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NORFOLK COUNTY COUNCIL.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

AND

SCHOOL MEDICAL OFFICER

FOR THE YEAR

1912,

BY

J. T. C. NASH, M.D., D.P.H.,

C.M.O. & S.M.O.



PART II.

REPORT OF THE COUNTY MEDICAL OFFICER

NORFOLK COUNTY COUNCIL.

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TO THE NORFOLK COUNTY COUNCIL.



My Lords and Gentlemen,

In compliance with the duties of a Medical Officer of Health of a County prescribed by the Local Government Board in relation to the Annual Report to the County Council, I herewith beg to submit the Annual Report for the year 1912, in Sections as laid down by the Local Government Board.

Its late preparation and presentation is due to causes well known to the Council, and it only remains for me to express my gratitude to the Council for the sick leave granted to me on the kindly recommendation of the Public Health Committee, which enabled me sufficiently to recover to resume my duties, and to write this Report.

The Section on Infectious Diseases illustrates the co-operation between the Sanitary and Education Authorities.

Much of the subject-matter will be common to the two years 1912 and 1913, so that when the Annual Report for 1913 comes to be written after receipt of all the District Medical Officers of Health Reports, it will be practically limited to a digest of the Annual and Special Reports made by the Medical Officers of Health of the County Districts, the administration by the County Council of the Midwives Act and Food and Drugs Acts, and the administration of the Housing of the Working Classes Acts within the County during 1913.

I am, my Lords and Gentlemen,

Your obedient Servant,

J. T. C. NASH.

December 5th, 1913.

Sanitary Administration of the County of Norfolk.

SUPERVISING AUTHORITY NORFOLK COUNTY COUNCIL.

COUNTY MEDICAL OFFICER OF HEALTH .. J. T. C. NASH, M.D., D.P.H.

The Administrative County is divided into 32 Sanitary Areas, including 2 Municipal Boroughs, 10 other Urban Districts, and 20 Rural Districts, which each appoints a Medical Officer of Health, half his salary being refunded by the County Council. The following were the District Medical Officers of Health during 1912 :—

URBAN DISTRICTS :—

Cromer
Diss
Downham Market
East Dereham
King's Lynn, M.B.
New Hunstanton
North Walsham
Sheringham
Swaffham
Thetford, M.B.
Walsoken
Wells

MEDICAL OFFICERS OF HEALTH :—

R. C. M. Colvin-Smith, M.B.
H. M. Speirs, M.D.
G. F. Cross, M.B.
Davy T. Belding, M.R.C.S.
J. R. Kingdon, M.R.C.S.
B. G. Sumpter, M.B.
J. Shepherd, M.R.C.S.
J. E. Linnell, M.B., D.P.H.
A. W. Thomas, L.R.C.P.
A. Oliver, M.D., D.P.H.
Harry Groom, M.D.
G. Calthrop, M.B.

RURAL DISTRICTS :—

Aylsham	Herbert H. Back, M.B.
Blofield	Herbert H. Back, M.B.
Depwade	*J. C. R. Robinson, M.R.C.S.
Docking	B. G. Sumpter, M.B.
Downham	G. F. Cross, M.B.
East and West Flegg	W. Roydon, M.R.C.S.
Erpingham	J. E. Linnell, M.B., D.P.H.
Forehoe	T. Lambert Lack, M.R.C.S.
Freebridge Lynn	C. S. Woodwark, M.R.C.S.
Henstead	S. H. Burton, M.B., F R.C.S.
Loddon and Clavering	L. T. McClintock, M.B.
Marshland	J. L. Forrest, M.B.
Mitford and Launditch	D. T. Belding, M.R.C.S.
St. Faith's	S. H. Long, M.D.
Smallburgh	B. D. Z. Wright, M.R.C.S.
Swaffham	E. F. Rose, L.S.A.
Thetford	G. Cowan, M.B.
Walsingham	W. H. Fisher, M.B.
Wayland	E. F. Rose, L.S.A.
West Lynn	W. Webster, M.R.C.S.

* Deceased, succeeded by Dr. F. N. H. Maidment.

All the District Medical Officers of Health are engaged in private practice. Recent legislation has added greatly to the work expected of them. Some District Councils have recently increased the salaries of their Medical Officers of Health in recognition of this; others have not.

Each District Council also appoints an Inspector of Nuisances, but not all of these have been specially trained for their duties as Sanitary Inspectors.

ADMINISTRATIVE COUNTY OF NORFOLK.

The following are some of the principal statistics:—

Area in acres (land and inland water)	1,303,570
Census Population, 1911	321,733
Average Annual Increase (1901—1911)	1,042
Estimated Population, mid-year 1912	323,033
(The Mid-year Population is taken for statistical purposes.)	
Total Number of Births, 1912	6,622
Birth Rate per 1000 Population	20·5
Total Number of Deaths Registered	4,242
Gross Death Rate	13·13
Total Number of Deaths after adding and subtracting deaths in Institutions as arranged for by the Registrar-General	4,262
Nett Death Rate	13·19
Applying Registrar-General's factor of correction for Age and Sex = 0·8020, Corrected Death Rate	10·57
Number of Deaths of Infants under 1 year	557
Infantile Mortality per 1000 Births	84·11
Zymotic Death Rate per 1000 Population	0·56
Phthisis	0·79
Cancer	1·30

Population and Mortality Rates.

Throughout the whole of England the age and sex constitution of the population has changed considerably and irregularly during the last 50 years. It is now recognised that the comparison of crude death rates may lead to wrong conclusions, the conditions being complex; yet when the rates are those for a considerable population, and the differences are considerable, conclusions on broad lines are permissible. The continuous decline in the birth rate naturally brings about a decrease in the proportion of young children in the population, and since the mortality of young children is high as compared with the mortality of young adults, it is clear that the mortality at all ages must tend to fall as the proportion of young children decreases—though even the death-rate among young children has happily declined during the last few years.

Table II.—Deaths at Various Age Periods.

1912. SANITARY DISTRICTS.										Total Nett Deaths at all Ages.																																											
										Under 1 year.		1 & under 2 yrs.		2 & under 5 yrs.		5 & under 15 yrs.		15 & under 25 yrs.		25 & under 45 yrs.		45 & under 65 yrs.		65 and upwards.																													
MUNICIPAL BOROUGHS—																																																					
1 King's Lynn																														316	41	9	13	9	15	29	62	138															
2 Thetford																														53	5	1	3				11	33															
URBAN DISTRICTS—																																																					
3 Cromer																														37	6	3		1		1	3	23															
4 Dereham																														79	11	3		1	5	8	4	47															
5 Downham Market																														50	10			1	2	8	7	22															
6 Diss																														57	9				3	3	6	36															
7 Hunstanton New																														22	3		2			4	4	9															
8 Sheringham																														46	7	2	1	1	2	6	7	20															
9 Swaffham																														31	2	1			2	3	7	16															
10 Walsham North																														49	4	1		4	2	8	7	23															
11 Walsoken																														51	8	2	4	2	2	8	7	18															
12 Wells-next-the-Sea and Port																														40	5	2			4	7	22																
																														881	111	24	23	19	33	82	132	407															
RURAL DISTRICTS—																																																					
13 Aylsham																														236	27	4	2	4	9	22	36	132															
14 Biofield																														145	14	3	6	2	7	16	24	73															
15 Depwade																														276	24	4	2	9	7	22	58	150															
16 Docking																														214	31	6	3	6	4	17	34	113															
17 Downham																														231	38	8	4	4	8	12	41	116															
18 Erpingham																														200	35	8	4	4	5	15	15	114															
19 Flegg East and West																														119	20	1	4	5	4	12	8	65															
20 Forthoe																														149	19	2		2	5	14	25	82															
21 Henstead																														131	11		1	3	6	9	19	82															
22 Loddon and Claverling																														169	24	3	3	4	4	24	25	82															
23 West Lynn																														8	2		1			2	1	2															
24 Freebridge Lynn																														160	22	5	3	4	6	12	28	80															
25 Marshland																														187	50	12	10	6	3	14	27	65															
26 Milford and Launditch																														244	28	5	3	5	4	33	47	119															
27 St. Faith's																														119	14	4	1		9	11	23	57															
28 Smallburgh																														182	18	1	5	4	7	22	34	91															
29 Swaffham																														115	10	3	2	3	7	14	18	68															
30 Thetford																														147	18	3	2	4	7	12	31	70															
31 Walsingham																														216	25	7	2	4	12	22	46	98															
32 Weyland																														183	16	2	1	3	5	21	35	100															
																														3431	446	81	59	76	119	326	575	1749															
																														4292	557	105	82	95	152	408	707	2156															

* This figure does not include deaths in Institutions.



Table I.—Area, Population, Births and Deaths Registered.

SANITARY DISTRICTS.	1912.			
	Area in Acres (Land and Inland Water).	Population, 1911 Census.	Population, estimated to the middle of 1912.	Total Births registered in the District, 1912.
Municipal Boroughs—				
1 King's Lynn	3100	26501	26213	437
2 Thetford	7096	4778	4778	97
Urban Districts—				
3 Cromer	1007	4073	4325	68
4 Dereham	5289	5729	5725	115
5 Downham Market ..	1002	2497	2500	51
6 Diss	3625	3769	3790	72
7 Hunstanton New ..	487	2511	2510	33
8 Sheringham	2207	3376	3400	66
9 Swaffham	7044	3234	3234	50
10 Walsham North ..	4252	4254	4290	88
11 Walsoken	4652	3898	4004	88
12 Wells-next-the-Sea and Port ..	2025	2565	2560	68
Total Urban Districts ..	41796	60885	61329	1233
Rural Districts—				
13 Aylsham	68341	17344	17374	352
14 Blotfeld	43734	12159	*11036	*223
15 Depwade	79742	19933	19934	369
16 Docking	87481	16942	16942	339
17 Downham	81930	15527	15550	357
18 Eppingham	60735	17137	17200	369
19 Flegg East and West ..	28991	9929	9931	238
20 Forehoe	38528	11383	11496	236
21 Henstead	41428	10285	10285	182
22 Loddon and Clavering ..	59116	12550	12550	271
23 West Lynn	2451	935	935	20
24 Freebridge Lynn ..	69299	12106	12107	237
25 Marshland	51969	12382	12513	318
26 Mildford and Launditch ..	102371	18698	18700	367
27 St. Faith's	48933	10807	10849	216
28 Smallburgh	62927	13424	13424	288
29 Swaffham	74556	7571	7571	159
30 Thetford	95837	10061	10061	232
31 Walsingham	73837	17250	17248	326
32 Wayland	68774	14425	14427	290
Total Rural Districts ..	1241680	260848	261133	5389
Total County	1283476	321733	*322462	6622
				4242

* These figures do not include the County Asylum at Thorpe.



The Registrar-General after each Census calculates a factor of correction to allow for the effect of the differences of age and sex distribution in defined areas, and he has been good enough to furnish me with the factor for the Administrative County of Norfolk, calculated after the Census of 1911. It is 0·8020.

The Administrative County of Norfolk embraces 12 Urban and 20 Rural Districts. The populations, number of births and deaths registered in 1912 in the Administrative County and its constituent Districts are given in Table I.

The Birth Rate shows a startling decline and indicates the necessity for doing everything possible to conserve the lives of those who are born. A continuous decline has been in evidence for years, but in spite of an increased population there were actually 376 fewer births than in 1911. The birth rates for the last six years indicate the seriousness of the position:—

<i>Year</i>	<i>1907</i>	<i>1908</i>	<i>1909</i>	<i>1910</i>	<i>1911</i>	<i>1912</i>
Birth Rate	22·68	22·66	21·86	21·8	21·73	20·5

The Death Rate happily also shows a decline, but this is not in proportion to the decline in the birth rate.

The year 1912 inaugurated an important reform in the tabulation of Vital Statistics in England, all deaths now being relegated by the Registrar-General to different districts in accordance with a uniform system. The object of the reform is to ensure, as far as possible, that transferable deaths are really transferred to the district of fixed or usual residence.

In Norfolk, this was arranged for by the Registrar-General through the County Medical Officer by means of slips containing the particulars of deaths of residents not registered in the district where death occurred. The County Medical Officer distributes these to the District Medical Officers of Health, who either accept the deaths as belonging to their districts, or indicate to which district they ascertain they should be allocated. The slips are returned to the County Medical Officer of Health, who, after checking them, sends them back to the Registrar-General with the area of final allocation indicated. The Registrar-General has recorded his appreciation of the assistance he has thus received in improving the Vital Statistics of the Country.

As far as Norfolk is concerned, this new arrangement has resulted in 20 deaths more being allocated to this County than were registered in the County in 1912. It will be noted that the nett uncorrected death rate for 1912 was 13·19, as compared with 13·54 in 1911. Table II. indicates the nett deaths at all ages and at various age periods.

Applying the factor of correction, the corrected or standardized death rate for the Administrative County of Norfolk for 1912 is 10·57.

Although there are 12 Urban Districts in Norfolk, the Municipal Borough of King's Lynn is the only one with a population of 20,000—the next in size being Dereham, with a population of under 6000. Three Urban Districts have a population of about 2500, viz., Downham Market, New Hunstanton, and Wells-next-the-Sea; the others range between 3000 and 5000. With such small populations it is invidious to compare death rates unless they are average rates extending over a series of years. In this respect, Cromer and Hunstanton maintain a low death rate. The age and sex constitution of the populations in Cromer and New Hunstanton is such that the standardizing factor of correction is above unity, and hence their standardized death rates are slightly higher than the nett death rates. Thus in Cromer the nett death rate is raised by the standardizing factor (1·0277) from 8·5 to a standardized death rate of 8·73, while in New Hunstanton the nett death rate of 8·76 is raised by the standardizing factor (1·0144) to 8·88. On the other hand, the nett death rate of Sheringham, 13·52, is lowered by the standardizing factor (0·9125) to a standardized death rate of 12·33. In the same way the standardizing factor for Downham Market (0·7252) brings down the nett death rate from 23·20 to a standardized death rate of 16·62. Again, the nett death rate of King's Lynn, 15·63, is reduced by the standardizing factor for Lynn (0·8782) to a standardized death rate of 13·72.

In this way the apparently marked differences in death rates, when standardized, are found not to be so formidable as the nett death rates make appear.

The Report of the Registrar-General for 1911 gives the standardizing factor for each Sanitary District. To render them available for District Medical Officers of Health for future reports, I incorporate them in the following table, which gives the nett death rate per 1000 persons living in

each district, as already calculated in the Annual Reports, the standardizing factor, and the standardized death rate for each Sanitary District as I have worked them out for 1912:—

URBAN.

Sanitary Area.		Nett Death Rate per 1000 living.	Standardizing Factor.	Standardized Death Rate.
Cromer .. ..	..	8·55	1·0277	8·73
Diss .. ..	..	15·04	·8419	12·66
Downham Market ..	..	23·20	·7252	16·62
East Dereham .. ..	..	13·62	·8400	11·44
King's Lynn M.B. ..	..	15·63	·8782	13·72
New Hunstanton ..	..	8·76	1·0144	8·88
North Walsham ..	..	11·42	·8768	9·91
Sheringham .. ..	..	13·52	·9125	12·33
Swaffham .. ..	..	9·58	·7477	7·16
Thetford M.B. .. ..	..	11·09	·8192	9·08
Walsoken .. ..	..	12·73	·8682	11·05
Wells .. ..	..	15·62	·7256	11·33
Total Urban Districts		13·54	·8574	11·61

RURAL.

Aylsham .. ..	..	13·58	·7862	10·67
Blofield .. ..	..	13·13	·8000	10·50
Depwade .. ..	..	13·84	·7704	10·66
Docking .. ..	..	12·63	·7803	9·85
Downham .. ..	..	14·85	·8020	11·88
East and West Flegg ..	..	11·98	·8018	9·60
Erpingham .. ..	..	11·62	·8196	9·52
Forehoe .. ..	..	12·96	·7709	9·99
Freebridge Lynn ..	..	13·21	·7906	10·44
Henstead .. ..	..	12·74	·7874	10·03
King's Lynn (West Lynn) ..	..	8·55	·9532	8·14
Loddon and Clavering ..	..	13·46	·7731	10·40
Marshland .. ..	..	14·94	·8311	12·41

Mitford and Launditch	..	13·04	·7608	9·92
St. Faith's	..	12·44	·8527	10·60
Smallburgh	..	13·56	·7712	10·45
Swaffham	..	15·18	·7792	11·82
Thetford	..	14·61	·8151	11·90
Walsingham	..	12·52	·8425	10·54
Wayland	..	12·68	·7491	9·49
Total Rural Districts		13·13	·7900	10·37

The next table shows the principal causes of deaths in the Administrative County of Norfolk during 1912. From this table is calculated the Zymotic death rate, the Tubercular death rate, the Respiratory death rate, and the Cancer death rate. The death rates from individual diseases may also be calculated for each District, or for the County as a whole.

Table III.—COUNTY OF NORFOLK, 1912.—CAUSES OF DEATH.

1912. SANITARY DISTRICTS.		Enteric Fever.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Infan- tuz.	Erysipelas.	Pneumonia (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, malignant disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Roscelitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis & Bright's Disease.	Puerperal Fever.	Other accidents and diseases of Pregnancy and Parturition.	Congenital Debility and Mal- formation, including Premature Birth.	Violent Deaths, excluding Suicide.	Suicide.	Other Defined Diseases.	Diseases ill-defined or unknown.	TOTAL.		
MUNICIPAL BOROUGH—																																		
1	King's Lynn ..	Under 5 5 & upwds.	1	1	12	1	3	3	23	3	1	1	36	1		20	27	15	10		3	2		11			16	1		10			63	
2	Thetford ..	Under 5 5 & upwds.		3				1	1		1		7			5	5	1	1	1		2		2			1		1	9	8		44	
URBAN DISTRICTS—																																		
3	Cromer ..	Under 5 5 & upwds.		2				2		1	1		2		1	7	1	3													2		9	
4	Dereham ..	Under 5 5 & upwds.			1			1	6			3	6			6	8	3			1	2					6			14	15		28	
5	Downham Market	Under 5 5 & upwds.	1						4				5		1	5	1	1							1			6		1	18		40	
6	Diss ..	Under 5 5 & upwds.							1				4			6	1	2				1			3			7		1	5	23	48	
7	Hunstanton New	Under 5 5 & upwds.			1							1	3			2			1									1		1	3	5	17	
8	Sheringham ..	Under 5 5 & upwds.			1			1		4	1		5					1	2			1						2		1	11	7	10	
9	Swaffham ..	Under 5 5 & upwds.			1				3				3		1	5							1			1			1		1		28	
10	Walsham North	Under 5 5 & upwds.								4	1	2	3			8	3	1					1	1		1			3		1	2	6	10
11	Walsoken ..	Under 5 5 & upwds.	1					1	5				3		2	3	6	3	1									3		3	11		14	
12	Wells-next-the-Sea and Port	Under 5 5 & upwds.										1	5	1		1	6	2	1						1		1		1	3	12	2	33	
Totals—Urban Districts		Under 5 5 & upwds.	3	6	16	1	3	9	1	51	3	7	82	2	1	73	54	29	3	1	5	10	1	21	1	1	3	47	1	23	7	206	77	673
RURAL DISTRICTS—																																		
13	Aylsham ..	Under 5 5 & upwds.			6			5	13		3	20				34	18	9	1	1		1			4	1	2	11	1	6	2	40	43	203
14	Blofield ..	Under 5 5 & upwds.		1	7				1	10			1		1	24	4	5	1		1		1	1				3	1	2	34	24	122	
15	Depwade ..	Under 5 5 & upwds.	2	1		2	1	6	15	3		1	36			36	10	5		1	2	3		7	1	1	6	1	2	107		246		
16	Docking ..	Under 5 5 & upwds.	2		7			10	11	1		1	20			28	3	3	1	1		2	1	3			6	1	4	1	23	60	174	
17	Downham ..	Under 5 5 & upwds.	1	3	5	1	3	7	7	2	2	26	1		37	11	2			3	1	2	1	8	2	1	17		2	1	72		181	
18	Erpingham ..	Under 5 5 & upwds.			9			2	1	11	1	3	16			2	7	1							4	1		1	14	1	2	9	47	
19	Flegg East and West	Under 5 5 & upwds.	1		2			7	9				7	1		8	11	3							5			4	1	12			25	
20	Forehoe ..	Under 5 5 & upwds.				1	3	9				1	11			30	19	4	2		1		2			2		10		5	1	36	2	128
21	Henstead ..	Under 5 5 & upwds.	1		1				3				15	1		13	5	2	3	1		1		5		1		1	6		4	3	30	
22	Loddon and Clavering	Under 5 5 & upwds.			1	1	2	1	9	1	2	14			20	13	3	2			1		1	1	4		1	15		2	1	59		139
23	West Lynn ..	Under 5 5 & upwds.							1							1																2	1	3
24	Freebridge Lynn	Under 5 5 & upwds.			7			2	4	2		1	15		1	22	6	1	1	1		1		7		3		9		1	55	8	130	
25	Marshland ..	Under 5 5 & upwds.	4	1	9		2	1	1	11		1	19			13	12	5		1	2			9		23	1	2	2	13	1	72		181
26	Mitford and Launditch	Under 5 5 & upwds.	1		3		1	4	25		4	36			23	9	2	1		1	1		5		3		8	2	10	2	42	37	208	
27	St. Faith's ..	Under 5 5 & upwds.			2			2	11		1	16			16	3	2			1							3	1		7	3	19		48
28	Smallburgh ..	Under 5 5 & upwds.	1		2		1	6	13			1	15	1		19	6	2	3			1			8	3	1		6		23	48	158	
29	Swaffham ..	Under 5 5 & upwds.		1				2	6	1	1	11			18	5	2						1		6		1	5	1	4	2	36	3	160
30	Thetford ..	Under 5 5 & upwds.	1	2	4		1	3	8	1	4	12			18	9	4	1	1			1		4		1		9	1	1	26	23	124	
31	Walsingham ..	Under 5 5 & upwds.			12			1	15	1	3	28			26	10	5				2			1	1			8			5	2	34	
32	Wayland ..	Under 5 5 & upwds.						2	11		2	1	19			18	13	9	2		2		2	1	1	2		11		3	1	76	3	164
Totals—Rural Districts		Under 5 5 & upwds.	9	13	27	2	9	59	6	202	11	24	349	4	3	403	169	75	19	7	10	20	6	87	7	3	178	11	82	26	860	368	2845	
Totals—County		Under 5 5 & upwds.	12	19	43	2	12	68	7	253	14	31	431	6	4	476	223	104	22	7	15	30	7	108	8	6	225	12	105	33	1066	445	3518	

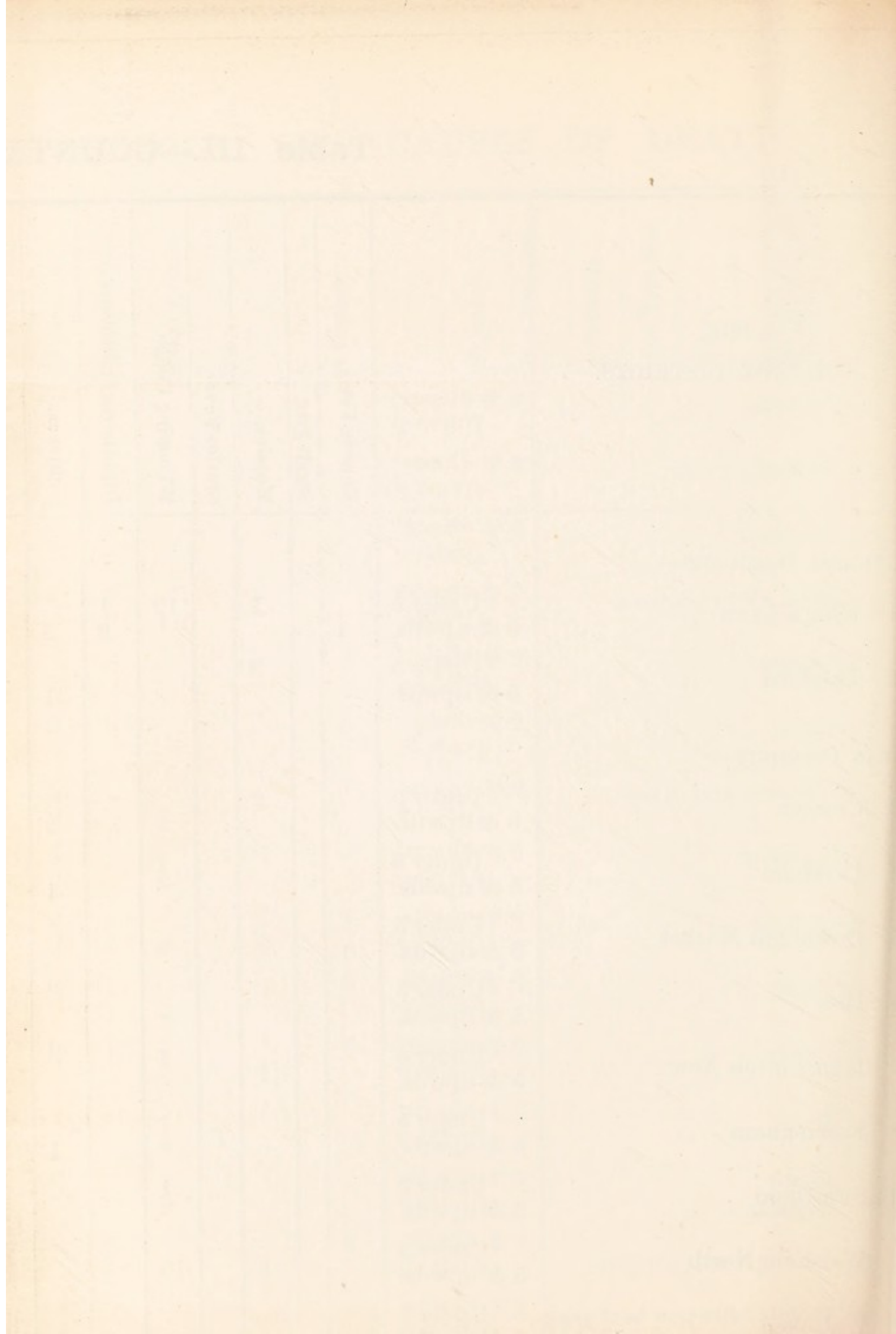




Table IV.

INFANTILE MORTALITY—Causes of.

INFANTILE MORTALITY.

During the year 1912 there was happily a reduction in the infantile mortality—this being the proportion of deaths of infants under 1 year of age per 1,000 births registered in the year.

In the 12 Urban Districts 111 infant deaths occurred as compared with 1233 births, giving an infantile mortality of 90·02. In the 20 Rural Districts the infant deaths numbered 445 against 5389 births, giving a Rural Infantile Mortality of 82·57. For the whole Administrative County the infantile mortality figure was 83·96 as compared with 99·17 in 1911. The chief causes of mortality were Premature Birth and the allied conditions of Congenital Malformations, Atrophy, Debility, and Marasmus, which group accounted for no fewer than 233 of the 556 infant deaths, or over 41 per cent. of the total.

Deaths from Respiratory Diseases (Bronchitis and Preumonia) caused 93 deaths or 16·7 per cent. of the total infant deaths.

Diarrhoeal Diseases accounted for only 24 deaths, as compared with 99 deaths in the hotter summer of 1911. Ten deaths were ascribed to Tuberculous Diseases, and 5 deaths to Syphilis.

The next fruitful cause of death among infants was Whooping Cough, a disease of high mortality among babies. This accounted for nearly 10 per cent. of the deaths.

The really serious item is the proportion of infant deaths due to Premature Birth and Marasmus. I have in previous reports drawn attention to this mortality, which ought to be largely preventable by the adoption of the Notification of Births Act, provided that ensures the employment of properly trained health visitors, to keep in touch with the homes and assist the parents in rectifying faults of hygiene and feeding.

It would be a useful work if these cases were enquired into by the Sanitary Authorities to ascertain the proportion of children breast fed and bottle fed, and other particulars as to the methods of feeding.

As I suggested last year, insufficient nourishment of the mother during pregnancy may account for some of these premature deaths. It is satisfactory to note that it is the intention of the powers that be to raise the wages of the agricultural labourer, for it is very difficult, if not impossible, for a family to be properly housed and nourished on 14s. a week.

NOTIFIABLE INFECTIOUS DISEASES.

Under the Infectious Diseases (Notification) Act of 1889, as amended by the Infectious Diseases (Notification) Extension Act of 1899, Small Pox, Cholera, Diphtheria, Membranous Croup, Erysipelas, Scarlet Fever, Typhus, Enteric Fever, Relapsing Fever, Continued Fever, and Puerperal Fever are compulsorily notifiable diseases. In 1908 the Local Government Board approved of the extension of the Notification Act, 1899, to Glanders, Anthrax, and Hydrophobia in man in areas where these diseases are prevalent. Plague and Cerebro-Spinal Fever and Poliomyelitis are now included in the list of notifiable diseases.

During 1912 Pulmonary Tuberculosis also became a compulsorily notifiable disease, under the Public Health (Tuberculosis) Regulations, 1911.

The following Table shows the numbers of notified cases of certain notifiable diseases in Norfolk in 1912.

It is quite certain that the number of notifications of Pulmonary Tuberculosis fall short of the actual existing cases.* In a less degree the same remark applies to most of the notifiable diseases—especially when the disease has been of a mild type—owing to failure to call in medical advice in some cases and to difficulty or lack of precision in diagnosis in a few others. These sources of inaccuracy do not apply more to 1912 than in previous years, and viewed broadly, the number of notifications are, as usual, a reliable index of the prevalence of infectious diseases in each District.

Enteric Fever.

With the exception of King's Lynn, the Urban Districts of Norfolk were very free of this disease in 1912, Cromer, East Dereham, Downham Market, and Walsoken recording only one case each, and these apparently were imported cases. In King's Lynn the remarks of the M.O.H. suggest that some of the cases were secondary to previous cases. Though not always possible, prompt notification, early isolation (preferably in an isolation hospital), and scientific disinfection of excretions and hands of nurses should limit the numbers of secondary cases, which are essentially preventable cases. The mischief, however, is often due to ignorance in the affected family before notification.

* See Tuberculosis Section.

Table V.

NOTIFIABLE INFECTIOUS DISEASES—Cases Notified and Deaths Registered in connection with the Diseases named below.

SANITARY DISTRICTS.	DIPHTHERIA (including Membranous Croup).							SCARLET FEVER.							ENTERIC FEVER.						
	No. of Cases Notified.	No. of Deaths.	No. of Cases removed to Hospital.	Cases per 1000 Population.	Deaths per 1000 Population.	Deaths per 100 Cases Notified.	Percentage of Cases removed to Hospital.	No. of Cases Notified.	No. of Deaths.	No. of Cases removed to Hospital.	Cases per 1000 Population.	Deaths per 1000 Population.	Deaths per 100 Cases Notified.	Percentage of Cases removed to Hospital.	No. of Cases Notified.	No. of Deaths.	No. of Cases removed to Hospital.	Cases per 1000 Population.	Deaths per 1000 Population.	Deaths per 100 Cases Notified.	Percentage of Cases removed to Hospital.
MUNICIPAL BOROUGH.																					
1 King's Lynn ..	35	4	6	1.73	0.19	11.42	17.14	39			1.92				18	1	6	0.89	0.04	5.55	17.14
2 Thetford ..	1			0.20				6			1.25										
URBAN DISTRICTS.																					
3 Cromer ..	3			0.69				2	2		0.46			100.00	1			0.23			
4 Dereham ..								8			1.39				1			0.17			
5 Downham Market ..															1	1		0.40	0.40	100.00	
6 Diss ..								3			0.79										
7 Hunstanton New ..	1			0.39																	
8 Sheringham ..								22			6.47										
9 Swaffham ..								3			0.92										
10 Walsham, North ..	40			9.32				11			2.56				1			0.23			
11 Walsoken ..	2			0.49				5			1.24				1	1		0.24	0.24	100.00	
12 Wells-next-the-Sea & Port ..								7			2.73										
Totals, Urban Districts ..	82	4	6	1.33	0.06	4.87	7.31	106		2	1.72			1.88	23	3	6	0.37	0.04	13.04	26.08
RURAL DISTRICTS.																					
13 Aylsham ..	17			0.97				57			3.28				4			0.23			
14 Blofield ..	14			1.26				34	1		3.08	0.09	2.94		10			0.90			
15 Depwade ..	3			0.15				35			1.75				1			0.05			
16 Docking ..	15			0.88				3			0.17				6	2		0.35	0.11	33.33	
17 Downham ..	2	1		0.12	0.06	50.00		5			0.32				15	1		0.96	0.06	6.66	
18 Erpingham ..	21			1.22				13			0.75				3			0.17			
19 Flegg, E. and W. ..	11			1.10				6			0.06				3	1		0.30	0.10	33.33	
20 Forehoe ..	6	1		0.52	0.08	16.66		24			2.08				3			0.26			
21 Henstead ..	9			0.87				68	1		6.60	0.09	1.47		2	1		0.19	0.09	50.00	
22 Loddon and Clavering ..	17	3		1.35	0.23	17.64		29			2.31										
23 West Lynn ..	2			2.13																	
24 Freebridge Lynn ..	5			0.41				18			1.48				4			0.33			
25 Marshland ..	12	2		0.95	0.15	16.66		15			1.19				1			0.07			
26 Mitford and Launditch ..	16	1		0.85	0.05	6.25		48			2.56				5			0.26			
27 St. Faith's ..	8			0.73				32	2		2.94	0.18	6.25		6			0.51			
28 Smallburgh ..	17	1		1.25	0.07	5.88		32			2.38				5	1		0.37	0.07	20.00	
29 Swaffham ..	4			0.52				11			1.45										
30 Thetford ..	4			0.39				7			0.69				2			0.19			
31 Walsingham ..	24			1.39				73			4.23				4			0.23			
32 Wayland ..	3			0.20				20			1.38				2			0.13			
Totals, Rural Districts ..	210	9		0.79	0.03	4.28		530	4		2.02	0.01	0.75		76	5		0.29	0.01	6.37	
Totals, Whole County ..	292	13	6	0.90	0.04	4.44	2.05	636	4	2	1.97	0.01	0.61	0.31	99	8	6	0.30	0.02	8.08	6.06

NOTES ON THE HISTORY OF THE

GENERAL INFORMATION									
No.	Name	Age	Sex	Profession	Religion	Marital Status	Place of Birth	Place of Residence	Remarks
1	John Doe	35	M	Teacher	Protestant	Married	New York	New York	
2	Jane Smith	28	F	Homemaker	Catholic	Married	Massachusetts	Massachusetts	
3	Robert Brown	42	M	Farmer	Methodist	Married	Illinois	Illinois	
4	Mary White	22	F	Student	Baptist	Single	Ohio	Ohio	
5	William Black	55	M	Merchant	Presbyterian	Married	Pennsylvania	Pennsylvania	
6	Elizabeth Green	38	F	Teacher	Quaker	Married	Delaware	Delaware	
7	Thomas Grey	60	M	Retired	Anglican	Married	Virginia	Virginia	
8	Sarah Hall	45	F	Homemaker	Protestant	Married	North Carolina	North Carolina	
9	James King	30	M	Farmer	Catholic	Married	Georgia	Georgia	
10	Anna Lee	25	F	Student	Methodist	Single	Alabama	Alabama	
11	Charles Miller	50	M	Merchant	Baptist	Married	South Carolina	South Carolina	
12	Frances Wilson	40	F	Teacher	Presbyterian	Married	Florida	Florida	
13	George Taylor	65	M	Retired	Anglican	Married	Mississippi	Mississippi	
14	Rebecca Young	32	F	Homemaker	Protestant	Married	Louisiana	Louisiana	
15	Henry Adams	58	M	Farmer	Catholic	Married	Arkansas	Arkansas	
16	Isabella Baker	27	F	Student	Methodist	Single	Missouri	Missouri	
17	Samuel Clark	48	M	Merchant	Baptist	Married	Illinois	Illinois	
18	Emily Evans	36	F	Teacher	Presbyterian	Married	Indiana	Indiana	
19	David Foster	62	M	Retired	Anglican	Married	Ohio	Ohio	
20	Charlotte Grant	29	F	Homemaker	Protestant	Married	Michigan	Michigan	
21	Richard Harris	52	M	Farmer	Catholic	Married	Minnesota	Minnesota	
22	Martha Jones	41	F	Teacher	Methodist	Married	Wisconsin	Wisconsin	
23	Benjamin King	68	M	Retired	Baptist	Married	Nebraska	Nebraska	
24	Abigail Lee	33	F	Homemaker	Presbyterian	Married	Kansas	Kansas	
25	Samuel Miller	57	M	Merchant	Anglican	Married	Oklahoma	Oklahoma	
26	Frances Taylor	26	F	Student	Protestant	Single	Colorado	Colorado	
27	Charles White	46	M	Farmer	Catholic	Married	Montana	Montana	
28	Elizabeth Young	39	F	Teacher	Methodist	Married	Wyoming	Wyoming	
29	Thomas Adams	61	M	Retired	Baptist	Married	Idaho	Idaho	
30	Sarah Baker	31	F	Homemaker	Presbyterian	Married	Utah	Utah	
31	James Clark	54	M	Merchant	Anglican	Married	Nevada	Nevada	
32	Anna Evans	24	F	Student	Protestant	Single	Arizona	Arizona	
33	William Foster	49	M	Farmer	Catholic	Married	California	California	
34	Rebecca Grant	37	F	Teacher	Methodist	Married	Texas	Texas	
35	David Harris	63	M	Retired	Baptist	Married	New Mexico	New Mexico	
36	Charlotte King	28	F	Homemaker	Presbyterian	Married	Alaska	Alaska	
37	Samuel Lee	56	M	Merchant	Anglican	Married	Hawaii	Hawaii	
38	Frances Miller	34	F	Teacher	Protestant	Married			
39	Charles Taylor	43	M	Farmer	Catholic	Married			
40	Elizabeth White	47	F	Homemaker	Methodist	Married			
41	Thomas Black	64	M	Retired	Baptist	Married			
42	Sarah Green	30	F	Student	Presbyterian	Single			
43	William Grey	51	M	Merchant	Anglican	Married			
44	Rebecca Hall	35	F	Teacher	Protestant	Married			
45	James King	59	M	Farmer	Catholic	Married			
46	Anna Lee	23	F	Student	Methodist	Single			
47	Charles Miller	44	M	Merchant	Baptist	Married			
48	Frances Wilson	38	F	Teacher	Presbyterian	Married			
49	George Taylor	66	M	Retired	Anglican	Married			
50	Rebecca Young	32	F	Homemaker	Protestant	Married			
51	Henry Adams	57	M	Farmer	Catholic	Married			
52	Isabella Baker	27	F	Student	Methodist	Single			
53	Samuel Clark	48	M	Merchant	Baptist	Married			
54	Emily Evans	36	F	Teacher	Presbyterian	Married			
55	David Foster	62	M	Retired	Anglican	Married			
56	Charlotte Grant	29	F	Homemaker	Protestant	Married			
57	Richard Harris	52	M	Farmer	Catholic	Married			
58	Martha Jones	41	F	Teacher	Methodist	Married			
59	Benjamin King	68	M	Retired	Baptist	Married			
60	Abigail Lee	33	F	Homemaker	Presbyterian	Married			
61	Samuel Miller	57	M	Merchant	Anglican	Married			
62	Frances Taylor	26	F	Student	Protestant	Single			
63	Charles White	46	M	Farmer	Catholic	Married			
64	Elizabeth Young	39	F	Teacher	Methodist	Married			
65	Thomas Adams	61	M	Retired	Baptist	Married			
66	Sarah Baker	31	F	Homemaker	Presbyterian	Married			
67	James Clark	54	M	Merchant	Anglican	Married			
68	Anna Evans	24	F	Student	Protestant	Single			
69	William Foster	49	M	Farmer	Catholic	Married			
70	Rebecca Grant	37	F	Teacher	Methodist	Married			
71	David Harris	63	M	Retired	Baptist	Married			
72	Charlotte King	28	F	Homemaker	Presbyterian	Married			
73	Samuel Lee	56	M	Merchant	Anglican	Married			
74	Frances Miller	34	F	Teacher	Protestant	Married			
75	Charles Taylor	43	M	Farmer	Catholic	Married			
76	Elizabeth White	47	F	Homemaker	Methodist	Married			
77	Thomas Black	64	M	Retired	Baptist	Married			
78	Sarah Green	30	F	Student	Presbyterian	Single			
79	William Grey	51	M	Merchant	Anglican	Married			
80	Rebecca Hall	35	F	Teacher	Protestant	Married			
81	James King	59	M	Farmer	Catholic	Married			
82	Anna Lee	23	F	Student	Methodist	Single			
83	Charles Miller	44	M	Merchant	Baptist	Married			
84	Frances Wilson	38	F	Teacher	Presbyterian	Married			
85	George Taylor	66	M	Retired	Anglican	Married			
86	Rebecca Young	32	F	Homemaker	Protestant	Married			
87	Henry Adams	57	M	Farmer	Catholic	Married			
88	Isabella Baker	27	F	Student	Methodist	Single			
89	Samuel Clark	48	M	Merchant	Baptist	Married			
90	Emily Evans	36	F	Teacher	Presbyterian	Married			
91	David Foster	62	M	Retired	Anglican	Married			
92	Charlotte Grant	29	F	Homemaker	Protestant	Married			
93	Richard Harris	52	M	Farmer	Catholic	Married			
94	Martha Jones	41	F	Teacher	Methodist	Married			
95	Benjamin King	68	M	Retired	Baptist	Married			
96	Abigail Lee	33	F	Homemaker	Presbyterian	Married			
97	Samuel Miller	57	M	Merchant	Anglican	Married			
98	Frances Taylor	26	F	Student	Protestant	Single			
99	Charles White	46	M	Farmer	Catholic	Married			
100	Elizabeth Young	39	F	Teacher	Methodist	Married			

In the *Rural* Districts there was also a decline in the prevalence of Enteric Fever. Even in Blofield, where there were 10 notifications, 4 of these occurred in the County Asylum and 4 others are stated to have proved to be cases of Para-Typhoid Fever—an allied affection.

It is worthy of remark that all the 6 cases notified in the Docking District, all the 4 cases notified in the Freebridge Lynn District, and all the 4 cases notified in the Walsingham District gave a history of consumption of shellfish within the incubation period of disease.

The 2 cases which were notified in the Henstead and 1 of the 3 cases notified in the Forehoe R.D. were thought by the District M.O.H. to have contracted the disease in Norwich. No history is stated as to shellfish consumption, but many open stalls for the sale of shellfish are to be found in Norwich—and in justice to the Sanitary administration of the City, I personally would consider shellfish a more likely source of infection than the water supply or other possible source.

Some hold that certain shellfish layings are above suspicion. I can only admit a relative purity or impurity, according to the amount of sewage pollution entering a river or creek and the distance of the layings from the nearest possible sources of pollution. I know of no layings where I would care to certify that the shellfish were absolutely safe; but there are many where the *probabilities* are against dangerous pollution, and that is as far as I can conscientiously go in giving an opinion.

Thanks to the publicity of many outbreaks of Typhoid Fever being traced almost to demonstration to polluted shellfish, greater care and supervision is undoubtedly exercised in connection with layings than was formerly the case, and coincidently there has been a remarkable general diminution in the incidence of Typhoid Fever. It is to be hoped that there will be no relaxation in such supervision.

The following Extracts are taken from the Reports of the District Medical Officers of Health:—

URBAN DISTRICTS.

Cromer.—"Only one case of Typhoid notified, an in-patient of the Cromer Cottage Hospital having been taken ill one week before admission from the neighbouring Rural District."

East Dereham.—"One case."

Downham Market.—"One case. The patient was taken ill at Great Yarmouth."

Walsoken.—"Only one case notified, which proved fatal."

King's Lynn M.B.—"Eighteen cases notified, without counting one which was admitted into the West Norfolk Hospital from a foreign ship."

"The following facts are noticeable: Firstly, most of the people who have Typhoid Fever are dirty or not particular in their habits. Secondly, in the groups of contact cases a child is generally the first to start the infection, and possibly may have picked up and eaten something in the streets or yards. Excepting a few cases, I have never been able to obtain evidence that shellfish have been the source of infection, and in cases where I have done so, it has generally been clams or other molluscs obtained from the foreshore, etc., and not from the lays."

"There are no doubt 'carriers' which may account for some of the cases."

RURAL DISTRICTS.

Aylsham.—"There have been four cases notified. The source of infection could not be definitely traced, but in one instance there was a strong suspicion of infection from mussels."

Blofield.—"The total of 16 cases is unusual for this District. Four of the number were inmates of the County Asylum, and of the remaining six, four were subsequently found to be Para-Typhoid."

Docking.—"Six cases: Brancaster 1, Burnham Westgate 1, Burnham Sutton 1, North Creake 2, Stanhoe 1. In these cases shellfish were eaten shortly before illness; but I should not like to assign this as the cause. In one the water was not good. In one it was thought advisable to destroy the bedding, and compensation (£3) was paid. In one an examination of the blood was made, and this was negative. There was no epidemic."

Erpingham.—"Three cases notified: one in Holt (imported), two in Northrepps. The reason for the latter cases is in my opinion the water supply. The three wells from which the bulk of the water is drawn have all been analysed, and all show signs of pollution."

"The subject is being investigated by a Sub-Committee and myself, and during the year I hope some arrangement will be come to."

Forehoe.—Three cases were notified, one occurring at Costessey; the disease was contracted in Norwich. Two cases at Colton; these were at an isolated farm house. The drinking water was found to be polluted with sewage products: a drain had broken into the well. This was evidently the cause of the disease. The house was in a sanitary condition."

Henstead.—"Two cases were notified, with a mortality of one. In both cases probably the infection was caught outside the District, both being employed in factories in Norwich. One case occurred in Arminghall and one case in Trowse Newton."

Freebridge Lynn.—"There were four cases in the Hillington District, and they were all contracted from eating raw shellfish, *i.e.*, clams in three cases and mussels in the other. Warning notices were printed and distributed over the District, cautioning the inhabitants against eating raw shellfish. Dr. Nash investigated the source of the supply of the shellfish at Snettisham, and, whilst finding nothing definite, concluded that it was possible that contamination of the shellfish might have arisen from the Ouse, by sewage deposited by the tide."

Marshland.—"One case occurred at Upwell."

Smallburgh.—"Enteric Fever 5. Smallburgh Sub-District 0, Stalham Sub-District 2, North Walsham Sub-District 0, Ludham Sub-District 3. One death occurred from this disease at Horsey. The well water on these premises proved to be bad. In two of the other cases the well water on the premises in which they resided was contaminated, and they had also both partaken of shellfish at Sutton Sale, both possible sources of infection."

Swaffham.—"There were no cases. I received a letter from the Medical Officer of Health to the Heston and Isleworth District stating that a person who had been staying in a village in this District had developed the disease on the same day as her return home. The Inspector of Nuisances made inquiries, but failed to find any suspicious cases of illness, and the water supply proved quite satisfactory."

Walsingham.—"Four cases in three parishes. In none of these cases was I able to satisfactorily trace the cause of the disease. In each case the water supply was tested both chemically and bacteriologically, with a negative result, though in one of the Helhoughton cases there seemed to be evidence of the man having infected his food while at work cleaning out a drain. There is always a history of partaking of shellfish, but I understand that now the source of this delicacy is above suspicion. I should like to see every case of Enteric verified by the Widal test, in the same way as every case of Diphtheria is now, in a routine way bacteriologically verified."

Wayland.—"There were two cases of Enteric Fever in neighbouring parishes in July and August. In neither case was there any clue as to the origin of the disease. I visited the premises, and found that the water supply and sanitary arrangements were satisfactory in both cases. There were no subsequent cases. As the prevalence of this disease is some indication of the sanitary conditions of a District, it is satisfactory to note that there have been only four cases in the past four years."

Diphtheria.

The following Extracts from the Reports of the District Medical Officers of Health show how valuable is the co-ordination of the School Medical Service with the Public Health Service, through the appointment of the County Medical Officer as Principal School Medical Officer. Many outbreaks of Diphtheria were nipped in the bud, and others which had acquired a considerable foothold were successfully combated, as at North Walsham, Heacham, and Thurlton, by close co-operation between the County Medical Officer as School Medical Officer and the District Medical Officers of Health.

The want of hospital isolation accommodation was severely felt at North Walsham, and has led to the Sanitary Authority seeking to co-operate with adjoining Sanitary Authorities for the provision of a Joint Isolation Hospital.

URBAN DISTRICTS.

Cromer.—"Three cases of Diphtheria were notified, two being children of a visitor; another child in the same house (also a visitor) having previously had an attack of an indefinite character, and had not been attended by a medical man. The other cause unknown."

Hunstanton.—"One case notified."

North Walsham.—"The outbreak of Diphtheria was a serious one, 40 cases having been notified. The epidemic began in July and continued to the end of the year, the last case being notified in December. Nearly all the cases have been children attending the Council Schools. Only five adults have been affected, and four of these have contracted the disease from children in the same house. The first few cases occurred in Hall Lane, through which a large number of children go on their way to School. The Boys' School was closed on September 16th, and the whole School on September 20th. This closure was approved by the County Medical Officer of Health and School Medical Officer, who kindly came over to discuss the whole matter. He also visited, with the Medical Officer of Health, several of the houses affected, and also other districts in the town considered in an insanitary condition. The Schools reassembled a few weeks before the final reassembling in November for one day, and the County Medical Officer of Health and the District Medical Officer of Health were present and examined a large number of the children, and took swabs from the throats of any children whose condition was suspicious. A few of these cases proved to be Diphtheritic, and those families affected were excluded from School. Evidence was found here and elsewhere that there must have been cases of Diphtheria existing among children which had been unnoticed and unnotified, and this must have caused a spread of the disease which was very difficult to control. Many of the cases have occurred in the worst houses of the District, *where the conditions and accommodation have rendered isolation impossible.*

"Some difficulties were experienced in keeping affected children from coming into contact with healthy children—children in an infectious condition being allowed out in public places. In one case proceedings were taken by the Sanitary Authority at the Police Court against the parents for breach of the law in this respect.

"The steps taken to deal with the outbreak were: Isolation of the cases as far as possible; exclusion of affected families from School while School was assembled; closure of the School; correction of insanitary conditions of houses when possible; and injection by antitoxin of unaffected children in infected houses. Swabs have been taken of suspicious cases, and also of

convalescent cases—the payment for this and for the antitoxin being readily undertaken by the Sanitary Authority at the request of the Medical Officer of Health. At the suggestion of the Medical Officer of Health, notices were printed and circulated, asking all parents to consult medical men when any of their children showed signs of sore throat; and leaflets were freely distributed pointing out the importance of general cleanliness in the home.

“The difficulties or dangers which have been apparent in dealing with this outbreak have been—want of complete isolation of cases; want of an isolation hospital; insanitary condition of many of the houses affected; insanitary condition of surroundings of many houses; and the existence of many mild and unrecognised cases. An Isolation Hospital is badly wanted, but I am of opinion that the North Walsham Urban District alone cannot support one, and therefore would urge the Council to bring the matter before the notice of the County Council, and also communicate with surrounding districts and Urban Councils and ask them to do the same.”

Walsoken.—“Only two cases notified.”

Thetford M.B.—“Only one case notified.”

King's Lynn M.B.—“There were a number of notifications, mostly in the first half of the year, some of them of a serious type. Free antitoxin was supplied in a large number of cases, and no doubt prevented the mortality being larger than it was.”

RURAL DISTRICTS.

Aylsham.—“There were 17 cases of Diphtheria distributed through 8 parishes, and it was only at the close of the year that in the village of Hindolveston the disease appeared in a form approaching an epidemic.

“The Council have made arrangements with Dr. Claridge, of St. Giles' Plain, Norwich, for the free examination of swabs to assist Medical Practitioners in the diagnosis of this disease. It is also a rule that no child may return to School after an attack until an examination of a swab from the throat gives a negative result. For the taking of the swabs for School purposes a fee of 2/6 is paid to the Medical Practitioner. Injections of antitoxin (both curative and prophylactic) are given on the advice of the Medical Officer of Health, and for each injection a fee of 5/- is paid by the Council, the Practitioner supplying the serum.”

Blofield.—"An outbreak occurred at Reedham at the beginning of the year, when 10 cases were notified. Antitoxin injections, both curative and prophylactic, were promptly and freely given, and the epidemic was after a time stayed without a single fatality. The remaining 4 cases notified were sporadic."

Docking.—"15 cases. Heacham, 8 cases; a continuation of the epidemic of 1911.

"January 3rd. Swabs taken of the Schoolmaster and two of the scholars; all were positive.

"January 10th. I met the County Medical Officer of Health at the re-opening of the School. One case of Diphtheria was discovered, and her Doctor on visiting the case found another member of the family suffering from it. The swabs from 5 other children attending the School were found to contain pseudo Diphtheria bacilli. The School was kept closed.

"January 12th and 16th. Two fresh cases occurred in the village.

"February 5th. I visited the School on re-opening—took three swabs (one from the Head Master), all were returned as negative. There were numerous absentees, and these were visited by myself and the Sanitary Inspector, but nothing suspicious was found.

"February 7th. Another swab was taken from the Head Schoolmaster, as the County Medical Officer of Health required two consecutive negative swabs from him before he was allowed to return to School. This swab was returned as positive.

"February 13th. A further swab from the Head Schoolmaster was again returned as positive; and being informed that a child in the village had suspicious symptoms, I called and took a swab from her throat, and this proved to be Diphtheria, and as she had been freely mixing with some next-door children, I advised their exclusion from School.

"March 21st. A School Teacher was notified as suffering from Diphtheria and a good many children were absent through Influenza. On consultation with the County Medical Officer of Health, the School was again closed by him. A swab from the Schoolmaster's throat was returned as negative.

"April 16th. I met the County Medical Officer of Health again on the School being re-opened. Swabs were taken from three children, and one of them was returned as positive, and the child excluded. The School was allowed to open.

"May 2nd. A swab from the last case was returned as negative, and he was allowed to return to School on May 6th.

"This was rather a prolonged epidemic from December 11th, 1911, to May 2nd, 1912. Noteworthy features were the obstinacy of the Schoolmaster's case and necessary precaution of the County Medical Officer of Health in insisting upon two negative swabs. The same obstinacy was very marked in a case at Ringstead.

"Syderstone. Two cases were reported in children attending the School. On February 27th I visited the School and infected houses. The Schoolmaster's throat was slightly suspicious, but a swab was returned as negative. For some time odd cases of Diphtheria and Scarlet Fever have been frequently occurring at Syderstone, and on my inspection of the village the sanitary arrangements of some of the cottages were very faulty. Most of these have now been rectified.

"There was nothing noteworthy in the other cases of Diphtheria. I visited two Schools on being advised by the Schoolmaster that there were absentees with suspicious symptoms, but these proved to be simple sore throats."

Downham.—"There were only two cases of Diphtheria. One of these was the daughter of a woman who had previously had the disease, which she had contracted outside the district."

Erpingham.—"During the year there were 21 cases of Diphtheria: 11 in Holt, 4 in Northepps, 1 in Kelling, 1 in Weybourne, 2 in Aldborough, 1 in Aylmerton, and 1 in Thornage.

"During the year the unpaved condition of the back yards of Holt was the subject of a Special Report to the Council, which was followed by a request to the Local Government Board to sanction the adoption of paving in the public yards, at the expense of frontagers, in pursuance of the Private Street Works Act, 1892. It is with regret that I record that this request was

refused by the Local Government Board, and that Holt has since been the scene of an epidemic of Diphtheria, spread by a child returning to School in an infective state, who, unattended by a doctor, was supposed to have had Influenza.

"The first case occurred just as the Schools broke up for Christmas and the School Staff dispersed. During the week I received 10 further notifications, nearly all in girls from 8 to 10 years, but was greatly hampered by the absence of the School Staff in getting the information necessary to detect the culprit. To pick out the case in a School class is comparatively an easy matter; to do the same thing when the children are scattered about their homes is almost like looking for a needle in a haystack. Eventually I got into touch with the Teacher of Standard 3, and later with the Head Master and Registrar. The evidence I obtained therefrom pointed to two girls as possible sources. In the house of No. 1 there were two notified cases of Diphtheria, and, as she had been previously absent from School, it seemed as if she might have had Diphtheria in a mild form, which she had communicated to her brother and sister and others on her return to School. I proved, bacteriologically, that this was not so.

"Girl No. 2 had been absent for four days, returned to School one day, and been absent eight days up to the end of the term. The first notified case occurred three days after the one day she returned to School, and the second batch of notifications four days after the first. This verified my suspicion that this girl had had Diphtheria, returned to School for one day and infected the first batch of three notifications, who later infected the second batch of notifications.

"I visited the house where the child lived, got hold of the child with difficulty, found she had enlarged tonsils and a discharge from the ear, proved bacteriologically that she had the Diphtheria bacillus in the throat, and acted accordingly. The epidemic then ceased.

"So long as the back yards of Holt remain unpaved, there is little doubt that periodic outbreaks of this kind will occur. Unpaved yards mean foul soil and damp houses, which mean excessive moulds in the air, lowered resistance of the children, and a suitable soil for disease when the seed is introduced."

Forehoe.—"Six cases notified: 1 was at Wymondham, 1 at Kimberley, 1 at Barnham Broom, and 3 at Costessey.

"One of the Costessey cases occurred at a dairy farm. In all the cases the houses and surroundings were carefully inspected, the water supply examined, and strict isolation with all other necessary precautions taken to prevent a spread of the disease; and at the dairy farm, in addition to these precautions, the sale of the produce of the dairy was prohibited for some time, and the cows and dairy were removed to another farm. I made special inspections and consulted and advised with Mr. Carr, the Farmer, who readily carried out anything I suggested. There was no further case here. In the majority of the outbreaks of Diphtheria the stress of the disease has fallen on the villagers in the Yare and Wensum Valley, and this ill-drained locality is undoubtedly favourable to the propagation of such a disease. Last year, in my report for 1911, I had 23 cases of Diphtheria, of which 20 occurred at Barford."

Henstead.—"Nine cases occurred in six parishes, with a mortality of nil, being a large decrease compared with last year, when 24 cases were notified. One case occurred in Swainsthorpe, due to defective drains. Two cases in Wreningham in one house. Three cases in Braconash in one house, contracted from a lodger who came to the house suffering from, what he called, a severe sore throat. One case in Hetherset and one case in Cringleford, the cause in these cases being uncertain. One case in Mulbarton, this being a housemaid who contracted disease outside the district where at service, she being sent home ill with sore throat, but on getting no better a doctor was called in, who diagnosed the case as Diphtheria.

Loddon and Clavering.—"There were 17 cases notified during the year. 13 of these cases occurred either in Thurlton parish or amongst scholars attending School there. On March 1st, 1912, I presented a special Report on this subject to you and obtained permission to take a swab from any child with a doubtful or suspicious throat or nose. The School re-opened on March 11th, and accompanied by Dr. Nash (the County M.O.H.) we examined all the children and took swabs of every suspicious case, 22 in all. The School was again closed pending the result of the bacteriological examination. The swabs were sent, some to Dr. Claridge and others by Dr. Nash to London;

as a result, 15 children were found to have the bacilli in their throats or noses, although they were not ill. The School was kept closed until the Teachers were pronounced free. It was disinfected on three occasions and then re-opened, but none of the children affected were allowed to return until a negative swab, and in the worst cases two negative swabs, had been obtained. As a result of this procedure, there have been no further cases in Thurlton since March 1st, and only one case in the whole District since then. One case is still absent from School owing to the continued presence of the germ in the throat. I hope now that Thurlton will be free for some years from this disease. Three cases were fatal. There is no doubt that in spite of the expense, it is right to refuse to allow people who have had Diphtheria to mix with others until their noses and throats are proved to contain no active Diphtheria germs. If this is persisted in, the time will come when Diphtheria outbreaks will be comparatively few ; isolated cases are sure to occur."

West Lynn.—"Two cases occurred on the east side of the river ; mild cases ; both recovered. Those responsible for the construction of the sewer appear not to have done the work in a satisfactory manner. This is being investigated and will be remedied. All sanitary precautions were taken to prevent the disease spreading."

Freebridge Lynn.—"There were 5 cases notified three were in the same house in Castle Rising District, and was a continuation of the outbreak in last year's Annual Report—South Wootton. The other two cases were mild isolated cases in the Gayton District."

Mitford and Launditch.—"The sixteen Diphtheria cases were in 6 parishes."

Marshland.—"Twelve cases were notified, eight in Terrington (four in one family), two in Walpole, and two in Emneth. Two of the cases proved fatal."

Smallburgh.—"Of the 10 cases in Smallburgh Sub-District, nine cases were of children attending the School at Tunstead. This School is in a most unsatisfactory condition—dirty, damp, badly ventilated and badly lighted, and much overcrowded. The sanitary accommodation is insufficient and much too near the School."

"I understand a new School is to be built on an adjoining site. The site is not good, being a very wet piece of ground and quite opposite the village forge, from which smoke and smell can get into the School.

"One case only died."

Swaffham.—"There were four cases; two at Saham Hills, one at Narford, and one at Necton. In this last instance the disease was probably contracted outside the district, as the child had been home only a week. There were no deaths from either Scarlet Fever or Diphtheria. Your Council agreed to my suggestion to provide for the examination of suspected material free of expense to the patient; arrangements have accordingly been made with the Clinical Research Association to undertake the work. With these facilities the diagnosis, in every case notified, should be confirmed; and before the patient is allowed to mix with others, the absence of the germ of the disease should be bacteriologically proved."

Walsingham.—"Twenty-four cases in ten parishes. Nearly all these cases occurred in the early part of the year, as a continuation of the epidemic we were dealing with at the latter part of 1911. In connection with the case at Little Snoring, five carriers of the nasal type were located at the inspection of the School; these were isolated as far as possible, and no further cases occurred.

"After our experience of 1911, it is with great pleasure that I have to report that at the end of 1912 there was no case of notified infectious disease beyond Pulmonary Tuberculosis existing in the district.

"No steps have been taken during the year for the provision of an Isolation Hospital. It is to be noted that the Local Government Board have considerably relaxed their building regulations for Isolation Hospitals."

Wayland.—"There were three cases of Diphtheria; one in February and another in June, in another family but in the same parish. The third case was notified, but the bacillus of Diphtheria was not found in a swab taken. There is no question of the value of bacteriological examination in all suspected cases, and as your Council provides facilities for these examinations to be made free of all cost, it seems to me that every case notified should be confirmed, although a negative result is not always proof of the absence of the disease bacillus."

Scarlet Fever.

This disease was apparently prevalent in a few districts, but the reports agree in describing the form of disease as of a mild type. The value of School Medical Inspection in contributing to secure control over infectious diseases is again in evidence in the extracts from the reports of the District Medical Officers of Health for Henstead and Wayland Rural Districts.

Cromer.—"Two cases of Scarlet Fever occurring in the same family were notified and removed to the Isolation Hospital."

East Dereham.—"Eight cases were notified."

Diss.—"Three cases notified."

Sheringham.—"Twenty-two cases notified."

Swaffham.—"Three cases notified. In these cases precautions were taken to prevent the spread of the disease, and the houses were fumigated."

North Walsham.—"Eleven cases occurred during the year; eight of these occurred in the early part of the year. There were no severe cases. Only one case occurred in each house affected, and only in one instance was it possible to trace any connection of the cases with one another."

Walsoken.—"Five cases notified, all mild in character, and they gave little cause for anxiety."

Thetford, M.B.—"Six cases notified."

King's Lynn, M.B.—"There have been a number of notifications, all of a very mild type. The rash in some instances has been slight, and the desquamation hardly noticeable. There were probably cases which were never notified, and people do not seem to know that the head of a house is liable to be fined if he does not notify any case which he believes to be Scarlet Fever, unless a medical man has seen it, in which case the doctor would seem to be responsible for the notification."

RURAL DISTRICTS.

Aylsham.—"In contrast to the year preceding, when only six cases had to be recorded, Scarlet Fever has been exceptionally prevalent. Fifty-seven cases were notified, and there were probably others which escaped detection. Fortunately, the type of the disease was mild and there were no fatal cases."

Aylsham suffered most severely, an epidemic, beginning in December, was still in progress at the New Year. In Kerdiston all the seven cases were members of the same household, and at Coltishall the outbreak was limited to a single cottage in Fire Engine Yard. Only two or three cases were notified from any of the remaining villages in which the disease occurred, so that although the total number of notifications was in excess of previous years, Aylsham was the only locality in which it was epidemic."

Blofield.—"Although as many as 34 cases of Scarlet Fever were notified, Reedham was the only village in which it could be said that the disease was epidemic. Here 15 cases were notified and one young child, which had been weakly from birth, died. The five cases at Hassingham were all members of the same family, and the remainder were scattered in different parts of the District and presented no points of special interest."

Docking.—"Three isolated cases, no epidemic."

Downham.—"There were only five cases of Scarlet Fever. Four of these occurred in one house on the Western boundary of the District. In the first case the rash was noticed on October 8th, a doctor was called in on the 15th, but the notification was not received until November 3rd, 1912. A single case occurred at Fincham of a very mild type."

Erpingham.—"There were 13 cases of Scarlet Fever—3 in Overstrand, 2 in Upper Sheringham, 3 in Briston, 1 in Cley, 1 in Glandford, 1 in Mundesley, 1 in Weybourne, 1 in Southrepps."

Forehoe.—"Twenty-four cases were notified. These were scattered over the district—2 in Wymondham, 5 in Wicklewood, 1 at Wramplingham, 1 at Barford, 4 at Costessey, 10 at Bawburgh, and at Barnham Broom. Three cases from Bawburgh were sent to the Isolation Cottage at Wicklewood. Isolation was strictly enjoined, and disinfecting was carried out as far as possible, but we still very much need a suitable disinfector to carry this out efficiently."

Henstead.—"Sixty-eight cases occurred in 15 parishes, with a mortality of 1. The largest number of cases occurred in the parish of Hethersett; here 26 cases were notified, occurring in 12 houses. In Swainsthorpe, 16 cases occurred in 6 houses, and 3 cases occurred in Dunston in 1 house. The

above cases were due to infection spreading from the Schools. In Swainsthorpe School 8 children were found suffering from the disease when the School Medical Officer made his inspection of the children, and 1 case was found in Hethersett British School when the inspection was taking place. These cases necessitated the closing and disinfection of Swainsthorpe and Hethersett British and National Schools.

"Six cases occurred in Whitlingham in 2 houses, and 1 case occurred in Trowse, the infection in this case coming from an infected house in Norwich where the child had been staying.

"Two cases occurred in Bixley, the first case that of a servant who came home ill with disease, having contracted same while away, and the second case arose from this.

"One case in Flordon, the patient being a dressmaker who caught disease from an adjoining parish outside the District where she was employed.

"Two cases in Stoke Holy Cross. It was noted that foul gas was escaping from a stench pipe into the bedroom.

"One case in Swardeston, the child being sent out into the country from an infected house in Norwich in order to escape the disease.

"Three cases in Shotesham All Saints in 1 house, and 1 case in Saxlingham Nethergate.

"Two cases in Great Melton in one house, possibly due to insanitary surroundings, 1 case in Little Melton and 2 in Colney, both due to infection from Bawburgh outside District.

"One case in Framingham Pigot, contracted by patient whilst away on a holiday.

"The fact of the 42 cases in Hethersett and Swainsthorpe occurring in only 18 houses clearly shows the want of better means of isolating the first cases; at present there are no effective means of isolation, and if the first cases had been removed to an Isolation Hospital and the infected premises thoroughly disinfected without delay, many of the cases would not have arisen."

Loddon and Clavering.—"There were 29 cases during the year. Six cases occurred in 1 house, 3 in another, and there were 2 in 3 other houses, making a total of 15. In the other 14 cases there was no spread of the disease amongst other members of the house. Three of the cases at least were infected from an outside source."

Freebridge Lynn.—"There were 18 cases notified—12 in Gayton District, and 1 in Castle Rising District. These were all of a mild type, comprising 7 villages."

Mitford and Launditch.—"The Scarlet Fever cases, 48 in number, were spread over the whole year, and in 16 parishes.

"Five Typhoid cases in 4 parishes. In all the Scarlet Fever and Diphtheria cases the disease was spread by personal infection, and in the Scarlet Fever was complicated by a very widespread epidemic of Dunn's Disease and German Measles over the whole country, so that there was always a danger of cases being overlooked owing to a Doctor not being called in. Much assistance has been received from the School Teachers who notified doubtful cases and sore throats."

Marshland.—"Fifteen cases were notified—7 at West Walton, 3 at Walpole St. Peter, 1 at Tilney St. Lawrence, and 4 at Upwell. They were all of a mild type, and none proved fatal."

St. Faith's.—"Thirty-two cases of Scarlet Fever occurred in mild epidemic form in the Parishes of Horsford, Frettenham, Haynford, and Crostwick during the Summer months."

Smallburgh.—"Scarlet Fever 32: Smallburgh Sub-District 6; Stalham 2; North Walsham 9; Ludham 15.

"Six cases at Worstead and Honing in May were contracted, I feel satisfied, from the "Fair people" at North Walsham, migratory van dwellers. Five cases at Bradfield were all in one family.

"In Ludham Sub-District all the cases were in Hoveton St. John parish, no less than 9 being in one family. No deaths occurred.

Swaffham.—"Eleven cases of Scarlet Fever were notified, all from the parishes of Necton and Cockley Cley. At Necton, in the month of November of the previous year, one member of a family recently moved into the district

contracted the disease, presumably from outside : during the first few months of 1912, 6 more members of the same family fell victims at varying intervals. Only 1 other case occurred at Necton about six months later. At Cockley Cley there were 4 cases, 2 being in one house."

Walsingham.—"Seventy-three cases of a very mild type, occurring principally in Fakenham, Binham, Holkham, and Great Snoring."

Wayland.—"After the marked incidence of this disease in the district last year, I have to record only 20 cases, and as 17 of these occurred in one parish, practically the District was free. At Snetterton, in January, my attention was called, through the admirable system of school notification, to two children who, in the opinion of the Teacher, were suffering from Scarlet Fever. On visiting these families, I found that no doctor had been in attendance, as the children were not deemed by the parents to be sufficiently ill, and that several children were undoubtedly suffering from Scarlet Fever of a very mild type. During the next few weeks I received several more notifications, all from three families. The School was closed for some weeks, and no further cases resulted. There were no deaths."

Erysipelas.

One case of Erysipelas was notified in the Urban Districts and 9 in the Rural Districts.

Puerperal Fever.

The only comment among the Reports justifying quotation is the following from the Report of the M.O.H. for *Smallburgh* Rural District:—

"All three cases occurred in the Ludham Sub-District, and were all, I regret to say, fatal. I was unable to find anything in the surroundings of the houses in which these cases cropped up to account for the infection, but I found that in all these cases the doctor engaged could not be got in time, and that the births were managed by the Gamps of the village. These women were not, when I visited them, in my opinion, suitable people to attend confinements, their standard of cleanliness being by no means in accord with modern surgical science. A District Nurse should be provided, and if only some person with time to spare would start the movement, I feel sure it would soon be a success. Cottagers soon learn the increased comfort and security of having a trained Midwife to be with them in their trouble, and

with the Insurance Maternity Benefit will now be able to pay for her services without having to pinch to do so."

Acute Poliomyelitis and Cerebro Spinal Fever.

The Local Government Board issued a Circular and Memorandum on these diseases in December, 1911, to all Sanitary Authorities, recommending that they should be made notifiable and giving particulars as to diagnosis, treatment, and preventive measures. In 1912 these diseases became compulsorily notifiable. During the year 1912 no cases were notified in Norfolk, as compared with 19 cases noted and 6 deaths in 1911.

NON-NOTIFIABLE INFECTIOUS DISEASES.

Measles.

Of these the most important in general terms are Measles and Whooping Cough, which have been fully commented on in previous reports.

Among the Urban Districts, King's Lynn M.B., registered 1 death from Measles, Thetford 3 deaths, and Cromer 2. There were no deaths from Measles in the other Urban Districts. Among the Rural Districts there were no deaths in 14 districts, and 19 deaths in the remaining 6 districts, 6 deaths occurring in the Thetford Rural District, 5 in Marshland, and 4 in Downham Rural District.

Whooping Cough.

Whooping Cough accounted for 94 deaths in the Administrative County in 1912, 92 of these being children under 5 years of age (53 of these being under 1 year). King's Lynn, M.B., suffered most among the Urban Districts, and Walsingham among the Rural, each recording 12 deaths.

CANCER.

This horrible form of disease appears to be still on the increase, no fewer than 432 deaths being attributed to Cancer during 1912. This is a large increase on any previous year since I began my series of Annual County Reports in 1907, the previous highest record being in 1910, when 397 deaths were registered. This disease is dealt with at length in the Registrar-General's Report for 1911. It would be useful if the District Medical Officers of Health would give more particulars in their reports as to age and sex incidence and notes on the parts of the body affected.



COUNTY OF NORFOLK, 1912.—PULMONARY TUBERCULOSIS.

SANITARY DISTRICT.	No. of Cases Notified.	No. of Deaths.	No. Notified per 1000 Population.	Phthisis Death Rate.	Tuberculous Death Rate. (All forms.)
URBAN DISTRICTS—					
Cromer ..	8	1	1.84	0.23	0.46
Diss ..	1	1	0.27	0.27	0.27
Downham Market ..	7	4	2.80	1.60	1.60
East Dereham ..	12	6	2.09	1.04	1.74
Hunstanton ..	3	..	1.19	..	0.39
North Walsham ..	4	4	0.83	0.83	1.63
Sheringham ..	30	4	8.82	1.17	1.76
Swaffham ..	3	3	0.92	0.92	0.92
Walsoken ..	14	5	3.49	1.24	1.24
Wells ..	1	..	0.39	..	0.39
MUNICIPAL BOROUGH—					
King's Lynn ..	35	23	1.73	1.13	1.38
Thetford ..	13	..	2.72	..	0.20
Urban Districts	131	51	2.13	0.83	1.14
RURAL DISTRICTS—					
Aylsham ..	28	13	1.61	0.74	0.97
Blofield ..	19	10	1.72	0.90	0.99
Depwade ..	24	16	1.20	0.80	1.00
Docking ..	22	11	1.29	0.65	0.76
Downham ..	24	7	1.54	0.45	0.83
Erpingham ..	28	11	1.62	0.64	0.83
Flegg East and West ..	..	9	..	0.90	0.90
Forehoe ..	12	9	1.04	0.78	0.86
Freebridge Lynn ..	10	4	0.82	0.33	0.66
Henstead ..	7	3	0.68	0.29	0.29
Loddon and Clavering ..	20	9	1.59	0.71	1.03
Marshland ..	10	11	0.79	0.87	0.95
Mitford and Launditch ..	25	25	1.33	1.33	1.60
St. Faith's ..	16	12	1.47	1.10	1.38
Smallburgh ..	27	13	2.01	0.96	1.04
Swaffham ..	8	6	1.05	0.79	1.18
Thetford ..	13	8	1.29	0.79	1.39
Walsingham ..	30	15	1.73	0.86	1.10
Wayland ..	32	11	2.21	0.76	0.97
West Lynn ..	2	1	2.13	1.06	1.06
Rural Districts	357	204	1.36	0.77	0.99
Whole County	488	255	1.51	0.79	1.02

TUBERCULOSIS.

This important subject was discussed by me at considerable length in my Report for 1911. Owing to the Report not being printed until somewhat late in the year 1912, the subject matter included a great deal of what would in the ordinary course of events not have appeared until the present Report. To make the present Report a record for 1912, I shall briefly restate a few facts.

Compulsory Notification of Pulmonary Tuberculosis came into force in this country as from January 1st, 1912, under the Public Health (Tuberculosis) Regulations, 1911, which Regulations give power to Sanitary Authorities for taking adequate measures in connection with Tuberculosis.

I reported quarterly to the County Public Health Committee on the subject, and urged the desirability of a scheme of treatment being evolved by the County Council, as the supervising Sanitary Authority of the County, which as a complete workable whole could be utilised by the Insurance Committee for insured persons, the District Sanitary Authorities, the Poor Law Authorities, and the Education Authority for the uninsured paupers and children.

I was authorised to convene a Conference of the District Medical Officers of Health in the County, which Conference was held at the Shirehall, on March 15th, 1912, and was well attended and much appreciated by those present, the means of dealing with Tuberculosis being fully discussed.

The Public Health Committee, however, were of opinion that the financial considerations involved were too indefinite to justify a County scheme, so no scheme has as yet been adopted by the County Council. In my Annual Report for 1911 I outlined one or two schemes to cover the needs of the whole County, but these have not been considered, so remain at present nothing more than my personal suggestions. It is interesting to know that one or two other Counties have adopted schemes very much on the lines of the Scheme B outlined at pp. 67—71 of my 1911 Report. The present Report for 1912 therefore cannot give any particulars of a complete County Scheme for Norfolk, but must be limited to a brief review of what was done by the District Sanitary Authorities and by the Norfolk Insurance Committee in connection with Tuberculosis.

Under the Public Health (Tuberculosis) Regulations of 1911 it became obligatory on Medical Practitioners to notify to the District Medical Officers of Health of Sanitary Districts all cases of Pulmonary Tuberculosis coming to their knowledge in the respective Sanitary Districts. On each District Medical Officer of Health it became obligatory to keep a Register for the purpose of entering the full particulars contained in every notification received by him under these Regulations, or under the earlier Poor Law Regulations, or Hospital Regulations, relating to patients residing within the Sanitary Areas for which they are Medical Officers of Health. This Register was open to inspection by certain authorised persons, including the Medical Officer of Health for the Administrative County. [By a later Order of the Local Government Board, the Public Health (Tuberculosis) Regulations, 1912, dated December 19th, 1912, which came into force from the first day of February, 1913, the former Regulations have been revoked, and Medical Practitioners are now required to notify cases of all forms of Tuberculosis of which they become aware to the District Medical Officers of Health, who now not only have to keep a Register which may be inspected by the County Medical Officer of Health, but are required as soon as practicable after the end of each week to send to the County Medical Officer of Health a statement of every notification received by them relating to persons residing within their respective Districts. This statement has to show on which Form the Notification was made, and must contain the information in regard to each person which was given in the Notification.]

The General Order of the Local Government Board of 13th December, 1910, had already imposed the duty on each Medical Officer of Health of transmitting to the County Medical Officer of Health (as well as to the Board) a weekly statement of notified cases of notifiable diseases occurring in his District. In this way it became possible to ascertain the number of cases of Pulmonary Tuberculosis *notified* in the area of the Administrative County of Norfolk during 1912. This I have cast in tabular form together with the deaths recorded in each Sanitary District during 1912. A glance at this table at once reveals that the number of cases notified does not correspond with the actual number existing, and that in some Districts notifications of Pulmonary Tuberculosis were by no means as numerous as there must be cases of this disease.

In one District—East and West Flegg—there has been extreme remissness in the matter of notification, for although 9 deaths were recorded from Phthisis in 1912, there were apparently no notifications. On the low estimate of 3 recognisable cases of Pulmonary Tuberculosis to every death, it is reasonable to assume that there should have been from 25 to 30 notifications in this Sanitary Area during the year. Judged by the same standard, it is equally clear that in very few Districts was notification complete.

But in Sheringham Urban District the resident Medical Practitioners appear to have diligently fulfilled what was required of them—the notifications actually figuring, when compared with the number of deaths, as 6 to 1.

In August, 1912, with the consent of the County Council, I was appointed Consulting Officer to the Norfolk Insurance Committee for six months, pending further developments. Between this time and the end of the year 1912, 29 persons claiming Sanatorium benefit were referred to me for examination and report. Of these, one was found to be not a case of Tuberculosis; one was a case of Obsolete Tubercle; one was a case who had been in a Sanatorium previously and had T.B. in her sputum, but whose present illness was chiefly Asthma; two were very early cases of Pulmonary Phthisis; two were cases of chronic Tuberculosis; one a case of very advanced Phthisis. The remainder were cases in the first, second, and third stages of the disease. Only such cases were recommended for Sanatorium Institutional treatment as were considered to have definite chances of receiving benefit from residence in the Sanatorium. The question of utilising Sanatorium beds for educational purposes for a month, for training more advanced cases in the care of themselves and in the proper methods of disposal of their sputa, was discussed, but the Sanatorium Authorities were not prepared to reserve any beds for such purposes.

Seventeen cases were granted treatment in Kelling Sanatorium by the Norfolk Insurance Committee on my recommendation, and nine received domiciliary treatment. Shelters were provided for six patients and three patients received hospital treatment. The advanced case died within three weeks of his being allowed Domiciliary Sanatorium benefit. Two cases (males) were admitted to the Sanatorium in August, and one returned to work in November—greatly improved in health. He continued for a time on a course of tuberculin. The other did not do well, and left the Sana-

torium in December to return home. He died subsequently (1913). Three cases were sent in to the Sanatorium in September. One of these had previously been an inmate. One male made very satisfactory progress and left the Sanatorium in January to continue home treatment in a shelter; the second male patient (who had been a patient previously to the Insurance Act) did not make much progress during his second stay, and subsequently went home to live in a shelter. The third, a young female, was not considered a satisfactory case at the Sanatorium, but she subsequently made gratifying progress in a shelter, under domiciliary treatment. One case admitted in October made slow progress, and four cases admitted in November all received benefit. Six additional cases were admitted in December.

Domiciliary Treatment. Of the cases recommended for domiciliary treatment, one (the case of Asthma) subsequently had further treatment, first at the Sanatorium and later at the Norfolk and Norwich Hospital. The others were too advanced to expect benefit from residence at a Sanatorium. Only one, however, died in the period covered by this Report.

Tuberculin was administered by local practitioners in a few cases after consultation with me—with apparent benefit; but the numbers are too small to justify any deductions being made as to the value of the treatment.

Perhaps the chief use of this table will be to show that notification has been very incomplete in some districts, and that on the whole the number of cases notified is on the side of deficiency rather than of excess.

The table shows that in the various Urban and Rural Sanitary Districts constituting the Administrative County of Norfolk there were 488 notifications of Pulmonary Tuberculosis in 1912. Judged by the average yearly number of deaths for a few years past, these notifications probably fall short of the actual existing cases of recognisable Pulmonary Tuberculosis by some 300 in number. Of course some of these may never yet have consulted a doctor, and the establishment of a complete County scheme would help to ferret them out; and in the long run prove economical by getting such persons under treatment at an earlier stage, thus saving much expenditure that at present falls on the poor rates through persons becoming incapable of work. Experience in County areas where a complete scheme is in working order appears to indicate that about 11 or 12 per cent. of the persons treated are neither insured persons nor the dependents of insured persons.

The following are extracts from the Reports of the District Medical Officers of Health :—

RURAL DISTRICTS.

Aylsham.—“ During the past year I have had notified to me 28 cases of Pulmonary Tuberculosis. These have been visited and their sanitary surroundings enquired into, and in many cases remedied. Advice as to precautions to be taken to prevent the spread of infection has been given, and, when found necessary, disinfectants have been supplied. In fatal cases the room occupied by the patient has been disinfected.

“ Deaths from Pulmonary Phthisis numbered 13, and there were four deaths from other tubercular diseases. It is a noteworthy fact that the proportion of deaths to notification in the past year is unduly large, and it will no doubt take a time before it is notified with the same exactness as other infectious diseases.

“ Although I have to record no large amount of work done in the district in directly fighting the White Plague, yet it must not be forgotten that every sanitary improvement in the dwellings of the people has a very important influence in reducing the death rate from Phthisis.

“ During the coming year (1913) a proportion of the total number of sufferers from Consumption in your district will receive either Sanatorium or Domiciliary treatment under the provisions of the National Insurance Act ; and of the rest, many will be in a position to carry out a proper course of treatment for themselves. There will, however, remain a certain number of consumptives who are neither insured persons nor the dependents of insured persons, who are of the poorest and most helpless class. The District Council are responsible for these, and, by making use of the extended powers granted under the Tuberculosis Regulations, can provide the necessary appliances for their treatment and isolation. The area is too small for the establishment of a Sanatorium, but our District might usefully combine with other Rural Districts for this purpose. Domiciliary treatment is quite practicable and might be employed in suitable cases. Constant use could be found for two revolving shelters, which should be constructed so that they could be easily taken to pieces and moved to different parts of the district, as required.”

Blofield.—"The District Medical Officer of Health is required to keep a register of cases notified, and to send to the County Medical Officer of Health a weekly return. It is also the duty of the Medical Officer of Health to investigate the cases notified to him and to take the necessary steps for the prevention of the spread of infection.

"Very wide powers are given District Councils under Article XIII. (1). A Rural District Council may, on the advice of their Medical Officer of Health, 'supply all such medical or other assistance, and all such facilities and articles as may reasonably be required for the detection of Tuberculosis, for the prevention of the spread of infection, and for removing conditions favourable to infection; and for that purpose may appoint such officers, do such acts and make such arrangements as may be necessary.' It is for the Council to reduce this Article to practical terms, and to decide the particular form in which the 'assistance,' 'facilities,' and 'articles' might best be supplied in the Blofield Rural District.

"At the present time the following provisions are being made:—1. The examination of sputum free of cost, to aid medical men in making a diagnosis. 2. The supply of paper spitting cups. 3. Supply of Jeyes' fluid. 4. The disinfection of the patient's room after death. 5. The Council own two very good revolving shelters, which are at present let to the Norfolk Insurance Committee, but will subsequently be available for persons not eligible for Sanatorium treatment under the National Insurance Act. 6. Steps are taken, when needed, for the improvement of the sanitary surroundings of the patient.

"The National Insurance Act in course of time will doubtless provide all that is necessary for a large proportion of sufferers from tubercular disease, but there are cases now in the district which are not touched by the Act, and such 'facilities,' 'articles,' and 'assistance' as they are receiving is through the Poor Law Authority, and not the District Council, whose special function it would appear to be to minister to their wants.

"During 1912 ten deaths were due to Pulmonary Tuberculosis and one to Tubercular Meningitis.

"There have been nineteen cases of Pulmonary Phthisis notified during the year under the 1911 Regulations."

Docking.—"I am grateful for the way in which your Council met my requests in connection with the treatment of consumptives. I wrote to the different doctors in my district, asking them to suggest any ways in which I could help them in their cases. One doctor said an open-air shelter would be useful for isolation; your Council supplied one. Another had two cases for which he desired Sanatorium treatment; in one case this was provided through friends and the Board of Guardians. All were supplied with sanitary spittoons and disinfectants where required, and the sleeping apartments of those who died were disinfected after death. Any doctor was empowered to have a bacteriological examination of the sputum made gratis.

Dowvham.—Under the Public Health (Tuberculosis) Regulations, 1911, 24 cases of Pulmonary Tuberculosis were notified. I visited 14 of these in conjunction with the medical attendant. In all of the cases inquiries and particulars respecting the sanitary condition of the homes were made. In 13 cases the persons were in good circumstances and required no further assistance, and two of them had had Sanatorium treatment. Three cases were sent to the Sanatorium at Kelling and one to the Brompton Hospital. At the end of the year 5 cases had died, 6 have considerably improved, 4 are still undergoing Sanatorium treatment, and in the remaining 9 there is no improvement. The new Tuberculosis Regulations, 1912, come into force on February 1st of this year, and, in addition to Pulmonary Tuberculosis, all other cases of Tuberculosis must now be notified. This will entail a considerable amount of extra work upon your Medical Officer of Health."

Erpingham.—"There were 28 cases notified during the year.

"To know the number of people afflicted with Tuberculosis is, of itself, of no value either to the community or to the sufferer, and so the Order of the Local Government Board decrees that steps are to be taken to prevent the spread of infection, and to remove conditions favourable to infection. To do this, the Council, on the advice of their Medical Officer of Health, are empowered to supply medical and other assistance, and all such facilities and articles as may reasonably be required for the detection of Pulmonary Tuberculosis and for preventing the spreading of the infection, and removing conditions favourable to infection; and, for that purpose, may appoint an Officer to do such acts and make such arrangements as may be necessary.

“The power given to Councils to provide medical and other assistance is notable, and is capable of wide interpretation. The Officer which it is empowered to appoint apparently refers to a Health Visitor, whose duty it would be to visit the notified cases, advise and educate them in the treatment of their complaint, in accordance with the instructions of a medical man, and particularly to insist upon precautions being taken to prevent the spread of infection.

“Under the Insurance Act, Sanatorium benefit will shortly be a reality, and those insured persons suffering from Tuberculosis for whom Sanatorium treatment is undesirable or unnecessary, are to be treated in their own homes. The organisation of a scheme for insured persons is in the hands of the County Council, but the scheme, to be really effective, must be extended by the Sanitary Authority to embrace those non-insured persons among the poorer classes of the community suffering from Tuberculosis. For the present I refrain from going further into the question until it is seen how the County Council scheme develops. Possibly the Local Government Board will later make a suggestion as to what is best to be done.

“The fact of Consumption becoming notifiable has thrown a good deal of extra work on the Sanitary Staff, which will be further increased by the Local Government Board Order coming into force on February 1st, 1913, which suggests that the Medical Officer of Health should personally visit most cases with the view of tracing the source of infection.

“In the meanwhile, notified cases of Tuberculosis are supplied with letters of instruction as regards their disease, disinfectants are supplied, domiciliary visits made in some cases, and disinfection after death carried out wherever possible.

“There were 17 deaths from Tuberculosis during the year; of these 8 were notified. Three occurred in public institutions.”

Forehoe.—“Twelve cases notified. The treatment was carried out at their respective homes. All the necessary instructions were given them.”

Henstead.—“Included amongst the infectious diseases this year are seven cases of Pulmonary Tuberculosis.”

Loddon and Clavering.—"Twenty cases were notified; of these, six were fatal during 1912. The number of deaths from all forms of Tuberculosis during 1912 was 13. I do not think that all the cases in their early stage are notified, and that now this year, when all forms of Tuberculosis are notifiable (from February 1st), the number will be greatly increased. I am visiting every case, and this year taking records as to housing conditions and sleeping arrangements, giving advice and offering sputum flasks and disinfectants. It is easy, however, to advise, but very difficult to see how separate sleeping-rooms can be arranged when there are only two bedrooms in the cottage. I do think, however, that the labouring class are beginning gradually to believe in fresh air and an open window at night. There is no Sanatorium in the district. Under the National Insurance Act the Insurance Committees are now responsible for the maintenance and treatment of insured persons, but it seems very probable that the District Sanitary Authority will have to take a considerable share in the treatment of those who either will not go into a Sanatorium or for whom there is no room, and especially the uninsured."

Freebridge Lynn.—"There were ten cases notified. The number of deaths was four. Each case notified was visited, and enquiries made as to the possible cause of infection; the residences inspected, and printed pamphlets supplied to each case, with full directions for the precautions Consumptives should take for their own benefit, and for others coming in contact with them; disinfectants supplied in each case. Sanatorium treatment was difficult to procure for certain of the cases. No dispensary or institutional treatment has been available."

Mitford and Launditch.—"When notified, the house is visited and any insanitary conditions rectified, and steps taken when possible to avoid spread of disease. The Insurance Act now being in working order, we are hoping to deal more effectively with this complaint."

"The County Medical Officer of Health has been acting as Tuberculosis officer up to the present."

"The amount of Sanatorium treatment available at present is small. There is no dispensary or other institutional treatment yet available."

Smallburgh.—"27 notifications: Smallburgh Sub-District 11, Stalham Sub-District 8, North Walsham Sub-District 6, Ludham Sub-District 2."

"Only six cases were notified in the whole District last year, when notification was voluntary. Thirteen deaths took place from this disease. No provision has so far been made in the District for the Sanatorium treatment of Pulmonary Tuberculosis. Insured and their immediate dependants will be provided for by the National Health Insurance Committee, but the uninsured, unless paupers, are not provided for."

Swaffham.—"In a Rural District it is difficult to see what individual action the Council can take until a scheme has been elaborated for the whole County to provide in each District, according to its requirements, Sanatorium, Dispensary, and Hospital Treatment, the last being especially necessary for the removal from home of cases of advanced Tuberculosis, to obviate the risk of infecting others. To stamp out Consumption it is essential to treat the victims in the early stages of the disease before they become dangerously infectious, but the difficulty is to get at persons in this stage, as they do not seek advice until the disease is fairly advanced. The systematic examination of the School children by the School Medical Officers will undoubtedly bring to light some such cases, and the distribution of the pamphlets on Consumption, printed last year, will, I hope, prove useful in educating people in this matter.

"Eight cases were notified last year. The Inspector visited the premises, leaving disinfectants and a copy of the pamphlets on Consumption. Facilities are provided by your Council for the assistance of diagnosis by bacteriological examination of sputum.

"I suggest that your Council should follow the example of some other Districts in providing two or three portable shelters for the use of patients at their own homes.

"There were six deaths from Pulmonary Tuberculosis. The Inspector disinfected afterwards the room which had been occupied by the patient."

Thetford.—"These cases are visited by the Medical Officer of Health and the Sanitary Inspector, disinfectants and sputum bottles supplied, together with printed instructions, and in cases of death or removal the house is disinfected. The Council pay for the bacteriological examination of the sputum in doubtful cases,

“There is no Hospital for the treatment of Pulmonary Tuberculosis in the District, except the Workhouse Infirmary, but a Meeting was held at Norwich with a view to providing sanatorium accommodation at Kelling for residents in the District.”

Wayland.—“The new regulations confer large powers and lay definite duties on Sanitary Authorities to prevent the spread of Consumption, but in a Rural District, with cases scattered over a large area, it is difficult to see what more can be done than has hitherto been done with reference to Consumption (such as the abating of overcrowding and the improving of house accommodation) until a scheme for the whole County is established, providing Dispensary and Sanatorium treatment, by which means patients, being taught to help to cure themselves, will gain more benefit than by domiciliary treatment alone. There is, however, another point: I would suggest that your Council follow the example of an adjoining District in providing three portable shelters for the use of patients at their own homes. At the commencement of the year the Inspector of Nuisances used to call, on notification, at the house to make enquiries and to supply a card of instruction and advice, but as there was some feeling that patients and friends were unduly upset, your Council instructed him to discontinue these visits. At present no action is being taken with regard to these regulations. There were eleven deaths from Pulmonary and three from other forms of Tuberculosis.”

URBAN DISTRICTS.

Cromer.—“I received 8 notifications, 7 of whom resided in Cromer, one being an in-patient of the Cromer Cottage Hospital admitted from the neighbouring Rural District. I made the necessary enquiries in conjunction with the Medical Attendants and gave instructions for the prevention of the infection.”

East Dereham.—“The arrangements for systematic treatment of Tuberculosis are nearly complete, and although this is a small District, yet the treatment of the few cases we have is of the utmost importance.”

Downham Market.—“Seven cases were notified during the year. Three of these have died, two have removed from the District, one has practically recovered, and the other is living under satisfactory Sanatorium conditions.”

Sheringham.—"There were 30 notifications of Pulmonary Tuberculosis during the year. Of these, 5 are dead; 2 were visitors. Of the remainder, there are 4 cases in one house where apartments are let; 3 cases in another, all chronic; 2 cases in another. I estimate that of the total 30 at least 12 cases were contracted out of Sheringham. Of the remainder, 6 are very early cases and are again at work. Each case has been supplied with a printed card of instructions as regard their disease. Disinfectants are provided gratuitously. Disinfection is carried out after death. I think the Medical men of Sheringham have made every effort to seek out early cases, judged by the number of notifications compared with the population.

"The question of provision of a Health Visitor has been considered, and was the subject of discussion of a Meeting of the Medical Officers of Health in the County. A great deal of good work could be done by a Health Visitor, whose duty it would be to visit the notified cases and, in a tactful manner, to educate them in the treatment of their complaint in accordance with the instructions of a Medical man; while anything necessary or desirable for preventing the spread of infection, and for removing conditions favourable to infection, would be gradually and unobtrusively insisted upon or provided.

"Under the Insurance Act, Sanatorium benefit will shortly be a reality and those insured persons suffering from Tuberculosis for whom Sanatorium treatment is undesirable or unnecessary are to be treated in their own houses. The organisation of a scheme for insured persons is in the hands of the County Council, but the scheme to be really effective must be extended to embrace those non-insured persons among the poorer classes of the community suffering with Tuberculosis. For the present I refrain from going farther into the question until it is seen how the County Council scheme develops. Possibly the Local Government Board will later make a suggestion as to what is best to be done."

North Walsham.—"Affected houses have been visited and printed instructions given."

Walsoken.—"I cannot too strongly impress upon the inhabitants of the district to exert the greatest care in dealing with these cases; in all it is most important to provide a separate sleeping-room and as much isolation as possible, and in each case to disinfect and subsequently destroy all expectorations from these invalids."

Thetford M.B.—"All notified cases were visited, and, where found necessary, a sputum glass was provided. Instructions were given as to the disposal of the sputum and the precautions to be taken to prevent the spread of infection. No unrecognised cases were discovered in association with any notified case of the disease. The Council pays for the examination of sputum in cases of suspected Tuberculosis."

King's Lynn M.B.—"Pulmonary Tuberculosis: Notified, 20 male, 15 female; deaths, 13 male, 7 female. These last were residents dying in Lynn. The average age of these deaths is 30 years. The average number of deaths during the last 10 years is 19.5.

"Other kinds of Tubercle: There were five of these.

"On January 1st, 1912, compulsory notification of the pulmonary form came into force, this being the first step of any magnitude taken towards fighting the disease in this country.

"Since July, many insured persons have been able to obtain institutional treatment, but, so far, there is little or no provision either for their dependants or the uninsured.

"From a sanitary point of view, the cases may be divided into (a) the acute or sub-acute cases who expectorate sputum, and (b) the chronic or mild cases, who either do not expectorate, or, if they do so, only to a small extent. These acute cases are the ones which are particularly infectious, and, as far as possible, should be prevented from spreading the disease.

"The County M.O.H. (Dr. Nash) has given a very full report (in 1911 Report) of what he is advising the County to do in the matter. In this he recommends that the County should be divided into five Districts (excluding Norwich and Yarmouth, which are County Boroughs), the Lynn District to include King's Lynn, West Lynn, Marshland, Freebridge, Downham, and Walsoken. This District has a population of 67,553; area, 222,192 acres; number of school children, 8,756.

"He estimates that there will be annually 206 cases of Tuberculosis, including 68 fresh notifications. He proposes that there should be in this District (1) one Doctor who should supervise the treatment of these cases (acting besides as School Medical Inspector); (2) one Nurse whole time; (3) District Nurses as at present.

“As regards Institutions for the treatment of these cases, he suggests (1) a Hospital for bad cases, possibly in connection with other infective cases; (2) Sanatorium treatment either at Kelling or in a Sanatorium erected near King's Lynn; (3) a Tuberculosis Dispensary in King's Lynn; (4) treatment at home by private practitioners, etc.

“This seems in the main very excellent, but I only hope that the Hospital and Sanatorium will be in this District, for there is no doubt that the more that consumptive cases go to these institutions, the better it will be both for themselves and others, and I feel sure there will be more difficulty in persuading people to go to a distance than near by.”

WATER SUPPLY.

A general outline of the existing water supplies in Norfolk was given in the County Medical Officer's Report for 1909. The most important alterations since then have been the extension of the mains of the Wisbech Water Works Company to many villages in West Norfolk, and the provision of a public water supply for the Urban District of Diss, and the village of Heacham.

The greater number of the villages in the Rural Districts in Norfolk still depend on shallow or surface wells for their water supply. In previous reports of the County Medical Officer of Health (see Reports for 1907 and 1908) attention has been drawn to the necessity for properly protecting these shallow wells from gross pollution. These precautions—with the exception of the cementing of the upper few feet of the internal surface of the well, and the means of carrying drippings away from the well—are re-stated in the report of the M.O.H. for Erpingham (extract given below). Had the wells in the districts which suffered from the flood in 1912 been so constructed, there would have been less of the serious pollution of the wells which did actually occur.

At the time of the flood I communicated by circular letter with all the District Medical Officers of Health as to the precautions which should be taken in connection with the water supplies, and the extracts given from the reports show that precautions were taken. This may account to some extent for the absence of ill-effects from the pollution of the wells.

The following are extracts from the District Reports :—

RURAL DISTRICTS.

Aylsham.—"I have nothing further to add to my remarks in previous Annual Reports as to the general character of the water supply of the District. As the result of the heavy rainfall in August, the water in many wells was disturbed, and in a few instances seriously polluted. Fourteen wells were cleansed or repaired and five new wells were sunk."

Blofield.—"With the exception of Thorpe St. Andrew, which to a small extent is supplied from the Norwich mains, the District is dependent on wells for its water. Some of these wells are fifty feet deep, or even deeper, and the water from them of excellent quality. In the low-lying villages the wells are necessarily shallow and the water often contains a large amount of organic matter in solution. The wells generally have a wooden cover, but there are still some without this necessary protection.

"Two new wells have been sunk, and many existing wells have been cleaned out and repaired or provided with wooden covers."

Depwade.—"No public water service exists in the district; in several of the larger houses, factories, and maltings, good water is obtained by deep boring; the greatest proportion of drinking water of the district is obtained from shallow wells; the danger of pollution of these wells and the necessity for boiling the drinking water on account of the recent floods has already been pointed out; in some of the high-lying villages the water supply is insufficient and bad, many cottagers depending upon pond and ditch for their drinking water.

"During 1912 ten samples of water have been submitted to analysis, of which:—1 condemned as unfit; 7 passed as potable; 2 referred for well cleaning or pump repairing. Five new wells have been sunk. Five wells have been cleaned and repaired."

Docking.—"Heacham Water. 159 dwelling-houses were connected with the Council's Water Supply during the last half of the year, the water having been turned on for public use on July 1st."

Downham.—"In my previous reports I have dealt at some length with the water supply of the various parts of the district, and it is hardly necessary to repeat. None of the water in the district is *plumbo-solvent*. There have been no further extensions of the mains of the Wisbech Water Works Company. A well at Marham which supplies several cottages has been thoroughly cleaned out and restored and a good supply of water obtained. The condition of this well had on many occasions been brought before your Council, and it was only after considerable difficulty that the owner could be induced to do the necessary work. With regard to the water supply at Hilgay, two wells have been closed; in one case the pump has been removed, and in the other the water is not used for drinking purposes.

“During the year I have analysed 16 samples of water. Well linings raised and new covers fixed, 6; pumps fixed, 2; rain-water cisterns provided, 19; houses connected to water main, 6; water certificates granted, 9; water certificates deferred, 7.”

Erpingham.—“The water supply of the district may be placed in two categories:—

“(a) Deep Well Water: Mundesley, Holt, Overstrand, Sidestrand, Felbrigg, part of Roughton, East and West Runcton are supplied by a good, sufficient, and constant supply of deep well water obtained from the chalk by pumping; from their own wells in the cases of Mundesley and Holt, from the Cromer well in the case of the other villages.

“Kelling has water laid on from a spring in the neighbouring hills.

“(b) Shallow Wells: In the case of almost every other village in the District, the supply of water is derived from shallow wells. These wells are often situated in badly-selected sites, in back yards with drains and cesspools in too close proximity, and are very liable to pollution.

“A shallow well, to be properly constructed, should be puddled with clay or cemented for the first ten feet, to keep out all surface pollution; and all uncemented cesspools, cesspits, and other contaminating collections removed at least 90 feet from the well. In addition, the mouth of the well should be raised a few feet above the ground, and properly covered in. If these precautions are taken, it is possible to have a shallow well water which is pure and fit for human consumption; otherwise it is almost impossible.

“During the year all the samples of water I have had analysed have been shown to be polluted. This is not so surprising as it might appear, as in each case there was a defect which pointed to the likelihood of contamination. When a well is polluted, it is little use cleaning it out without cementing the upper 10 feet, and removing from the vicinity the cause of the pollution—cesspit, drain, etc.

“The three wells in Northrepps have all been shown to be polluted. I think the time has come for the Council to take the matter in hand and provide a proper water supply of deep well water by boring, or to arrange for an extension of the water main of the Cromer Water Company, about one mile distant.

"In course of time a public supply of deep well or other good water should be arranged for all the coast villages that let rooms to visitors. The small water rate it would entail would be returned tenfold in the enhanced value the rooms would command, and the increased number of visitors, many of whom make minute enquiries as to water supply and sewage disposal before they take a house or engage apartments.

"The village of Weybourne could be supplied by gravitation, at a small cost, from the spring in the side of the hill near the Springs Hotel."

Forehoe.—"The water supply is from wells, varying in depth, many being very shallow. The supply of water is ample, but the quality necessarily varies. Water was analysed and found to be impure in wells at Wymondham, Morley, Barford, Costessey, Brandon Parva, and Colton. These wells have been cleared and put into good condition, with the exception of the well at Costessey, where the water is still unsatisfactory."

Flegg E. and W.—"The water is derived for the most part from wells, and is of good quality, and every parish has an abundant supply."

Henstead.—"The water supply of the district is the same as in previous years, with the exception of Trowse Newton and part of Cringleford, where the Norwich Water Works Company's water is laid on; the remaining parishes obtain their supplies from both deep and shallow wells. Eleven samples were taken during the year and submitted to the Public Analyst for analysis, of which 6 samples were pronounced fit for drinking purposes; 5 samples were polluted so as to be dangerous to health. In 4 out of these 5 cases the polluted wells were cleansed and pumped out, and steps taken to prevent further pollution. Four existing cottages were provided with a fresh water supply. Seven wells were cleansed, 2 new pumps fixed, and 2 pumps repaired. Two new wells were sunk to supply new houses, and 4 water certificates were granted under the Public Health (Water) Act, 1878. The heavy rain in August and subsequent flood completely filled the shallow wells. In several cases where this occurred the users were instructed to boil the water before drinking."

Loddon and Clavering.—"One new well has been sunk, one has been closed for drinking purposes. The water supply on the whole continues good."

West Lynn.—"The question of water supply has loomed largely during the year, but at a crowded Parish Meeting it was unanimously considered that the terms asked by the King's Lynn Corporation were prohibitive."

Freebridge Lynn.—"The water supply of the district is mainly from wells; in two villages, (1) Gaywood, from the Lynn Water Works at Gayton; (2) Castle Rising from the Babingley Stream. In some parts of the district water is supplied by running streams, and care has been taken to keep these streams free from contamination. Notices were served on two people to remedy defects contaminating the Gaywood river—one at its source at Grimston, where a privy was leaking sewage directly into it; the other case at Gaywood was by contamination by pigs entering the stream. Both cases were remedied.

"Great Massingham New Well, after running dry in 1911, was deepened from 50 feet to 150 feet, and a good supply of water was found; but the bacteriological report was too unsatisfactory to allow of its being used for drinking purposes, and at present the water supply to the village is in an unsatisfactory state. The matter is in hand. Thirty-six cottages in the district were found to be without a water supply, and a supply to these is now being provided."

Mitford and Launditch.—"The water supply of the district is derived almost entirely from shallow wells, *i.e.*, wells sunk down to the boulder clay so as to form a receptacle for the water existing in the soil above the clay in the immediate neighbourhood. This necessitates in the villages the greatest care that leaky privies, drains, and cesspools should be abolished, and the subsoil kept as clean as possible.

"Six new wells have been sunk; 13 wells have been cleaned and repaired; 2 samples of water have been submitted to the Public Analyst; 19 samples have been dealt with by myself."

Marshland.—"Whilst half of the district receives an ample supply of excellent water from the Wisbech mains, a large portion still depends on cisterns and shallow wells. After the heavy rains of August and September, many of these were contaminated from neighbouring yards and privies. The districts affected were visited, and instructions given to the residents about the necessary precautions to be taken, and so far as I can ascertain, no illness resulted from the abnormal condition of affairs."

St. Faith's.—"Except in the case of a few of the houses in Catton and Sprowston, which are connected up with the Norwich mains, all the houses in the district are dependent upon wells as a source of drinking water. A large number of these wells, too, are surface wells, and in wet seasons the level of the water in many of them, such as those in the parishes of St. Faith's, Horstead, and Haynford, is only a foot or two below the ground level. During the time of the August flood precautionary notices as to the boiling of all drinking water were served on all occupiers, and disinfectants freely given out. As before stated, I have not been able to trace any illness to the effects of this flood.

"In Honingham, at the farm occupied by G. Woodcock, my attention was directed to the water supply by the occurrence of a case of Typhoid Fever. I found that the well water was polluted with sewage and the drainage system defective. This well has been closed, a new one sunk, and the whole drainage of the premises remodelled."

Smallburgh.—"All the water in the village of Stalham for drinking and domestic purposes is obtained from wells, which number no less than 144. Many houses have their own well, in other cases 2, 3, or 4 houses obtain their supply from a common well.

"A new public water supply seems a pressing necessity."

Swaffham.—"The supply of this district is mostly from shallow wells—an unsatisfactory source. Thirteen wells were cleansed and repaired."

Thetford R.D.—"There is no public water supply in the district, the inhabitants deriving their supply from wells, which for the most part are surface wells, and liable to contamination by house refuse, slop water, etc."

Walsingham.—No report.

Wayland.—"The water supply of the district is entirely from wells, mostly shallow, and too frequently situated close to cesspits or refuse heaps, hence liable to pollution, the surface water draining into the well. I made chemical analysis of many samples, but few supplies could be described as really good water. Several wells were cleaned out and repaired; ten certificates of an adequate water supply were given for new houses."

URBAN DISTRICTS.

Cromer.—"The water was unaffected by the great rainfall, and there have been no complaints as to its character."

East Dereham.—"The town is supplied by the Water Works."

Downham Market.—"The rainfall during the year was 32·85 inches. The water supply of the town is upon the whole satisfactory.

"During the past year I have found, from frequent analyses of wells in various parts of the town, larger quantities of nitrates than are compatible with a pure drinking water. The excessive rainfall also during the latter half of the year must have affected the water in the wells.

"The Wisbech Water Works Company have recently carried one of their mains through the town, and extensions have been made so that the greater part of the town can now be supplied. A recent analysis of the water states: 'This is a water of great organic purity, free from all pollution and of excellent quality for drinking and general domestic purposes. Nitrates are absent, and the figure for nitrates is moderate and within the limit met with naturally in local chalk waters.'

"I would recommend that your Council should consider the advisability of asking the Wisbech Water Works Company to make a further extension from the Market Place to the Denver Road.

"During the year water has been laid on to 19 additional houses, making a total of 146 houses now supplied with the Marham water."

Hunstanton.—Not reported on this year by the M.O.H. Natural springs are utilised for the public water supply. (See former Reports.)

Sheringham.—"The water at Sheringham is supplied by the Sheringham Gas and Water Company.

"The collecting ground, pumping station, and reservoirs are situated in Sheringham Woods, about half a mile due south of the Cromer Road. The spot is isolated, and there is no inhabited house in the vicinity; a keeper's cottage in the woods 300 yards from the collecting ground is situated on a part which falls away from the water supply. The water is derived—(a) From springs situated within the collecting ground. This water is collected in open channels, filtered through gravel to take out coarse sediment, and stored in reservoirs. (b) From a deep tube well. This water is pumped into a reservoir at a higher level, to supply by gravitation the high-lying parts of the town.

"Analysis, both chemical and bacteriological, shows the water to be of excellent quality for drinking and domestic purposes. The collecting ground of the Water Company is inspected at frequent intervals, and any deficiency brought to the notice of the Manager or Directors.

"The quantity of water is sufficient for all purposes during dry weather.

"The quantity obtainable from the springs is naturally less in summer and in dry weather. The level of the well water varies little, however much it is pumped, and has never showed signs of failing."

Swaffham.—"The water is derived from a well 165 feet deep, with an extending bore 65 feet, where the water is pumped off the chalk to a reservoir and so distributed to the town. The supply during the year has been good in quality and quantity."

North Walsham.—"The main water supply is derived from the Council's well, which gets its water from the chalk bed. The water is pumped into a receiving tank, and thence distributed through the mains to the town, and parts of the Blue Bell and Spa Commons. The White Horse Common water supply is from private wells, most of which are shallow. The supply generally has been ample for the present needs of that part of the district supplied by the mains. There are still many houses which do not receive their supply from the mains, and which ought in my opinion to do so."

Walsoken.—"The water supply is under a high pressure, constant, good, and abundant, from the Marham Springs."

Wells.—"The supply is plentiful and good. No complaints of pollution have been made."

Thetford M.B..—"The supply of the town, as before, remains satisfactory. No form of contamination to the supply was recorded during the year. One sample taken and submitted for analysis was found to be entirely satisfactory. The report shows the temporary hardness to be 11 degrees, which, though high, must be attributed to the well being sunk in the chalk. The supply is constant. Within the area supplied by the town mains there are 10 private wells supplying 16 houses."

King's Lynn M.B..—"The water supply of the town is ample in quantity and still maintains its high standard of purity."

Diss.—"My heartiest congratulations on your water supply, and long may it be as excellent and appreciated as it is at the present moment!"

POLLUTION OF RIVERS.

As explained in my last Report, the absence of large Manufacturing Towns in Norfolk minimises the pollution of streams as compared with what obtains in Manufacturing Counties.

Numerous individual instances of pollution occur, but improvements continue to be made in the treatment of the sewage of East Dereham, the effluent entering a tributary of the River Wensum, while the re-sewering of Fakenham is in progress, which, when completed, will do away altogether with this existing source of pollution.

At Thetford, as was foreseen and foretold by those acquainted with the difficulties of sewage purification, the inadequate filtering plant proved to be a source of nuisance. The filtering material has been removed, and the tank now acts as an ordinary septic tank from which the effluent enters the Thet. The sewage consists almost entirely of slop water and street drainage, very few water-closets being in existence in the town.

At Downham Market nothing further has yet been done. At Diss the sewage farm appears to deal adequately with the dry weather flow up to the present.

MIDWIVES ACT.

The following figures are extracted from the Report of the Lady Inspector of Midwives :—1472 births (or 22·2 per cent. of the 6,622 births registered in the Administrative County of Norfolk) were attended by 139 Registered Midwives. A considerable proportion of these women are uneducated women, who cannot read or write. The responsibility of supervising the Midwives in the County rests with the County Council, who some years ago appointed Miss Boyce as Lady Inspector of Midwives. There were 92 notifications of sending for Medical help. Two deaths of lying-in women were recorded in 1912; 38 "still births" were notified and the deaths of 10 infants were recorded as prematurely born. No case of Puerperal Fever occurred where a Midwife was in sole attendance during 1912, nor was a single instance of Eye trouble recorded, Miss Boyce exercising strict supervision over the Midwives with regard to the necessary attention to the eyes of the new-born.

SEWERAGE AND DRAINAGE.

In the way of general remarks I need only refer to former Reports of the County Medical Officer of Health.

The following extracts are from the Reports of the District Medical Officers of Health:—

RURAL DISTRICTS.

Aylsham.—"The abatement of a long-standing nuisance at a section of the Aylsham drainage has been accomplished by laying pipes traversing a distance of 1,220 feet, and the result is a very great improvement in the drainage system of Aylsham. [No particulars are given as to the disposal of the sewage at the outfall.—J. T. C. N.]

"At Reepham the sewer leading from the Sale Ground to the Market Place has been ventilated and a gully fixed to take the storm water. The detritus tank at the main sewer has been reconstructed and two inspection chambers with air-tight covers built, the sewer being relaid with 12-inch glazed pipes.

"At Cawston four untrapped road gullies connecting with the main sewer have been replaced by Doulton gullies. This completes the Cawston drainage improvement begun some four or five years ago.

"At Foulsham repairs to the Cold Harbour Lane drain have been effected."

Blofield.—"A Local Government Board inquiry was held on February 22nd, 1912, with respect to the proposed sewerage scheme for Thorpe St. Andrew."

Depwade.—"Drains repaired and relaid, etc., 24; privies repaired, 40.

"In Harleston the old brick sewer in Candler's Lane was taken up and relaid with 6-inch stone-ware pipes. The Beck was cleaned out.

"In Pulham Market modern street gullies were substituted for inefficient traps. The drainage of the Union Workhouse was receiving attention."

Docking.—"The river at East Rudham, the stream at Dersingham, and the open sewer ditches at Snettisham were thoroughly cleansed and mudded out during the year."

Downham.—"In consequence of the excessive rainfall, the sewers throughout the district have been a source of trouble. At Fincham, Hilgay, and Southery blockages occurred, and the sewers had to be opened and cleared."

Erpingham.—No report.

Flegg E. and W.—"There is no regular system of drainage in the district. Earth closets, with pails to ensure frequent removal, are now in general use."

St. Faith's.—No report.

Forehoe.—"The drainage of Wymondham and Hingham, the two principal towns in the Forehoe district, is practically the same as it has been for the past half century, and has been carried out by the old barrel drains originally constructed to carry off the surface water. I have on many previous occasions given full details of this obsolete method, which in my opinion is unsatisfactory."

Henstead.—"Of 91 cottages inspected under the Housing Acts, not one may be said to have any thorough system of drainage; 11 houses are provided with drains which usually consist of sink with waste-pipe discharging over gulley, from which a line of pipes are led into the nearest ditch. These drains serve the purpose for which they are intended, viz., to take waste water from sink; the household slops and dirty water generally being put direct on to the gardens and not down the drain."

"Eighty cottages have only their gardens or nearest ditch for disposal of their slop and waste water; and in my opinion seven cottages have insufficient land for that purpose, and consequently in these cases nuisances occur through slops being thrown into the road or on to other persons' property, and the yards and gardens get into an insanitary condition."

Loddon and Clavering.—"Twenty-seven privies have been converted into the pail system; 20 vaults have been reduced in size and cemented, and various improvements and alterations carried out."

"In my last report I drew attention to the want of a proper scheme of scavenging for Loddon, and your Council considered the question and appointed a Committee to enquire and report. This Committee, after much consideration, reported as follows: 'That in a certain defined area of Loddon parish all houses of a rateable value of £6 and under should be scavenged, and that a rate should be levied on the whole parish to pay for this.' This was debated by your Council and referred to Loddon Parish Council, who were asked to call a Parish Meeting in order to find out the opinion of those concerned. The Parish Council, however, decided to issue a circular asking the owners and tenants of houses in Loddon to express their opinion definitely, viz., 'Yes' or 'No' as to whether they were in favour or not of your Committee's recommendation. A large majority answered 'No.' If, however, a Parish Meeting had been called, or if the parishioners of Loddon had been asked if they would approve of an universal scheme of scavenging for Loddon, I venture to think that the voting would have been very different. At a further Committee meeting it was decided to suggest asking the Local Government Board to sanction the adoption of Bye-laws in order to deal with this question; this was done, and is at present under the consideration of that Board. I fail to see, however, that these Bye-laws will remedy the danger, unless proper pails and a public tip are provided by your Council.

"As I have quite recently reported, there are 94 houses with an average population of 325 people, which have either none or insufficient garden accommodation to effectively and sanitarily deal with their excreta."

Freebridge Lynn.—"Two villages, Gaywood and Castleacre, have a drainage system for parts of each village, but in the greater number of cottages in the district there is no drainage system, refuse and slops being deposited in holes dug in the gardens away from the cottages. Twenty cases were found to be without means of disposing of their refuse and sewage, and have had sanitary dust-bins supplied to them after notifying owners of properties concerned."

West Lynn.—No report.

Mitford and Launditch.—"There is no systematic drainage system for any village in the district. In a large number of cottages the slops are thrown on the gardens, while in others drains are carried to dead wells. Thirty-six defective drains have been remedied.

"The Workhouse sewage works have been extended, and now appear capable of dealing with the sewage; but a great strain is thrown on the works after a heavy rain, as most of the roof water and all the yard drains are connected with the sewers."

Marshland.—"There is no system of sewage disposal, the houses being drained to cesspools. The excrement disposal is by means of deep covered privies, which are emptied at infrequent intervals. The replacement of privies by pails, and the appointment of a Scavenger for the systematic collection of excrement and house refuse, is being adopted in many Rural Districts with distinct improvement of their sanitary condition. I am of opinion that a similar scheme could be adopted in Marshland with great advantage."

Smallburgh.—"In the village of Stalham the sewers discharge their contents into open ditches, and there is another ditch on the South side of the Street. These ditches are as clean as such places can be, but one is in a foul condition, and the stench from them in hot weather must be unbearable to those living near by. Rats inhabit the banks, and no doubt travel thence into many houses, and are another source of danger."

Thetford R.D..—"There is no system of sewerage and drainage in the district; the privy system is nearly universal. A number of the vaults have been reconstructed and rendered water-tight. The night soil is disposed of on the land and small gardens by the individual occupiers, who are responsible for its removal."

Walsingham.—"The main sewers in the parishes have been examined and repaired when necessary. The principal system of excrement disposal throughout the district is the pail system; in seven parishes, viz., Fakenham, Walsingham, Blakeney, Stiffkey, Melton Constable, Great Ryburgh, and Hempton, this is undertaken by the Council, under the supervision of the Sanitary Inspector. The replacement of privy vaults and middens by the pail system is steadily going on in the district."

"A commencement of the Fakenham sewage disposal scheme was made in August, and, though hindered by the subsequent wet weather, considerable progress has been made in the laying of the sewers throughout the town. In practically every instance when the sewage works have exposed

old sewers and drains, they have been found to be composed of old tiles bricks, or pipes improperly laid and not jointed to form water-tight carriers; and there was ample evidence of extensive leakage of sewage into the subsoil within a few feet of the surface of the ground. Owing to the prevailing system in the town of obtaining the drinking water supply from shallow wells, this condition of things must have been fraught with danger, as has already been pointed out in a previous report; and the reason why more harm has not arisen has been due to the extremely sandy nature of the soil providing a good amount of filtration.

“The most important question of directing the flow of sewage from private properties by the connection of existing house drains to the new sewers, will entail a large amount of special investigation as to the capacity and arrangement of existing drains and the planning of improved private drainage.”

Wayland.—“There has been no special work to be recorded for the past year. The Inspector continues to give close attention to insanitary conditions wherever found, and also especially to such matters as the construction of proper closets, the repairing and cleansing of privies, drains, etc.

“In my report for the year 1911, I mentioned the nuisance at Attleborough caused by an open ditch receiving sewage from one part of the town. No further action has been taken to remedy the prevailing conditions; last summer, owing to the wet season, there was no particular nuisance or matter for complaint, but the whole question of drainage of the town requires attention. I fear that it cannot be dealt with satisfactorily until a proper engineering scheme is undertaken.”

Swaffham.—No report.

URBAN DISTRICTS.

Cromer.—“The drainage and sewerage of the town has been satisfactory. Two privies were done away with, while alterations were being made in one old house.”

Diss.—“A system of water-borne sewerage connects up the whole of the town, with the exception of the east end and the country to the north. Some scheme for the east end will have seriously to be considered.

"Eighteen houses have had the drains almost entirely re-laid. With the advent of water works, 18 privies have been converted into water closets.

"The main sewers have been extended up Walcot Road.

"In spite of the above, the Sewage Farm, from frequent inspections, is still doing its duty well."

Sheringham.—"The sewers of Sheringham are of fairly modern construction, and work satisfactorily. They extend practically throughout the town, and all new houses are connected therewith.

"In a few yards pail closets still exist, which are emptied twice weekly by the Council's scavenger. These are being converted into water closets connected with the sewer whenever opportunity offers.

"The outfall of the sewer has been recently taken farther out to sea, and is well below ordinary low-water mark.

"Modern dust bins, with proper covering, are in use; they are emptied once or twice weekly by the Council's scavengers. The refuse is sent by rail to an isolated spot in Weybourne, where it is tipped and at once covered up with earth. A wire net is arranged around the tip to prevent paper blowing about. I have inspected the spot several times during the year, and have always found that the method of disposal is being conducted as well as possible."

Swaffham.—"A large proportion of the surface water from the yards, streets, etc., is carried by separate drains to ponds on the outskirts of the town, and the sewage is carried by a system of sewer pipes, about four miles in length, to the sewage farm about two miles from the town, and, after being treated by aluminite ferric, it flows to the beds and settles away in trenches. On the farm lucerne and mangolds are grown."

North Walsham.—"There is no system of sewerage.

"The surface drainage of the town is by open channels and drains which convey the surplus rain water, waste water, household slops, etc., into the larger drains, which lead eventually into the canal running along the north-east boundary of the district. There is no system of dealing with this drainage before it reaches the canal. The open drains, as I have before

pointed out, have not been sufficiently flushed. This want has, since the outbreak of Diphtheria, been remedied by the placing of small hydrants at various points for the express purpose of doing this work. It is worthy of note that the first cases of Diphtheria occurred in Hall Lane, along which an open channel runs which is very nearly on the flat, and which afforded every facility for the stagnation of offensive and dangerous drainage matter. If channels such as this are not kept flushed, especially in dry weather, their contents become stagnant, then dry up, and are scattered as dust, which may easily give rise to sore throats and illness to those who may come in contact with it. There has been no alteration in the disposal of excrement. The system of pan closets and the removal of the contents by the night cart is still unsatisfactory, as in a great many cases the closets and pans are in a filthy and insanitary condition.

“House refuse is removed from the town by the public scavengers; sanitary ash pans should be used. The attention of the Medical Officer of Health has been called to several ash heaps and pits in which refuse has been allowed to accumulate and become a nuisance and a danger to health. Such pits should be done away with, especially in crowded districts.”

Walsoken.—“The working of the large and smaller drains has been satisfactory, the ventilators giving good results throughout the year. In the outlying parts, where there are no main sewers, cesspool accommodation has answered fairly well.”

Thetford M.B.—“During the year a new drain was laid to take the surface water from such portions of Castle Street and Melford Common as fall towards the Melford Bridge end of the town. The drain is 700 yards in length, and has its outfall below the bridge. During the year the filters at the Quay did not work satisfactorily, and several inspections were made to consider what improvements might be effected. It is proposed to largely reconstruct these, but owing to the high level of the water in the river no work has been possible as yet. When the alterations are completed a distinct improvement in efficiency is anticipated.”

King's Lynn M.B.—“Due attention has been given to the flushing and washing of sewers, yards, courts, alleys, etc., but owing to the excessive rainfall this work has been somewhat minimised.”

FOOD SUPPLIES.

The Public Health (Milk and Cream) Regulations, 1912, prohibit the addition of preservatives to milk, and control their employment in cream. These highly desirable Regulations do away with the difficulties which have hitherto beset a conscientious M.O.H. in giving evidence when a small quantity of boracic acid has been found in milk—as to such addition being injurious to health.

The plain requirement is that milk should be so collected and controlled that there should be no occasion for the use of preservatives at all. The real danger to health does not consist in a grain or two of boracic acid ingested in a small quantity of milk—but in the probably dirty condition of the milk which induced the addition of a preservative to prevent the rapid decomposition of such milk. The absolute prohibition of preservatives to milk is logical and essential to prevent the imposition of dirty or stale milk on the public.

The only analyses of milk so far undertaken in this County are for the purpose of ascertaining the proportions of fat, and solids not fat. In my last Annual Report I made allusion to the desirability of having some analyses made as to the amount of extraneous matter (dirt), and as to the presence of tubercle bacilli in some samples of milk. The knowledge that analyses are being made on these lines should help to induce cleanly methods of milking and storage, and encourage care being taken towards excluding the milk of tuberculous cows from the public supply. I venture therefore to *recommend* that a proportion of the samples taken should be analysed in this way.

The Report of the Public Analyst for the year ending March 31st, 1913, shows that of 286 samples of milk submitted, 64, or 22·3 per cent., were adulterated, and 18 more were considered unsatisfactory, making a total of 28·7 per cent. of unsatisfactory samples of milk. Of 50 formal samples of butter analysed, 2 were unsatisfactory (1 adulterated). Of 3 informal samples of butter, 1 was adulterated. Seventy-three samples of other foods and drugs were analysed, and pronounced genuine, including 4 samples of condensed milk, and 6 of preserved cream.

I am indebted to the Inspectors for tabulating each for his District the results of prosecutions ordered by the Public Health Committee in 1912 under the Food and Drugs Acts.

Results of Prosecutions under the Sale of Food and Drugs Acts ordered by Public Health Committee during year 1912.

EAST DIVISION—INSPECTOR A. ROBINSON.

<i>Sample of</i>	<i>Offence.</i>	<i>Result.</i>
Milk	8 per cent. deficient in fat	£2 2s. and 10/- costs
"	26 $\frac{3}{4}$ per cent. added water	10/- and 10/- costs
"	5 per cent. deficient in fat	} Dismissed
"	3 per cent. added water	
"	8 per cent. deficient in fat	"
"	4 $\frac{1}{2}$ per cent. added water	10/- & 10/- costs (2nd offence)
"	14 per cent. deficient in fat	8/- and 12/- costs
"	19 " " "	5/- and 18/9 costs
"	10 " " "	Dismissed
"	55 " " "	10/- and 16/8 costs
"	16 " " "	Dismissed
"	9 " " "	Analysis disputed. Third part analysed by Somerset House and certified 11 per cent. deficient. Dismissed
"	14 " " "	Dismissed
"	27 " " "	1/- and 2/6 costs
"	4 $\frac{3}{4}$ per cent. added water	5/- and 12/6 costs (2nd offence)
"	6 $\frac{3}{4}$ " " "	} 2/- and 16/8 costs
"	6 $\frac{1}{4}$ per cent. deficient in fat	
"	68 " " "	5/- and 11/6 costs (2nd offence)
"	26 " " "	2/6, costs remitted
"	Vendor refusing to sell	£2 and 12/6 costs
"	9 per cent. deficient in fat	10/- and 10/- costs
Butter	95 per cent. foreign fat	£10 and 15/- costs
"	Exposing same unlabelled	£2 and 10/- costs
"	Selling same in unmarked wrapper	£2 and 10/- costs

CENTRAL DIVISION.—INSPECTOR JOHN RYLEY.

<i>Sample of</i>	<i>Offence.</i>	<i>Result.</i>
Milk	5 per cent. devoid of fat	Fined 10/- and 10/- costs
„	10 per cent. added water	Fined 2/6 and 17/6 costs
„	9½ „ „	Fined 5/- and 12/6 costs
„	18 per cent. devoid of fat	Fined 5/- and 10/- costs
„	26 „ „	Fined 1/- and 5/- costs
„	19 „ „	Fined 5/- and 10/- costs
„	8 „ „	Fined 5/-, no costs
„	9 „ „	Dismissed
„	10 „ „	„
„	9 per cent. added water	„
„	4½ „ „	Fined £1 and 15/- costs
„	17 per cent. devoid of fat	Fined 5/- and £1/2/4 costs
„	8 „ „	Fined 1/- and 9/6 costs

WESTERN DIVISION.—INSPECTOR W. B. BARRY.

<i>Sample of</i>	<i>Offence.</i>	<i>Result.</i>
Milk	11 per cent. deficient in fat	Dismissed, 10/- costs
"	8 " "	" 10/- "
"	8 $\frac{1}{4}$ " added water	" 11/- "
"	10 " deficient in fat	" 11/- "
"	{ 9 $\frac{1}{2}$ " "	{ Fined 1/- and 12/- costs (2nd offence)
"	{ 10 $\frac{1}{2}$ " added water	
"	{ 2 " deficient in fat	{ Withdrawn. Figures on certificate wrong
"	{ 7 " added water	
"	17 " deficient in fat	Fined 8/- and 12/- costs
"	8 " "	Fined 3/- and 12/- costs
"	47 " "	Fined 1/- and 10/- costs
"	30 " "	Fined 5/- and 10/- costs
"	9 " "	Dismissed
"	7 " "	"
"	11 " "	"
"	10 " "	"
"	13 " "	Fined 5/- and 15/- costs
"	20 " "	Fined 2/6 and 10/- costs
"	24 " "	Fined 5/- and 10/- costs
Baking Powder	Contained an excess of calcium sulphate of 644 grains per lb.	Fined 10/- and 10/- costs

NOTE.—The first four cases above were dismissed on payment of costs by the defendants

MEAT INSPECTION.

The only references are as follows:—

Sheringham.—"The meat generally speaking is of good quality and well fed, and I do not think from what I have observed that much inferior or diseased meat comes here. The inspection of dressed meat does not furnish all the data required to form a good opinion."

Wells.—"The slaughterhouses have been inspected, and several defects found in 2, and the matter reported to your Council."

King's Lynn.—"Seizure of Unsound Meat.—On the 5th December the Sanitary Inspector seized from the M. & G.N. Joint Railway Station 5 Carcases of Mutton which were unsound and unfit for human food. The meat was condemned and destroyed.

Meat destroyed :—Forfeited Meat	..	139 stones of Beef.
" "	..	5 " Pork.
" "	..	20 " Mutton.
Seized Meat .. .. .	..	10 " "
		—
		174
		—

" One hundred Mackerel destroyed.

"Almost every animal slaughtered during July was inspected by the Sanitary Inspector."

DAIRIES, COWSHEDS, AND MILKSHOPS.

URBAN DISTRICTS.

Cromer.—Two general inspections made by the M.O.H. with the Sanitary Inspector. One defect observed (the cowshed requiring lime whitening). “I suggested the use of glass covers for all milk receptacles.”

East Dereham.—“Milk supply satisfactory and no action has been necessary. Dairies and Cowsheds have been inspected.”

Downham Market.—“Premises have been periodically visited. In 2 cases attention was drawn to the condition of the approach to the Cowsheds, and steps will be taken to improve this.”

New Hunstanton.—“Cowsheds and Milkshops have been inspected.”

Sheringham.—“All premises have been inspected. It has been brought to the notice of each milk-seller that the main object of the bye-laws is to enforce cleanliness; that, given a healthy cow, it must be milked with clean hands into a clean pan stored in a clean place, cool and protected from dust and flies, and distributed in clean receptacles. No complaint of the milk was received during the year. Bye-laws are adopted and enforced.”

Swaffham.—“During the year all Dairies have been inspected by me, and in some cases I have recommended cleansing of the same more often.”

Walsoken.—“The supply of milk is, as previously, through milk vendors, and we have therefore no milkshops.”

Wells.—“The Cowsheds and Dairies have been inspected and several improvements have been recommended by the Sanitary Inspector.”

RURAL DISTRICTS.

The following references are found among the District Medical Officers of Health Reports:—

Depwade.—“182 visits made by the Inspector; 7 Cowsheds were built or re-modelled; 5 animals improperly kept were removed. Considerable attention was given to the milk conditions, distinct improvement the result, but much remains to be done. Circulars containing extracts from the Order of Privy Council (June 15th, 1885) with respect to Dairies, Cowsheds, and Milkshops were distributed.”

Docking.—"Slaughter-house inspections, 121. Dairies and Milkshops inspections, 64. Bakehouses inspections, 176."

Erpingham.—"There are 155 premises registered under the Order. They have all been inspected during the year and generally found to be in good order. A few exceptions are receiving attention. Bye-laws in force. The milk supply is wholesome and no case of disease has been traced thereto."

East and West Flegg.—"All periodically inspected. As was the case last year, I am pleased to be able to report that with but very few exceptions I found them being kept in a satisfactory manner. Again, the defects found were principally the negligence of the tenants to keep the Cowsheds properly limewashed. Four Dairies and Cowsheds have been registered under the Order during the year."

Freebridge Lynn.—"All have been frequently inspected and found satisfactory."

Henstead.—"During the year 52 inspections were made and 6 notices were issued to abate defects."

Marshland.—"All have been frequently inspected and found satisfactory."

St. Faith's.—"I have inspected several of these during the year, but have nothing special to report. The conditions of cleanliness vary a good deal, as would be expected when one remembers that nearly all the Dairies in the District are adapted buildings, and the cowkeepers are mostly in only a small way of business."

Swaffham.—"The various premises have been regularly inspected and found generally in very good and clean condition. Improvements have been made in two dairy farms by the laying down of concrete floors."

Walsingham.—"Cowsheds and Dairies have been inspected during the year, and verbal notices given as to cleansing and whitewashing. There are now 33 cowkeepers registered in the District, and the number of cows kept has increased to 626. I think this is on account of the increasing amount of milk that is now sent out of the District, 7 sending to London, 1 to Norwich, 2 to Wells, and 1 to Sheringham. No disease has been traceable to the milk supply in the District."

“In one case, a cowkeeper and dairyman was found to be carrying on his trade without being registered. The cowshed I found to be extremely foul and ill-drained and paved, the dairy in a position where the milk would be readily contaminated from adjoining nuisances. Both were condemned, and at the time of writing this report a new cowshed and dairy is being constructed, the registration being held over till completion. The remarks that I made last year as to the cleanliness and drainage of the sheds are again applicable, but there is still fault to be found with the immediate surroundings.”

Wayland.—“The various premises were regularly inspected and found in good condition.”

HOUSING SECTION.

Administration of Housing Acts.

Considerable advance was made by the District Councils during 1912 towards carrying out the duties imposed upon them, more especially by the Act of 1909. Some districts, though late in starting, have made up for their dilatoriness by the vigorous systematic measures since adopted. This is best illustrated by the following extracts from the Report of the Medical Officer of Health to the Blofield Rural District (Mr. H. H. Back), which interestingly describes the methods adopted, which may serve as a model for some other districts:—

“A village is selected for inspection, and the sanitary condition of each cottage in that village is recorded by the Inspector on a card, with headings as set forth in Articles II. and III. of the Order of the Local Government Board of September 2nd, 1910. As the inspection proceeds the cards are submitted weekly to a small committee consisting of the Chairman and two or three Councillors who have knowledge of the locality. Special attention is given to any case of overcrowding that is discovered, and steps are taken under Sect. 15 of the Act to have repairs carried out where cottages are found to be defective. When the inspection of the village is complete, it is visited by the Medical Officer of Health, and subsequently a final inspection of the worst cottages is made by the Sub-Committee, when questions as to the general cottage accommodation in the village are considered, and whether it is necessary to make any closing orders. At this stage every detail as to the housing conditions and requirements of this particular village are known to the Sub-Committee, who report to the Council. In those villages where the cottage accommodation is thought to be insufficient a Local Inquiry is ordered to be held. At these Local Inquiries, which are conducted by Major Astley, as permanent Chairman, assisted by Councillors interested in the locality, an endeavour is made to discover the persons who are desirous of living in better cottages, and what rents they are prepared to pay. Questions as to as to how far the want of cottages is likely to be met by private enterprise, the land available for building, and other matters are also discussed. On the report after the inquiry the whole Council take into consideration whether cottages should be provided under Part III. of the Act or not.

“With regard to closing orders the general policy of the Council has been to close a cottage only under exceptional circumstances where there is not other accommodation available for the ejected tenants.

“The villages selected for inspection in the year 1912 were Thorpe St. Andrew, Upton, and Acle. There was a total of 352 cottages inspected, and repairs have been carried out in 126 of them.”

There is no doubt that better cottages are needed in very many villages in Norfolk. Every reasonable use should be made of Part III. of the 1909 Act. The difficulty appears to be the magnitude of the task. The County Council, through the Small Holdings Act, is of course building new cottages in various parts, and several Rural District Councils are putting their powers into action after inquiry. In a few cases cottages are being erected by private enterprise, but building on a more comprehensive scale is required to meet the need which exists. In some villages closing orders which were made with respect to cottages condemned as unfit for human habitation were not enforced, “owing to the fact that there was no other cottage available for the tenants.”

District Councils are unwilling to build unless they can be certain of obtaining economic rents; on the other hand there is no clamant desire for new cottages on the part of labourers living in overcrowded and insanitary cottages, if it means any increase in the amount of rent to be paid.

The urgency of the rural housing problem is freely admitted, but most authorities seem to think that Government assistance is needed to deal with it in anything but a perfunctory manner. To the average man the aphorism of Dr. Spiers, of Diss, will appeal. (*Vide infra.*)

In the meantime, however, those Councils which are doing what they can for some villages may justly quote to their credit the old Scotch proverb—“every little makes a mickle”—and it certainly would not be creditable to put the question entirely on one side until Imperial sources may be tapped. In many villages where a mere enumeration of cottages and inhabitants might indicate ample housing accommodation, detailed inspection shews that the housing accommodation is inferior as measured by a reasonable sanitary standard, requiring either extensive reconstruction of the existing premises, or in default of this, new cottages altogether. The nature of the defects

found, which are common in all districts, are set out in some detail in the extract from Dr. G. F. Cross's Report (Downham Rural District) given below—which also points out that the fault often lies with the tenant as well as with the landlord.

Special attention should be given to the extract from the Report of the M.O.H. for Swaffham R.D. as it embodies a copy of the communication from the Local Government Board which outlines the policy of the Board in regard to rural housing questions.

The following extracts from the Reports of District Medical Officers of Health indicate what defects exist and what is being done to remedy them, and I append a tabular statement showing at a glance for all the districts in the County the inspections, etc., under the Act during the year 1912 for each district under Article V. of the Local Government Board Order of September 2nd, 1910:—

RURAL DISTRICTS.

Aylsham.—“During the year inspections under the 1909 Act have been carried out in the parishes of Buxton, Skeyton, Brampton, Lammas, and Coleby, a total of 252 cottages having been inspected. Descriptions of a far larger number of cottages than this might have been placed on the sheets had it not been recognised by your Sanitary Committee that the object of inspection is not to collect as many records of insanitary cottages as possible in the time, but rather to bring about better housing conditions in each village as it is inspected.

“And although a lengthy procedure and entailing more work it is found better, in the first instance at all events, to approach owners of cottage property informally rather than to serve them with a statutory notice requiring work to be done in a specified time. There must therefore be a gradual accumulation of work for the Inspector as one village after another is added to the list of those inspected, and the task of seeing that the repairs ordered are actually carried out in a proper way is far more arduous than the mere discovery of defects.

A local enquiry into the cottage accommodation in the parish of Tuttington was conducted by the Sanitary Committee in the School on October 2nd, and although the enquiry was attended by a number of

labourers who were occupying insanitary and overcrowded dwellings, no strong desire for better accommodation was expressed. The absorbing interest was as to the amount of rent which would have to be paid for cottages built under the Act. As a result of the enquiry, however, the Master and Fellows of Caius College, Cambridge, have expressed their willingness to built two new cottages for the accommodation of labourers working on the estate owned by them at Tuttington. At a similar local enquiry held at Skeyton on November 19th, the result was less satisfactory. The enquiry showed the need of a few cottages of a better type, but that there would be a difficulty in obtaining an adequate rent. Some of the larger owners of property were asked to supply the deficiency, but so far without success."

Blofield.—Since May, 1912, when a Housing Sub-Committee was formed, the work of inspection has been carried on with great vigour. Major Astley as permanent Chairman conducting Local Enquiries in those villages where cottage accommodation is considered insufficient. (*See ante.*)

Depwade.—"During the year 1912, the following Parishes were inspected:—Needham, Thorpe Abbotts, Brockdish, Shelfanger, Burston, Winfarthing, Gissing, Pulham Mary, Billington, Tivetshall St. Mary, and Scole with Thorpe Parva and Frenze.

"During the year some 1913 premises have been inspected, with this result, that after careful consideration of the Report of the Sanitary Inspectors and of my own observations whilst personally engaged in inspecting premises, I am of opinion that although ample accommodation may be said to exist for the housing of the working classes, that accommodation is so far below the necessary sanitary standard as to warrant the reconstruction or rebuilding of existing premises, or failing this, the erection of new cottages; one of the great difficulties in the closure of property 'unfit for human habitation' being, the disposal of the occupiers of the unsound dwelling.

"Thirty-one cases of overcrowding have been dealt with.

"In Tivetshall, prosecution (and subsequent conviction) had to be resorted to in one case; in all of the above cases the evil has been remedied."

Docking.—"A house-to-house inspection under the Housing and Town Planning Act was carried out in the Parishes of Syderstone, Barmer, Barwick, and Ringstead.

“Principal defects: Dampness, due to bad state of repair of roof and defective guttering and absence of damp course; defective vaults, several very bad; bad ventilation; several back-to-back cottages; overcrowding.

“There is a lack of accommodation in Syderstone. More cottages at Barmer and Barwick would relieve this, and the men would be nearer their work. The average rent for 23 houses I visited is £3 3s. 0d. I think this speaks for itself.”

Downham.—“There is in the District a good proportion of excellent cottages, with gardens and outbuildings, let at the moderate rent of £5 per year, and in number comparing most favourably with any part of the County. Also during the past five years 70 cottages have been built, and the adoption of the new Building Bye-laws, which are not too stringent, will ensure a good class of house being erected in the future.

“However, there are many houses in the District to which the following remarks are particularly applicable. These are built on insecure foundations, with bulging and cracked walls, defective spouting, rotten window frames, and badly fitting doors, both inside and out. There is seldom any paving round the house. The addition of ashes and broken bricks to harden the approaches gradually tends to raise the ground level at the back, which, with the natural tendency of the houses to sink, makes the ground floor generally below ground level. Then the water from the badly spouted roofs, the overflow from tubs placed against the outside walls, and the water from any unspouted outbuildings, together with the careless disposal of slops owing to the absence of drains, cannot but aid in making the houses damp. Inside the skirting boards are rotten, the brick floors are wet, and the wall paper, where it can be made to adhere, is often covered with fungi.

“Then there is the want of proper bedroom ventilation due to the small windows, which often cannot be opened.

“In the small back bedrooms the window is often not more than 12 to 18 inches square, consequently efficient ventilation cannot be maintained and the rooms are stuffy and dark.

“Again, there is the want of proper storage for food, which is often kept in dark and unventilated cupboards or under the staircase. In these places the food may be contaminated by mice or even cockroaches, which are numerous in many houses. It is quite possible that this latter animal may be a carrier of disease.

"The rents of some of these houses are much too high and out of all proportion to the accommodation offered. As an illustration, there is one cottage which is divided into two separate tenements, one tenant occupying the front and the other the back. There are two small rooms downstairs and two of a similar size upstairs. The tenant at the back uses one of the downstairs rooms as a bedroom, and consequently has only a small living room in which everything has to be done, as there is no proper outbuilding. All the refuse and waste water is simply thrown out of the door. Yet each tenant pays £4 per year. It is difficult to imagine how any self-respecting landlord can permit poor people to live in such houses.

"The whole housing question bristles with difficulties, and the more it is studied the more disheartened the investigator becomes. And the fault lies not only with the landlord but with the tenant. When overcrowding is found it is usually amongst a class who would not be allowed to occupy a decent cottage if one were available. They therefore apply and get possession of the worst of the cottage property, and it is often difficult to get rid of them. When this is done they move elsewhere, perhaps to another village, and the same difficulty arises again.

"Generally the worst of the cottage property is in the hands of people of small means who are unwilling or unable to put them in proper repair. Then there is the dilapidated property which has been put up for sale and bought by some small investor. There has been more difficulty in dealing with this class than any other. One can understand a person owning a row of cottages and depending upon the rents for a living being unable to spend money in repairs, but it is different when it becomes a matter of speculation.

"The Fen is by far the most prosperous part of your District, and before long the housing of this part will become a serious question. The houses here are year by year becoming more dilapidated. Those built on the river banks on copyhold land are gradually becoming unfit for human habitation, and the River Commissioners do not appear willing to rebuild them. The occupiers are quite able and willing to pay a much higher rental than in the upland districts.

"The systematic inspection of houses is being proceeded with. The report of your Inspector on the Parish of Marham will show the nature of the work entailed. So far this inspection of the District has shown that what is

urgently wanted is a supply of better cottages. Many unsatisfactory cottages are occupied by families who are able and willing to pay more rent if they could obtain larger and more commodious houses. Many dwellings are occupied which are barely fit for human habitation. In many cases it is difficult to determine whether a cottage is fit or unfit, and it is impracticable to condemn them before others are provided for the dispossessed tenants to occupy.

“General character of defects found: Wall dilapidated and damp, no spouting, roofs unsafe, ceilings bad, rooms low, floors uneven and below ground level, houses generally damp, badly lighted, windows often fixed, no place for storage of food, and no provision for the disposal of household refuse.”

Erpingham.—“The cottages in the Erpingham Rural District are, in my opinion, rather below the average of cottages in Rural Districts in England.

“In coast villages, where letting of rooms is an industry, in response to a demand, good class cottages and villas have been built. This has the effect of easing the demand for the smaller and older cottages in these villages, which tend to fall into un-occupation, though this is counterbalanced by the tendency of the inland population to drift into the poorer cottages on the coast, while the demand for the poorer class cottages in the inland villages remains unaltered owing to the absence of building, and the increase of population.

“The cottages of the inland villages are barely sufficient for the agricultural population, but insufficient for the total population, which generally includes persons who go to other districts for work.

“In most villages are to be found several cottages which are small, damp and dilapidated to such an extent that they cannot help but exercise a baneful influence upon the health of the inhabitants. As opportunity offers, these cottages are being closed or reconstructed on lines approved by the Council. They cannot all be closed at once, for that would mean that the inhabitants would be left without a roof over their heads; nor can they all be reconstructed at once, as that entails the family being moved for a time into another dwelling, which is seldom available, during the period of reconstruction. Often the owners of this class of property have not the means to pay for extensive alterations.

"The minimum requisite for a new or reconstructed cottage should be, approximately, two living and two bedrooms; rooms to be eight feet high; no room to be less than 700 cubic feet; window space equal to one quarter of the floor space; provision of through ventilation, pail closet accommodation, small garden, and good water supply; floor not to be below level of ground outside, without special provision against damp; damp proof course to walls and guttering for eaves.

"Having made a general inspection of the District after my appointment, I am pleased to record that there is evidence that a good deal has been done in the past to better the condition of the cottages of the working population.

"Under the Housing and Town Planning Act, six cottages have been erected at Briston by means of a loan from the Local Government Board, prior to closing a group of hovels in that parish.

"At Edgefield, an Inquiry has been held, land purchased, and six cottages are in course of construction, to enable the Council to close some of the worst cottages in that village.

"The villages of Baconsthorpe and West Beckham have been inspected, and an Inquiry held, and it is proposed to build four cottages in the former and two in the latter village.

"The village of Gresham has been inspected. The owners of twelve cottages, unfit for habitation, but repairable, have been requested to do repairs, in accordance with specifications prepared by myself and the Sanitary Inspector, prior to putting in force Section 15 of the Housing and Town Planning Act.

"The village of Plumstead has applied to be inspected under this Act. This will be done during the coming year.

"The whole crux of the housing problem is the cost, some of which will fall upon the taxpayer.

"It must not be overlooked that insanitary cottages are a direct burden upon the poor rate, owing to their influence upon the health, not only of those who inhabit them, but upon those who are susceptible to infectious diseases, including consumption.

“An improvement in the housing of a district must eventually be followed by a decrease in the poor rate, and it is surely preferable to pay to prevent the evils and misery arising from sickness and ill health than to relieve the destitution caused thereby.”

Forehoe.—“Twenty new houses have been built in the District: Costessey 1, Easton 1, Morley 2, Wymondham 11, Hingham 7, Wicklewood 2. Repairs have been made to 19 houses: In Wymondham 11, Barnham Broom 1, Hingham 7. Six houses have been closed owing to dilapidations: 4 at Wymondham, and 2 at Colton.

“House-to-house inspection has been made of 216 houses in Hingham. The cottage accommodation was found to be insufficient, and a deputation from your Board visited the parish, and a meeting was held to consider the question, and the advisability of building new cottages. It was resolved that six new houses should be built. These are now well nigh completed. Your deputation also inspected various parts of the parish. Two houses have since been condemned as unfit for habitation; these were structurally unsafe, and very dirty. Six other cottages that were about to be sold were also in a bad condition; these have been converted into four good cottages with efficient sanitary arrangements.

“I believe there will now be ample house accommodation in this parish, especially as the population tends to decrease.

“May I here thank your Sanitary Authority for carrying out the suggestions in my report for 1911, that a Committee of Inspection be formed and all the parishes in turn visited. This has already exercised a marked salutary influence, and I hope will be continued.”

Henstead.—“A house-to-house inspection was carried out in the parish of Poringland, 91 houses being inspected, of which a special report was made. It is proposed that house-to-house inspections be carried out in several parishes during the coming year.

“New Houses, etc.—Four plans were submitted for the erection of 12 houses during the year as follows, viz.: 6 cottages at Whitlingham; 4 cottages at Swainsthorpe; 1 lodge at Saxlingham Nethergate; 1 lodge at Poringland.

"Fifteen cottages were completed during the year, viz. : 8 at Hethersett for the District Council; 4 at Swainsthorpe; 1 at Framingham Pigot; 1 at Saxlingham Nethergate; 1 at Poringland.

"The 6 cottages proposed to be erected at Whitlingham have not yet been started, 67 visits were made to houses in course of erection, 4 water certificates were granted to new houses under the Public Health Water Act, 1878."

Freebridge Lynn.—643 houses were inspected during the year under the Act. Five closing orders were made.

During the year application was made by the Pentney Parish Council for the erection of some new cottages. After a L.G.B. enquiry, it was decided to erect four, and they are in hand.

"The cottages in the district taken as a whole are not good, except in the cases of cottages belonging to estates, and these are very good; but there are lots of cottages in some villages owned by poor people, and these are not so satisfactory, being old and inconveniently constructed.

"There is certainly a need for some more cottages in some of the villages."

Mitford and Launditch.—"Eleven cases of overcrowding were reported to the Council and notices to abate served.

"In six cases the families removed to other cottages, and in one two adults left the cottage.

"It was impossible to make many fresh inspections during the year, owing to the number of cases left over from last year that required attention, and the fact that 24 parishes had cases of infectious disease necessitating many visits and disinfecting.

"The housing problem is the most difficult we have to face. I discussed the question fully last year.

"Last year when I presented my report there were no empty houses in Litcham.

"Two enquiries were held there since to ascertain if there was any demand for houses. The first on March 6th, 1912, by a Sub-Committee of the Council, who reported:—

"1. 'That they found a certain demand for cottages. One or two would be willing to move from their cottages if the rents were not prohibitive.

"2. 'That there were several cases of overcrowding, three being excessive overcrowding; they were informed that two would cease to exist at next Michaelmas, owing to the tenants leaving the farms upon which these cottages stand.

"3. 'That in the event of cottages being built, it would not follow that the people with large families would move in, nor in the event of their doing so, that the cottages they moved out of would not again be occupied with similar tenants, as the cottages are not in such a condition that they ought to be condemned.

"The Sub-Committee suggest that in order to try and solve the question of overcrowding, and as an experiment, four cottages might be built, and that if the Council agrees with this recommendation that the Sub-Committee are agreed that no charge shall be paid by the tenants towards repayment of the cost, but that it be made a special charge on the parish or district, and that any loss shall also be borne in the same way.'

"After this report was presented the Council thoroughly discussed the matter at several meetings, and practically decided to build four cottages; before doing so, however, they decided to hold another meeting. This was held on January 15th, 1913, but belongs to the 1912 report. The Sub-Committee on this occasion reported:—

"That they find a considerable change of circumstances in the parish since the last Inquiry on the same subject held on March 6th, 1912. Then there were several cases of overcrowding, three being excessive overcrowding; now there is practically no overcrowding. Then there was not a cottage to let in the parish; now they find that there are at least nine empty cottages with rents ranging from five guineas to £2, and of these cottages four are stated to be in good repair, while none of the others could be called unfit for habitation. The Chairman, having explained to those present the kind of cottage the Council would build if there was a demand, *i.e.* good cottages with two living rooms, three

bedrooms, and back premises, with a $\frac{1}{4}$ -acre of garden, at a rental between £7 and £8, no one present seemed inclined to take such a cottage. The meeting might be called a very representative meeting of the inhabitants of Litcham, and the Committee feel that there is no demand for more cottages to be erected in Litcham at the present time.

“ ‘The Committee do not, therefore, recommend that the Council should build cottages at Litcham, but that the Council should exercise a somewhat closer supervision and enforce their powers under the Housing Acts to compel owners to keep their cottages in all respects reasonably fit for habitation.’ ”

“ ‘So the matter remains in abeyance at present; the insuperable difficulty being that the people with large families who want the best houses cannot pay more than half the rent that would have to be demanded to build suitable cottages with garden. Another difficulty that arises is whether the loss should fall on the parish or the district.’ ”

Marshland.—“ Under the Housing and Town Planning Act, 1909, 400 houses were inspected during the year, in the parishes of Walpole St. Peter, Terrington St. Clement, Clenchwarton, Tilney All Saints, and Tilney-cum-Islington. The condition of the houses inspected was on the whole fair. Many of the houses, being old, are very damp at times—the condition, on inspection, varying with the season at which it was made. In only one or two instances was the dampness so great as to render the house injurious to health; and in those cases the owners’ attention was drawn to the matter and the condition remedied without any formal order.

“ Very few houses are provided with ash-pits, or means of disposing of house refuse. This is generally accumulated in heaps near the house and is a further source of danger to health—more particularly in summer when flies abound. Whenever this condition was found to exist, the danger was explained to the occupier of the house, and burning or burying the refuse recommended.

“ The following table gives the principal defects found on inspection. They were invariably remedied on representations being made to the owners or agents:—

Houses without privies	..	..	..	8
Do. with defective privies	..	..	..	5
Do. without water supply	..	..	..	5
Do. with defective floors	..	..	..	2
Do. with do. roofs	..	..	..	6
Do. with do. windows	..	..	..	5
Overcrowded houses	..	..	..	2
Dirty and insanitary houses	..	..	..	6
Dampness due to defective spouting	..	..	..	4"

St. Faith's.—"On May 6th a special report on overcrowding due to insufficient house accommodation in Horsford was submitted, and it was suggested that if a line of action could be determined upon by the Council to remedy overcrowding in Horsford, the same might be made applicable to other parts of the district.

"The report gave instances of bedroom accommodation of less than 250 cubic feet per person.

"The Sanitary Committee met to consider the report, and gave instructions to ascertain what land there is in the parish available for building purposes.

"When it is remembered that the means for ventilating most of the cottages is altogether inadequate—so that cross ventilation is impossible—the figures given in the above report convey but inadequately the evils that must result from such overcrowding."

Smallburgh.—"The work of the Housing and Town Planning Act has gone steadily on this year.

"Overcrowding has been discovered in 16 cases and reported to the Council. Until better and more cottages are built, little can be done to abate the overcrowding, except turning the overcrowded occupants into the street. Landlords are loth to build extra bedrooms, especially where they are small property holders.

"The general defects found to exist were—damp walls from want of damp course, and deficient eaves-gutters or down-pipes; want of light and means of ventilation; unsuitable pantries for storage of food. Seventeen new houses were built during 1912."

Swaffham.—"The inspection of cottages, under the Housing and Town Planning Act, is being continued, 547 having been visited.

"The principal defects found in all these cottages were dampness, defective roofs and floors, and insufficient sanitary accommodation. In many of these cottages, it is impossible structurally to effect all the needed alterations; and to bring some of the older ones up to modern standard, it would be necessary practically to re-build them.

"In several instances considerable repairs have been undertaken. Eight cases of overcrowding were discovered and abated.

"In June, the Local Government Board Housing Inspector visited the district, and, accompanied either by myself or the Inspector of Nuisances, inspected various cottages in the parishes of Great Cressingham, North Pickenham, Holme Hale, East and West Bradenham, Ashill, Necton, and Sporle. The report from the Board received by your Council in September, contained the following:—

"The Board are advised that additional accommodation is immediately required in the parishes of Great Cressingham, Holme Hale, and North Pickenham; the information before them goes to show that there is no prospect of the required accommodation being provided by private enterprise, and they consider that the Rural District Council should at once proceed with the preparation of schemes, under Part III. of the Housing of the Working Classes Act, 1890, for the erection of six houses in each of these parishes. The Board are advised that such houses should consist each of a large living room, three good bedrooms, a scullery (with copper), a food larder and coal store, and a pail closet (placed at a suitable distance from the house). The Board are also advised that these houses might be erected in blocks of six. The Board recognise that any scheme for the provision of such houses may involve a small charge on the rates, but I am to state that although the Board regard it as important that a scheme for the erection of working-class dwellings under Part III. of the Act, 1890, should, as far as possible, be self-supporting, the fact that such a scheme showed a small annual deficiency would not preclude the Board from sanctioning a loan for the provision of the houses if the circumstances do not admit of a satisfactory self-supporting scheme.'

"I understand that your Council has appointed a committee to prepare a scheme for the building of these cottages as advised by the Board."

Thetford.—"The house accommodation for the working classes is fairly good, as compared with other districts; the houses are for the most part clean and well kept, but the condition of some of those inhabited by the poorest people leaves much to be desired. Two cases of overcrowding have been dealt with during the year; in one case the family removed into a larger house, and in the other case two of the inhabitants removed elsewhere.

"Four new cottages have been built during the year; the working class population is almost stationary.

"Under the Housing and Town Planning Act 82 inspections have been made; no dwelling-houses were closed as unfit for human habitation. The majority of the houses inspected were deficient as regards light, ventilation, and paving."

Walsingham.—"During the past year a systematic inspection of cottages was commenced under the Housing and Town Planning Act.

"One hundred and sixty-three cottages have been inspected, and the Inspector has given a great deal of time to this part of his duties; but necessarily a considerable time must elapse before a complete inspection of the district is made. Attention meanwhile is being given to those properties which come under notice as requiring immediate supervision.

"The greater number of the houses inspected were in the village of Great Ryburgh.

"In inspecting, the reasonable essentials demanded of any particular cottage are:—

"1. Windows. These should be of sufficient area to render the room reasonably light and should be made to open so as to be of value as ventilators.

"2. Ventilation. A room with a fireplace and a window that will open can usually be ventilated if the occupier desires.

"3. Dampness. The roof must be water-tight and troughing supplied to obviate the resulting dampness of walls. No soil should be in contact with the walls above the level of the ground.

"4. Cleanliness. This is a responsibility shared by the occupier and the owner. The owner should be expected to keep the walls and floors sound, and to provide facilities for dealing with excreta and house waste according to the methods available in the district.

"The occupier should be expected to maintain the house in a state of cleanliness."

Wayland.—"The inspection, under the Housing and Town Planning Act, of those cottages rated at £6 and under (the qualification agreed upon by your Council for the purposes of this Act) has been steadily proceeded with, and some improvements have been effected. The work of making good dilapidations, repairs, and other matters has not been carried out as rapidly as it might have been owing to shortage of labour and bad weather conditions. The defects found were the usual ones of dampness and lack of proper ventilation. Many cottages had the appearance of being in a very dilapidated condition from lack of ordinary small repairs, others were almost past making habitable."

URBAN DISTRICTS.

Cromer.—"Under the Housing (Inspection of District) Regulations, 1910, I have visited with the Sanitary Inspector 85 houses; total visited up to date, 338; of this number 197 were satisfactory.

"On the 1st October there were 983 houses inhabited, as compared with 988 in 1911."

East Dereham.—"The chief defects found were improper or insufficient closet accommodation, defective guttering, and want of ventilation.

"The closets were many of them of the privy type with large uncemented vaults, and in many cases one served two houses. Forty-five vault closets were converted to pails, 21 new pail closets built, 8 new w.c.'s built or converted, 5 defective w.c.'s repaired.

"The defective guttering and spouting was the cause of dampness in many of the houses.

"The want of ventilation was due in every case to the windows not being made to open."

Downham Market.—"Generally speaking, the houses of the working classes are fairly satisfactory, a good many improvements having been made during the past two years.

“General character of defects found : dampness, defective gullies and spouts, insufficient ventilation, windows not made to open, and want of sufficient ventilated food storage room.

“Ninety-three inspections have been made during the year, and it was found that 77 required amendment.

“Your Inspector had paid particular attention to the necessity of providing proper storage for food, and where possible he has urged the necessity of proper ventilation ; and in many cases this has been done

“Four blocks of cottages were found to be damp in consequence of adjacent high ground. Attempts have been made to obviate the dampness by putting in damp proof material or cementing the walls.

“There are a few houses without through ventilation. In some cases these have been dealt with by the provision of new windows.

“Three houses were found to be in a very bad condition. New floors have been put in where necessary and others have been ventilated.

“In nine houses where the old tenants have left, the walls have been stripped of old paper, and in several cases disinfected and re-papered and re-painted throughout.

“In a number of cases the rain water pipes have been disconnected from the drains and sewers, and where necessary new guttering has been provided.

“Of the five cases of overcrowding dealt with, two only were extreme cases. One has been effectively abated by the removal of the family from the district, and the other was abated for a time by two of the children being sent out to sleep.”

Hunstanton.—“Ample. No house-to-house inspection necessary.

“Building Bye-Laws are in force.

“The six cottages mentioned in my last year's report are completed and occupied. They are admirable cottages ; nothing has been forgotten.”

Diss.—“For the 3,769 of your population there are some 951 houses, 621 of which you might call cottages, whose rent is below £8 per annum.

“‘There is no doubt that there is a want of a certain class of houses or cottages in your district. Further, that unless private owners care to build, your Council will seriously have to consider becoming landlords, especially when one considers the number of cottages which will eventually be condemned under the Housing and Town Planning Act, 1909.’ So I said in my report last year, and I know now from personal experience that my words are true. I have made the following aphorism which I think applies to this trouble: ‘It is folly or philanthropy for private persons to build cottage property under the present regulations.’

“‘The suggestion for the Council to pave certain yards, and which has not yet been done, I hope to see carried out when the water mains are laid and one can expect less eruption of the ground.’ This is also a quotation from last year’s report which I think might now be attended to.”

Sheringham.—“In the main, the housing of the people of Sheringham is satisfactory.

‘In several situations, however, there are remnants of the old fishing village, containing several cottages which are unfit for habitation, and to which I have directed your attention, *e.g.*, two cottages in the Beeston Road, two cottages adjoining the Dunstable Arms, six cottages on Beeston Common, and two cottages in Jordan’s Yard, are damp, dilapidated, small, ill-lighted, and ill-ventilated to such an extent that they are unfit for habitation.

“The alterations and repairs necessary to make these cottages habitable are, in nearly every case, so extensive that the alternative of closing them would be preferred by the owner. This would defeat our purpose, as it would mean the occupants would be turned into the street, and the cottages in question are at least better than nothing.

“To be logical, therefore, it is necessary to provide new dwellings before inflicting hardship by closing the old ones.

“With this in mind, I suggested to the Sanitary Committee that the Council should consider the erection of a number of workmen’s cottages, with three bedrooms, upon the land acquired in the Cromer Road. I am pleased to put on record that the suggestion has been considered, and will in all probability be put into force during this year.

“The point to bear in mind, however, is that if and when these new cottages are built, little good will be done if the opportunity is not taken to

close the worst of the old cottages, and the extensive alterations necessary in the case of the others, as empowered by the Housing and Town Planning Act, are not insisted upon.

“There is a distinct scarcity of cottages with three bedrooms at a rental that does not entail the tenant letting rooms during the season to recover part of the rent.”

Swaffham.—“Ten houses unfit for habitation have been served with notices, and the same have been abated.”

North Walsham.—“The house accommodation is ample in quantity, but not quality. Most of the houses, except those in the older parts of the town, have good and open surroundings. No action has been taken during the year under the Housing of the Working Classes Act. The special district selected by the M.O.H. for inspection under the Act has not been inspected, and he has consequently had no report upon it. Many houses in the whole district are in bad repair and condition, and I hope that in the coming year, as a whole-time Sanitary Inspector and Surveyor has been appointed, good work under this Act will be done, and the much-needed improvement in the dwellings of the poorer working classes be effected.”

Wells.—“The house accommodation of the town is practically the same as during the past ten years. Owing to the prolonged illness and death of our late Sanitary Inspector the inspection of houses under the Housing Act of 1909 could not be proceeded with as one would have wished, but a start has been made and 75 houses have been inspected. No closing orders have been made at present, in six cases defects found have been remedied. The unfortunate legacy of much arrears of work left to our present Sanitary Inspector has as yet prevented him from making much progress in house inspection, but we hope that soon we shall be able to make up for lost time.”

Walsoken.—“The housing accommodation seems to meet requirements. There have been a few new houses built, and no case of overcrowding has been reported. You are aware that under the new Town Planning Act, a complete survey has been made of all the houses occupied by the working classes, and careful note taken of all defects. I am gratified to find that a great number of sanitary defects have been remedied, such as roofs, ventilation, gully traps, yard drainage, and general repairs. In company with the Inspector I made

a house-to-house inspection recently of all houses where defects still exist, and I shall be gratified to learn that these also may as well soon be attended to and remedied."

Thetford M.B..—"During the year special attention has been paid to work under the Housing and Town Planning Act. The town has been divided up into separate districts, and these have been taken seriatim. Inspections have been made in order to discover any defects which may exist, and when such defects have been found the necessary steps have been taken to have them remedied. These inspections are being continued.

"The commonest type of house in the town is the four-roomed cottage with a yard behind in which are situated the sanitary convenience—usually as far from the house as possible—and the drain for the slop water—almost always close to the back door. The defects consist chiefly of excessive damp and general dilapidation. The walls in several cases are bulging, and the possibility of such a wall collapsing is always present. In several cases the floors of the living rooms are below the level of the street. It is, however, in the surroundings of the houses that most defects have been discovered.

"Several cases of overcrowding are known to exist in the town. The Council has taken up the question of providing houses for the working classes under the Act.

"On June 9th, 1912, an Inspector of the L.G.B. held an inquiry in the Town Hall as to the need for more houses suitable for working class tenants.

"It was proposed to erect 50 cottages. The suggested rents to be charged are from 3s. to 4s. 6d. per week, clear of all rates excepting the Poor Rate, which is to be paid by the tenant.

"The scheme was approved by the L.G.B. and the work was put in hand at once, and it is hoped the houses will be ready for occupation early this summer."

King's Lynn.—"Number of houses visited by the Health Committee 57; number of houses visited by the Medical Officer of Health and Sanitary Inspector, 132; number of representations made by the Sanitary Inspector, 29. Twenty-one dwellings have been repaired and made fit for habitation; 6 others were undergoing repair; 11 dwellings in Surrey Street have been demolished."

**Rural Districts.—Table of Particulars for the year 1912 under
Article V., L.G.B. Order, Sept. 2nd, 1910.**

DISTRICT.	No. of Dwelling-houses inspected.	No. of Dwelling-houses considered unfit for human habitation.	No. of Representations to L.A. with view to Closing Order.	No. of Closing Orders made.	No. of Dwelling-houses in which defects remedied without Closing Order.	No. of Dwelling-houses made fit for human habitation after Closing Order	Remarks.	No. of New Cottages recorded in Report of M.O.H.
Aylsham ..	252	8	8	0	78	0	5 "unfit" cott'ges unoccupied; 3 repaired	6
Blofield ..	352	11	11	11	126	0		
Depwade ..	1013	10	5	3	179	2	1 of 5 houses voluntarily closed	
Docking ..	239	5	18	18	8	3	rebuilt	13
Downham ..	362	69	11	11	41	6		15
Erpingham ..	565	57	12	2	15	}	Cttgs. not closed, as none others vacant	} 34
Flegg East and West	199			0	72		67 notices outstanding	37
Forehoe ..	216	10	4	1	6	0	3 demolished without Closing Order	20
Henstead ..	357	7	1	1	124	0		15
Freebridge Lynn ..	643	5	5	5		5	converted into 3	5
Marshland ..	400	0	0	0	2	0		28
Mitford & Launditch	52	4	4	2	27	0		14
Loddon & Clavering	336	2	0	0	2	0	2 pulled down and rebuilt	
St. Faith's ..	378	2	0	0	0	0	2 houses voluntarily closed	18
West Lynn ..	No	Report						
Smallburgh ..	287	12	12	5	14	2		17
Swaffham ..	547	272*	11	4	198	0		
Thetford ..	82	0	0	0	30	0		4
Walsingham ..	163	10	10	10	153	0		
Wayland ..	475	Not stated		2	34			12
Total ..	6918	484	122	75	1112	19		228

* This figure obviously includes all houses found defective.

**Tabular Statement under Article V., L.G.B. Order of Sept. 2nd,
1910. County of Norfolk—Urban Districts.**

DISTRICT.				No. of Dwelling-houses inspected.	No. of Dwelling-houses reported as unfit for human habitation.	No. of Representations to the Local Authority.	No. of Closing Orders made.	No. of Dwelling-houses where defects were re- medied without closing orders.	No. made fit after Closing Order.
Cromer	..	..	..	85	0	0	0	39	0
East Dereham	..	..	..	133	0	0	0	107	
Downham Market	..	..	..	93	1	0	0	43	
New Hunstanton	..	..	..	0	0	0	0	0	0
Diss	..	..	..	63	1	1	0	43	0
Sheringham	..	..	..	76	2	2	0	20	0
Swaffham	..	..	..	200	0	0	0	6	0
Thetford M.B.	..	..	..	21	1	1	1	36	1
King's Lynn M.B.	..	..	..	32	29	27	5	27	
North Walsham	..	..	..	No house inspected under Act					
Wells	..	..	..	75	0	0	0	6	0
Walsoken	..	..	..	394	20	20	0	290	2
Total	..	..	..	1182	54	51	6	617	3

Closing Orders.

During 1912 I received, in compliance with Section 69 (1) of the Housing, Town Planning, etc., Act, 1909, notice of Closing Orders under Subsection (2) of Section 17 of the same Act, as follows:—

Sanitary District.	Parish.	No. of Dwellings.		Date of Closing Order.
Blofield R.D. ..	Thorpe St. Andrew ..	1	.	9/10/12
	Upton-with-Fishley ..	1	..	28/12/12
Depwade R.D. ..	Burston ..	1	..	9/9/12
	Needham ..	2	..	7/10/12
Downham R.D. .	Southery ..	2	..	12/4/12
	Ten Mile Bank ..	1	..	7/5/12
	Southery ..	2	..	23/8/12
	St. Germans ..	3	..	20/9/12
	Denver ..	1	..	18/10/12
	Marham ..	2	..	18/10/12
	Magdalen ..	5	..	15/11/12
	Wereham ..	4	..	15/11/12
	Southery ..	1	..	15/11/12
	Marham ..	1	..	15/11/12

In addition, the Clerks of the following Districts, in reply to a circular letter I addressed to all the Clerks of the R.D.C., sent me copies of representations made by the District Medical Officers of Health, as follows:—

Swaffham R.D...	Holme Hale ..	3	..	11/5/12
	Sporle ..	1	..	11/5/12
	Watton ..	1	..	14/6/12
Walsingham R.D.	Langham ..	6	..	4/9/12

The Clerk to the Flegg District sent me the detailed Committee's Reports, embodying the results of inspections and notices served on owners of cottages. These show that many repairs and improvements were effected, but apparently during 1912 no dwelling-house was dealt with under Subsection (2) of Section 17 of the 1909 Act in this Sanitary District.

ISOLATION HOSPITALS.

In 1912, a useful Report on Isolation Hospitals was made to the Local Government Board by the late Dr. Franklin Parsons, being the results of an Enquiry to investigate complaints received by the Board as to the large and increasing cost of construction of isolation hospitals.

It contains valuable information of practical importance. It confirms the opinion expressed by your County Medical Officer of Health in 1909, and by the Blofield Rural District Council in 1912, that the transport improvements of the present motor age would enable a hospital to serve the needs of several Sanitary Districts, thus tending to economy and efficiency.

Although isolation hospitals are of distinct advantage when judiciously used, their utility cannot be considered separately from that of the other administrative efforts in each district for the efficient control of a notified disease. As pointed out by Dr. Newsholme, the institutional segregation of notified cases cannot realise its potential value unless it is associated with diligent search for unrecognised cases.

Dr. Parsons noted that the usefulness of isolation hospitals in arresting an outbreak of infectious disease at an early stage is more obvious than their usefulness in extinguishing a developed epidemic.

I have drawn attention in previous Reports to certain circumstances in which to allow an infectious patient to remain at home may be fraught with danger to the public.

Dr. Parsons remarked that a Town or District Council which has not provided hospital accommodation adequate and suitable for coping with such cases, must be regarded as having failed in one of its obvious duties for the protection of the public health. Some districts make provision for Scarlet Fever alone, but Diphtheria and Enteric Fever are two forms of infectious disease where hospital treatment will save many lives through better nursing and feeding than is possible in the home. Both forms of disease are very liable to spread in poorer households, under the conditions not only of ignorance, but of almost impossibility of sufficient care being taken in nursing and cleanliness.

Good administration is essential for the success of a fever hospital—no overcrowding should ever be permitted simply because there is an isolation hospital to which it is thought every notified case may be taken. Hence I prefer to advise only large hospitals covering a sufficient combination of districts to ensure being always in use, and under the administrative charge of a Medical Officer well skilled and experienced in fever hospital administration. Such administration differs considerably in detail from that of a general hospital.

That the feeling of District Councils and their Medical Officers is generally in favour of joint hospitals is shewn by communications addressed to the County Council; by Press reports of District Councils; and by the Reports of the M.O.H.

No change has to be recorded in Norfolk during 1912 from the conditions existing in 1911, but several District Councils have at times felt the need of isolation hospitals, and have discussed the question of arranging for joint hospitals. I trust the suggestions made in my last Annual Report may be of some assistance to them in coming to a decision as to the steps which should be taken to remedy the deficiencies which exist.

The following extracts from some of the District Medical Officers of Health Reports bear on the question of hospital isolation;—

RURAL DISTRICTS.

Aylsham.—"The Iron Hospital at Aylsham has accommodation for three patients and a nurse, but although there has been a considerable amount of infectious disease in the District, no use has been made of it during the year. To be of practical use, an isolation hospital must have a permanent staff and be kept in constant readiness. Hospitals on these lines are only possible in Rural Districts by having a general scheme for the County, under which a hospital could be provided for the combined use of several Districts."

Downham.—"Your attention has been drawn to the question of providing hospital isolation accommodation, and I am still of the opinion that it would be better to wait until some general scheme is evolved by the County Council, which should deal with a combination of Districts in the Western part part of the County."

“As I stated in my last Annual Report, the need for isolation is especially exemplified in cases of Enteric Fever, which during the past year has accounted for the larger number of notified cases of infectious disease.”

Erpingham.—“A site has been leased for the erection of an Emergency Isolation Hospital at Roughton. The idea is to provide a few beds for the isolation of cases of infectious disease occurring in the coast villages during the letting season.”

East and West Flegg.—“A Committee has been formed to go into the question of providing an Isolation Hospital.”

Henstead.—“The fact of the 42 cases (Scarlet Fever) in Hethersett and Swainsthorpe occurring in only 18 houses clearly shows the want of better means of isolating the first cases. . . . If the first cases had been removed to an Isolation Hospital and the infected premises thoroughly disinfected without delay, many of the cases would not have arisen.”

Loddon and Clavering.—“This evergreen question still remains unsettled. Nothing more has been heard of the Joint County Scheme, and in January, 1912, your Council decided by a majority of one that no Isolation Hospital be built in this District.”

St. Faith's.—“I hope the Council will soon be able to provide some suitable building (for Isolation).”

Walsingham.—“No steps have been taken during the year for the provision of an Isolation Hospital.”

URBAN DISTRICTS.

King's Lynn, Cromer, and Hunstanton.—Have small Isolation Hospitals for diseases other than Small Pox.

North Walsham.—“An Isolation Hospital is badly wanted, but I am of opinion that the North Walsham Urban District alone cannot support one, and therefore would urge the Council to bring the matter before the County Council, and also communicate with surrounding Councils and ask them to do the same.”

As County Medical Officer I reported to the Public Health Committee on Isolation Hospital Accommodation in June, 1912, recognising the difficulties in Norfolk where the population averages only about 1 person in four acres. I calculated that the whole County in an average year could barely contribute enough patients to keep 2 Isolation Hospitals, of from 80-100 beds each, in constant use. I repeated the suggestion outlined in my Annual Report for 1909 (p. 32) of Isolation Cottage accommodation for groups of Hospitals; the only really practical effective alternative being the provision of a properly equipped Hospital for sufficiently large areas of combined Districts, capable of treating and isolating two or three different kinds of Infectious Diseases at the same time, it being now possible to move patients quickly from considerable distances by means of motor ambulances.

One advantage of a larger Hospital is that the larger the number of patients admitted the proportionate maintenance charges per head diminish.

As a matter of moment to the County Council as the County Education Authority, I drew attention to the fact that the present general lack of Isolation Hospital accommodation necessitates in the course of a year a serious loss in grant through the necessity of excluding from School every child living in infected houses for a period of 6 to 8 weeks if a case of Scarlet Fever or Diphtheria occurs in any house. In a family of 6 children, where one is ill this means a loss of about 300 attendances, whereas should Isolation Hospital accommodation be available, and the infected child removed, the others need to be excluded for about only 1 week, which in the case of 5 children would mean only 50 attendances lost instead of 300 attendances as at present. Probably at least 20,000 attendances on an average are lost each year through the want of proper isolation for Scarlet Fever and Diphtheria. This is an aspect of the case at least deserving of consideration in connection with the powers possessed by the County Council under the Isolation Hospitals Act, 1893.

METEOROLOGICAL NOTES.

As usual, I am indebted to the courtesy of Mr. A. W. Preston, F.R.Met.Soc., of Norwich, for the notes from which the following summary is compiled:—

Mean barometric reading for the year 1912	..	29·888 inches
Air Temperature—		
Maximum (July 12th)	.. ..	86·5 degrees
Minimum on grass (Feb. 3rd)	.. ..	18·0 „
Mean temperature of year 1912	.. ..	49·6 „
Above average by	.. ..	9 inches
Mean relative Humidity (9 a.m.)	..	79 p c.
Rainfall—		
Total fall at Norwich	.. ..	35·03 inches
Above Average by	.. ..	9 „
No. of days on which rain or snow fell	..	225
Wettest Month, August	.. ..	11·27 „
Bright sunshine recorded during	.. ..	1372·7 hours

GENERAL REMARKS.—Like its predecessor, 1911, the year 1912 was an abnormal year. A rainy period set in on the 18th July, only 7 out of the 38 days to August 24th having been rainless. Sunday, August 25th, was fine, but towards evening the barometer began to fall and fell rapidly after midnight, dropping eventually to 29 inches by 1 p.m. on the 26th August. No less than 4·96 inches of rain fell between 9 a.m and 3.15 p.m. Rain fell continuously for 29 hours, reaching a total of 7·34 inches in this time. At Brundall, in the Blofield Rural District, a few miles from Norwich, no less than 8·09 inches were registered. Dr. H. R. Mill calculated that the 2044 square miles of the County of Norfolk had a mean rainfall of 5·08 inches at this time, corresponding to the enormous total of 150,242,000,000 gallons, or a total weight of 670,720,000 tons of water in about 30 hours. The resulting floods did serious damage, both in the County and in Norwich. Fortunately the public health suffered but little.

BYE-LAWS.

In October, 1911, I requested that I might be supplied with copies of the Building Bye-Laws in the various Urban and Rural Districts, and the Clerks of the following Districts courteously complied with my request:—Blofield R.D. (1895), St. Faith's R.D. (1903), East and West Flegg R.D. (1908), Depwade R.D. (1910), Henstead R.D. (1905), Forehoe R.D. (1903), East Dereham U.D. (1878) and (1903), Sheringham U.D. (1914), New Hunstanton U.D. (1895), Swaffham U.D. (1894), Thetford M.B. (1910), Walsoken U.D. (1898), Diss U.D. (1859).

With the exception of the last-named all the above Districts have Bye-Laws with respect to New Streets and Buildings subsequent to the Public Health Act, 1875.

In the course of the year I received a request on behalf of the Downham Rural District as to modified Bye-Laws suitable for a Rural District, and indicated those in force in the Maldon Rural District in Essex as such. Bye-Laws with respect to New Buildings, and certain matters in connection with Buildings in the Rural District of Downham, were made by the Rural District Council in May, 1912, and allowed by the Local Government Board in July, 1912. A Copy of these Bye-Laws would prove useful to any other Rural District which contemplates making Building Bye-Laws.

