sex.	Classification.	No. of applicants	Well, working, or fit to work.	Improved, or moderately well.	Relapsed.	Dead.	Lost sight of or left the district.	Total.
Male Female Ex-service men	Stage I. (Early)	24 29 10	11 9 2	1 2 4	2 1 —	9 10 3	1 7 1	24 29 10
Male Female Ex-service men	Stage II. (Inter- mediate)	49 64 23	14 9 4	4 4 2	1	30 43 13	1 7 4	49 64 23
Male Female Ex-service men	Stage III. (Advanced)	12 13 3	=	=	=	12 13 3	=	12 13 3
Male Female Ex-service men	Surgical	5 3 —	1 1 -	2 2 —	=	2 _ _	=	5 3
	Totals Percentages	285	51 21.7	21 8.9	4 1.7	138 58.8	21 8.9	235

Children.

			1	Present	Cond	lition.		
Sex.	Classification.	No. of applicants.	Well, working, or fit to work.	Improved, or moderately well.	Relapsed.	Dead.	Lost sight of or left the district.	Total.
Male Female	 Pulmonary	39 31	25 13	7 3	1	4 13	2 2	39 31
Male Female	 Surgical	11 15	8 13	2 2	_	1	=	11 15
Male Female	 Glands	7 6	7 5	=	_	=		7 6
Male Female	 Miliary	3	1	_	_	- 2	=	3
	Totals Percentages	112	72 64.3	14 12.5	1 0.8	20 17.9	5 4.5	112

Table X.

SUMMARY INDICATING THE CONDITION IN SUBSEQUENT YEARS OF CASES OF TUBERCULOSIS EXAMINED IN 1919 TO 1923 INCLUSIVE.

Adults.

d.	- e		С	ondition	in the	e years .	1924, 19	25, 1926	5, 1927	and 192	8.	
Year examined,	Number examined.	Year.		ll and king.		erately	Rela	psed.	De	ead.	of o	sight r left trict.
			No.	%	No.	%	No.	%	No.	%	No.	%
1919	270	1924	66	24.4	41	15.2	12	4.4	116	42.9	35	12.9
		1925	57	21.1	51	18.8	8	2.9	121	44.8	33	12.2
		1926	55	20.4	40	14.8	8	2.9	131	48.5	36	13.3
		1927	48	17.8	43	15.9	5	1.9	136	50.4	38	14.0
		1928	61	22.6	32	11.9	3	1.1	137	50.7	37	13.7
1920	278	1924	38	13.7	71	25.5	12	4.3	121	43.5	36	13.0
		1925	52	18.7	62	22.3	10	3.6	127	45.7	27	9.7
		1926	59	21.2	40	14.4	13	4.7	134	48.2	32	11.5
		1927	55	19.8	40	14.4	4	1.4	143	51.4	36	13.0
		1928	64	23.0	34	12.2	2	0.8	144	51.8	34	12.5
1921	202	1924	34	16.8	50	24.7	15	7.4	90	44.5	13	6.4
		1925	37	18.3	44	21.8	9	4.4	97	48.0	15	7.
		1926	44	21.8	29	14.3	4	1.9	107	52.9	18	8.9
		1927	49	24.3	21	10.4	3	1.5	111	54.9	18	8.9
		1928	51	25.3	20	9.9	-	_	111	54.9	20	9.
1922	188	1924	38	20.2	38	20.2	14	7.4	80	42.5	18	9.
		1925	33	17.5	42	22.3	6	3.3	84	44.6	23	12.
		1926	41	21.8	23	12.2	2	1.1	96	51.1	26	13.
		1927	40	21.3	16	8.5	-	-	102	54.2	30	16.
		1928	46	24.5	10	5.3	-	-	103	54.8	29	15.
1923	235	1928	51	21.7	21	8.9	4	1.7	138	58.8	21	8.

Table Y. Children.

d.	j.		C	Condition	n in th	ne years	1924, 1	925, 192	6, 1927	, and 19	28.	
Year examined.	Number examined.	Year.		ell or work.	Mod	lerately vell.	Rela	apsed.	D	ead.	of o	t sigh or left trict.
			No.	%	No.	%	No.	%	No.	%	No.	%
1919	103	1924	53	51.4	6	5.8	8	7.8	26	25.2	10	9.7
		1925	43	41.7	17	16.5	6	5.8	26	25.2	11	10.6
		1926	39	37.9	23	22.3	1	0.9	27	26.2	13	12.
		1927	51	49.5	9	8.7	_	_	27	26.2	16	15.6
		1928	50	48.5	11	10.7	-	-	28	27.2	14	13.6
1920	102	1924	41	40.2	26	25.5	4	3.9	15	14.7	16	15.
0.000		1925	47	46.1	16	15.1	5	4.9	17	16.7	17	16.
		1926	48	47.0	18	17.6	2	1.9	17	16.7	17	16.
		1927	52	51.0	20	19.6	-	-	17	16.7	13	12.
		1928	58	56.9	13	12.7	-	-	18	17.7	13	12.
1921	111	1924	48	43.2	22	19.8	7	6.3	27	24.3	7	6.3
		1925	37	33.3	35	31.5	6	5.4	27	24.3	6	5.4
+44		1926	51	45.9	20	18.0	5	4.5	27	24.3	8	7.5
9.04		1927	59	53.2	14	12.6	-	-	27	24.3	11	9.9
		1928	59	53.2	12	10.8	-	_	29	26.1	11	9.9
1922	117	1924	48	41.0	47	40.2	5	4.3	13	11.1	4	3.4
		1925	53	45.3	38	32.5	5	4.3	15	12.8	6	5.
		1926	71	60.7	23	19.7	4	3.4	15	12.8	4	3.4
		1927	72	61.5	21	17.9	1	0.9	16	13.7	7	6.0
		1928	78	66.6	16	13.7	-	-	16	13.7	7	6.0
1923	112	1928	72	64.3	14	12.5	1	0.8	20	17.9	5	4.

MILK AND DAIRIES ACTS AND ORDERS.

Under the provisions of the above, the policy adopted by the Committee of systematically examining the milk from the various herds within the County has been pursued during the past year.

The details of such examinations, together with other information bearing thereon, are presented in tabular form facing this page.

Samples have been collected by the Sanitary Officers in each Urban and Rural District in the Administrative County. The total number of such samples collected during the year was 261. As a matter of interest the samples taken during 1927 (October-December) have been incorporated in the table referred to, bringing the gross total to 318, which represents the milk of 2,872 cows, or 23.5% of the milch animals of the County.

Of this number, 15 (or 0.52%) were found to be definitely tubercular and were slaughtered under the Tuberculosis Order. This number merely indicates the number of cows which were giving tubercular milk at the time the sample was collected and is not to be taken as an indication of the number of animals slaughtered under the Tuberculosis Order for the period under review. In 13 cases it was possible to obtain copies of the post-mortem findings and it is interesting to

MILK AND DAIRIES ORDER, 1926.

SUMMARY OF ROUTINE EXAMINATION OF MILK SAMPLES, 1928.

	Remarks.								*One sample untraceable,	owing to movement of cows)			†No. of cows uncertain.	100	dealers.																							
a service a	Kesut of Post-mortem examination. Organs affected.	T.B. Udder.							Lungs, udder, pleura.			Lungs, udder, mesentery (2).	Lungs, udder, mesentery.	,					Lungs, udder, mesentery.				Lungs, udder (2), mesentery (1)	Lungs, udder, supra-mammary	gland.									Lungs, udder, liver, mesentery.					
No. of Cows	slaughtered in consequence	1	::	:	67		::	::	1		::	67	1	::			:	::	00	:	:	:	60	1	:		:	:	:	::	:	::	::	7	:		::	15	-
No. of	Samples found to be Tuber- cular.	-	:	:	-	:		:	*		:	1	1	:				:	1	***	:	:	1	-	:			:	:	:	:	:	:	-	:			10	-
es.	% of Cows tested.	24.3	86.6	1000.0	94.6	59.7	82.0	74.0	40.6		28.1	25.1	85.7	7.4		0.00	33.8	1000.0	45.7	36.9	82.6	80.9	83.9	62.5	62.0		13.5	26.2	20.5	8.8	33.3	23.5	15.2	7.4	36.3	40.0	49.3	23.5	
	No. of Cows repre- sented.	50	84	31	132	94	733	80	180		36	44	99	+18			107	21	102	88	19	132	47	20	67		61	99	41	833	42	115	641	128	73	ï	11	2,872	
ME	Oct., 1927 to Dec., 1928.	10	12	63	14	10	00	_	19		4	00	00	1			77	00	=	1	œ	12	00	7	7		00	00	=	00	00	00	55	00	00	0	0	318	
	No. of Cows.	208	117	33	123	180	66	69	443		124	166	09	243		0.10	348	40	250	295	23	169	99	20	104		475	278	200	1,200	156	516	4,610	1,937	208	17.4	1/4	12,954	
No of	Cow- keepers.	47	15	67	13	27	1	5	20		13	24	5	24		00	23	4	23	28	00	17	00	1	6		52	23	50	83	33	53	553	161	38	10	13	1,389	
	District.	Berwick M.B		Morpeth						;	Cramling	Earsdon	Gosforth U.D	Hexham U.D									Seghill U.D	Weetslade U.D	Whitley & Monkseaton	U.D.		Belford R.D	Bellingham R.D	Castle Ward R.D				Morpeth R.D	Norham & Islandshires		Kothbury K.D		
		1.	લાં	60	4.	õ.	9.	7.	ò		6	.10.	11.	12.			13.	14.	15.	16.	17.	18.	19.	20.	21.		22.	23.	24.	25.	26.	27.	28.	29.	30.	0.1	31.		1

N.B.—3.14% of the samples examined were found to be infected with Tuberculosis, 4.27% of the "herds" were found to be giving tubercular milk, and 0.52% of the cows examined were found to be giving tubercular milk.



note that in 11 of these the lungs were infected, which suggests the channel of entry of infection and emphasises the absolute necessity for disinfection and cleanliness in the byre. In 12 out of the 13 cases the udder was infected, thus directly contaminating the milk with Tubercle Bacilli.

The value of sampling is evident when it is realised that but for the employment of this process it is extremely improbable that any of the above 15 animals would have been detected at this stage and would therefore have continued to infect the bulk supply of milk from the respective herds, and also to communicate the disease to other animals.

The tabular statement referred to shows the number of cowkeepers (and cows) within the Administrative County, and the number of samples obtained from each County district.

The actual number of "herds" represented by the 318 samples was 234. Of this number 10 samples were found to be "positive," or in other words 4.27% of the herds examined were found to be giving tubercle infected milk.

In addition to the foregoing examinations 255 cows were clinically examined by the Council's veterinary officers in consequence of "reports" received from other Authorities. Thirteen such reports were received during the year, and 48 samples of milk were taken and submitted to the County laboratory for biological test. Three of these samples were found to contain tubercle bacilli. Four cows were in consequence taken and slaughtered under the Tuberculosis Order.

COUNTY BACTERIOLOGICAL LABORATORY, 1928.

During the year the following specimens were examined in the Laboratory:

Nature of Specimen.	Positive.	Negative.	Tota	ıl.
Sputa for B.Tuberculosis	270 (265)	1,342 (1,277)	1,612	
Swabs for B.Diphtheriae Specimens of blood, for Widal	143 (89)	787 (571)	930	
(enteric) reaction Samples of Milk for B.Tuberculosis	31 (40)	70 (66)	101	
(biological test)	20 (No res	310 ult, 3)	333	(72)
Samples of Water			19	
Various other Specimens			118	(25)
(Figures in brackets—1927).		Total	3,113(2,405)

Under the heading various other Specimens in the above table there were :—

Specimens of Faeces ... 93 (B.Typhosus 1, B.Dysenteriae Flexner 1, B.Morgan 1, and Atypical B.Dysenteriae 4).

- , Urine ... 11 (B.Tuberculosis 3).
- ,, Blood ... 2 (both Agglutinated B.Dysenteriae Flexner).
 - ,, Pleural Fluid 1 (B.Tuberculosis.)
- " Pus ... 2
- " Cerebro-spinal Fluid, 3.
- " Milk (Count. and Coli content), 6.

The following table shews the numbers of specimens received from the various districts in the county:—

		ber- losis.		iph- eria.	ati	lutin- ons idal).	for losis.	r ens.	
DISTRICT.	Positive.	Negative.	Positive.	Negative	Positive.	Negative.	Milks for Tuberculosi	Other Specimens.	Tota
MUNICIPAL BOROUGHS.									
Berwick-on-Tweed	5	23	1	6	-	2	6		43
Blyth	39	102	2	20	1	1	8 2 8	-	173
Morpeth	3	31	1	4	-		2		41
Wallsend	57	226	4	43	1	3	8	3	343
URBAN DISTRICTS.									
Alnwick	6	26	3	8	-	i	8	1	53
Amble	2	7	16	16	-	-	8		45
Ashington	22	121	-	3	5	1	3	3	158
Bedlingtonshire	15	107	2	44	3	3	19	2	193
Cramlington	1 1	27		-	-		4	_	32
Earsdon	7	30		2	-		8		47
Gosforth	7	52	3	74	1	-	4	4	143
Hexham	8	71	_	12	1	3	7	-	102
Longbenton	8	27	2	7	-	2	8	1	55
Newbiggin-by-the-Sea	4	55		4			6	2	71
Newburn	10	41	3	8		-	7 7	1	70
Prudhoe	-	48		2	-			2	59
Rothbury	-	-	-	-		-	8		8
Seaton Delaval	8	26	-	2	-	-	8	1	43
Seghill	-	3	-	-	-		-		:
Weetslade	3	17	10	33	-	1	7	-	71
Whitley & Monkseaton	22	65	6	48	3	2	3	6	153
RURAL DISTRICTS.									
Alnwick	3	22	8	24		2	8	-	67
Belford	2	6	_	3	-	_	8		19
Bellingham	4	14	3	23			7 8	_	5
Castle Ward	7	69	12	44	1	5	8	2	148
Glendale	1	9		3	_	-	8	_	21
Haltwhistle	7	16		1	-		8	6	38
Hexham	4	26	-	18	-	2	47	-	97
Morpeth	11	49	2	15	3	1	8	1	90
Norham & Islandshires	_	-	_	-	2	1	8	-	11
Rothbury	-	7	12	60		1	8	2	90
HOSPITALS			52	246	10	37	1	78	424

THE SALE OF FOOD AND DRUGS ACTS.

The County Council is the administrative authority under the above Acts throughout the administrative county, excepting in the area of the Borough of Berwick-upon-Tweed. Samples for examination by the County Analyst are taken by the police. The results of the analyses of samples

taken during 1928 and the percentage of those found to be adulterated are shewn in the subjoined table.

No. of Samples taken.	Description of Article.		Result of Analys	is.	Per- centage of Samples	Vendor	tions including cases dis-
No Sam tak		Genuine	. Not Genuine.	Doubtful.	Not Genuine.	Prosecuted.	missed on payment of costs.
2	Arrowroot	. 2	1 -		-	_	_
21	Baking Powder	21	-		-	-	-
2	Beef Suet	2			-	_	
1	Blanc Mange Powder	1	-			-	-
1	Bramble Jelly	1	-	-	_		
66	Butter	65	1		1.21	1	-
9	Corn Flour	9	_		-	_	
6	Custard Powder	6			-	-	-
6	Cream of Tartar	6	2	_	10:50		
19 19	Coffee	19			10.23		
19	CO)	1					
6	Choom	18					
2	Cream Condensed Milk	9					
3	Cake Flour	9	_		-		
1	Fruit Syrup	1				-	
1	Flour	i	_				
8	Ground Rice	8	-		-		_
2	Ground Coconut	2	-	-		2.00	_
4	Ground Ginger	4	-	-		-	-
8	Ground Almonds	8	-			-	_
1	Gravy Salt	1	-		-	-	-
1	Honey	1	-	_		_	
1	Icing Sugar	1	-		-	-	_
17	Jam	17	-	_			_
10	Jam and Jelly	9	1	-	10		-
21	Lard	21	-		-	_	
4	Lemon Curd	4	-	_	_		
1	Lemon Cheese	1					
233	Lemon Crystals Milk	212	21		9.01	15	11
200	35 1 3	414	2		100	1.	11
33	M				100		
1	Milk Pudding Mixture	1					_
3	Mincemeat	3	_		_		_
1	Malt Vinegar	1	_	_	-		_
3	Meat Products	3	_			-	_
5	Mixed Dry Fruits		-		-		-
8	Meat Pastes	8		_	_	-	-
2	Non Alcoholic Wine	2	-		_		-
1	Olive Oil	1	-		-		-
4	Pepper	4		-	1 -		-
1	Potted Meat	1		_	-		-
1	Rice Cake	1	_		-	_	
4	Sauce and Pickles	. 4	_		-	_	_
6	Semolina	6			-	1	
3	Sweets Powder	2	-	B0-10	_		_
7	Self-raising Powder	-					
6	Sugar Sausage						
23	Sausage & Sausage Me						
1	Soup Cubes	1				_	
3	Suet	3	_				_
7	Tea	7	_				
3	Table Jelly	. 3	_		_	_	
1	Tapioca	1	_		_	_	
1	Tartaric Acid	1	-	*****			
26	Vinegar	24	2		7.69	2	2
3	White Pepper	3	_		_		_
3	Whiskey	2	1	-	33.33		
642	the state of the s	612	30		4.67	18	13

The percentages of samples found on analysis to be "not genuine" were, for the ten years 1919 to 1928 inclusive, as follows:—6.07, 6.2, 6.4, 8.2, 7.1, 5.4, 7.1, 8.2, 7.01 and for 1928, as shown above, 4.67

Berwick-upon-Tweed.—The following table indicates particulars of samples taken, and results of analyses, etc., during the year. A total of 40 samples were submitted for examination.

Nature of Sampl	e.	No. of Samples taken.	Found Genuine.	Doubtful	Non- Genuine.	Prose- cutions.	Con- victions
Milk		17	14		3	_	
Butter		6	5	_	1		
Cream		3	3	-	-		_
Coffee		1	1		-		-
Marmalade		2		-	_		_
Honey		2	2 2		_	_	_
Jam		2	2	-	-		-
White Pepper		1	1	_	-		_
Lard		1	1		-	-	-
Sansage		1	1	-	-		-
Pork and Beans		1	1		-		-
Green Peas		1	1	-	-		-
Mince Meat	***	1	1		_		-
Tinned Peas		1	1	-	-	-	-
		40	36	_	4	_	_

The percentage of non-genuine samples is 10.0.

Public Health (Milk and Cream) Regulations.—The authorities responsible for the administration of these Regulations are those indicated under the Sale of Food and Drugs Acts. All samples of milk, cream, butter and margarine submitted for analysis from the County Council's administrative area were examined by the County Analyst for preservatives. In no case was the quantity found to be such as to justify proceedings being taken.

In the borough of Berwick-upon-Tweed, 17 samples of milk, 6 of butter, and 3 of cream were examined for preservatives. No action was taken under the Condensed Milk and Dried Milk Regulations.

RIVERS POLLUTION.

The Seaton Burn.—The coming into operation during the year of the new sewer constructed at the instance of the Seaton Burn Valley Joint Sewerage Board may be regarded as having brought to an end the long continued pollution of the Seaton Burn.

The new sewer is over 10 miles in length, commencing near Annitsford Bridge and discharging into the sea at Seaton Sluice.

Designed to carry the sewage of a population of 60,000 to 70,000, it is only required at present to serve a population of approximately 20,000, so that ample margin exists for its further utilisation by the development of the districts contiguous thereto, or by the connecting-up of other districts more remotely situated.

The work has involved an outlay of over £100,000, and the contributory authorities are the Urban Districts of Gosforth, Weetslade, Seghill, Longbenton, and Earsdon.

The Meggies Burn.—No appreciable improvement has taken place in the condition of this burn. The condition thereof near the point NORTHUMBERLAND COUNTY COUNCIL.

; "C" by Local Authority. HOUSING.-Number of houses erected in NORTHUMBERIAND during the years 1920-1928

"A" With State assistance,

728 8,5436 145 6 8,540 8,744 7 9,976 8,889 18 17 1,137 Total. 888 E 20 197 197 64 10 2454 473 242 242 242 10 8 8 × 14 246 1 2 2 7 1928. 124 21 1 25 1917. 1,206 1 | 22 | 98 | 88 100 246 8 22 22 22 23 84 88 \$ 100 to 55 050 050 お 25 25 20 8 88 84 88 82 82 8 80 82 1925. = 81 81 82 84 1 8 8 5 31.0 1 4 4 4 B. 1924. = = ú 12 000 11 33 1 8 35 35 00 00 1,710 1 | 8 | 1 88 89 ai. 1921. E8 83 4 2 81- 8- 51 22.82 1 8 8) 65 23 = 5 Total of "C." " " D Erset. Whitley & Monkseaton U.D. Newbiggin-by-the-Sea U.D. Seaton Delaval U.D. Oramlington U.D. lastle Ward B.D. faltwhistle R.D. Bellingham R.D. Bedlington U.D. Rothbury U.D. Seghill U.D Weetslade U.D. Rothbury R.D. Newburn U.D. Hendale R.D. Hoxham R.D. Wallsend M.B. Amble U.D Earsdon U.D. Gosforth U.D. Hexham U.D. Prudhoe U.D. Alawick B.D. Morpeth B.D. Belford R.D. Morpeth M.B. Alnwick U.D. Berwick M.B. Blyth M.B. =



of discharge into the sea is one that calls for drastic treatment, being both a nuisance and a danger to the health of the community.

River Coquet.—The installation of sewage treatment plant to deal with the sewage from the village of Felton has not yet been undertaken by the Alnwick Rural District Council. Meanwhile the pollution of the river continues.

River Tyne and Tributaries.—No alteration has taken place with regard to the several instances of pollution which have been reported upon from time to time as affecting the Rivers Tyne, North Tyne and tributaries.

Bedlingtonshire.—A comprehensive scheme for the construction of a new sewer in the Bedlingtonshire Urban District was promoted during the year. The effect of this work will be to terminate numerous instances of pollution of streams and water courses at present existing.

Housing.

The tabular statement on Housing has been brought up to date by the inclusion of the figures for 1928.

The total number of houses completed during the year was 965. This figure shows a considerable falling off compared with the years immediately preceding, and is, in fact, the lowest since 1920.

The number of houses provided in the county since the inception of the assisted schemes has now reached a total of 13,865. Of these, 6,581, or nearly one half, have been provided by Local Authorities, and 9,976 (nearly 72%) were "state-aided."

Of the 3,889 houses built without the aid of a "subsidy," no less than 1,137 (nearly one-third) have been built in the Whitley and Monkseaton District. The next largest contributors being Morpeth Rura! 338, Castle Ward 331, Gosforth 292, and Longbenton 263.

The last column in the tabular statement shows the total houses erected in the county from 1920 to date, from which it will be noted that the greatest activity has taken place in Whitley and Monkseaton Urban District, where nearly 2,000 houses have been contructed during the ten years under review. Next in order follow:—Wallsend 1,260, Ashington 937, Bedlington 845, Earsdon 812, Blyth 775, Gosforth 749, Newburn 728, and Morpeth Rural 722.

ISOLATION HOSPITALS.

The amount of hospital accommodation available for the isolation of infectious disease was as indicated in the subjoined table. The population of the 30 Sanitary Districts for which isolation hospital accommodation was provided was 400,173, and the beds provided numbered 531, independently of the accommodation at port hospitals, giving one bed for each 754 of population. The notable features of the year were:—

An arrangement made by the urban and rural district councils of Rothbury to join with the Alnwick urban and rural, and Belford rural district councils, in their joint hospital area for the treatment of Small-pox, the use of the hospital situated in the rural district of Rothbury for the reception of cases of Small-pox from the Rothbury urban and rural districts being discontinued.

Newbiggin-by-the-Sea is the only district in the county without means for isolating cases of infectious disease.

	Popula-	Number and kind	- Be	ds provided	for
	tion served.	of hospitals provided.	Small- pox.	Infectious diseases other than Small-pox	Small-pox or other Infectious diseases.
I. JOINT HOSPITAL DISTRICTS.					
(1) Earsdon Joint Hospital District—					
Earsdon U.D	7	T 1 '111'			
Seghill U.D	i	Iron buildings:— At Earsdon Grange (1)	16		
Whitley & Monkseaton	≻68,756	Two normanont briels	10	***	
U.D. Longbenton U.D	>00,100	buildings and			
Seaton Delaval U.D		†One iron building At Scaffold Hill (1)		70	
Cramlington U.D.)	At Scanoid IIII (1)	***	72	
(2) Gosforth, Newburn, and Castle Ward Joint Hos-					
pital District—					
Gosforth U.D)			100	
Newburn U.D Weetslade	63,798	Permanent building		32	
Bellingham R.D.	(00,100	r ermanent ounding	***	02	
Castle Ward R.D.)			100	
(3) The urban and rural dis-					
tricts of Alnwick and Rothbury and the rural					
district of Belford—					
Alnwick U.D)				
Alnwick R.D Rothbury U.D	\$30,006	Iron and wood building	12		
Rothbury R.D	(00,000	from and wood outlaing	12		***
Belford R.D)				
(4) The urban and rural dis- tricts of Rothbury—					
Rothbury U.D	7 = 000	1.		0	
Rothbury R.D	5,808	do	111	8	***
(5) Hexham rural and Prudhoe—					
Hexham R.D	7 00 051		10	10	
Prudhoe U.D	30,654	do	12	16	***
(6) Longtown and Border—					
Alston, etc., R.D Brampton R.D)				
Longtown R.D	\{*8,916	do	***	16	***
Haltwhistle R.D.)			-	
II. HOSPITALS PROVIDED BY				1	
INDIVIDUAL SANITARY					
AUTHORITIES.					
Berwick M.B	11,890	One wooden building	8	90	***
Blyth M.B	31.840	(Iron & wood building Permanent building	14	30	
Monneth M P	7.197	(Iron building	4	***	
Morpeth M.B	1.137	Brick building	200	20	
Wallsend M.B	44,440	Permanent building do.	20	86	***
Alnwick U.D	6,876	Permanent building		12	***
Amble U.D	4,039	Iron building	4		
Ashington U.D	29,040	{ Iron building } Brick building }		45	
Padlington-Line II D	00.110	(One buick building	10	- 445	***
Bedlingtonshire U.D	28,110	Iron & brick building		18	

[†] Now used only in cases of emergency.

	Popula	Number and kind	Bed	ds provided	l for
	Popula- tion served.	Number and kind of hospitals provided.	Small- pox.	Infectious diseases other than Small-pox	or other Infectious
II. Hospitals Provided by Individual Sanitary Authorities—contd.				-	
Gosforth U.D	16.330	Permanent building	14		
Hexham U.D		Two iron and wood buildings	8	16	
Newburn U.D	20,450	One iron and wood building	4		
Glendale R.D	8,101	Two cottages			8
Morpeth R.D.	19,740	One iron and wood hospital	20	***	**
Norham and Island- shires R.D	5,121	do	6		
River Tyne Port Sanit- ary Authority	0,121	Floating hospital			30 (Cholera
River Blyth Port Sanit- ary Authority		Permanent building		20	Plague, Yellow Fever or Small-pox
III. SANITARY AUTHORITIES HAVING MADE ARRANGE- MENTS FOR PATIENTS TO BE RECEIVED BY NEIGHBOURING SANIT- ARY AUTHORITIES.					
Blyth U.D	31,840	Patients from this district are received into the hospital of the Blyth Port Sani- tary Authority			
Weetslade U.D	7,688	Patients from this dis- trict are received into the Gosforth, Newburn and Castle Ward Joint Hospital			***
Bellingham R.D	5,440	do	***	***	
Castle Ward R.D	13,890	Smallpox cases are re- ceived into the Gos- forth U.D. Smallpox	•••	-	
	34 3	Hospital			

VENEREAL DISEASES REGULATIONS.

The treatment centre provided for county patients under the scheme undertaken by the County Council in conjunction with neighbouring authorities is at the Royal Victoria Infirmary, Newcastle. In the following table particulars are given in relation to treatment during 1928 and (for comparison) 1927.

		1927.			1928.	
	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.
1a. Under treatment or observa-						
tion at beginning of year	138	44	182	175	55	230
 Returned for treatment after having ceased to attend 						
during the previous year	23	5	28	25	8	33
2. Dealt with for the first time	289	91	380	270	113	383
Ceased to attend before com- pletion of treatment and						
observation	166	47	213	139	74	213
4. Transferred to other centres	13	2	15	13	1	14
5. Discharged after completion						
of treatment and observation	96	26	122	134	42	176
6. Under treatment or observa-						
tion at end of year	175	55	230	184	59	243
7. Total attendances at out-	F 075	1 050	7 001	- 0-1	1 -01	= 010
	5,675	1,356	7,031	5,651	1,561	7,212
8. Aggregate number of in-	149	212	361	114	071	005
patient days	140	212	901	114	871	985

Irrigation stations are open, morning and evening, for gonorrhean patients independently of the clinics.

The travelling expenses of necessitous patients to and from the clinics, are borne by the County Council.

Opportunity is afforded to medical practitioners in the area for consultations with the Medical Officer at the treatment centre, and they occasionally attend the clinics.

Bacteriological examinations under the scheme are carried out at the Durham University College of Medicine, Newcastle-upon-Tyne. The following statement gives the number and kind of tests undertaken at the laboratory during 1928 and indicates the extent to which medical practitioners availed themselves of the facilities provided by the County Council for such examinations.

Nature of Test.	For Treatment Centre.	For Practitioners.		
For detection of spirochaetes			_	_
For detection of gonococci			-	20
For Wassermann reaction Other examinations:—			596	290
Gonococcal Complement Fixa	tion T	ests	_	1
C.S. Fluid for Wassermann	reactio	n	_	3
Urine for the detection of go	onococ	ci	_	1
Total			596	315

MATERNITY AND CHILD WELFARE. Professional Nursing in the Home.

(a) General.

The County Council as a body do not undertake any specific nursing service but make grants to the County Nursing Association who undertake this work.

(b) For Infectious Diseases.

This is not generally undertaken by the County Nursing Association except in a few instances where Cottage Nurses are employed in the more remote parts of the county.

The County Nursing Association is an organisation on a voluntary basis which has for its object the nursing of the sick in their own homes; either by the daily visiting of a nurse or by the employment of a residential Cottage Nurse giving full time service to one patient. The Association has divided the county into small areas managed by a local committee, employing one or more nurses according to the population and requirements of the work. Cases requiring nursing are selected by the medical practitioners who may call for the services of the District Nurse should any of their patients need skilled nursing attention and be subscribers to the local Association. Non-subscribers may, by arrangement, be nursed at a special fee.

The County Council make a grant of £310 to the general funds of the Association, which money is apportioned to the poorer local areas at the discretion of the Committee of the County Nursing Association.

Midwives.

The County Council do not directly employ any midwives, nor do they pay any subsidy to any practising midwife. The County Nursing Association staff of District Nurses are all qualified midwives, and as such can act either as midwives or maternity nurses in their particular district as occasion requires.

In addition there were 60 notifications of intention to practice received from independent midwives who are not attached to any association.

Maternity Homes Registration, 1926.

The following table shews the position of the county with regard to Maternity and Nursing Homes:—

ications ion.	omes I.	Iomes d. rders ng or stration. ppeals			Number of Cases in which Orders have been wemption.			Number of Cases in which exemption has been			
Number of Appl for Registrat	Number of He Registered	Number of Or made refusing cancelling regist	Number of Apagainst such O	Confirmed on Appeal.	Disallowed.	Number of Aptions for Exemiron Registra	Granted.	Withdrawn.	Refused.	Disallowed on Appeal.	
8	8	_	_	-	_	1	_	_	1	1	

Inspection of Midwives.

The County Council is the Local Supervising Authority under the Mid wives Acts of 1902 and 1908.

Midwives in the employment of the County Nursing Association are by arrangement inspected by the Superintendent of that Association, and midwives who practise independently are inspected by the Superintendent of Health Visitors who is also Inspector of Midwives. Both officers report directly to the County Medical Officer.

During the year 238 midwives (235 trained and 3 untrained) notified their intention to practice; 28 left the county, 1 died, leaving 209 in practice at the end of the year.

913 Visits of inspection were made by the Inspector of Midwives.

The number of births registered was 7,486. In 2,204 of these the women were delivered by a midwife in her capacity as such, whilst 3,532 were attended by midwives acting as maternity nurses, and in 1,140 cases the mother was delivered by the midwife before the doctor engaged had arrived. From these figures it is assumed that in 610 cases the doctor was present without qualified assistance. Under Rule E, 20, of the Central Midwives' Board a midwife must send for medical help in cases of emergency which may occur in her practice. The number of notices that this medical help was necessary in the 2,204 cases attended by them was 429. The number of still-births reported by them was 113, and the number of deaths of newly born infants occurring in their practice before the services of a medical practitioner could be obtained was 2.

Ante-natal Care of Mothers.

Unfortunately the value of ante-natal care is still not sufficiently realised by the mothers who, in numbers of cases, do not engage their midwife or doctor at a sufficiently early date to allow of adequate ante-natal super vision from the early months of pregnancy. This is specially noticeable in those cases attended by independent practising midwives who frequently have to attend mothers in child birth without being previously engaged for the case. The County Nursing Association report that 10,333 ante-natal home visits were made during the year.

Medical Assistance under Rule E, 20.

The fees of doctors called to the assistance of midwives for emergency conditions are paid in the first instance by the County Council. In the 429 cases in which medical help was summoned the cost was £479 0s. 6d., of which sum £15 14s. 0d. was afterwards received from the patients.

Maternity Hospitals.

The County Council have no Maternity Homes but three hospitals have beds available for maternity cases on payment of fees which vary according to the amenities provided.

The War Memorial Hospital, Haltwhistle ... 2 beds.
The Willington Quay Maternity Hospital ... 14 beds.
The Wallsend & Willington Quay Hospital ... 8 beds.

Under the Council's scheme complicated cases, or cases where it is certified by the medical attendant that a woman cannot with safety be delivered in her own home, are received into the Princess Mary Maternity Hospital. During the year 63 such cases were admitted.

Hostel for Unmarried Mothers.

Unfortunately the Osborne Road Hostel, Newcastle-on-Tyne, closed down during the year, after a long period of good and useful work amongst the unmarried mothers admitted to their care.

Babies' Hospital.

Babies suffering from any infantile disease or dietetic error are on the certificate of their own medical attendant admitted to the Babies' Hospital, West Parade, Newcastle-upon-Tyne. During the year 7 infants were admitted at a cost of £45 10s. 4d.

Ophthalmia Neonatorum.

The following shews the incidence of this disease :-

Total Births.	Cases of Ophthalmia	Nursed at	Removed to		
	Notified.	Home.	Hospital.		
7,486 (Administrative County)	41	41	_		

The following statement shews the incidence of Inflammation of, or Discharge from the eyes of infants delivered by midwives:—

Number of Births attended by Midwives alone.	Number of Cases for which Medical Aid was sought on account of Inflammation or Discharge from eyes.	Diagnosis of Ophthalmia Neonatorum made by Doctor called in to case.
2,204	24	14

Puerperal Fever and Puerperal Pyrexia.

Under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, any febrile condition which occurs in a woman within 21 days after child birth, or miscarriage in which a temperature of 100.4 F. or more has been sustained or recurs during that period, is termed Puerperal Pyrexia. Every medical attendant on first becoming aware that a woman upon whom he is in attendance is so suffering shall notify the Local Medical Officer of the case and it is the duty of such Local Medical Officer to forward a copy of each notification to the County Medical Officer within 24 hours of its receipt. It is also the duty of Authorities administering the Maternity and Child Welfare Act with the consent of the Ministry to make special provision for the treatment of these women by consultation with an Obstetric Specialist, for skilled nursing and for hospital treatment.

The following shews the incidence of Puerperal Pyrexia and Puerperal Fever and their disposal:—

Number	Cases No	otified of	Specialist Service	Removed	Nursed	Deaths	
of Births.	Puerperal Pyrexia.	Puerperal Fever.	obtained.	Hospital.	Home.	Deaths.	
7,486	61	18	-	-	_	-	

Case incidence in midwives' practice :-

	Number of cases in which	Diagnosis made by Doctor called in to case.				
delivered by Midwives.	medical help was summoned for rise of Temperature.	Puerperal Pyrexia.	Puerperal Fever.			
2,204	29	15	7			

Training and Supply of Midwives.

The County Council are empowered, under Circular 559 of the Ministry of Health, to render financial assistance to County Nursing Associations who are prepared to train and place midwives. These contributions (after approval by the Ministry of Health) rank for Exchequer grant.

For 24 midwives so trained and appointed within the area a grant of £30 was made to the County Nursing Association.

Illegal Midwifery Service.

It is a matter for regret that practice by unqualified women still persists. Section 1 of the Midwives and Maternity Homes Act of 1926 states that it is illegal for any person not being a certified midwife or medical practitioner to attend a woman in childbirth, except under the direction and supervision of a medical practitioner. One woman was summoned for this offence and bound over in the sum of £2.

INFANT WELFARE CENTRES.

At the commencement of the year there were eleven centres in the county, four of which were supported out of voluntary funds, the remainder being established by the County Council. At all the centres a Health Visitor of the County Council staff attends each session, thus ensuring some measure of co-ordination of work and uniformity of effort.

The premises used were not generally suitable, but great difficulty is experienced in obtaining suitable rooms or buildings where a waiting room, a weighing room, a consulting room, lavatory accommodation, and shelter for perambulators is available.

The following is a summary of the premises used :-

Church o	or Cha	pel roo	ms			 6
Institute						 1
Premises	hired	from	Local .	Authorit	ies	 2
Wooden	Huts					 1
Cottage						 1

Table 4 (see page 51) summarises the work at the Welfare Centres.

Extension of Infant Welfare Centres.—In July, 1928, the Council opened a new centre in Seghill.

Welfare Centres open during the year in the Council's area.

```
Centres under Control
                                                   Arrangements for
Medical Supervision.
                            Session.
 of County Council.
                    ...Mondays, 2-4 p.m. ...Dr. Stephens, Asst. County
      Alnwick
                                                 M.O.H.
                                               Dr. Bunting, Asst. County
                                                 M.O, H. (after resignation
                                                 of Dr. Stephens).
      Berwick
                    ...Tuesdays, 2-4 p.m. ...Dr. MacLagan, M.O.H.
      Newbiggin
                    ...Mondays, 2-4 p.m. ...Dr. Jackson, M.O.H.
      Prudhoe
                    ...Wednesdays, 2-4 p.m....Dr. Gabriel, Asst. County
                                                 M.O.H.
      Seaton Delaval Thursdays, 2—4 p.m. ... Dr. Anderson, M.O.H.,
                                                 Cramlington.
      Amble ...
                    ...Mondays, 2-4 p.m.
                                             ...Dr. O'Sullivan, Asst.
                                                 County M.O.H.
      Lynemouth
                   ...Tuesdays, 2—4 p.m. ...
```

Centres under control of Voluntary Committees.

```
Backworth ...Tuesdays, 2—4 p.m. ...Dr. Glen Davidson.
(Earsdon U.D.) 1st and 3rd Tuesdays
open all day.

Morpeth ...Mondays, 2—4 p.m. ...Dr. Dickie, M.O.H. Morpeth Borough.

Seghill ... ...Mondays, 2—4 p.m. ...Dr. Henderson.
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Seghill ... Mondays, 2-4 p.m. ...Dr. Henderson.
Stocksfield ...Alternate Wednesdays...Dr. Spence.

2—4 p.m.
Whitley Bay ...Mondays, 2—4 p.m. ...Dr. Thompson, Whitley Bay

TABLE 4.

INFANT WELFARE CENTRES.

Report on the Work for the Year ended December 31st, 1928.

The state of the s														
		Amble.	Alnwick.	Berwick.	Morpeth.	Newbiggin.	Lynemouth.	Stocksfield.	Seaton Delaval.	Seghill.	Whitley Bay.	Backworth.	Prudhoe.	TOTALS.
Number of child- ren transferred from 1927iRegis-		60	14	37	44	158	20	6	65		45	66	13	528
ter to 1928 Re- gister	aged 1—5 years	181	21	27	7	80	10	31	35		59	77	47	575
Number of child- ren who made their first at- tendance during 1928		74	48	49	89	140	45	34	78	56	109	155	110	987
	aged 1—5 years	7	6			18	4	8	35	58	45	22	28	231
Total attendances made	by mothers	919	501	408	1,303	2,659	746	342	1,749	494	2,080	2,094	913	1 4208
	by children	840	512	379	1,103	2,478	730	378	1,578	482	2,247	2,059	1,064	13,850
Number of Ante-	1st visits		3			28				2	4		5	42
Natal mothers attending Cen- tre for advice	subsequent visits		32			65				1	21		4	123
Number of Ses-		52	45	52	50	50	50	25	50	25	44	30	51	524
sions each Cen- tre was opened												19		19
Number of at- tendances made		19	13	23	46	40		21	21	21	44	18	23	289
Number of deaths of infants at- tending the Wel-	by Health Visitor	52	45	51	47	50	50	21	50	25	44	50	49	534
	aged			1	1	2			2	1		2	1	10
fare Centres	aged 1—5 years	1		1					3			1	1	7

Infant Mortality.

The number of babies born in the area administered by the County Council for Maternity and Child Welfare was 3,559. The number of deaths under one year was 199, giving an infant death rate of 55.91 per 1,000 births, as compared with 67 per 1,000 births for the whole of the county and 65 per 1,000 births for England and Wales. The death rate for illegitimate children is still unfortunately high; of 206 illegitimate babies born 23 died before they reached the age of one year, giving an infant death rate of 111.65 compared with 52.49 per 1,000 infants born in wedlock.

Infant Food.

Ambrosia, Glaxo and Virol are supplied at cost price to mothers attending the Infant Welfare Centres. During the year 12,535 lbs. of dried milk and 1,494 lbs. of Virol were sold.

Feeding of Necessitious Mothers and Children.

The following tables shew the applications dealt with under this scheme :-

No. of Expectant and Nursing Mothers.	No. of Children.	Milk Given Free.	Cost.
9	40	1,262 lbs.	£150 4s. 8d.

Health Visitors' Work.

There are now 32 Health Visitors who also act as School Nurses and Tuberculosis Nurses. Under the Council's scheme the county is divided into 30 district areas in each of which there is a resident Health Visitor who is responsible for all the visiting in that district. One Health Visitor is wholly employed in a specified area for Tuberculosis work and another acts as a peripatetic supply and conducts special and urgent enquiries.

Great difficulty has been experienced in filling vacancies owing to the dearth of suitable candidates, and the Council adopted the scheme of advancing salary during training.

Four candidates who were trained Nurses, holding the Certificate of the Central Midwives Board, were selected and sent to the College of Nursing London, for a six months' training, £70 being advanced in stated monthly sums during this training. In the bond of agreement the candidate is bound, after the completion of this training, and obtaining the Certificate of the Royal Sanitary Institute as a Health Visitor to enter into the service of the Council for a period of two years, during which time she repays to the Council the sum advanced towards her training.

The following is the number of visits paid by the Health Visitors under the Maternity and Child Welfare Scheme:—

Births registered in	First Visits to Infants.	Re-visits to infants under the age of	Children, age	Ante-Nat	al Visits.
Administra- tive County.	to intents.	1 year.	1—5 yrs.	First Visits.	Re-Visits.
3,559	3,622	10,710	32,654	315	152

Population and Number of Births.

The following table shows the population and number of births in areas administered by the County Council for Maternity and Child Welfare purposes.

Population.	Registered Births.	Notified Births.	% Notified.
219,565	3,559	2,647	74.37

Death rate of Legitimate and Illegitimate Children during 1928, for comparison.

No. of Legitimate births in Council's area No. of Illegitimate births in Council's area	3,353 206	
Total births	3,559	
No. of deaths of Legitimate Infants	176	=52.49 deaths per 1,000 Legitimate births.
No. of deaths of Illegitimate Infants	23	=111.65 deaths per 1,000 Illegitimate births.
	199	=55.91 deaths per 1,000 births

Table showing numbers of Births and numbers of Deaths under one year in Urban and Rural Districts and number of Deaths of Infants under one year investigated by Health Visitors.

Number of Legitimate Birtins Number of Destinate Birtins Section Sec																																											
Number of Legitimate piritis 0. 2 0. 30, 184 107 60 60 2 0. 31 10 0. 30 8, 175 101 101 101 80 60 2 0. 30 10 101 101 101 101 101 101 101 101 1		Alawick	Urban.	Amilda	Urban,	Berwick-on-	Tweed Borough.	Consultanton	Urban.	Farsdon	Urban,	Morpeth	Borougn,	Newbiggin Urban.	n	Urban.	Rothbury	Urban.	Seghill	Ortonu.	Weetslade Urban,	Whitley &	Monkseaton Urban.	Seaton	Urban.	Alnwick Rural.	Belford	Rural.	Bellingham Rural.	Castle Wand	Rural.	Glendale Rural.		Haltwhistle Rural.	Hexham	Auth.	Morpeth Rural.	Norham &	Rural.	Rothbury Rural.	т	OTAL.	
Deaths of 7 Total	Number of Legitimate Births Number of Illegitimate Births	. 60	36	38	8 43	3/1/05	9 90	80	31 82	21150	133	M. 59 4	F. 1 63 3	77 6	32 7	8 78	8	2	25.	22	82 8	34 12	3 114	65	66 10	0.88	24	25	44 43	2 94	107	66 (55 63	2 58	1491	44 16	38 146	38	35	30 33			
Infants under 1 year Illegitimate	Total number of Births	. 62	39	3	9 4	4 11	7 100	2 95	87	155	134	63	66	81 6	59 8	3 84	8	2	27	22	85 8	35 12	5 117	69	70 10	5 89	28	26	51 4	7 97	109	71 (59 68	8 65	158 1	56 17	6 159	43	39	40 36	1,843	1,716	3,559
Number of Deaths investigated Superior	Infants under		1						7 7			6	2	7	7 4					1	5	2	9 8	2	4	9 3	3	1	2	1 7	2	3	5 1	3 3	11	5 2	5 7	4		3 4			
Classification Clas		. 25	-70	2	4 -09	3	6 53	78	8 -2	76	-58	62	01	93 -3	3 5	3 -89	200		102	04	41 -1	8 7	0-25	43	16 6	1 '86	74	.07	30 -61	1 43	169	57 1	4 41	5-11	50 1	96 3	5 .82	48	78	92 -10			
Causes of Death: of Infants under one year in urban Arural districts	(Legitimate) Number of Deaths investigated				2 :	1	6 :	3 7					2	7	5	8 :	2		3	1	5	2	8 7	3	4	8	3	1	2 1	1 8	2	3	6	3	10	5	3 7	3		4 5	-		1
Prematurity		. 3	3 1		2	1	6 .	4 1	7 1	7 14	10	6	2	7	8	9 :	2		4	1	5	2	8 7	3	4	8 3	4	1	3	2 8	2	3	6 :	2 3	11	6	5 7	4	***	4 5	128	81	209
Congenital debility and Injuries at Birth																																											
	Congenital debility and Injurie at Birth at Birth at Birth at Disease Marasmus Convulsions Respiratory diseases Whooping Cough Enteritis Enteritis Letter Stendard Letter Stendard Letter Stendard Letter Letter Stendard Letter	1 5					2 1				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3		1	2				1	1	1 .	20	1 3 1 1 2 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1	1	1	11 11 11 11 11 11 11 11 11 11 11 11 11	1 1		1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	1		2 1 3 3 1	2 2	3 2 1	1			27 4 3 17 27 3 5 5 1 2 2 2 1	177 22 33 88 133 22 33 22 11 11 11 11 11 11 11 11 11 11 11 11	444 6 6 6 255 40 5 8 8 1 1 4 4 3 3 3 2 2 1 2 2 1 1 2 1 1 1 1 3



Table 2.

Investigated cause of Deaths of Infants under one year, and Children aged 1-5 years, with age periods at which death occurred.

		Prematurity.	- 10	debility, and	Injuries at Birth.	Congenital	Heart.		Marasmus,		Convulsions.	Totarne	Neonatorum.	Asrdovsia	Neon.	Dammaham	from Bowels.		Stenosis of the Bowel.		Intustasception.	Enteritis and	Diarrhoes.	Spina Biffda,		T.B. Meningitis.		Meningitis- Non T.B.	Respiratory	diseases.	Whooping	Cougn.	Other Infectious Diseases.		Pulmonary Tuberculosis.	Abdominal	Tuberculosis.	Congnietal Syrbillis.		Purpura.		Nephritis.	Sub-acute Vellow Arrondov	of the Liver.	Tumour of Retro Sternal	And and annual	Appendicitis,	Accidental	death.	Unosetified	- posteriora co		Total.
	3	L. P	. 2	E.	٤.	M.	F.	M.	F.	M	F.	M	. F.	м	F.	M	F.	. M	F.	M	F.	M.	F.	M.	F.	M. F	. 3	4. F.	M.	F.	М.	F. 1	м. 1	. M	. F.	M.	F.	м. 1	P. 1	M. F.	. M	F.	М.	F.	M. F	. 1	. F.	M.	F.	M.	F.	M.	¥.
AGE AT DEATH. Under 1 week t week to 4 weeks 4 weeks to 3 months 5 months to 6 months 5 months to 1 year		2 1	17 3 2	19 6 1	8 6 3	1 1 1 1	1	1 1 1			5 .	1	1			1		2		1	i	1	***	***	***			1	8 6	4	1	1	***				1											1	***		1	51 26 19 14 18	32 14 16 7
Total Investigated .	:	25 :	22	27	17	4	2	3	3	13	7 1	8	1		2	1 :	2	2	3	. :	1	5	3	1	1		1	9	27	13	3	2				1	1		1		1	. 1						. 1		2	1	128	81
2 years to 3 years								***		1							8 100						-			***	1 .	2 1	7144	1	2	***	3 .		2								1		1 :				2 2 1			17 8 12 8	20 10 5
Total Investigated .					***				1		1					1						3	3			4	4	2 3	16	14	2	5	7	3	2 1	3	1					1	1		1 .	1	. 1	2	5			45	40

Table 3.

Investigated Cause of Deaths of Illegitimate Children under the age of one year, arranged in sanitary districts.

	Amble	Urban.	Alnuick	Urban.	Donnell & co.	Tweed Boro."		Urban.	Earsdon	Urban.	Morreth	Borough.	Newbiggin	Urban.	Prudhoe	Urban,	Rothbury	Orosan.	Seghill Urban.		Weetslade Urban.	Whitley &	Urban.	Seaton	Urban.	Alnwick Rural.	Relford	Rural.	Bellingham		Castle Ward Rural.	Glendale	Rural.	Haltwhistle	Rural.	Hexham	Politini.	Morpeth Raral.	Northam &	Islandshires, Rural.	Rothbury	Bural.	To	TAL
	M	. F.	M	F.	35	F.	. 3	t. F	. M	. F.	M	F.	M.	F.	M.	F.	M.	F.	M. 1	F. 3	E. F	. м.	F.	M.	F.	M. F	. м	. F.	M.	F. 3	M. F	. м	. F.	M.	F.	M.	F.	м. в	7. 3	L. F.	M	. F.	M.	
Number of Illegitimate Births in the Administrative County Number of Illegitimate Deaths	1	1	5	-	1	8	9	6	5	5	4	3	4	7	5	6			2		3	1 2	3	4	4	5	6	4 1	7	5	3	2	5 4		7	9	12	8	13	5	4 10	1	108	
under 1 year							1		1		100	***															3	1	1 1					1 1		1	1	2					9	
ngenital debility		1												ï					ï				***			***	ï :		***				.,				***						3 1 1	
spiratory diseases teritis mosis of the bowel 3. Meningitis																											1 .								i	i	1	ï					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Total			***		1	. 3	1		1					3	1				1								3	1	1	1					1	1	1	2		1 .			1).

DEATHS NOT INVESTIGATED :
M. 2 and F. 2—Relatives left the County.



BLIND PERSONS ACT, 1920.

The Council has, under the Blind Persons Act, 1920, completed a full year's work in caring for the blind population of the County. This work has been specially valuable in attempting to co-ordinate the methods of employment, the giving of assistance, and in advancing the real interest of the blind in their homes.

The number of blind persons on the register on January 1st, 1928, was 285. During the year 46 new cases were reported, 18 died or left the County, leaving on the register on December 31st, 1928, 313 blind persons.

Classes for Blind.

A class for the purpose of teaching blind persons handicrafts was held during the year in the Tuberculosis Dispensary, Vine Street, Wallsend. On an average 5 pupils attended each class, these being held on alternate Wednesdays between the hours of 1.30 p.m. and 5 p.m. The total number of attendances was 120.

Home Teaching.

During the year the two home teachers have been active in visiting the blind in their homes to teach Braille and Moon type of reading, knitting and handicrafts. Their general welfare was also supervised and help and advice given when needed. The number of visits paid by these teachers was as follows:—

No.	of visits	for welfare purposes			 1,335
,,	,,	to assist in filling in pension and		forms	 1
,,	,,	for supervision of home workers			 264
,,	,,	to give lessons			 268
,,	,,	to trace removals			 44
,,	,,	to investigate new cases notified			 46
Tota	l No. of	visits—January 1st to December:	21et 1	998	1,958
1000	110.01	visits—sanuary 1st to December .) 15U, 1	020	 1,000

Home Workers.

There are four blind persons who are approved as home workers by the Ministry of Health and, as such, receive a subsidy from the Ministry in proportion to their earnings. This approval is based upon the full time working capacity of the blind person and the amount earned by each. The work done is as follows:—

> Piano tuning (2 piano tuners). Basket making (1 basket maker). Knitting (1 knitter).

There are in addition several blind persons who are termed casual workers and who are for various reasons unable to undertake full-time work.

Home occupation is essential to these people and brings considerable interest into their lives. Material is provided and they are instructed in the making of articles, which may in some cases, have no marketable value. Payment is made at a uniform rate of wages but no subsidy is given by the Ministry of Health as in the case of approved home workers

The number of articles received from blind workers during the year was :--

Knitted goods	 	 192
Cane goods	 	 492

Sales of Work.

Sales were arranged during the year as follows :-

Date		Place.				Amo	oun	t ta	ken.
1928							£	8.	d.
Feb.	22nd	Morpeth					10	18	1
March	5th	Wallsen	d				4	2	11
,,	29th	Blyth					17	15	7
	11th	Backwor	rth				12	13	9
Sept.	20th } 21st }	Haydon	Bridge	and H	altwhis	tle	29	11	5
,,	26th	Seaton I	Delaval				11	11	10
Oct.	18th	Newbigg							5
		Private s	sales fro	m C.M	.O.'s De	ept.	23	2	9
		Total an	nount of	f sales	for year	r£1	27	5	9

Employed Blind Persons.

Four blind persons were employed during the year at the Workshops for the Adult Blind, Breamish Street, Newcastle-on-Tyne. The County Council paid to these Workshops from January 1st to March 31st, 1928, a subsidy of £20 per annum per worker which was increased, at the request of the Workshops Committee, to £30 per annum per worker from April 1st to December 31st, 1928, this sum being used by the Workshops Committee to augment the wages earned by the blind persons.

Wireless Telegraphy (Blind Persons Facilities) Act, 1926.

In December, 1926, the above Act received Royal assent. Section 1 provides that a license to establish, maintain and work a wireless telegraph station for the purpose of receiving messages only, may be granted subject to such terms, conditions and restrictions as the Postmaster-General may think fit, but without payment of any fee, to any person who satisfies the Postmaster-General that he is a blind person within the meaning of the Act.

Section 2 defines a blind person for the purposes of the Act as being "any person (not being resident in a public or charitable institution or in a school) who produces to the Postmaster-General a certificate issued by or under the authority of the County Council or of the County Borough Council in which he is ordinarily resident, that he is registered as a blind person in the area of the County or County Borough."

Fifty-eight such certificates were issued during the year.

Prevention of Blindness Scheme.

This scheme is devised with the intention of providing travelling facilities to those blind persons of all ages having existing pathological eye conditions (which, if left untreated, might lead to total blindness) and who are unable to pay their own travelling expenses to Newcastle when consulting a specialist at one or other of the Hospitals. Fourteen such visits were paid during the year at a cost of £1 12s. 6d.

Indigent and Unemployable Blind Persons.

One of the great problems at the moment is the unemployable blind. There are so many descriptions of this class of blind person that the term itself is apt to be misleading in character. It includes married women, who in the broad economic sense cannot be unemployed, those in possession of small private means who therefore do not desire work, those untrained and therefore unable to work, and those suffering from physical and mental defects in addition to blindness. The first two need not be considered, the third can be remedied, but the problem remains as to the best method of dealing with the latter two classes. It has been suggested

that hostels are in existence in various parts of the county, where these people could be placed and well cared for, but it seems inhuman to compel any blind person to leave friends and relatives and the small piece of territory he has always known as home. The only solution to this problem appeared to be the augmentation of the incomes of these unemployable blind persons up to a sum to be agreed upon. This was fixed at a minimum of 18/- and applications were invited from all blind persons having a personal income of less than this sum. The following shows the position at the end of the year:—

No. of blind persons upon register.	No. of applications received.	No. of Blind Persons in receipt of augmentation.
313	172	100

Libraries for the Blind.

Two Libraries continue to serve the area, Tynemouth with about 7,500 volumes available and Manchester with approximately 178,000 volumes. The latter has also the 150,000 volumes printed in Braille or Moon type by the National Library for the Blind, to which service any of their readers are entitled. Postage is entirely free, this being paid by the Library.

	Amount of grant.	Readers served.	No. of books available.	No. of volumes issued.
Tynemouth Library	 £35	21	7,500	ó53
Manchester Library	 £15	29	178,000 (approx.)	529

Adult Training.

During the year, 6 blind persons were in training at the Royal Victoria School for the Blind, Benwell Dene, Newcastle-upon-Tyne.

The following table relates to these cases :-

Number of blind persons in training.		Date admitted to	Date left	Still in	December 1
Male.	Female.	Institution.	Institution.	training at end of year.	Present occupation.
1	_	7/1/25	-	Yes	
1	-	11/1/27		Yes	
1	-	11/1/27	31/7/28	-	Applied for admission to workshops.
1		5/4/27		Yes	1
	1	18/2/25		Yes	
_	1	30/6/28		Yes	

Blind Children.

Blind children being educated at the Royal Victoria School for the Blind:—

Children in residence	Children admitted	Children left School	In School,
at beginning of year.	during year.	during year.	December 31st, 1928.
5	3	_	8

