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COUNTY OF NORFOLK.

ANNUAL REPORT

OF THE

County Medical Officer of Health

AND

School Medical Officer

FOR THE YEAR

1925

PART II.

SURVEY REPORT

ON THE

Health of Norfolk

BY

J. T. C. NASH, M.D. (Edin.), M.B., C.M. (Edin.), D.P.H. (Camb.)

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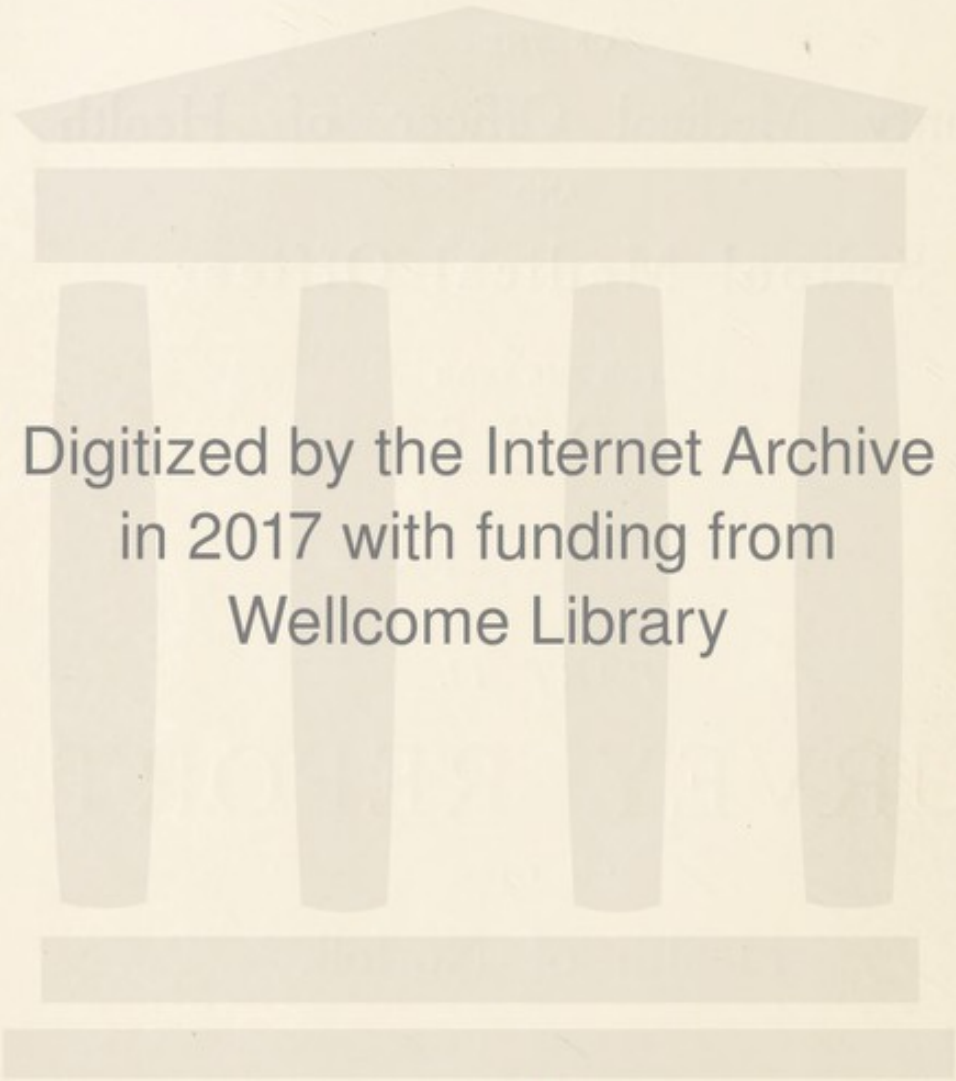
J. T. C. NASH, M.D. (Edin.), M.B., C.M. (Edin.), D.P.H. (Camb.)

Hon. Sec. (Past President), Eastern Branch of Society of Medical Officers of Health.
Fellow (Member of Coun.) of Society of Medical Officers of Health.
Formerly M.O.H., etc., Borough of Southend-on-Sea.
Formerly Demonstrator and Lecturer in Bacteriology, University of London, at King's College, etc.



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Members:

Arnett, J. A.
Astley, Major D. G.
Beck, G. W.
Beevor, Sir H. R., Bart.
*Cobon, George
Codling, W. G.
Cozens-Hardy, A.
*Day, H. A.
Fletcher, Major L.
Fox, H. W.
Gee, S. J.
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*Hewitt, G. E.
Pearce, Dr. J. C.
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*Suffield, The Dowager Lady *(Vice-Chairman)*
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Ex-officio, Chairman and Vice-Chairman of County Council.

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Carr, Mrs.
Colman, Mrs. R. J.
Gooch, Mrs.
Wright, Dr. B. D. Z.

Maternity and Child Welfare.

Tuberculosis.

Fanning, Dr. Burton
Simpson, F. T.
Wright, Dr. B. D. Z.
Young, Mrs. I.

Maternity and Child Welfare Sub-Committee.

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Beck, G. W.
Brereton, Miss K.
Carr, Mrs.
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Gooch, E. G.
Harvey, Herbert
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Members:

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Gooch, E. G.
Hewitt, G. E.
Pearce, Dr. J. C.
Peel, Sam
Simpson, F. T.
Trafford, Major S. W.
Wright, Dr. B. D. Z.
Young, Mrs. I.

* Representatives of County Council on Norfolk Joint Sanatorium Committee.

Sanitary Administration of the County of Norfolk.

Supervising Authority - - - NORFOLK COUNTY COUNCIL
County Medical Officer of Health - J. T. C. NASH, M.D. (EDIN.), D.P.H. (CAMB.)
Tuberculosis Officers: W. B. CHRISTOPHERSON, M.R.C.S., L.R.C.P.
D. MORRISON SMITH, M.B., CH.B. (ASSIST.)
E. HOLMES WATKINS, B.M., CH.B. (ASSIST).
Inspectors of Midwives: Miss M. A. Fowler; Miss M. V. E. Davey (Assistant).
Health Visitors: Miss O. Parker; Miss D. Parker;
Miss R. P. Thompson; Mrs. B. A. Begent;
and about 90 District Nurses.
Assistant Bacteriologist: F. T. ALPE, F.C.S., Barrister-at-Law.

The Administrative County is divided into 32 Sanitary Areas, including 2 Municipal Boroughs, 10 other Urban Districts, and 20 Rural Districts. Each appoints a Medical Officer of Health, half his salary being refunded by the County Council. The following were District Medical Officers of Health and Sanitary Inspectors during 1925.

URBAN DISTRICTS:	MEDICAL OFFICERS OF HEALTH:	SANITARY INSPECTORS:
Cromer	Dr. R. C. M. Colvin Smith	R. Croome
Diss	„ H. M. Speirs	G. H. Jones
Downham Market	„ G. F. Cross	L. Tait
East Dereham	„ D. Turner Belding (now deceased)†	W. A. Norris
*King's Lynn, M.B.	„ P. G. Foulkes	J. W. Shaw
New Hunstanton	„ W. E. H. Bull	F. Wilkinson
North Walsham	„ J. Shepheard	W. Morris
Sheringham	„ J. E. Linnell, D.P.H.	F. H. Smith
Swaffham	„ R. O. Townend	C. Frobisher (Appt. Nov., 1925)
Thetford, M.B.	„ A. Oliver, D.P.H.	L. G. Howell
Walsoken	„ H. Groom	T. M. Kerridge
*Wells-next-Sea	„ G. Calthrop	G. Rodley
RURAL DISTRICTS:		
Aylsham	Dr. H. H. Back	H. W. T. Trotter
Blofield	„ H. H. Back	L. F. Beckwith
Depwade	„ F. N. H. Maidment	F. W. Bowden
Docking	„ B. G. Sumpter	A. B. Nowell
Downham	„ G. F. Cross	S. C. Rigg
East and West Flegg	„ W. Royden	A. Coulter
Erpingham	„ J. E. Linnell, D.P.H.	A. R. Tuddenham
Forehoe	„ T. Lambert Lack	A. W. Hobbs
Freebridge Lynn	„ O. L. Appleton	H. Bell
Henstead	„ S. H. Burton	J. B. Panks
Loddon & Clavering	„ H. Dobrée Woodroffe	C. W. Pritchard
Marshland	„ S. R. Lister	J. T. Dewhurst
Mitford & Launditch	„ D. Turner Belding (now deceased)†	B. Penny
St. Faith's	„ S. H. Long	H. S. Hawkins
Smallburgh	„ B. D. Z. Wright	A. L. Taunton (appt. June 1925)
Swaffham	„ E. F. Rose	E. E. Brockway
Thetford	„ G. Cowan, D.P.H.	S. J. Miller (temporary)
Walsingham	„ W. H. Fisher	W. O. Humphrey
Wayland	„ E. F. Rose	C. Whitworth
West Lynn	„ T. O. Hutton	R. Walker

*Also Port Sanitary Authorities. †Succeeded by Dr. N. E. D. Cartledge.

CONTENTS

To the Norfolk County Council.

MR. CHAIRMAN, LADY SUFFIELD AND GENTLEMEN,

In accordance with instructions from the Ministry of Health the Report for 1925 is a Survey Report, and deals comprehensively with the measure of progress made in the Administrative County of Norfolk during the preceding five years in the improvement of the public health, and also indicates any further action of importance in the organisation or development of public health services contemplated by the Authority or considered desirable by the Medical Officer of Health.

The subjects dealt with in the Report fall under the following main heads :—

Natural and Social Conditions of the Area.
General Provision of Health Services in the Area.
Sanitary Circumstances of the Area.
Housing.
Inspection and Supervision of Food.
Prevalence of and Control Over, Infectious Disease.
Maternity and Child Welfare.

Ever since I began to make Annual Reports to the Norfolk County Council, I have divided each year's Report into two parts. Part I the Report of the School Medical Officer, and Part II the Report of the County Medical Officer of Health. It is still my firm conviction that all the Council's health activities should be under one head and should be thoroughly correlated, somewhat on the lines expressed on pages 66-68 of my Annual Report as C.M.O. for the year 1911. But School Medical Inspection remains as a work apart in Norfolk (as in many other areas), and the staff, professional and clerical for carrying out the duties are appointed by the Education Committee as a statutory Committee. Consequently the School Medical Inspection work is in a more or less watertight compartment, but is satisfactorily staffed, under a

Chief Clerk, and it is therefore not a matter of great difficulty to have all the material for the Report of the School Medical Officer ready in January or February. On the other hand the Report of the County Medical Officer of Health until quite recently was a report which had to include a prècis of the Reports of District Medical Officers of Health. Some of them did not come to hand until June or July, or even later.

Further, until the Council have solved the problem of additional office accommodation, which has been engaging their attention for some time, the clerical staff of the Public Health Department is scattered ; the Tuberculosis staff (5 clerks) is in quite another building about a quarter mile away, 2 clerks who deal with records of Midwives and Health Visitors in Miss Fowler's Office, 5 clerks (including a chief clerk) who deal with School Medical Inspection records, leaving only one general clerk in quite a small room to deal with all other general Public Health records and correspondence. Consequently Part II of my Report appears much later in the year.

Each succeeding year shows a considerable increase in the Health duties of County Councils and the time has arrived when it is necessary not only to re-organise the clerical staffs in the interests of efficiency (and I think also economy), but to appoint (as many County Councils have done and are doing) a Deputy County Medical Officer of Health and School Medical Officer, to assist in securing effective supervision and co-ordination of the various health activities of the County Council.

I am,

Your obedient servant,

J. T. C. NASH, M.D., etc.

August, 1926.

SECTION I.

NATURAL AND SOCIAL CONDITIONS OF THE AREA.

Area of Administrative County of Norfolk (acres) ..	1,303,570
Population, Census 1921	322,932
Population estimated by Registrar-General for mid-year estimated 1925	322,620
Number of inhabited Houses (1921)	78,168
,, Families or Separate Occupiers (1921) ..	78,814
Rateable Value for general purposes	£1,585,652
Sum represented by a penny rate and Government grant	£6,607

Birth Rate, 1925 .. 16.67 Infantile Mortality, 53.71 (per
Death Rate, 1925 .. 12.25 1,000 births)

Physical Features and General Character of the Area.

Norfolk is a maritime county with about 90 miles of coast, extending from Great Yarmouth on the East to Lincolnshire on the West. This coast line provides well known holiday resorts, and a living for fishermen, and for lodging house keepers, hotel keepers and others who cater for holiday-folks' needs. The greater part of the county is agricultural, and sparsely populated. In the Administrative County there are no great towns—the largest being the Municipal Borough of King's Lynn, Population about 20,000, situated at the mouth of the Ouse. The next largest town in the Administrative County is East Dereham (Population under 6,000) situated in the centre of the County. The old Municipal Borough of Thetford in the South is smaller, as are the Urban districts of Cromer, Sheringham, Wells next the Sea, Hunstanton, Downham Market, Swaffham and North Walsham, Diss, and Walsoken. The last named however, is contiguous with Wisbech in the Isle of Ely, a town of about 10,000 inhabitants. In none of these towns are there any *great* factories, the industrial concerns being naturally more numerous in King's Lynn than elsewhere, where amongst others are to be found Manure Works. In North Walsham one of the principal concerns is the making of agricultural implements. Printing Works, Brush-making factories, a large Cyder factory, etc., are to be found in some of the smaller towns in the rural districts which are not separate Urban Districts, though one or two of these towns, e.g., Wymondham in the Forehoe Rural District, are as big as the majority of the smaller Urban Districts in Norfolk.

The oilworks which were started a few years ago in the West of the County (which if successful would have urbanised a district in the neighbourhood of King's Lynn) appear to have been a

failure. A large Sugar Beet factory at Cantley on the river, between Norwich and Yarmouth, has been in existence some years, the labour being drawn chiefly from surrounding villages. A new Sugar Beet factory has been established at Wissington, on the river Wissey.

The main geological feature of the County is Chalk, either at the surface, as in the West or beneath later formations as in the East. In the extreme West rich alluvial soil in the Marshland rural district has rendered this part a lucrative fruit growing district, the strawberry fields being particularly extensive. Incidentally the inhabitants are comparatively well above the poverty line, but the good of this is somewhat discounted by the occasional neglect of children whose mothers go out as land workers.

A great feature in social conditions and the amenities of village life, has been the institution of Women's Institutes, the unqualified success of which has been largely due to the indefatigable interest of the President, the Dowager Lady Suffield. Cinemas and the "Wireless" have also deeply invaded districts which at the beginning of the century were either "deadly dull" or "unspoilt" according to the particular view point.

VITAL STATISTICS.

The figures given here have been supplied to me by the Registrar-General. The number of births and deaths are those *registered* during the calendar year (January 1 to December 31 inclusive), and have been corrected for inward and outward transfers. The figures will, therefore, differ slightly from local figures compiled locally. For each Urban and Rural District with a population of 10,000 or over, the Registrar-General has also calculated a standardizing factor for correcting the *death* rate. The term "standardized death rate" means the death rate corrected for differences of sex and age constitution of the population. As all of our Urban Districts with the one exception of King's Lynn and three or four of our Rural Districts have a population of under 10,000 no standardizing factor has been supplied for them—but from those supplied one is able to confidently state that the standardizing figure for Norfolk is not over .750. The adjusted population for death rate given by the Registrar-General is 322,120 for the County. Calculated on this figure the 3,946 deaths in 1925 give a general *death rate* of 12.25. Applying the standardizing factor the *death rate* is reduced to 9.19, which is therefore the standardized death rate. The adjusted population for the *birth rate* is 322,620, and calculated on this figure the *birth rate* for 1925 is 16.67.

The *Infantile Mortality* rate of 53.71 in 1925 is commendably low, but I hope to see it lower still. It compares with an average

of 59.33 for the four preceding years and with an average of 95 in 1907–8–9, about the time I first undertook the duties of your Medical Officer of Health.

Causes of Death.

Zymotic Diseases. In the whole of the administrative County 58 deaths were ascribed to these, as follows:—In 1925, Enteric Fever, 2; Measles, 5; Scarlet Fever, 0; Whooping Cough, 17; Diphtheria and Croup, 16; Diarrhœa and Enteritis (under 2 years of age), 18.

Tuberculous Disease accounted for 251 deaths in 1925 as compared with 272 in 1924 and 260 in 1923.

Tuberculosis death rate in 1925, 0.77; Phthisis death rate, 0.65.

Cancer. 561 deaths were ascribed to cancer. Of these 145, or roughly one-fourth, were upwards of 75 years of age. Improved sanitation and education have brought about a longer expectation and realization of life, and it may well be that a considerable proportion of the undoubted increase in Cancer deaths is due to the prolongation of life in many individuals who in days gone by would have succumbed to some other malady at an earlier age. The Cancer death rate slowly rises and was 1.73 in 1925.

Organic Heart Disease accounted for 579 deaths in 1925. Here again 253 were over 75 years of age.

Rheumatic Fever. 10 deaths were ascribed to this malady, but this is no index to the amount of Rheumatism.

Disease of the Respiratory Organs (including Bronchitis and Pneumonia) accounted for 437 deaths in 1925—giving a death rate for this class of disease of 1.35.

Puerperal Fever accounted for 4 deaths in 1925, as also in 1924.

Influenza. 181 deaths were registered in 1925—half as many again as in 1924 (120). Influenza was prevalent in the early months of the year, necessitating the closing of a large number of schools.

As a cause of invalidity during the period under review I think Influenza has been the chief malady. At N. Elmham an outbreak of Catarrhal Jaundice affecting many (both adults and children) without a death was, to my mind, associated with Influenza. I invoked the aid of the Ministry of Health in investigating this outbreak, and had the valuable co-operation of Dr. Morgan, but although there was clear evidence of some infectivity, we failed to discover any hitherto unknown cause.

SECTION II.

GENERAL PROVISION OF HEALTH SERVICES.

No Hospitals, other than Mental, have been provided by the County Council, but beds are utilised at existing Hospitals at agreed charges.

The Hospitals available in Norfolk are :—

1. The Norfolk and Norwich Hospital. A general Hospital with 330 beds, Norwich.
2. The Jenny Lind Hospital for Children, Norwich, 80 beds.
3. West Norfolk and King's Lynn Hospital, King's Lynn, 60 beds.
4. The Norfolk and Norwich Eye Infirmary, Norwich, 15 beds.
5. The Great Yarmouth Hospital, Great Yarmouth, 72 beds; and Cottage or Country Hospitals at Cromer, Ditchingham, N. Walsham, Swaffham, Thetford, Wells, Watton.
6. The Norfolk Mental Hospital (County Hospital), Thorpe, 1,050 beds; and two Mental Hospitals in Norwich.
7. The Norwich Institution for the Blind.

For institutional provision for unmarried mothers and illegitimate infants the County Council makes an annual grant to the Norwich Diocesan Maternity Home. The various Boards of Guardians also receive cases in their respective Infirmaries.

Ambulance facilities are provided by Red Cross Ambulances, stationed at Norwich, Dereham, Downham, Cromer, King's Lynn, Hunstanton, Thetford and Great Yarmouth for the conveyance of non-infectious cases.

Clinics and Treatment Centres available in the district:

Maternity and Child Welfare.—At King's Lynn, Thetford, Swaffham, Wymondham, Walsingham, Blofield, Woodbastwick and various weighing centres.

School Clinics at East Dereham, N. Walsham, Wymondham, Wells, Walsoken and Fakenham.

Tuberculosis Dispensaries at Norwich and King's Lynn.

Treatment Centres for Venereal Diseases at the Norfolk and Norwich Hospital and the King's Lynn and West Norfolk Hospital.

The Public Health Officers of the County Council are enumerated on the flyleaf of this Report.

Professional Nursing in the Home is provided by the Norfolk Nursing Federation, towards which the County Council makes generous grants. The Council's whole time Health Visitors are occasionally used by the County Medical Officer in advising mothers as to management in outbreaks of measles, etc.

For Fever and Smallpox Hospitals, see under special sections.

Section III.

SANITARY CIRCUMSTANCES OF THE AREA.

Water Supplies in Norfolk.

Chalk underlying practically the whole of the County, an available supply of pure water can be obtained almost anywhere by the sinking of properly-constructed wells to a sufficient depth, as at Melton for Cromer and district, and at Thetford and Swaffham. In some places, as at Marham, natural springs from the chalk provide an ample supply. The Wisbech Water Works Company have taken advantage of this large supply for the towns of March and Wisbech outside the administrative County of Norfolk. Their mains supply certain small towns and villages in Norfolk en route. Similar springs at Sheringham and Hunstanton constitute the water supply of these towns. Norwich takes its water from the River Wensum and supplies through its mains (after treatment) the City of Norwich and a few adjacent areas in the administrative County. The C.B. of Yarmouth takes its supply from the Broads and River Bure, and its mains supply a few villages en route. But the greater part of Norfolk villages merely have surface wells—from strata overlying the chalk. At Wells-next-the-Sea, where the chalk comes to the surface, shallow wells are sunk in the chalk, but these are liable to pollution. That a good supply can be obtained is proved by the well at the Gas Works. Many of my previous Annual Reports have more detailed reference to water supplies, and a comprehensive survey of the water supply of Norfolk is embodied in a brochure by the late Mr. Wm. Whitaker, F.R.S.

The following additional notes are of interest :—

The purity of the chalk water is indicated by the bacteriological examination of a sample of water from Thetford. Quantities up to 25 cc., carefully examined shewed complete absence of any indication of the organisms indicative of pollution, and indeed no organisms of any kind capable of growing on agar after 48 hours' incubation at 37° C. were found. The Thetford well is sunk in the chalk. A new trunk main has improved the quantity available in the higher parts of the town. The overhauling and replacement of the main set of pumps at N. Walsham in 1924 has now secured a normal and good supply. The water supply of Sheringham, from two deep wells in the chalk and from springs in a protected collecting ground, is of excellent quality and quantity.

The low lying land in the West of the County presents the greatest difficulty for a pure water supply, though the parishes in the vicinity of the mains of the Wisbech Water Company can be assured of a good supply. King's Lynn derives its supply from wells at Gayton.

At Dersingham, in the Docking R.D., iron impregnated water

from Abysinnian wells has been rendered possible by a polarite Filter. A proper water supply for Docking is under consideration. Cromer Waterworks, from their deep well in the chalk at Metton, supply also Overstrand, Sidestrand, E. and W. Runton, and parts of Roughton. The Erpingham R.D. have sunk a deep well for the Joint Isolation Hospital at Roughton, and the M.O.H suggests that this might be utilised for parts of Roughton and Northrepps. Mundesley and Holt have also deep wells in the chalk. New connections have been made to the mains, ensuring a supply of the Great Yarmouth water supply to extended areas in Ormesby and Caister in the Fleggs. Cringleford and Trowse Newton in the Henstead R.D., have supplies from the Norwich water supply. In the Freebridge R.D. the villages in the proximity of King's Lynn have a constant supply from the Lynn Water Works. In Downham R.D., Downham Market and villages en route have a supply from the Wisbech Water Works, which derive water from the inexhaustible springs at Marham. The same remarks apply to the Marshland District. In St. Faith's R.D. most of the homes in the parishes of Catton, Sprowston and Hellesdon are connected with the Norwich water mains for a constant supply.

At Stalham, in the Smallburgh R.D., the County Council have secured a pure supply by bore at the County Police Station. This may possibly, by arrangement, be the ultimate means of securing a satisfactory supply for the village, the necessity of which has often been urged by the District M.O.H. Artesian wells supply Melton Constable, and the new Council houses at Fakenham, in the Walsingham R.D., but no steps have yet been taken for a further water supply at Fakenham, which is strongly recommended by the M.O.H.

Rivers and Streams.

Many scattered houses on the banks of rivers and streams take their water supply thence. The old pollution of the Wensum at Fakenham has been remedied for some years, as also that of the St. John's Eau at Downham Market. The only stream concerning which complaints have been made of late years is a small tributary of the Thet, which passes through Hargham, which receives a small amount of crude sewage from a part of the small town of Attleborough, together with a considerable amount of effluent from a cider factory. The effluent from the cider factory shows very considerable oxygen absorption, attributed to a large amount of H_2S in the effluent. On my advice the Ministry of Health was approached in connection with the pollution of this stream during 1925, but nothing has been done beyond cleaning out the channel of the stream.

For details of *Sanitary Administration*, including drainage and sewerage, closet accommodation, scavenging, sanitary inspection of the area, and other sanitary conditions requiring notice,

reference should be made to the reports of local District Medical Officers of Health, the County Medical Officer of Health having been relieved by the Sanitary Officers Order, 1922, of the obligation to include in his report a digest of reports made by District Medical Officers of Health.

As regards schools, it is the duty of each District Medical Officer of Health to report on the sanitary condition and water supply of the schools in his area. Any adverse report so made is referred by the County Medical Officer of Health to the Secretary of the Education Committee. The C.M.O. as S.M.O. also arranges for reports on the sanitary conditions of schools by the Assistant School Medical Officers, and matters requiring attention are also referred to the Education Committee. Action taken in relation to the health of the scholars and for preventing the spread of infectious disease are reported on in the first part of my Report (Report of School Medical Officer, already published) and again in this Report under the heading "Prevalence of and Control over Infectious Diseases."

Section IV.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

Notifications of Infectious Diseases in Administrative County (Urban and Rural Districts), 1925, founded on weekly notifications by District Medical Officers of Health, checked by returns from the Registrar General.

Small Pox, 2 (found to be Chicken Pox), both admitted to Hospital; Scarlet Fever, 425; Diphtheria, 126; Enteric Fever, 26; Puerperal Fever, 8; Encephalitis Lethargica, 9 (2 subsequently withdrawn); Ophthalmia Neonatorum, 12; Pneumonia, 129; Cerebro-Spinal Fever, 2.

Of the 551 cases of Scarlet Fever and of Diphtheria, 94 cases were admitted to Hospital (18 from Erpingham R.D., 8 from Marshland R.D., 8 from Loddon and Clavering R.D., 2 from Swaffham R.D., 2 from Wayland R.D., 1 from St. Faith's R.D., 1 from Blofield R.D., 12 from N. Walsham U.D., 2 from Walsoken U.D., 40 from Forehoe R.D.) Roughly 17% of the cases were admitted to Hospital. Of the 26 Enteric Fever cases 5 were admitted to Hospital. The M.O.H. of Blofield R.D. mentions that the case of Encephalitis Lethargica notified was sent to Hospital.

The proportion and percentage of cases removed to Hospital has increased as compared with five years ago, mainly because the N. Walsham U.D. has joined in with Erpingham R.D. for

the use of the latter district's Hospital at Roughton, and the Loddon and Clavering R.D. have an arrangement with the Oulton Isolation Hospital (Suffolk).

When compared with the notifications in the earlier years of my administrative work in Norfolk, it will be evident that infectious disease is under much better control, and this with very little use of isolation hospital accommodation. In this connection the following quotation from the admirable report of Dr. H. H. Back, who has been a District Medical Officer of Health for between thirty and forty years, will be read with interest: "Valuable information reaches me from the head teachers of the several schools through a scheme instituted by the County Medical Officer of Health. Under this scheme the head teacher notifies the District Medical Officer of Health (as well as the School Medical Officer) of all children attending his school suffering or suspected of suffering from infectious disease. In this way many cases are brought to light where the parents have not called in medical aid. It is my experience that epidemics of scarlet fever and diphtheria which happen during the time a school is closed for holidays are most difficult to deal with. The vast improvement in the control of infectious disease manifested by the decrease in the number of cases notified is due in great measure to the early information obtained from schools and care exercised in the exclusion of children while in an infective stage."

Dr. Linnell, D.P.H. (M.O.H. Erpingham R.D. and Sheringham U.D.), bears similar testimony: "An admirable arrangement, and enables me to know the whereabouts and progress of all the infectious diseases."

Smallpox.—There were no cases of smallpox in 1925, the two cases notified in the Marshland District were, in my opinion, cases of chickenpox occurring in a gipsy family. They were removed to the ordinary infectious diseases hospital. No further cases occurred. One of the cases, an elderly man, had a very copious eruption on the face, and the practitioner who notified it as smallpox erred on the right side in notifying it. An overlooked case of smallpox diagnosed as chickenpox would have been disastrous. Apart from the foregoing, there have been no notifications of smallpox in the administrative County of Norfolk during the past five years under review in this survey report. Vaccination is very much in abeyance in the County generally, and a large proportion of the inhabitants are unprotected against smallpox. This does not necessarily mean that the introduction of smallpox into the County would mean a widespread outbreak, but, in order to prevent such, in view of lax vaccination, sanitary authorities and their medical officers will need to be on the *qui vive* for adequate isolation of cases, close investigation for and supervision of contacts, and adequate vaccination of contacts; and adequate disinfection of any infected material.

Scarlet Fever.—This disease has been of a mild nature during the past five years, and there has been no instance of excessive spread during the year 1925. In one or two villages in the Depwade R.D. a considerable number of cases occurred owing to parents having failed to recognise scarlet fever, and consequently having omitted to call in medical advice, but through school notifications we have become aware of these, and have thus been able to draw the attention of medical officers of health to the outbreak. The mildness of the disease at present is indicated by the fact that there were no deaths recorded from scarlet fever in 1925. There were many cases of German Measles during the year.

Diphtheria.—During the last five years there has been a marked reduction in the incidence of this disease. In 1925 the notification rate in the County was only 0.39 per 1,000. The Schick test has not been applied to my knowledge on more than one occasion, when it was applied, a year or two ago, on my advice, through the Ministry of Health, in connection with a Grammar School, and even in this instance the majority of the parents did not avail themselves of the offer of immunisation indicated by the results of the test which was carried out by recognised experts. The various District Councils afford facilities for the prompt supply of diphtheria antitoxin.

Enteric Fever.—The incidence of this disease has also been on the down grade. In 17 of the 32 constituent districts in the County there were no notifications during 1925, in nine districts there was only one notification in each district in the year. In King's Lynn M.B. there were four cases (all under 15 years of age). In Downham R.D. there were six notifications and in Docking R.D. there were four notifications. The only two deaths from enteric fever in the whole administrative County of Norfolk in 1925 were two of the four cases notified in Docking. As regards these two cases, the illness of one dated from cleaning out a blocked drain. The woman who nursed her subsequently died of the disease.

Puerperal Fever.—Only one case was notified among the twelve urban districts. Seven cases were notified among the twenty rural districts. In no district were there more than two cases notified in 1925. There were four deaths. Puerperal fever should be a very rare complication of childbirth, and apart from pre-existing foci of infection in the actual patient should in these days of knowledge be practically non-existent.

Encephalitis Lethargica.—No deaths were recorded in 1925. Nine patients were notified, but two of these notifications were subsequently withdrawn. King's Lynn M.B. was the only district with as many as two notifications. There was no evidence of any common source in the widely separated notifications, the only common factor in evidence possibly being the more or less co-prevalence of influenza. When practitioners are on the *qui*

vive for a " new " disease—it is possible for a somewhat obscure cerebral hæmorrhage or mental disease to be suspected as the new disease. I hope District Medical Officers of Health will " follow up " the notifications after a few months in order to ascertain whether the subsequent history supports the original diagnosis and notification.

Cerebro Spinal Fever.—Only three patients were notified in 1925 in the whole administrative area.

Under the Regulations of the 7th January, 1919, no cases of malaria, dysentery or trench fever were notified in 1925. 38 cases of pneumonia were notified in the twelve urban districts (19 of these in King's Lynn) and 91 cases in the 20 rural districts.

Only very occasional use is made of isolation in hospital. The need for hospital *isolation* is not very acute in Norfolk generally. Cottages are generally quite isolated from each other if the inhabitants have the good sense to follow the advice given them by the M.O.H. Cases requiring hospital *treatment* as well as isolation suffer from the lack of isolation hospital unless the Norwich authorities have at the moment available accommodation, and the District Council concerned is able to make terms, as occasionally happens. Even in King's Lynn M.B., with a population of about 20,000 (not a modern town and has some congested areas), the Borough's isolation hospital of 12 beds was not opened in 1925, although eight cases of scarlet fever and eleven of diphtheria were notified in 1925.

In the opinion of the Medical Officer of Health of the Borough circumstances did not require the removal of any of these cases to hospital during the year.

In 1925 a complaint was made by an inhabitant of Cley to the Ministry of Health and to the County Council of the " totally inadequate methods which prevail in rural areas for coping with infectious disease." By arrangement I met the Sanitary Committee of the Erpingham R.D.C. and the Medical Officer of Health (Dr. Linnell) at Sheringham, and the facts adduced on full investigation proved the complaint to be groundless, the Medical Officer having taken all necessary measures, including the discovery of an unsuspected carrier, which discovery had put a stop to any further cases of the outbreak which had led to the complaint.

For the last few years the type of scarlet fever has been mild, and the incidence of diphtheria has been distinctly less.

Although there is considerable evidence in favour of the Schick test for the recognition of susceptibility to diphtheria, and of the Dick test for scarlet fever, still further evidence and experience is required to prove their reliability, and until such is forthcoming from the large towns I fancy that the County Council will agree with me that the time is not yet ripe for their introduction as a practicable scheme in rural areas.

There is not the slightest doubt that the intimations of infectious diseases from schools has proved of immense value in the control of these diseases as worked hitherto in Norfolk. Without the assistance of a Deputy County Medical Officer of Health, it is doubtful whether the County Medical Officer as Chief School Medical Officer will have the time in the future to personally visit, inspect, and swab children in connection with infectious diseases as he has done in the past. Increased legislation, new schemes, more Committees, more reports, many more signatures for accounts, more correspondence, and consultations all make a demand on strength and time.

County Laboratory.

The County Council have since 1920 instituted a County Laboratory for the examination of bacteriological specimens and the facilities offered have been much appreciated. The following statement indicates the use of the Laboratory during 1925. An interesting point is the use of the Laboratory for the supply of vaccines and tuberculin preparations. As regards ringworm, a great many more examinations are made at the office of the County Medical Officer in connection with the control of ringworm among school children (see Part I, being the Report of the School Medical Officer already published).

	Total Specimens.	Positive.	Negative.	Suspicious.
Swabs for Diphtheria Bacilli	963	142	792	29
Sputum for Tubercle Bacilli	1136	319	817	
Blood for Widal	35			
Urine for Tubercle Bacilli	41			
Urine (Various)	47			
Fæces for Typhoid	4			
Fæces (Various)	10			
Blood Counts	4			
Vaccines	30			
Tuberculin Dilutions Prepared	27			
Tuberculin Ointment Prepared	50			
Swabs for Organisms	6			
Smears for G.C.	6			
Pus for Tubercle Bacilli	10			
Hairs for Ringworm	7			
Fluid for C.S.M.	3			
Pleuritic Fluid	3			
Miscellaneous Specimens	39			
Milk for Tubercle Bacilli	11			
Milk for Diphtheria Bacilli	1			
Milk (Various)	2			
Samples of Well Water	46			

The proportion of negative to positive results in suspected Diphtheria and suspected Pulmonary Tuberculosis is a satisfactory

indication of the use made of the Laboratory. Some of the Veterinary Inspectors are making use of the Laboratory for examination for Tubercle bacilli in milk in assisting diagnosis under the Tuberculosis Order, 1925.

Isolation Hospital Accommodation.

I. For Infectious Diseases other than Smallpox.

Urban Districts.—Cromer has a hospital on Roughton Heath, North Walsham U.D. and Sheringham U.D. share the use of a hospital on Roughton Heath with the Rural District of Erpingham. Hunstanton owns a small cottage isolation hospital, King's Lynn has provision for 12 beds, Walsoken shares in provision jointly with Wisbech (Isle of Ely), Hunstanton has a small isolation hospital.

Rural Districts.—Forehoe has provision at Wicklewood, Marshland at Wisbech, and some rural districts in the neighbourhood of Norwich are occasionally able by arrangement to have cases isolated at the City of Norwich Isolation Hospital. Otherwise there is no isolation hospital available for infectious diseases other than smallpox.

II. Smallpox.—Some provision is made by King's Lynn, Swaffham (Urban and Rural), Freebridge Rural, Aylsham Rural, Marshland Rural (in conjunction with Wisbech, Isle of Ely). A portion of the Thetford Joint Hospital, which escaped destruction by fire a few years ago, is still held as available in the event of smallpox.

On the whole the position as regards isolation hospitals is much the same as it was five years ago. I have for the last seventeen or eighteen years expressed the opinion that any provision for Norfolk generally would in these days of motor travelling facilities be best met by one central hospital which would economise in cost of sites, fencing, drainage, water supply, buildings, etc. One central hospital being fed by the whole County could be efficiently staffed and administered. This view was supported by the County Public Health Committee. A suitable site was secured, but before proceeding further the County Committee invited a conference of District Councils. This conference was against one central county hospital, and in favour of a few hospitals provided by a combination of District Councils. Certain District Councils in the Eastern part of the County have from time to time conferred together in 1924 and 1925, the last conference in June, 1925, deciding to select and obtain a site before preparing another estimate. At a recent meeting of the Henstead R.D.C. (as reported in the "Eastern Daily Press") it was reported that "it had apparently not been possible to obtain a site, and in the meantime a communication had been received from the Ministry of Health to the effect that, in the opinion of that department, arrangements might be made for the reception of cases of infectious disease in existing hospitals at Norwich, Roughton, or Yarmouth, and that that possibility should be ex-

plored before considering the question of the provision of a separate hospital. The Ministry also suggested that the cost of any necessary extensions of such hospitals should be met by the Councils concerned, wholly or in part, under long term agreements." It will be remembered that such possibility was explored, at any rate so far as the Norwich Isolation Hospital is concerned, and that the estimates of the cost did not commend themselves to the District Councils' representatives who met representatives of the Norwich Corporation in conference on this matter.

The Norwich Isolation Hospital has for years past by arrangement accommodated occasional cases from some rural districts when accommodation has been available, but if District Councils want a definite reserve of beds, the Norwich Corporation are not prepared to agree to this without additional ward accommodation. As suggested by the Corporation, and by the Ministry of Health, "the cost of any necessary extensions should be met by the Councils concerned, wholly or in part, under long term agreements."

Disinfection of premises and articles as carried out in Norfolk may have some effect, but I am not highly impressed with the sealing up of a bedroom and the use of a formalin lamp or spray in that room while the living-room, which has generally been in use by the patient for two or three weeks of convalescence is untouched. I have, however, much faith in mechanical disinfection by scrubbing, using Jeyes' Fluid or Izal for scrubbing purposes; the boiling of linen; the exposure in the open to sunlight and fresh air of possibly infected articles; and, after scrubbing of rooms and washable furniture, the opening of doors and windows for free ventilation of the house. The main sources of infection are the mucous membranes of the actual sufferer. These are the portals and exits of infection which require careful attention, for until they become normal they are apt either to transmit or receive infection.

The Blind Persons Act.

A Committee (Sir Hugh Beevor, Bt., Chairman) goes very carefully into all cases.

Number of Blind persons on Register (March 31, 1926), 351; on observation list, 31.

Age.	Males.	Females.	Total.
0–4	—	—	—
5–15	8	4	12
16–20	8	4	12
21–29	7	7	14
30–39	19	9	28
40–49	17	12	29
50–59	35	25	60
60–69	43	41	84
70 & upwards	50	58	108
Unknown	2	2	4

83 on the Register read either Braille or Moon type. A grant of £10 has been made to the National Library for the Blind.

9 cases are being trained in suitable trades. The Home Teacher has made 513 visits in the year. Under agreement, the Council's Home Workers' Scheme is administered by the Norwich Institution for the Blind, with the assistance of the Council's Home Teacher.

Registered Home Workers, 14 (7 basket makers, 4 knitters, 1 brush maker, 2 piano tuners).

They are assisted by augmentation of earnings, payment of National Health Insurance contributions, and by payment of carriage on goods for sale to the Institution, or for material bought.

Casual Home Workers, 11, under the supervision of the Home Teacher; 8 persons are being taught Braille or Moon type; 3 cases have been materially assisted by the Eastern Counties Association, and 6 by the County Council.

Public Health Act, 1925.—The exercise of the power relating to the prevention of blindness has been delegated by the County Council to the Blind Persons Act Committee as regards persons over 16 years of age.

SECTION V.

TUBERCULOSIS.

In the administrative County of Norfolk our urban districts are small in population, and with the exception of King's Lynn M.B. (about 20,000 population) are little more than magnified villages (averaging 3,000–6,000 population). In 1921 there was very little difference between urban and rural phthisis mortality in the administrative County. As a matter of fact, in this year the rural districts mortality was slightly higher, but in each subsequent year the urban phthisis death rate has been higher than the rural, the combined (urban and rural) phthisis death rate approximating to but slightly higher than the rural death rate. It would appear that even in comparatively small towns of 3,000 or 4,000 inhabitants urban conditions are more inimical than rural as regards phthisis. For the years 1923–24–25 the rural (and total) phthisis death rate has been approximately the same, and at a distinctly lower level than the phthisis death rate for the preceding three years; but the urban districts phthisis death rate has been less regular, and after falling slightly in 1923 and 1924 rose again in 1925 to the level occupied in 1922. The populations

of the combined urban districts is approximately 61,000, and that of the combined rural districts approximately 247,000, as given by the Registrar-General, and it is on these populations the death rates are worked out.

The actual death rates for the five years, 1921–1925, are given in tabular form as follows :—

Phthisis Death Rates Administrative County of Norfolk, 1921-25

Year.	Urban Districts.	Rural Districts.	Whole County.
1921	0.75	0.80	0.79
1922	0.92	0.74	0.77
1923	0.80	0.61	0.65
1924	0.71	0.65	0.66
1925	0.91	0.59	0.65

The total population of the 12 urban districts being roughly rather less than one-fourth of the total population of the 20 rural districts, the urban districts death rate is more liable to fluctuation year by year than the rural districts death rate. The population for the whole administrative County being over 320,000, the death rates for the whole county are naturally more stable and reliable. These indicate that for the last three years of the quinquennium, 1921–1925, there have been about 12 fewer deaths from phthisis per year than in the first two years of the quinquennium.

The Tuberculosis Scheme which was started in 1920 now attains considerable dimensions, including the services of three whole-time Tuberculosis Officers and a staff of five clerks. The County Council provides Sanatorium treatment for all cases requiring institutional treatment, when so advised by the Tuberculosis Officers. In addition 153 shelters are provided in connection with domiciliary treatment. The Stanninghall Colony, instituted by Red Cross Funds, with the active co-operation of Mr. E. B. Raikes and Dr. Burton Fanning, is governed by a Joint Committee consisting of representatives from the three constituent authorities (Norfolk, Norwich and Great Yarmouth) and from the Red Cross, under a special order. It was at first intended to utilize this Colony for arrested cases and their families, but latterly more acute types of cases were being admitted. Dr. Christopherson, who undertook the duties of Medical Officer to this Institution with much acceptance to the Committee, has recently resigned. The Committee has appointed Dr. Day as his successor. I understand that the Joint Committee is wishful to revert to the original intention to keep the Colony in reserve for arrested cases only.

The County Council's Scheme, as approved by the Ministry of Health, was briefly described in my Annual Report for 1920. The first Tuberculosis Officer was appointed in August, 1920, and a Tuberculosis Dispensary was provided at Norwich. Subsequently a second Tuberculosis Officer was appointed, and

in 1925 a third Tuberculosis Officer, who is stationed in the West of the County, and is provided with a Tuberculosis Dispensary at King's Lynn. The names of the Tuberculosis Officers appear in the flyleaf of this Report. The new Dispensary at King's Lynn is open on two days a week, and covers several districts difficult of access. In addition patients are seen by arrangement with practising doctors at convenient visiting centres (such as the doctor's surgery) or at their homes.

The following is a list of residential institutions with the number of beds normally available for the area of the Administrative County of Norfolk. Patients are sent to these on the advice of the Tuberculosis Officers.

Institutions.	No. of beds available.	Pulmonary.	Non-Pulmonary.
Kelling Sanatorium	27 (males)	27	—
Bramblewood	12 (females)	12	—
Children's Sanatorium, Holt	25 (M. & F.)	25	—
St. Luke's Hospital, Lowestoft	10 (M. & F.) adults	—	10
Ipswich Sanatorium ..	5 (3 for M. 2 for F.)	5	—

In addition, non-pulmonary cases are sent to the following residential institutions as beds are available and circumstances require, but vacancies are difficult to obtain, being few and far between.

Norfolk and Norwich Hospital	Norwich.
Jenny Lind Infirmary (Children)	Norwich.
King's Lynn and W. Norfolk Hospital ..	King's Lynn.
Royal Sea Bathing Hospital	Margate.
Beccles Hospital (Children)	Suffolk.
*Wyton Hostel (Children)	
Cromer Cottage Hospital (Adults) ..	Cromer.
St. Peter's Hospital (Adults)	Woking.
Heatherwood (Females and Children) ..	
*Preston Hall Colony (Adults) .. .. (British Legion Village)	
Addenbrooke's Hospital	Cambridge.
Lord Mayor Treloar Hospital (Children) ..	Alton.
Wingfield Hospital (Children)	

There is a shortage of beds for surgical cases, especially for adult females.

It is probable that an orthopædic scheme will shortly come into being under which a definite number of beds will be available at the Jenny Lind Infirmary.

*Some pulmonary cases are also sent to the Wyton Hostel and to Preston Hall Colony, and also to the following Institutions :

Chilton Hill Sanatorium (Females and Children).

National Sanatorium, Benenden (Males and Females, Adults).

Nayland (Males and Female Adults).

Advanced Cases of Pulmonary Tuberculosis.

Occasional beds are provided for both sexes at the Normanston Hospital and the Ipswich Isolation Hospital. Other cases go to the Local Boards of Guardian's Infirmaries, the arrangements for admission being made through local practitioners. Before any Tuberculosis schemes were instituted, these local Infirmaries played an important part in the isolation from crowded homes (and treatment) of advanced cases, and it is as well that this usefulness should be maintained. More provision for advanced cases seems desirable.

Arrangements for Co-operation with Sanitary Authorities and Officers.

By legislation, all District Medical Officers of Health have to supply the County Medical Officer of Health with duplicate information of notified cases of Tuberculosis (Pulmonary and Non-Pulmonary). New cases discovered by the Tuberculosis Officers are notified to the District Medical Officers of Health—so also are all deaths or removals of notified Tuberculosis patients which come to the knowledge of the County M.O.H.* In 1921, when the County Council's Scheme was in being, the County Medical Officer of Health apprised all District Medical Officers of Health, all clerks to District Councils, all practitioners resident in the County, and the Chief General Hospitals, and drew attention to the Public Health (Tuberculosis) Regulations, 1912. The County Medical Officer of Health again in December, 1924, circularised all the District Medical Officers of Health concerning the Public Health (Tuberculosis) Regulations, 1924.

As occasion offers he inspects the Register of Notifications when visiting a District Medical Officer of Health. District Sanitary Authorities are empowered to give help and have definite responsibilities under the Tuberculosis Regulations. Further co-operation is maintained between the Tuberculosis Officers and the Sanitary Authorities. With regard to overcrowding or other glaring sanitary defects discovered by the Tuberculosis Officers, these are reported to the County Medical Officer of Health and to the Tuberculosis Committee, and the special attention of the District Sanitary Authorities is drawn to these cases.

With regard to co-operation with hospitals, school clinics, etc., in addition to the facts already stated, arrangements for artificial pneumothorax are made at the Norfolk and Norwich Hospital, where the Tuberculosis Officers assist personally in these cases.

All cases reported by the Assistant School Medical Officers as suspicious, where the opinion of the Tuberculosis Officer is desired, are brought to the notice of the Tuberculosis Officers by the School Medical Officer. The T.O.'s report and advise as to treatment

* District Medical Officers of Health are now required to keep their Tuberculosis Registers up to date, and to send in quarterly returns to the County M.O.H.

and make periodical reports to the S.M.O. Thus close co-operation is effected between the School Medical Service and the Tuberculosis Service, the School Medical Officer being also the County M.O.H.

Close co-operation is also maintained with the general practitioners in the County, so much so that requests for consultations, examination and treatment are often received before I receive the duplicate notifications sent to the District Medical Officer of Health. Little difficulty is experienced in obtaining practitioner's reports regarding Insurance patients on Form G.P. 36. Even on uninsured cases practitioners generally report at intervals. Practitioners are furnished with detailed medical reports on their patients on discharge from an institution, and the subsequent " following up " is done by the T.O.'s in conjunction with the patient's doctor.

Where diagnosis is doubtful, arrangements are made for periodical attendance at the Tuberculosis Dispensary or visits by the Tuberculosis Officers and for periodical reports from the local practitioners.

" Home Contacts " come under supervision when patients are visited at their homes. When found necessary they are kept under observation.

As to special methods of diagnosis and treatment, 71 X-ray examinations have been made, and 1,136 specimens of sputum bacteriologically examined after centrifuging and other appropriate preparation. Tuberculin treatment is administered with due care, and under careful observation. There were 350 attendances at the N. and N. Hospital for artificial light treatment (mostly lupus). Local experience still regards sanatorium treatment for early cases and " suspicious " contacts as the sheet-anchor for preliminary cases. Several good results have been obtained from artificial pneumothorax in suitable cases. Dental treatment was provided by the Council in six cases during 1925. I am glad to report that increasing attention is being given to the value of clean mouths in cases of Tuberculosis, as well as in others, and the numbers receiving attention are increasing.

Nursing arrangements are made with the Norfolk Nursing Federation for the nursing of patients living at home. 2,203 nursing visits were made in 1925.

Extra Diet. Where the Tuberculosis Officer advises it, the Tuberculosis Committee provides extra nourishment in early or recoverable cases in the form of milk, butter, or eggs. The estimate for this provision is of course limited.

After Care is secured by attendance at the Dispensaries or periodical visits by the T.Os, by periodical reports from Medical Practitioners, and by the services of over 200 Voluntary Visitors. Revolving Shelters are supplied to patients on their discharge from Sanatoria. The large number of Shelters transferred to the County Council from the Insurance Committee five years ago are still serviceable after repair and overhaul. The Shelters are

kept in good repair by contract, and are used not only for patients on discharge from Sanatoria, but also for some advanced cases, and for patients who refuse to go to Sanatoria.

A table is appended showing the number of new cases of Tuberculosis, and the deaths from Tuberculosis during 1925.

The following table indicates the total notifications during 1925 as received from District Medical Officers of Health from January 4, 1925, to January 2, 1926 (after allowing for duplicates), set out for age periods.

Pulmonary—

Ages	–1	1–5	5–10	10–15	15–20	20–25	25–35	35–45	45–55	55–65	65 and upwards
Males	1	4	10	7	13	24	47	25	19	12	6
Females	–	2	8	12	25	21	32	14	17	10	5

Non-Pulmonary—

Males	2	16	15	15	5	3	3	1	2	–	–
Females	–	8	8	10	9	5	8	8	1	–	1

The figures indicate the special incidence of Non-Pulmonary forms of Tuberculosis in children, and of Pulmonary Tuberculosis in adolescents and adults in the working years of life.

Analysing the sites of lesion among the non-pulmonary forms I find the incidence as follows :—

	Males.	Females.
(1) Osseous (Bones and Joints) ..	19	16
(2) Abdominal	16	10
(3) Glandular	21	25
(4) Other Organs	5	7

Under (4) are included six cases of Tuberculous Meningitis, 3 males and 3 females.

This analysis will prove of value in connection with an Orthopædic Scheme when such is finally decided upon.

New Cases and Mortality during 1925.

Age Periods.	NOTIFICATIONS. Pulmonary. Male.	Pulmonary. Female.	Non-Pulm. Male.	Non-Pulm. Female.	DEATHS. Pulmonary. Male.	Pulmonary. Female.	Non-Pulm. Male.	Non-Pulm. Female.
0 to 1 ..	1	Nil	2	Nil	Nil	Nil	3	Nil
1 to 5 ..	4	2	15	8	2	Nil	5	2
5 to 10 ..	10	8	16	8	Nil	4	2	4
10 to 15 ..	7	12	15	10				
15 to 20 ..	13	25	5	9	20	27	3	3
20 to 25 ..	26	23	3	5				
25 to 35 ..	50	32	3	8	51	41	7	3
35 to 45 ..	27	14	1	8				
45 to 55 ..	20	17	2	1	31	21	3	3
55 to 65 ..	12	10	Nil	Nil				
65 and upwards	6	5	Nil	1	12	3	1	0
Total	176	148	62	58	116	96	24	15

Note.—Comparing the number of deaths from all forms of Tuberculosis, viz., 251 in 1925, with the number of cases on the registers of Notifications kept by the District Medical Officers of Health on the 31st December, 1925, viz., 1,234, we may assume that the recognition and notification of Tuberculosis in Norfolk is satisfactory.

It may be remembered that years ago before notification was universally compulsory and before the County Council had a Tuberculosis Scheme, I estimated the probable number of cases of Pulmonary Tuberculosis in the County as about 1,000. This estimate was based on multiplying the annual deaths by four.

All primary notifications are included and also any cases of Pulmonary Tuberculosis transferred from other districts outside the County coming to the knowledge of the County M.O.H. during the year and not previously on his register. These transferred cases were ten in number for the year 1925.

Public Health (Prevention of Tuberculosis) Regulations, 1925. A case of a Tuberculous employee in the milk trade having been brought to my notice in October, 1925, by Dr. Morrison Smith, Asst. T.O., I wrote to his employer suggesting other employment for the man, and drew the attention of the Medical Officer of Health to the District in which the employer's farm is situated to the case, in order that his Council might be able to deal with the case under the Regulations. In January, 1926, the County Council, applied to the Ministry of Health to be an authority for the purpose of executing and enforcing the Regulations in the County. In complying with the application the Ministry on March 3, 1926, laid stress on close co-operation and full co-ordination with the Sanitary Authorities in the County.

Public Health Act, 1925, Section 62. No action taken in 1925.

Public Health (Tuberculosis) Regulations, 1924. In pursuance of Article 2 of these Regulations the quarterly statements issued by District Medical Officers of Health to the County Medical Officer of Health show the number of cases of Tuberculosis remaining on the Registers of Notifications kept by District Medical Officers of Health in the County on the 31st December, 1925, to be 1,234, analysed as follows :—

Pulmonary, 907 (505 males, 402 females). Non-Pulmonary, 327 (172 males, 155 females).

In connection with apparatus for surgical cases, these are provided in the ordinary way by the hospital, but any special apparatus required is provided by the County Council after due consideration by the Tuberculosis Committee.

The chief difficulties met with are the insufficient number of hospital beds available, especially for adult females, and for advanced cases. Because of the large County area and sparse population, the Tuberculosis Officers have often many miles to travel by motor car in the course of a day.

In studying the epidemiology of tuberculosis—there is ample evidence of the initial lack of immunity of young children. The tubercle bacillus claims a vast number of victims in childhood. Some children receive a smaller dose of infection, or a less virulent type of infection, and become naturally vaccinated and thus immunised. Calmette's experimental work since 1906, to which I shall presently refer, now opens up great possibilities of protection of children in consumptive families by early introducing a proved attenuated bacillus into the new born. It will not do to wait until the child is older. Laudouzy some years ago stated that 27 per cent. of the total deaths from all causes in the first two years of life are due to tuberculosis. English official figures indicate a much smaller but yet quite formidable enough percentage. In all countries the age incidence of mortality from tuberculosis shows that the risk of acute tuberculosis and death is greatest in the first two or three years after birth. In the *prevention* of tuberculosis our principal aim should be to minimise infection, especially at the most susceptible age. Hence our growing child welfare work, and every other branch of public health work aiming at improved housing, control of infectious diseases, etc., diminishes the risk of infection. Anti-tuberculosis work is a branch of public health work, and experience indicates the importance of closely connecting child welfare and tuberculosis work, both of which are affiliated to general public health work.

It is recognised at the present time that propaganda should be more utilised in all matters pertaining to health, and I therefore offer the following remarks for mental mastication and digestion.

To those of us who recognise the value of vaccination as a protective against smallpox, the work of Prof. A. Calmette (Director of the Institut Pasteur in Paris) in connection with the *prevention* of tuberculosis must be of interest. His method of prevention is designed for both human and bovine tuberculosis, and is the culmination of a series of investigations by himself and his collaborators since 1906. His lastest development of the subject is given in the February, 1926 number, of the " Annales de l'Institut Pasteur." His long years of study of experimental tuberculosis have led Calmette to conclude that a light infection with tuberculosis in infancy confers upon the organism a sufficient power of resistance to protect against re-infections, provided they are not too massive. He also concludes that it is not practicable to vaccinate adults who are already infected for reasons which

I need not go into. His experience leads him to conclude that anti-tuberculosis vaccination is only possible among the newly born, or at most in quite young children, or animals, which from birth have been protected against infection. Just as vaccine for smallpox is a carefully prepared attenuated form of smallpox infective matter, so Calmette's anti-tuberculosis vaccine is attenuated tubercle bacilli culture, known for short as B.C.G. (Bacillus Calmette-Guérin). Up to January 1, 1926, over 3,000 new born calves had been inoculated in France, Germany, Holland, and Belgium by an inoculation into the loose tissue of the dewlap of 50 to 100 m.g. of B.C.G., the inoculation being repeated at the end of 12 months. Thus far not a single case has been reported of harmful effects. Naturally, animals so treated are likely to give the tuberculin reaction—and this must be borne in mind. The calves are purposely infected with an attenuated tubercle bacillus which by careful special culture has become harmless. Calmette terms this particular form of anti-tuberculosis vaccination as *premunition*. It has been found that protection can be conferred by giving B.C.G. by the mouth by doses of 20 m.gm. repeated five to ten times. Since 1921 the vaccination of the new born infant by a course of preventive injections of 1 c.g. of B.C.G. cultures have rapidly developed in the maternity department of the Charité Hospital in Paris. 1,317 have been individually reported upon for periods varying from 6 to 18 months. Of these 1,317 there were 564 with premunition extending from a year to 18 months. Only two died of presumed tuberculosis, despite the fact that 231 were reared in contact with tuberculosis patients (parents or others), that is less than 1 per cent. as compared with 25 per cent. recorded for the tuberculosis dispensaries of France. The two deaths might have been due to infection before birth, which is not unknown, or they may have been subject to massive infection by human tubercle bacilli before the premunition had time to become effective. In the same way vaccination of a smallpox contact may be ineffective if more than five days have elapsed since the contact was exposed to smallpox infection before vaccination could be done. It will not be difficult to convince those who believe that universal vaccination eradicates smallpox that Calmette has provided a means of eradicating both human and bovine tuberculosis. We still have to learn how far the "premunition" confers a more and more lasting immunity the more often it is repeated. Our experience of vaccination against smallpox has been long enough to provide us with ample evidence in this respect. Whether or not premunition against tuberculosis becomes as much a routine for all children as vaccination against smallpox, the experiences recorded in France definitely indicate that all children born into tuberculous families should be given this treatment. It will be interesting to observe in a few years whether (like smallpox which before vaccination was mainly a children's disease) premunition alters the at present heavy incidence of tuberculosis among young children.

Section VI.

VENEREAL DISEASES.

(*a*) *Details of the Council's Scheme.*—The County Council in conjunction with the Norwich City Corporation and the Corporation of Great Yarmouth have a joint scheme, approved by the Ministry of Health, whereby a centre for the treatment and control of Venereal Disease is established at the Norfolk and Norwich Hospital. Another clinic and treatment centre is constituted at the King's Lynn and W. Norfolk Hospital, under the Public Health (V.D.) Regulations of 1916. Both clinics are open on Tuesdays and Fridays at stated hours for each sex. Irrigation for persons who have run the risk of infection is also available at each Hospital every day at stated hours. Laboratory facilities are also supplied at the Norfolk and Norwich Hospital. Records are kept of specimens submitted, and an allowance of 6d. per specimen is made to cover the cost of postage. A few beds are reserved for selected patients who may require to be kept at rest for a short time. Mercurial or other recognised treatment supplements Salvarsan treatment, and the Clinical Medical Officer communicates with the doctor of any patient requiring home treatment.

The Laboratory and treatment facilities, available free of charge to Practitioners and patients, is periodically made known to all practitioners in the County, by the County Medical Officer of Health. Six circular letters have been issued since the scheme started in July, 1917, the last having been issued in December, 1925.

The Medical Officer of Health of each County District is supplied with circular letters of the scheme, with forms, and with printed cards giving the clinics and hours of attendance, so that on any practitioner in his district making an application to him he is in a position to give full information. Generally speaking, the provision made appears to be adequate. The proportion of cases of Gonorrhœa requesting treatment is increasing, but there is no doubt that there are still a majority of cases who prefer getting private treatment.

Public notices are seen in public urinals, at railway stations, etc., at police stations, etc., and the County Medical Officer of Health has arranged, after conference with the Borough Medical Officer of Health, for information to be conveyed to the master of all vessels entering the port of King's Lynn.

The following tabular statement shows the number of *Norfolk* new patients treated for each year since 1921.

At the Norfolk and Norwich Clinic :—

	Syphilis.	Gonorrhœa.	Other than V.D.	Soft Chancre	Total.
1925 ..	20 ..	41 ..	17 ..	— ..	78
1924 ..	33 ..	38 ..	14 ..	1 ..	86
1923 ..	21 ..	31 ..	23 ..	— ..	75
1922 ..	26 ..	24 ..	17 ..	— ..	67
1921 ..	39 ..	47 ..	19 ..	— ..	105

At the King's Lynn Clinic :—

1925	..	7	..	14	..	6	..	—	..	27
1924	..	11	..	23	..	—	..	—	..	34
1923	..	13	..	14	..	1	..	—	..	28
1922	..	17	..	12	..	8	..	—	..	37
1921	..	23	..	24	..	4	..	—	..	51

The number of *new* cases seen at the two Clinics during 1925 was 105 (Syphilis 27, Gonorrhœa 55, other than V.D., 23) as compared with 120 in 1924, 113 in 1923, 107 in 1922, 156 in 1921. In the earlier years there was almost an equal proportion between the number of Syphilis cases and of Gonorrhœa cases presenting themselves for treatment at the Clinics. In 1925, the Gonorrohœa cases were twice as numerous as the Syphilis cases. The prevalence of Gonorrhœa in a community has been roughly estimated to be about four times that of Syphilis, and so although the position is improving there are evidently cases of Gonorrhœa which prefer "private" treatment rather than the free treatment offered.

The extent to which practitioners have availed themselves of the facilities for pathological examinations provided by the Council is shown by the following figures for the year 1925. The figures also appear to bear out a statement that Syphilis is somewhat rare in the administrative County.

Nature of Test.		Number of Tests.
For detection of Spirochetes	..	Nil
,, ,, Gonococci	..	56
For Wassermann reaction	..	207

No action taken under the V.D. Act, 1917.

6 practitioners living in the Administrative Area, and 5 on the borders of neighbouring counties are registered as qualified to receive free supplies of arseno benzol compounds.

During 1925 only one of these applied for a supply, and was supplied with N.A.B. (2 tubes, 0.3 gm. ; 3 tubes, 0.45 gm. ; 3 tubes, 0.6 gm.)

SECTION VII.

MATERNITY AND CHILD WELFARE.

There are so many matters of detail and importance in connection with the Public Health Committee's activities that a sub-committee meets a week or two before the Public Health Committee to deal with them and report to the full Committee.

Health Visiting.

In addition to Miss Fowler who is Inspector of Midwives and County Health Visitor, the County Council now provides partly for an assistant Inspector of Midwives and also provides for four whole time Health Visitors. In the case of three of these the

Health Visitor is also required to do a certain amount of midwifery in districts poorly supplied with midwives. The fourth Health Visitor acts as deputy Midwife when the others are away on holiday. In 1924 there were three County Council Health Visitors. Late in 1925 a fourth was appointed to cover an area in South West Norfolk which is sparsely populated, and where mothers are unable to get a midwife to attend them. In sparsely populated areas the Health Visitor has to cover considerable distances between one visit and another. In the same time in a town of adjoining streets, she could see three or four times as many children in the same time. Bearing this in mind an average of 250 to 300 new infants each year to each health visitor indicates a greater expenditure of time, energy, and money than is involved in visiting 400 new infants in a town.

In view of these and other considerations it has been deemed advisable to utilise the services of district-nurse midwives under the supervision of Miss Fowler to cover those parishes which have district nurses under the Norfolk Nursing Federation. 89 District Nursing Associations undertake this work. The Forehoe Rural District Council has appointed its own Health Visitor and copies of her reports are always sent in to me, so that her work is co-ordinated with the County scheme, and in Swaffham Urban District the Q.V.J. District Nurse undertakes the Health Visiting work for the Urban District Council Two other District Nurses also act as Health Visitors.

The following Report prepared by Miss Fowler shows the number of visits paid by Health Visitors during 1925, as well as the work undertaken in connection with the Inspection of Midwives.

Inspection of Midwives.

(*a*) Routine by	Inspector of Midwives	206	
,, ,,	Assistant Inspector of Midwives ..	204	
			410
(*b*) Special Visits by	Inspector of Midwives	23	
,, ,,	,, Assistant Inspector of Midwives	30	
			53

N.B.—Special Visits of enquiry are always made regarding "Rise of Temperature" of the Mother, discharging eyes "however slight" of the Infant and for any other reason if deemed necessary.

Number of Midwives.

During the year 172 Midwives notified their intention to practise. Of these 16 practised temporarily or in an emergency. On 31st December, 1925, there were 145 on the County Register, six of these being untrained women.

No Midwife has been reported either to the Maternity and Child Welfare Committee of the Norfolk County Council or the Central Midwives Board during 1925.

Number of Births attended :—

(*a*) Midwifery	1240
(*b*) Maternity	1012

The MEDICAL HELP RECORDS received during the year were 274, i.e., 22%.

For the Mother.

Abnormal conditions during pregnancy	9	
Miscarriage (Complete and Threatened)	23	
Ante-Partum Hæmorrhage	12	
Malpresentation	18	
Delayed or Obstructed Labour	54	
Uterine Inertia	7	
Adherent Placenta	10	
Post Partum Hæmorrhage	7	
Ruptured Perineum	47	
Illness during puerperium	23	
	—	210

For the Infant.

Discharging Eyes	28	
Dangerous Feebleness	25	
Malformations	9	
Other causes, i.e., Hæmorrhage	2	
	—	64

The percentage of Medical Helps is less this year, and the small number of " Adherent Placentæ " is satisfactory. Again no medical help was required for breasts and the " discharging eyes " of infants all progressed satisfactory.

DEATHS.—In accordance with Rule E.22(*b*) of the C.M.B. 12

1 Mother. Asthenia and Septic Toxæmia.

11 Infants. Of these one was a B.B.A., and died a few minutes after birth, 2 were premature twins and 8 were " dangerously feeble " at birth.

Infant Health Visiting.

89 District Nursing Associations in affiliation with the Norfolk Nursing Federation undertake this work, also two other District Nurses.

The number of Infants and the visits paid are as follows :—

Infants under 1 year	1364	No of Visits	7868
Infants over 1 year ..	4530	No. of Visits	23648
Total No. of Infants	5894	Total No. of Visits ..	31,516

Of the 1,364 Infants under 1 year, 62.2% were entirely breast fed (less than 1924) 24.8% were partly breast fed (more than 1924) and 13% wholly bottle fed (as in 1924).

There is no instance of a long tube bottle being used in the County.

The Whole time Health Visitor's visits are as follows :—

711 Ante-Natal Visits.
879 First Visits to Infants under 1 year.
3,268 Subsequent Visits to Infants under 1 year.
7,823 Visits to Infants 1 to 5 years of age.

New Nursing Associations.

5 new Districts have been formed in the County during 1925, and are affiliated to the Norfolk Nursing Federation, making now a total of 102 districts employing 11 Queen's Nurses and 93 other District Nurses. The Norfolk Nursing Federation have also a Supply Staff for emergency work in the County.

Each Health Visitor is supplied with a typed copy of duties, and with a number of cards for use in the course of visiting. These cards contain simple Health rules and advice on feeding, etc., drawn up by the County Medical Officer of Health, based on a small booklet he published many years ago, " Simple Rules for Preventing many Infantile Complaints." These rules are revised from time to time if required. For instance when the little work was first published in 1902, the common practice amongst doctors and nurses was to advocate two hourly feedings for young infants. Experience has shown that many babies suffer from such frequent feeds and the interval between the feeds is now lengthened rapidly until from three to four hours elapse between each feed. These rules are printed on stiff cards and can be hung up in the homes for reference. It is impressed on mothers that breast feeding is very important both for child and mother. Hand or bottle feeding is discouraged except in absolute necessity, and it is pointed out that if the simple rules are observed, hand feeding of young infants ought to be only very rarely required. An important point in securing breast feeding is the adequate nutrition of the mother (sometimes very difficult to secure where a large family has to be provided for out of a small wage). In my opinion no more beneficent legislation in the interests of the future units of the State has ever been made than in the provision by Government for necessitous expectant and nursing mothers and young children by the Milk (Mothers and Children) Order.

Milk (Mothers and Children) Order.

I have no shadow of doubt that this wise provision by a paternal Government has not only materially affected the general health and mortality, but is probably one of the principal causes of the reduced infantile mortality of late years. The administration of a scheme in pursuance of this order is in my opinion one of the most important duties carried out by the Maternity and Child Welfare Committee. I am convinced that money spent in securing adequate nutrition for the mothers and children of the nation is returned with interest by lessened expenditure in other directions

due to crimes, diseases, and deaths, the indirect progeny of malnutrition and poverty. With all animals (including man) the growing period is one requiring ample nourishment, or the young animal will suffer. The poor necessitous expectant mother granted a free milk supply can better nourish her unborn fœtus before its birth and at the same time better prepare the natural fountains which will continue to nourish the infant at her expense after birth for some months. To promote an adequate supply of this nourishment for some months until the infant's teeth appear, the Government continues the provision of milk for nursing as well as for expectant mothers. The Public Health Committee includes in its estimates, a sum for the provision of milk under the Order, a sum which the experience of former years indicates will probably be required.

The County Scheme is worked in conjunction with such of the District Councils as desire it, and a copy of the County Scheme has been sent to every District Council. The following are the District Councils which intimated their desire to work in conformity with the County Councils Scheme :—Aylsham, Blofield, Depwade, Docking, E. and W. Flegg, Forehoe, Henstead, Mitford and Launditch, Smallburgh, Thetford R., Walsingham, Cromer, Diss, Swaffham (U), N. Walsham.

As regards districts which have not intimated their willingness to co-ordinate with the County Council, and consequently the local officials do not help to carry out the County Scheme—certain Midwives and Health Visitors make direct application to the County Medical Officer of Health on Form A, and on his certificate milk is allowed in suitable cases. In King's Lynn and Thetford the Boroughs make provision through the Infant Welfare Centres.

Welfare Centres.

No centres have been established by the County Council for Maternity and Child Welfare, but the County Council makes grants to voluntary centres which apply for the same, on a favourable report by the County Medical Officer.

Voluntary Centres exist at King's Lynn, Thetford, Walsingham, Wisbech (including Walsoken children), North Walsham (closed 1926), Blofield (rural), Woodbastwick (rural). The Hales and Heckingham Red Cross I.W.C. had only a short existence.

There are in addition Weighing Centres at some villages, such as those at Harleston, Kenninghall, etc.

Swaffham U.D.C. and Forehoe R.D.C. each run a Welfare Centre under the direction of the local M.O.H. All the centres have been periodically visited by the County M.O.H., and, I believe, by medical officers of the Ministry of Health. The King's Lynn centre is the oldest established in Norfolk. The Thetford centre, with the approval of the Ministry, has recently enlarged its scope. Ante-natal work in connection with expectant mothers is gradually being introduced.

Orthopœdic.

A Joint Committee representing the Maternity and Child Welfare Committee and the Education Committee has been formed primarily with the view of promoting an orthopædic scheme, for children who have been ascertained as requiring orthopædic treatment and supervision. Co-ordination with the School Medical Service is secured,and Infant Health Visiting data are supplied to the S.M.O. when the child enters school.

The County Council works in close co-operation with the Norfolk Nursing Federation, and gives generous assistance to the Federation.

Births, 1925.

Registered : (1) Legitimate, 5,056 ; (2) Illegitimate, 324 ; (3) Total, 5,380.

Notified : (1) Live Births, 4,467 ; (2) Still Births, 145 ; (3) Total, 4,612.

Notification of Births.

Approximately the same percentage of Births were notified in 1925 as in the previous year (about 85%).

Norfolk Birth Rate per 1,000, total population, 16.67. England and Wales, 18.3.

Infantile Mortality.

Norfolk Rate per 1,000 Births, (1) Legitimate, 51.22 ; (2) Illegitimate, 92.59 ; (3) Total, 53.71. Rate for England and Wales, 1925, 75.

The Infant Mortality is commendably low, the mean for the last four years has been under 60, in the Administrative County of Norfolk. Still births were about 30 per 1,000 of total Births.

Maternal Deaths.

(1) From Sepsis, 4 ; (2) Other causes, 9.

Any maternal or infant death occuring in the practice of a midwife is enquired into by the Inspector of Midwives, and the County M.O.H. gets into touch with the District M.O.H. concerning any other maternal death brought to his notice.

Infectious Diseases.

Puerperal Fever : Notifications, 8 ; Removed to Hospital 5.

Ophthalmia Neonatorum : Notifications, 12 ; Removed to Hospital, 1.

All cases are enquired into both, of Puerperal Fever, and of Ophthalmia in the new born. One of the notifications of Puerperal Fever was an incomplete abortion which recovered after treatment in Hospital. Most of the cases of Ophthalmia clear up quickly under treatment and apparently are not of gonorrhœal origin.

Ophthalmia Neonatorum, 1925.

Cases notified, 12; cases treated at home, 10; cases treated in hospital, 2; vision unimpaired, 12; vision impaired, 0; deaths, 0.

The move for the "refresher" courses for Midwives, which is being taken advantage of is a move which commends itself in the interests of maternity and child welfare.

Methods of Feeding.

Under my instructions our whole time Health Visitors report as to methods of feeding of infants. From these reports in 1925, I am able to say that 11 out of every 12 children under one month are wholly breast fed, and that 8 out of every 12 are wholly breastfed during the first three months. 65% are wholly breast fed up to six months of age. These Health Visitors paid 711 ante-natal visits to 265 mothers.

Dental Aid.

The County Council have received the sanction of the Ministry of Health towards a limited expenditure in assisting certain expectant and nursing mothers. The applications for treatment are at present necessarily limited to certain areas, for the scheme is at first experimental. A Report will be issued at the end of the experimental stage.

Maternity Homes.

The County Council makes arrangements for any special case with a Norwich Maternity Home (approved by the Ministry of Health) for confinement; and makes a grant to the Norwich Diocesan Maternity Home where some Norfolk girls are confined and kept with their infants for six months.

SECTION VIII.

INSPECTION AND SUPERVISION OF FOOD.

The resuscitation of the Milk and Dairies (Consolidation Act, 1915, which came into force on September 1st, 1925, brings to mind that Parliament and the various Ministries concerned have been very active of late years in legislation, memoranda and orders connected with the control of various foodstuffs. The Report of the Departmental Committee on Meat Inspection was soon followed in March, 1922, by Circular 282 of the Ministry of Health, together with Memo. 62/Foods on Meat Inspection. The Departmental Committee had drawn attention to the lack of uniformity as regards Meat Inspection in different districts, and

as regards the judgment and practice of individual Inspectors, and had recommended that steps should be taken to secure the concentration of slaughtering in as few slaughter-houses as possible. The Minister of Health suggested that in many cases a local authority might be able to initiate a co-operative arrangement amongst local butchers towards such concentration. With the object of minimising the variations in standards of judgment and practice of individual Inspectors, and as far as possible eliminating the disadvantages arising out of a lack of uniformity, a copy of instructions indicating the order and methods of inspection of all carcases were printed in the accompanying Memo. 62/Foods. As regards the qualifications of Inspectors the Departmental Committee had suggested that in the rural and smaller urban districts it would be advantageous if the services of the County Veterinary Officers could be utilised in connection with the milk supply and tuberculosis amongst cattle, and expressed the hope that County Councils would be willing to facilitate an arrangement with smaller local authorities where circumstances permit. They further suggested that authorities having charge of large markets or public abattoirs should arrange for definite demonstrations at intervals, which should be open to Inspectors from a considerable surrounding area.

I understand that the Norwich Corporation are willing to allow their Chief Inspector to arrange for a series of 10 demonstrations at £5 5s. per pupil. One or two Rural District Councils have sent their Inspectors to Norwich.

Milk Supply.—As regards the wholesomeness of the Milk Supply many district Sanitary Authorities are endeavouring to obtain cleaner milk, and generally there is an upgrade tendency in this respect. I received notice from the Norwich Corporation that a milk supplied in the city was reported by the Analyst to be dirty. I communicated with the M.O.H. of the district, and his Sanitary Inspector visited the farm in question, and has secured improvements in the method of production, including the engagement by the farmer of a milk foreman accustomed to securing Grade A milk.

The Milk and Dairies (Consolidation) Act, 1915, came into force on September 1st, 1925. Under Section 4 I received 2 complaints in 1925 from the London County Council. I met a Veterinary Inspector of the L.C.C. and one of the Norfolk C.C. Veterinary Inspectors at the cowsheds concerned in each case. The cows were inspected, and any action found necessary under the Act was taken. Careful enquiry showed that in one case the particular churn from which a sample was taken in London and found to contain tubercle bacilli had not been sent from the farm in question within at least a month on either side of the date when the milk from this churn was sampled. Though churns generally get returned to the proper address, it sometimes happens

that they get into the hands of other purveyors. I have myself seen milk churns full of milk at a railway station waiting for despatch to London, and more than one of the churns bearing the name and address of another purveyor in another county, not even an adjacent county. The Veterinary Inspector of the L.C.C. informed me that in quite a considerable percentage of the cases he had investigated the churn had come from some other dairy than the one indicated by the name and address.

In the second instance, of 8 cows in the herd, 4 had gone dry, and the farmer had ceased to sell milk or send it to London. The County Council's Veterinary Inspector, however, made in my presence a careful examination of the cows. None were emaciated, and he reported that all of them were in good health. One cow had a somewhat thickened condition of the near hind mammary gland, so I procured a specimen of milk from this quarter, and had it examined for tubercle bacilli (apart from animal experiment). After treatment with Liq Trypsin Co. at 56° for 3 hours, the sample was cooled, ether added and centrifugalisation at a high speed for 20 minutes carried out. Films made from the gelatinous disc between the ether and the clear fluid were stained by Ziehl-Nielsen. No tubercle bacilli were found.

Under the Tuberculosis Order which came into effect on September 1st, 1925, 96 cows were slaughtered in 1925 as tuberculous, 29 of them being in milk at the time.

There were no cases of Anthrax, Actinomycosis, Foot and Mouth Disease, Acute Mastitis, or Suppuration of the Udder reported under the Order up to December 31st, 1925.

No instances of Food Poisoning were brought to notice during the year.

Sale of Food and Drugs Act.—The following statement is prepared showing details of the specimens submitted to the County Analyst during the year :—

No. of Samples.	No. of Adulterations.	No. of Prosecutions.
667	101	43

Of the above 476 were samples of milk, of which 91 were reported as adulterated.

The rate of samples taken per 1,000 population was 2.0 per 1,000, which is the rate suggested by the Ministry of Health.

Public Health (Milk and Cream) Regulations, 1912 and 1917.

Report for the year ended 31st December, 1925.

1.—Milk and Preserved Cream.

496 samples were taken for analysis as to preservatives.
All were examined for presence of preservative.
In 1 preservatives were found.

2.—Cream Sold as Preserved Cream.

Number of samples submitted for analysis to ascertain the statements on label correct ..	5
Number where statements were correct	5
,, ,, ,, ,, not correct ..	Nil
,, determinations made of milk fat :—	
(*a*) above 35%	2
(*b*) below 35%	3

3.—Number of instances where requirements as to labelling or declaration of preserved cream not being observed. Article 5 (1) and proviso in Article 5 (2) of the Regulations .. .. .. Nil

4.—Thickening Substances.

No evidence of any illegal addition.

"Appeal to Cow Samples."—Number taken—3.

In all 3 instances the sample was below the standard, viz., 8%, 33% and 17% deficiency. In the case where the deficiency in fat was 33%—the calf had just been removed from its mother. In the sample of 17% deficiency from a herd of 41 good cows, the hours of milking appeared to be faulty. In that of 8% deficiency, although the dairy was clean the cowshed was very dirty, and this fact was brought to the notice of the district Medical Officer of Health.

No samples were taken which could not be dealt with under existing legislation, as for instance the mixing of fresh farm butter with imported preserved butter, which, it is stated, takes place during the winter months.

No action was taken under Section 4 Milk and Dairies (Amendment) Act, 1922.

Section IX.

HOUSING.

During the last five years the building of new houses in many districts (owing to the comparatively high economic rent at which they have to be let) has not met the need for adequate housing accommodation for agricultural labourers —the class most in need of cottages; and consequently has not materially affected overcrowding, nor ensured the closing of many cottages which are known to be unfit for human habitation. Whether the acquisition and reconstruction by the District Councils of properties at present unfit will meet the labourers' needs yet remains to be seen. Labourers with considerable families cannot afford the rents asked for new cottages

with three bedrooms, though the cost of building at the present time has fallen somewhat from the very high level of 2 or 3 years ago. Indeed in some districts the cost seems to have fallen considerably. Thus in the Downham R.D., Dr. Cross, M.O.H., states that the Council has accepted tenders for the building of twenty-five houses, the average price being £365 per house. In King's Lynn (which is a town with many old houses suffering from decay and congested in some areas, and where owing to house shortage two or more families are living in some houses with insufficient accommodation) the Medical Officer of Health of the Borough says there is not a suitable site within the boundaries of the Borough where a sufficient number of houses can be built to accommodate persons now in need of houses. He suggests recourse should be sought for utilising a site outside the Borough. He estimates the shortage of houses of low rent as requiring at least two hundred houses to meet. There are several instances of overcrowding, which from any point of view require the serious consideration of the Local Authority. Ninety-four new houses were erected in King's Lynn in 1925, eighty-nine with State assistance under recent Housing Acts.

Dr. Back, M.O.H., Aylsham R.D. and Blofield R.D., writes that although in the former the District Council have built 92 houses since 1919, and though the provision of suitable housing accommodation for the working population has been the most prominent feature of the sanitary work of the Blofield District Council since 1914, the addition of a large number of cottages has not yet solved the housing problem. Cases of overcrowding still abound and Blofield R.D. still has over three hundred applications on the waiting list for Council cottages. Young persons mostly hoping to be able to find a home, and in the meantime overcrowd their parents' cottages. Dilapidated cottages still occupied but unfit and perhaps incapable of being made fit still form a difficult problem. Dr. Maidment, M.O.H., Depwade R.D., states that the difficulties met with in getting certain remediable defects remedied are the lack of tradesmen, the very low rents and high cost of repairs, and the over-mortgaging of properties causing the owners to be unable to afford repairs. Dr. Sumpter, M.O.H., Docking, thinks one hundred new cottages are yet required. Dr. Linnell, M.O.H., Erpingham R.D., notes the difficulties in getting landlords to do repairs on economic grounds; but if reconstruction is not required, landlords as a rule are reasonably ready to carry out inexpensive repairs. The Erpingham R.D.C. have erected 106 Council cottages and contemplate the erection of 44 more. The E. and W. Fleggs Council have decided to erect 100 cottages. In Henstead R.D. the population is gradually increasing owing to many newly-erected houses built by private enterprise, being purchased by persons from Norwich, the boundaries of the City being coterminous. The Henstead Council are taking steps to meet specific cases of shortage due to large families by building concrete bungalows.

Four were completed in 1925, and seven more commenced. Here again it is noted that for some time landlords have done as few repairs as possible owing to high prices (labour and material), but the position is improving. In Freebridge Lynn R.D. 40 new houses were erected during the year. The M.O.H. (Dr. Appleton) gives valuable information in regard to each village in the area in a compendious appendix to his report.

The Marshland R.D. owned at the end of 1925 130 working class dwellings and had accepted tenders for the erection of 56 new houses, part of a scheme for another 100 houses.

In the Mitford and Launditch R.D. there were erected 22 houses under the subsidy scheme at the end of 1925.

In the St. Faith's R.D. 84 houses had been erected under the Act of 1918, and a further 58 houses were well on the way. The M.O.H. (Dr. Long) understands a further 50 are contemplated, and thinks they are needed.

In the Swaffham R.D. the M.O.H. (Dr. Rose) reports the majority of the houses are very old, built of clay lump, and continually being patched up. New cottages are required in all the larger parishes. Only two new houses were erected in this district by private enterprise.

During 1925 the Thetford R.D. was without a full time Sanitary Inspector, but the M.O.H. (Dr. Cowan) notes the provision of 68 new houses as the chief advance in this district during the past five years.

In the Walsingham R.D. Dr. Fisher, M.O.H., is of opinion the shortage of houses is mainly in the large villages of Fakenham, Walsingham, and Melton Constable. By private enterprise with Government subsidy 10 houses were erected in Fakenham. During the past five years 92 houses were erected in this district, including 37 built by the District Council.

In the Wayland R.D. Dr. Rose, M.O.H., estimates that about 100 new houses are required to meet shortage and to replace a large number of dilapidated cottages.

In the Smallburgh R.D. Dr. Wright, M.O.H., reports that in most villages there are houses one would like to condemn as in bad structural condition, damp, with inadequate water supply and lack of convenient arrangements.

The District Council is building in many parishes, but the M.O.H. reports that if the number being built in each parish was doubled it would not be too many.

65 subsidy houses were started during the year 1925. The present Council Scheme provides for 62 houses.

In Cromer U.D. the M.O.H. (Dr. Colvin Smith) reports a certain amount of overcrowding due to a shortage of small cottages,

though otherwise the general standard of housing is good. 28 new houses were erected in 1925, but none by the Local Authority. In E. Dereham 10 new houses were erected during 1925. In 28 houses repairs were carried out by the U.D.C.

In Downham U.D. applications were invited from persons requiring houses, and 45 persons applied. The U.D.C. has under consideration a scheme for 36 houses; there are several cases of overcrowding.

In New Hunstanton U.D. there is an excess of larger houses. A number of them are being converted into flats. In Sheringham U.D. there is no marked shortage, and the general standard of housing is good, except in parts of the old fishing village.

In Swaffham U.D. the population has decreased, which the M.O.H. (Dr. Townsend) attributes to the inadequate housing accommodation of the cottage type. In North Walsham U.D. the M.O.H. (Dr. Shepheard) considers the general standard of housing to be very fair, and states what little overcrowding exists is due to large families.

With State assistance, Dr. Groom, M.O.H., Walsoken U.D.C., reports 15 new houses, 9 of which were erected by the Local Authority.

It may be useful to refer necessarily *very* briefly to various enactments.

The H.W.C. Act, 1885, required every Local Authority to put in force powers for securing proper sanitary conditions in all premises within its district (Sec. 7).

The H.W.C. Act, 1890, required a M.O.H. to report to his Local Authority any dwelling house unfit, or any complaints made to him by four householders in a street (Sec. 30).

The H.W.C. Act, 1909 (Secs. 17 and 18), made Part III of the Act of 1890 compulsory, and enumerated steps to be taken by Local Authorities with regard to inspection, keeping of records, closing orders, demolition orders. Under Secs. 12 and 13 County Councils could act in default of Local Sanitary Authority. Sec. 15 gave power to a Local Authority to remedy defects in default of the owner. Sec. 69 provided for information by district clerk or M.O.H. to County M.O.H.

In post-war legislation the Act of 1919 simplified procedure and allowed for the provision of financial assistance. It provided for ensuring the use of existing houses and stopping deterioration. It laid upon District Councils the duty of preparing schemes and carrying them out. It provided for the transference of powers to the County Council by the Ministry of Health.

The Housing (Additional) Powers Act, 1919, made provision for the payment of money to persons constructing houses within twelve months of the passing of the Act. It also provided for increases of grants and of borrowing powers, and prohibited the

demolition or use otherwise than dwelling houses of houses capable of being made fit for habitation.

The Housing Act, 1921, enacted that Public Works Loan Commissioners may lend money to authorised associations for developing garden cities.

The Housing Act of 1923 made temporary provisions for encouraging the provision of housing accommodation.

The Housing (Financial Provisions) Act, 1924,widely extended the Act of 1923, lengthening the period of Government assistance to the year 1939, and increasing the contribution payable annually. It made a declaration as to rents—enjoined the purchase of materials in the cheapest market and the adoption of new materials and methods. Every subsidised house to have a bath room. The lump sum grant was abolished and it was no longer required that the ratepayers who received the subsidy should be the actual occupier.

A definition of an "agricultural parish" for the higher subsidy (£12 10s.) was given. Section 3, referring to houses under "special conditions," is subdivided into three subsections, which appeared somewhat complicated and illogical, but the "special conditions" were made subject to rules made by the Minister of Health.

Houses in an agricultural parish were not to exceed eight per acre ; or elsewhere, twelve per acre.

With a maximum imposed by the Minister a Local Sanitary Authority had power to determine the number of houses they would build in a particular period, and to suspend building on reasonable grounds (such as excessive cost). County Councils were given power to advance money to private builders, and to provide houses for persons in their employment.

The Housing Act of 1925 was intended to consolidate the enactment of the previous Acts, and enacted that in any contract for letting a dwelling house at a rent under £26 there should be implied a condition that the house was reasonably fit for occupation, and an undertaking that it would be so kept by the landlord if the house was not let for three years or more. This enactment applies to houses occupied by agricultural labourers where the provision of a house or part of a house forms part of the renumeration of the workman since January 1, 1921. If the landlord fails to effect necessary repairs, power is given to the Local Authority to do the work and to recover the cost from the owner (subject to appeal). Local Authorities or the Minister of Health may make bye-laws. Duties of inspection and representation and of closing and demolition orders are re-enacted. When a complaint is made by a County Council or other authorised body that a Local Authority have failed to exercise their powers the Minister of Health may cause a public local enquiry to be held. District Councils are required to forward to the County Council

copies of representations, complaints, information, or closing orders, and are required to report to the C.C. such particulars as the C.C. may require respecting any proceedings taken by the Local Authority. Under Sec. 26, the Ministry of Health may direct the C.C. to instruct their M.O.H. to inspect and report direct to the Minister as to the exercise of the powers of a Local Authority concerning which a representation has been made to the Minister that they have failed to exercise their powers under the Act.

The policy of the County Council is to work as much as possible in co-operation with the District Councils, and up to the present they have felt satisfied that the District Councils generally are making reasonable progress with their housing policy.

With the present cost of building the unfortunate position is that when houses are built the economic rent is above the reasonable proportion of his income which the agricultural labourer should be expected to pay for rent.

In many cases defects are aggravated by the neglect of the tenants. Sanitary Authorities should carefully consider whether anything can be done under Section 22 (1) of the Housing Act of 1919, which enables them to assist in effecting repairs.

I append my usual Annual Statement for the year 1925 indicating the general condition of housing in Norfolk.

The following Statement is compiled from the District Reports and indicate the general condition of Housing in 1925.

	Aylsham	Blofield	Depwade	Docking	Downham	Erpingham	Flegg, E. & W.	Forehoe	Henstead	Loddon and Clavering	West Lynn	Freebridge, Lynn	Marshland	Mitford and Launditch	St. Faith's	Smallburgh	Swaffham	Thetford	Walsingham	Wayland	*Total Rural Districts*	Cromer	East Dereham	Diss	Downham Market	Hunstanton New	Sheringham	Swaffham	North Walsham	Walsoken	Wells-next-Sea	King's Lynn M.B.	Thetford M.B.	*Total Urban Districts*	*Total County*
NUMBER OF NEW HOUSES ERECTED DURING THE YEAR—																																		
(a) Total (including numbers given separately under (b))	15	98	13	27	42	63	54	92*	53	8	nil	40	26	12	94	45	†2pp	12	13	12	721	28	10	nil	7	7	46	nil	15	‡15	4	94	nil	226	947
(b) With State assistance under the Housing Acts:																																		
(i) By the Local Authority	9	14	4	nil	20	30	30	4	4	—	nil	—	8	} 9	8	—	—	—	—	8	(139 2pp	—		—	—	—	—	nil	9	—	} 89	nil	} 72	} 148 2pp
(ii) By other bodies or persons	6	80	5	13	5	33	24	20	38	8	nil	29	11		86	45	—	12	—	—	412	12		—	4	3	34	—	10	6	3		nil		87
(c) In course of erection, 31st December, 1925								48	24												72													72
1. UNFIT DWELLING HOUSES.																																		
Inspection (1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	448	87	294	—	31	470	70	102	445	395	134	28	180	2349	100	225	459		56	187	6060	33	250	94	28	29	38	161	51	65	35	224	106	1114	7174
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspect. of District) Regulations, 1910, or the Housing Consolidated Regulations, 1925	295	64	294	235	21	35	—	35	146	369	—	—	150	8	53	205	218		10	66	2204	27	120	35	28	20	38	26	47	23	nil	153	106	623	2827
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	5	16	23	—	3	8	—	5	—	3	—	28	—	6	3	—	2		4	1	107	—	—	—	2	—	—	1	nil	—	1	1	3	8	115
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	53	41	169	55	14	45	2	14	2	119	—	35	95	7	36	52	405		6	128	1278	23	50	75	16	7	1	26	15	14	17	3	11	258	1536
2. REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES—																																		
Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	139	nil	124	35	7	16	8	12	—	123	8	47	90	7	17	48	384		6	112	1183	17	60	70	26	6	10	32	15	7	16	—	—	259	1442
3. ACTION UNDER STATUTORY POWERS—																																		
A—Proceedings under Section 3 of the Housing Act, 1925																																		
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	8	—	2	—	4	43	4	—	—	—	—	—	4	—	19	4	11		—	2	101	—		—	26	7	5	—		5	nil	—	11	54	155
(2) Number of dwelling-houses which were rendered fit after service of formal notices—																																		
(a) by Owners	6	—	2	—	3	42	4	—	—	—	} 2	—	4	—	19	3	7		—	1	(91 2pp	—		—	26	7	5	—		4	—	—	11	53	(144 2pp
(b) by Local Authority in default of owners	2	—	nil	—	nil	—	—	—	—	—		—	—	—	—	—	—		—	—		—		—	—	—	—	—		—	—	—	—	—
(3) Number of dwelling-houses in respect of which Closing Orders become operative in pursuance of declarations by owners of intention to close	nil	—	nil	—	—	6	—	—	—	—	—	—	—	—	—	—	—		—	—	6	—		—	2	—	2	—		—	—	—	3	7	13
B—Proceedings under Public Health Acts.																																		
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	1	39	5	—	8	56	28	2	38	119	—	39	60	22	2	20	8		6	nil	523	5		1	—	37	—	68		3	4	112	—	230	753
(2) Number of dwelling-houses in which defects were remedied after service of formal notices—																																		
(a) by Owners	1	32	5	—	6	24	28	2	33	123	—	37	60	73	2	18	5		} 6	—	(449	1		1	—	37	—	nil		3	4	95	—	141	590
(b) by Local Authority in default of owners	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			—	6	—		nil	—	—	—	—		—	—	—	—	—	6
C—Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925—																																		
(1) Number of representations made with a view to the making of Closing Orders	3	16	4	—	4	14	—	5	—	1	—	6	—	4	3	—	6		4	nil	70	—		nil	2		—	1						3	73
(2) Number of dwelling-houses in respect of which Closing Orders were made	1	16	4	—	1	6	—	5	—	1	—	4	—	—	3	—	2		4	—	47	—		—	2		—	1						3	50
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	1	—	2	—	—	—	—	—	—	—	—	1	—	—	—	—	—		—	—	4	—		2	—		—	1						3	7
(4) Number of dwelling-houses in respect of which Demolition Orders were made	—	—	1	—	3	6	—	—	—	—	—	1	—	1	—	—	—		—	—	12	—		6	—		—	1						7	19
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	—	—	1	—	2	6	—	—	—	—	—	1	—	—	—	—	—		—	—	10	—		—	—		—	1						1	11
(6) Number of dwelling-houses demolished by owners where no Order was made			3																		3													—	3

No inspection made as district without full-time Sanitary Inspector for about 18 months.

No action taken

No action taken owing to the acute housing shortage in the district.

* 29 of these are Railway Carriage Dwellings.

† In addition 2 other buildings were converted into Dwellings—all by private enterprise.

‡ Including Army Huts converted.

N.B.—Difficulty in providing accommodation for occupiers of houses represented as unfit for habitation is the reason given for not issuing Closing Orders in some instances.