

[Report 1923] / Medical Officer of Health, Kent County Council.

Contributors

Kent (England). County Council. n 50045898

Publication/Creation

1923

Persistent URL

<https://wellcomecollection.org/works/pmb56kbe>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



KENT COUNTY COUNCIL.



Annual Report

OF THE

MEDICAL OFFICER OF HEALTH

For the Year 1923,

BY

ALFRED GREENWOOD, M.D., B.Sc., D.P.H.,

BARRISTER-AT-LAW,

County Medical Officer of Health.



Maidstone :

W. P. DICKINSON & SON, LTD., POST OFFICE PRINTING WORKS, HIGH STREET.

1924

CONTENTS.

	PAGE
<i>Prefatory letter</i>	3
<i>Members of Public Health Committee, 1924</i>	4
<i>Sanitary Authorities and Officers, and dates of Receipt of Summaries</i>	5
ANNUAL REPORT—COUNTY ADMINISTRATION	6
MINISTRY OF HEALTH INQUIRIES	7
OFFICIAL CIRCULARS, &C., RESPECTING PUBLIC HEALTH MATTERS	8
VITAL STATISTICS—	
Population	11
Births	11
Deaths	12
Infantile Mortality	13
ISOLATION HOSPITALS	16
NOTIFIABLE INFECTIOUS DISEASES	18
Small-pox	18
Scarlet Fever	19
Diphtheria	19
Enteric Fever	22
Malaria	22
Cerebro-Spinal Meningitis	22
Dysentery	22
Chicken-pox	22
Measles	23
Tuberculous Diseases	23
Treatment of Tuberculosis	27
Dispensary Service	27
County Scheme	30
Institutional Treatment	38
Various	39
Report on Lenham Sanatorium	52
NON-NOTIFIABLE DISEASES—	
Measles	59
Whooping-cough	60
Diarrhœa... ..	60
Influenza	61
Cancer	61
Venereal Diseases	69
HOME NURSING	61
BACTERIOLOGICAL LABORATORIES	74
ADMINISTRATION OF THE MIDWIVES ACTS	80
Number of Midwives in each Sanitary Area ..	80
Notifications and Work of Midwives	81
Puerperal Fever	82
Ophthalmia Neonatorum	83
Midwifery Service	83
MATERNITY AND CHILD WELFARE	86
County Health Visiting	86
County Maternity Centres	86
Other County Activities	88
District Schemes	89
MILK SUPPLY	91
FOOD SUPPLY	95
SANITATION OF HOPPER ENCAMPMENTS	96
HOUSING	97
WATER SUPPLIES	100
DRAINAGE AND SEWERAGE	102
SCAVENGING	105
RIVERS POLLUTION	107
GENERAL SANITARY WORK	108
METEOROLOGICAL OBSERVATIONS	109
ADOPTIVE ACTS AND BYE-LAWS	109
RECORD OF SANITARY WORK IN URBAN DISTRICTS	110a
RECORD OF SANITARY WORK IN RURAL DISTRICTS	110b
COMPARISON OF RATES IN URBAN DISTRICTS	110c
COMPARISON OF RATES IN RURAL DISTRICTS	110d
DEATHS IN URBAN DISTRICTS	110e
DEATHS IN RURAL DISTRICTS	110f

DEPARTMENT OF THE COUNTY MEDICAL OFFICER,
SESSIONS HOUSE, MAIDSTONE,

September 1st, 1924.

To the Chairman and Members of the Kent County Council.

MY LORDS, MADAM AND GENTLEMEN,

I beg to submit herewith my Twelfth Annual Report on the Public Health and Sanitary Condition of the County of Kent, for the year ended December 31st, 1923.

The report deals in full with public health activities under County Council administration, and contains the usual vital statistics and comments, together with a statement of the improvements during the year, and existing deficiencies, in matters relating to sanitary administration.

I would again call attention to the increased death-rate from cancer. There would appear to be urgent necessity for a publicity campaign, and with this end in view I am arranging to give a series of popular lectures to the lay public in various towns in the county during the winter months.

I am glad to be able to report that, for the second year in succession, the infantile mortality rate was the lowest on record, and I hope that the figures of future years will continue to prove the benefit which we reap as a result of public expenditure incurred in seeking to conserve the life and improve the health of the infant population. Maternity and child welfare activities, coupled with the activities of the school medical inspection and treatment services, should lead to a healthier and a happier race.

It will be noted that the rate of total deaths in the county, per thousand of the population living, was the lowest recorded since 1910.

So far as the prevalence of infectious diseases is concerned, the year 1923 was very satisfactory. The death-rate from zymotic diseases was low, namely, 0·26 per thousand of the population.

The death-rate from pulmonary tuberculosis per thousand of the population living was 0·16 below the average for the last ten years, whilst the death-rate from other forms of tuberculosis was 0·11 below the ten year average, being very little more than half that of the year 1913. The administration of the county tuberculosis scheme was again carried on successfully during the year, and if only this scheme were allied with greater expedition in dealing with housing schemes, and consequently better home conditions and less overcrowding, we might hope to see greater benefits accrue.

The work of the county bacteriological and pathological laboratories continues to extend, and the facilities thereof are appreciated greatly by the medical profession throughout the county.

The report shows also certain deficiencies in such matters as water supply, drainage, &c., but with few exceptions these do not appear to need immediate attention, apart from a careful consideration of the cost involved.

In conclusion, I beg to thank you for the support which I have received invariably, and also to express my thanks to the district Medical Officers of Health, who have always given me every possible assistance in the execution of my duties. All the members of my staff have carried out their duties in a highly creditable manner.

I am, my Lords, Madam and Gentlemen,

Yours obediently,

ALFRED GREENWOOD.

KENT COUNTY COUNCIL.

PUBLIC HEALTH COMMITTEE.

This Committee reports to the County Council on all matters concerning the Public Health. Its constitution for 1924 is as follows:—

<p>ALEXANDER, SIR S. R., M.D. AMES, W. ARNOLD, G. BARKER, W. COBBETT BILLINGHURST, E. A. CANNON, T. N. *CHALMERS, KENNETH E. CHILD, SIR COLES, BART. COLLET, SIR MARK E., BART. *CORNWALLIS, COL. F. S. W., C.B.E. (Chairman of the County Council) DARNLEY, THE RIGHT HON. THE EARL OF *EWING, G. B. (Chairman of Committee) GEARY, SIR W. N. M., BART. GOWER, SIR R. VAUGHAN, O.B.E. HARDY, THE RIGHT HON. LAURENCE HARRIS, THE RIGHT HON. LORD, G.C.S.I., G.C.I.E., C.B. HARRISON, THE REV. T. HICKIN, REV. CANON H. A.</p>	<p>IGGLESDEN, C. LAWES, MAJOR R. L. MURRAY LENNARD, SIR H. A. H. F., BART. *LINDLEY-JONES, W., O.B.E., MARSHAM, GEORGE, C.B.E., *MUMFORD, C. E. NORMAN, A. C. *PAYNE, F. WALTER (Chairman of the Finance Committee) PENFOLD, COL. SIR S. PILLMAN, J. C. RUSSELL, J. *SACKVILLE, THE RIGHT HON. LORD (Vice-Chairman of the County Council) SHEA, S. TOMLIN, J. TUFF, C., JUN. WALKER, A. B. *WILFORD, JOSHUA</p>
---	--

The Public Health Committee, as above, with the following additional members, constitutes the Maternity and Child Welfare Committee:—

- MRS. CARLYON BELLAIRS, of Gore Court, Otham.
- MRS. M. H. S. HATFIELD, of Hartsdown, Margate
- MISS PICKERSGILL-CUNLIFFE, of Pilgrim Cottage, Horsted Keynes, Sussex.

The following members are nominated by the Kent Insurance Committee to serve on the Public Health Committee when matters dealing with the treatment of tuberculosis are under consideration:—

- MRS. E. WIMHURST, of Cleeve House, Bexley Heath.
- F. F. WEBB, of "Amesgarth," Bath Road, Worthing.
- J. A. WHYTE, of 27, King Edward Road, Maidstone.

The Members marked * constitute the Lenham Sanatorium Management Sub-Committee.

LOCAL AUTHORITIES.

BOROUGH AND URBAN.

Urban and Borough Councils.	Clerks. (1924.)	Medical Officers of Health. (1924.)	Public Health Staff.		†Date of Receipt of Annual Summary.	
			Sani- tary Inspec- tors.	Clerical		
Ashford U..	J. Creery ..	°D. MacDougall ..	1	—	May	2nd
Beckenham U.	F. W. Gedney ..	°J. M. Clements ..	2	3	June	24th
Bexley U ..	T. G. Baynes ..	T. W. Hinds ..	2	1	June	25th
Broadstairs U	L. A. Skinner ..	°A. M. Watts ..	1‡	—	April	8th
Bromley B	F. H. Norman ..	°W. Stewart Stalker ..	2‡	1	June	12th
Chatham B	E. B. Lee ..	°J. Holroyde ..	3 (1‡)	2	May	15th
Cheriton U	A. Atkinson ..	°D. MacDougall ..	1	1	May	2nd
Chislehurst U	J. J. Brown ..	°P. N. Cave ..	2	—	April	8th
Crayford U	L. B. Burslem ..	C. M. Ockwell ..	1‡	—	June	3rd
Dartford U	J. J. Hurlley ..	T. Farthing ..	2 (1‡)	—	June	4th
Deal B ..	D. A. Daniels ..	F. M. S. Hulke ..	1‡	1	April	30th
Dover B ..	R. E. Knocker ..	°A. B. McMaster ..	4 (2‡)	3	July	1st
Erith U ..	D. S. Twigg ..	°A. E. Jerman ..	2 (1‡)	2	April	25th
Faversham B	Guy Tassell ..	C. J. Evers ..	1‡	—	March	7th
Folkestone B	A. F. Kidson ..	°M. G. Yunge-Bateman ..	2‡	2	March	20th
Gillingham B	F. C. Boucher ..	°W. A. Muir ..	3‡	2	May	2nd
Gravesend B	H. H. Brown ..	°C. D. Outred ..	3 (1‡)	1	March	6th
Herne Bay U	G. H. Beetenson ..	°A. M. Watts ..	1	—	February	19th
Hythe B ..	B. C. Drake ..	°D. MacDougall ..	1	—	May	2nd
Lydd B ..	G. G. H. Witchell ..	M. B. S. Button ..	1	—	March	19th
Maidstone B	S. Lance Monckton	C. Pye Oliver ..	£2 (1‡)	1	May	24th
Margate B	E. Brooke ..	°R. McCombe ..	3 (2‡)	1	March	13th
Milton Regis U	A. H. Filmer ..	°A. J. Wernet ..	1	—	March	24th
New Romney B	W. Lamacraft ..	A. McMillan ..	1	—	March	19th
Northfleet U	G. Hatten ..	H. T. Sells ..	1‡	—	March	7th
Penge U ..	A. J. Elson ..	R. Wilkinson ..	2 (1‡)	1	March	13th
Queenborough B	E. C. Harris ..	°W. C. D. Hills ..	1	—	May	2nd
Ramsgate B	A. Blasdale Clarke	°W. J. Bannister ..	2 (1‡)	1	March	26th
Rochester City	A. Kennette ..	°S. J. Pritchett ..	3 (1‡)	1	March	28th
Sandgate U	H. Stainer ..	J. C. O. Bradbury ..	1	—	February	29th
Sandwich B	E. C. Byrne ..	J. W. Harrison ..	1	—	March	5th
Sevenoaks U	G. T. Bradbury ..	°P. N. Cave ..	1‡	—	April	3rd
Sheerness U	V. H. Stallon ..	°W. C. D. Hills ..	1‡	—	April	29th
Sidcup U	F. Bird ..	°P. N. Cave ..	1	1	March	26th
Sittingbourne U	G. H. Potter ..	°A. J. Wernet ..	1‡	—	March	24th
Southborough U	W. N. Wood ..	°S. N. Galbraith ..	1	—	February	29th
Tenterden B	J. Munn Mace ..	°S. N. Galbraith ..	1	—	February	29th
Tonbridge U	H. W. Peach ..	°S. N. Galbraith ..	1	—	March	5th
Tunbridge Wells B	W. C. Cripps ..	°F. C. Linton ..	3	1	March	22nd
Walmer U..	F. W. Hardman ..	F. M. Hughes ..	1‡	—	May	7th
Whitstable U	J. F. Whichcord ..	F. P. Piper ..	1‡	—	July	29th
Wrotham U	H. E. Pyle..	E. H. Walker ..	1	1	April	5th

RURAL.

Ashford, East	J. Kingsford ..	°D. MacDougall ..	1	—	May	2nd
Ashford West	J. M. Poncia ..	°D. MacDougall ..	1	—	May	2nd
Blean ..	W. T. Brooks ..	°A. M. Watts ..	1	—	February	19th
Bridge ..	T. L. Collard ..	°J. J. Day ..	1‡	—	March	13th
Bromley ..	L. O. Wall ..	°P. N. Cave ..	2	—	May	26th
Cranbrook	Eric Clarke ..	°S. N. Galbraith ..	1	—	March	29th
Dartford ..	E. J. Hobbs ..	°S. Richmond ..	3	1	May	21st
Dover ..	C. Dacre Carder	°J. J. Day ..	1	—	March	13th
Eastry ..	F. A. Cloke ..	°J. J. Day ..	1	—	March	13th
Elham ..	B. C. Drake ..	°D. MacDougall ..	1	—	May	2nd
Faversham	Guy Tassell ..	P. G. Selby ..	1‡	—	April	25th
Hollingbourn	F. Miskin ..	G. M. Tuke ..	1	—	July	31st
Hoo ..	H. G. Davies ..	J. S. Pegum ..	1	—	August	1st
Maidstone..	F. Post ..	°S. N. Galbraith ..	1‡	—	February	29th
Malling ..	F. Miskin ..	A. H. Roberts ..	1	—	April	23rd
Milton ..	E. C. Harris ..	°A. J. Wernet ..	1‡	—	March	24th
Romney Marsh	W. Lamacraft ..	A. McMillan ..	1	—	March	19th
Sevenoaks..	F. H. Vibert ..	°P. N. Cave ..	3‡	—	April	12th
Sheppey ..	H. T. Copland ..	T. R. Wiglesworth	1	—	March	5th
Strood ..	J. E. Povey ..	°M. F. McDonnell	1	—	April	23rd
Tenterden..	J. Munn Mace ..	°S. N. Galbraith ..	1	—	February	29th
Thanet ..	C. Taylor ..	°A. M. Watts ..	1‡	—	March	25th
Tonbridge..	J. Moss ..	°S. N. Galbraith ..	1	—	March	29th

*These Medical Officers devote their whole time to Public Health work.

† Each medical officer of health has supplied information in reply to a summary of questions addressed from the County Health Department, on which this report is mainly based. The annual report has also been used where available.

‡ Sanitary Inspector holds meat inspectors' certificate.

§ One of these appointments is as "Consulting Inspector."

ANNUAL REPORT.

ADMINISTRATION.

The following alterations in the local public health service took place in 1923 :—

Strood Rural.—Dr. M. F. McDonnell, who acted as temporary medical officer of health, following the death of Dr. Flood in November, 1922, was appointed permanently as from June 8th, 1923.

Hoo Rural.—Dr. J. S. Pegum took up duty as medical officer of health on March 22nd, 1924, in succession to Dr. McDonnell, who had acted temporarily since the death of Dr. Flood.

West Kent Combined District.—In my last annual report I gave a list of the acting medical officers of health who were carrying out the duties in this large district pending a revision of such district. The area has now been divided, and two whole-time medical officers of health appointed as follows :—

Southborough U. ...	}	Dr. S. N. Galbraith, from Sept. 1st, 1923.
Tenterden B. ...		
Tenterden R. ...		
Tonbridge U. ...		
Cranbrook R. ...		
Maidstone R. ...		
Tonbridge R. ...		
Chislehurst U. ...	}	Dr. P. N. Cave, from December 1st, 1923.
Sevenoaks U. ...		
Sidcup U. ...		
Bromley R. ...		
Sevenoaks R. ...		

MINISTRY OF HEALTH INQUIRIES.

The following inquiries were held by the Ministry of Health during the year 1923 :—

Date.	District.	Amount of Loan.	Purposes for which Loan required, or other reason of Inquiry.	Result.
Jan. 5th	Milton R ...	(a) £2,500 (b) £200	For purposes of sewage disposal for the parish of Newington (£2,500 for improvement of the works, £200 for purchase of land)	Sewage disposal works reconstructed
Feb. 22nd	Ashford U...	(a) £2,275 (b) £9,700	(a) For provision of a larger sewer through Whist Meadows; (b) for an improved filter system at Bybrook Sewage Works	Application not approved. Consulting Engineer engaged, and a further scheme prepared, which is at present under consideration by the Council
Mar. 2nd	Margate B...	—	Inquiry into an application from the Corporation for a Provisional Order, amending or repealing certain articles of the Order constituting the Isle of Thanet Joint Hospital Board.	New Order made by the Ministry, amending certain articles of the original Order
May 25th	Chislehurst U	—	Inquiry into a complaint that the Urban District Council had made default in providing sufficient sewers in a certain private road in the district	Council held to be not in default
June 21st	Sheerness U	—	Inquiry into an appeal lodged against a Demolition Order made by the District Council, on the grounds that considerable repairs had been effected since the passing of the Demolition Order	Appeal against the Demolition Order dismissed, the appellants to pay costs
July 27th	Gravesend B	£50,000	For outfall or purification works, outside the borough boundaries, in connection with the sewerage of the borough	Works will be completed by the end of 1924
Oct. 10th	South-borough U	£2,500	For purposes of water supply	Distribution mains being laid throughout the district
Dec. 5th	Blean R ...	£3,000	For works of sewerage for the parish of Whitstable-cum-Seasalter	Loan to be considered on receipt of plans for an extension of existing works, which are considered to be of insufficient size

OFFICIAL CIRCULARS, &c., RESPECTING PUBLIC HEALTH
MATTERS.

Tuberculosis.—This Circular (No. 371, 20/1/1923) gave notice of the utilisation of one hundred places at the Preston Hall Sanatorium and Training Colony at Aylesford, Kent, under the arrangements for the vocational training of ex-service men suffering from tuberculosis. The circular gave detailed instructions as to the procedure to be followed in admitting such cases to that institution.

Memo. 78/T (25/1/1923) gave instructions for the compilation of the monthly return of cases receiving or awaiting residential treatment.

Circular 395 (4/5/1923) dealt with tuberculous ex-service men disabled by service in the Great War, and set forth the conditions under which "treatment allowances" are payable, and the procedure in connection with Article 9 of the Royal Warrant and modification of Sec. 6 of Memo. 30/T. Notes were also included on the special forms of treatment for tuberculous pensioners.

Circular 425 (2/8/1923) was a circular to medical practitioners, directing attention to the failure of many practitioners to notify cases of tuberculosis. The circular recapitulated the duties of medical men in this connection and appealed for more complete observance of the requirements of the Tuberculosis Regulations.

Memo. 83/T (22/8/1923) extended the "final date for the termination of vocational training" from June 30th, 1924, to December 31st, 1924. Applications for vocational training were required to be made not later than December 31st, 1923.

Circular 465 (19/12/1923) dealt with the after-care of tuberculous patients and recommended, for the consideration of local authorities, a procedure which should be followed if the best possible use is to be made of the various organisations which can render assistance in this matter.

Circular 466 (21/12/1923) and an accompanying Memorandum (No. 286) of the same date, were concerned with the co-ordination of the work of tuberculosis officers and insurance practitioners.

Midwives' Act.—A case of some importance was argued before the King's Bench Division of the High Court in April, 1923, when a case which had been dismissed by Justices was nevertheless "stated" by them in view of a contention that the finding involved a point of law. The case was concerned

with section 1, sub-section (2) of the Midwives Act, 1902, which enacted that "no woman shall habitually and for gain attend women in childbirth otherwise than under the direction of a certified medical practitioner, or unless she be certified under the Act," and imposed a penalty for so doing.

An uncertified midwife (whose certificate was withdrawn in 1920) was engaged by, attended and delivered five expectant mothers during two months of 1922, and in each case a qualified medical practitioner was also retained (in three of the cases by the respondent herself, with the authority of the patients).

The doctors all paid professional visits to the patients subsequent to their confinements, but not before; and in no case was any professional direction given or inquiry made by them prior to the confinements. In all five cases the medical practitioners stated that the respondent, in attending and delivering the women, was acting under their direction, that in their opinion she was a capable woman and to be trusted, and that no instructions, specific or otherwise, had been given to her by them, nor in any case were they necessary.

It was held that "under the direction" means that in every case actual instructions must have been given by the medical practitioners to the uncertificated midwife, and the directions must not be nominal but real. The medical practitioners must not merely undertake a nominal responsibility, and each must acquaint himself with the particular requirements of the case. It is not enough that he should be a qualified figure-head in the background who had undertaken some nominal and contingent responsibility. The uncertificated midwife must act in each case under the real direction of the qualified medical practitioner.

Venereal Diseases.—Circular 377 (28/3/23), states that "substitutes for salvarsan" will be designated in future "arsenobenzol compounds."

Cancer.—A Memorandum on cancer was issued by the Ministry of Health, with a covering circular (No. 426, 14/8/1923). The object of the Memorandum was "to summarise in non-technical terms our present knowledge with regard to the ætiology and incidence of cancer, and to offer for the consideration of local health authorities, some suggestions which it is hoped may be useful to them in their efforts to inform public opinion on this important subject."

Encephalitis Lethargica and Cerebro-spinal Fever.—Circular 366 of the Ministry of Health (9/2/1923) gave notice that the issue to medical officers of health of special forms of inquiry into cases of encephalitis lethargica, would be discontinued.

This circular also reminded authorities of the arrangements for the examination of cerebro-spinal fluid in cases of suspected cerebro-spinal fever, and of the work being undertaken for the Medical Research Council on the production of an immune serum for therapeutic use in cases of this disease; and in the latter connection enclosed a memorandum in regard to the collection and transmission of cerebro-spinal fluid or culture of the meningococcus.

Plague and Cholera.—Circular 437 (31/8/1923) reminded Port and Riparian Sanitary Authorities of the necessity for immediate notification of suspected cases of plague and cholera, and the equal importance of sending any obtainable material to the Ministry of Health for bacteriological investigation.

Small-pox.—Circular 422 (17/7/1923) dealt with the precautions to be taken in connection with the annual training camps of the Territorial Army and Officers' Training Corps in view of the prevalence of small-pox in certain parts of the country.

Milk.—Memo. 77/Foods, issued in January, 1923, set out in general terms the main provisions of the Milk (Special Designations) Order, 1922, and the Milk (Special Designations) Amendment Order, 1922. Instructions of the Ministry were published at the same time, setting out the bacteriological standards for the various classes of graded milk, and dealing with such matters as laboratory technique, procedure and reports. These matters were amplified by the Milk (Special Designations) Order, 1923 (25/5/1923) and an accompanying circular (Circular 408).

Circular 393 (4/5/1923) accompanied the Public Health (Condensed Milk) Regulations, 1923, and was in amplification of the latter. These Regulations provide for the labelling and the content (milk-fat and milk-solids) of condensed milk intended for human consumption; the taking of samples for analysis; the inspection of premises and articles used in the preparation of the milk, and the labels for affixing to receptacles of such milk; and the labelling, sampling and analysis of imported milk. The schedules to the Regulations contained the rules for labelling, with specimen labels; and the specified percentages of milk fat and all milk solids, including fat.

Circular 325 (17/7/1922), which had reference to prosecutions for selling milk deficient in fat, was withdrawn by Circular 399 (16/5/1923).

Circular 446 (26/9/1923) postponed until November 1st the operation of the Public Health (Condensed Milk) Regulations, 1923—effect being given to this decision by the making of the Public Health (Condensed Milk) Regulations (No. 2), 1923, which were issued on 24/9/1923.

Circular 452 (8/11/1923) enclosed the Public Health (Dried Milk) Regulations, 1923, which were to take effect from May 1st, 1924. The provisions of these Regulations were generally similar to the provisions of the recently issued Regulations with regard to condensed milk (see Circular 393, mentioned above), the remarks in that circular applying, with necessary modifications, to the new Regulations.

Boric Acid in Cake.—Circular 381 (20/3/1923) dealt with the reports received by the Ministry with regard to the presence of boric acid in cake—in some cases to a somewhat high proportion. The Bakery Allied Traders' Association took certain steps with a view to effecting a reduction in this acid in liquid whole egg—the material mainly by means of which such acid is present in cake—and the Minister was advised that if effect were given to the decisions of the Association the danger of the presence of excessive preservatives in cake would be substantially reduced.

Annual Reports.—Circular 451 (15/12/1923) dealt with the contents and arrangements of annual reports of medical officers of health.

Health Lectures.—British Red Cross.—Circular 432 (11/10/23) drew attention to an enclosed syllabus of health lectures for women in country districts, organised by the British Red Cross Society in co-operation with the National Federation of Women's Institutes and other voluntary organisations.

Rats and Mice.—In view of the difficulties experienced by many of the Port and Riparian Sanitary Authorities, in dealing with rat destruction, Circular 374 (30/1/1923) suggested that County Councils should consider the question of delegating their powers under the Rats and Mice (Destruction) Act, 1919, so that the powers of the Port and Riparian Sanitary Authorities under the Public Health Acts should be augmented to that extent.

VITAL STATISTICS.

POPULATION.—The *total* population of the Administrative County at the middle of 1923, as estimated by the Registrar-General, was 1,091,800, viz., 768,200 in urban areas, and 323,600 in rural. These figures show an increase of 5,037 on the urban, and 2,798 on the rural, populations of 1922.

The density per acre of population in the urban districts was 6.30, varying from 34.8 in Penge to 0.2 in Lydd; and in the rural districts it was 0.39, varying from 1.10 in Dartford to 0.11 in Romney Marsh.

BIRTHS.—During the year, the births of 19,886 living children were registered, which is 298 lower than the total of the previous year. Male

births numbered 10,027 and females 9,859. The total excess of births over deaths was 8,568, viz., 4,376 males and 4,192 females.

The birth rates for Kent, shewn below, are invariably lower than the rates for the country as a whole :—

Year.	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
Urban Districts ...	19·8	21·2	20·8	20·7	20·4	19·0	20·8	17·6	17·2	18·3	24·2	20·2	18·7	18·3
Rural Districts ...	21·8	19·8	20·1	20·9	20·1	18·7	19·6	17·1	17·3	17·5	25·2	19·5	18·6	18·1
Whole County	20·4	20·8	20·6	20·8	20·3	18·9	20·4	17·4	17·2	18·1	24·5	20·0	18·7	18·3
Percentage Illegitimate	3·68	4·13	4·14	4·36	3·85	4·54	6·00	6·93	8·20	7·60	4·88	4·48	4·35	4·39
England and Wales	25·0	24·4	23·8	23·9	23·8	21·8	21·6	17·8	17·7	18·5	25·4	22·4	20·6	19·7

The rates shew reductions on the previous year, to the extent of 0·4 urban, 0·5 rural and 0·4 whole county, whilst the county rate was 1·4 lower than the rate for England and Wales.

Housing conditions exercise a great influence upon this question of birth-rate. Dr. Piper, medical officer of health of *Whitstable*, summarises a position which is well known to every medical officer of health when he writes :—“The shortage of housing accommodation, preventing many young people from getting married, and those who do having in many cases to live in rooms where children are not wanted, is a serious factor in the low birth-rate.”

High rates were recorded in :—(a) Urban—Cheriton 25·5, Crayford 24·2, Sittingbourne 23·8, and Wrotham 23·8. (b) Rural—Hoo 25·0, Faversham 20·6, Tenterden 20·3, and Sheppey 20·2.

Low rates were recorded in :—(a) Urban—Herne Bay 11·0, Broadstairs and St. Peter's 11·5, and New Romney 12·2. (b) Rural—Dover 15·3, Elham 15·4, and Thanet 15·8.

STILL-BIRTHS numbered 456 as compared with 526 in 1922 and 561 in 1921. It will be seen that the numbers are decreasing steadily.

DEATHS.—The net number of deaths registered in the county was 11,318, being 1,149 less than the net aggregate of the previous year. 5,651 of the deaths were of males and 5,667 females.

The death rates for Kent for the years 1910-1923 are as follows:—

Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
Urban Districts	9.9	12.9	11.0	11.1	11.5	14.2	13.9	14.2	16.4	12.7	11.4	11.6	11.9	10.7
Rural Districts	11.5	11.3	9.7	10.3	10.2	13.8	13.3	13.8	15.7	12.6	11.2	11.1	11.3	10.2
Whole County	10.4	12.4	10.7	10.9	11.1	14.5	13.7	14.1	16.2	12.7	11.4	11.5	11.7	10.6
England and Wales	13.4	14.6	13.3	13.3	13.7	14.8	14.0	14.4	17.6	13.8	12.4	12.1	12.9	11.6

The urban, rural and county rates for 1923 are the lowest recorded for several years, the county rate being the lowest since 1910 and 1.0 below the rate for England and Wales.

High rates were recorded in:—(a) Urban—Tenterden 14.7, Southborough 14.3, and Tunbridge Wells 14.3. (b) Rural—Cranbrook 13.1, Elham 13.1, Blean 12.9, and Bridge 12.8.

Low rates were recorded in:—(a) Urban—Crayford 7.1, Erith 8.1, Cheriton, 8.2, and Dartford 8.4. (b) Rural—Dartford 7.4 and Dover 8.5.

INFANTILE MORTALITY.—The records for the administrative county and for England and Wales, together with a comparison of the rates among legitimate and illegitimate infants, for the years 1910-1923, are as follows:—

Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
Urban Districts	79	111	78	79	79	92	75	86	80	71	61	67	58	49
Rural Districts	80	103	72	80	71	82	68	77	69	64	53	60	53	47
Whole County	79	109	76	80	77	89	73	83	77	69	58	65	57	48
England and Wales	106	130	95	109	105	110	91	97	97	89	80	83	77	69
Legitimate (Kent)	75	104	74	76	73	86	69*	80*	71	63	54	61	55	46
Illegitimate (Kent)	185	228	138	149	175	150	118*	121*	144	147	141	138	101	103

* For 1916 and 1917, in several districts, the deaths were not divided into legitimate and illegitimate, in which cases they were regarded as legitimate. Therefore, the actual disparity of rates for those two years is greater than is shown by the figures.

TABLE 1.—Information relating to Population, Acreage, Deaths, Births and Infantile Mortality in the different **Urban Districts** of the County of Kent in the year 1923.

DISTRICT.	Population 1923 (as estimated by Registrar General.)	Acreage, inclusive of water.	Persons per acre, 1923 (Total population).	DEATHS.		BIRTHS.				INFANTILE MORTALITY.				
				Number of deaths of civilians at all ages.	Net death-rate per 1,000 of civil population.	Legitimate.	Illegitimate.	Total.	Birth-rate. (Total population).	Legitimate.	Illegitimate.	Total.	Deaths of Infants under one year of age per 1,000 Births.	No. of still-births.
Ashford U ...	14,170	2,850	5.0	149	10.6	241	11	252	17.8	6	—	6	24	7
Beckenham U ...	33,170	3,889	8.6	294	8.9	476	11	487	14.7	15	1	16	33	5
Bexley U ...	22,290	4,942	4.6	231	10.4	492	15	507	22.8	21	2	23	46	10
Broadstairs & St. Peter's U ...	11,090	2,770	4.1	106	9.6	117	10	127	11.5	5	1	6	48	3
Bromley B ...	34,970	4,697	7.5	367	10.5	549	29	578	16.6	31	4	35	61	16
Chatham B ...	43,550 <i>41,781</i>	4,356	10.0	448	10.8	884	35	919	21.2	51	5	56	61	33
Cheriton U ...	7,004 <i>5,137</i>	1,160	6.1	42	8.2	168	10	178	25.5	7	1	8	45	2
Chislehurst U ...	8,957	2,791	3.3	80	9.0	122	4	126	14.1	8	—	8	64	1
Crayford U ...	12,570	2,455	5.2	89	7.1	299	5	304	24.2	12	—	12	40	9
Dartford U ...	26,570	4,242	6.3	221	8.4	420	10	430	16.2	23	—	23	54	23
Deal B ...	12,250	1,114	11.0	144	11.8	205	12	217	17.8	10	1	11	51	7
Dover B ...	40,740	1,948	21.0	423	10.4	842	33	875	21.5	38	6	44	51	14
Erith U ...	32,700	3,859	8.5	263	8.1	606	17	623	19.1	23	2	25	41	14
Faversham B ...	10,840	685	15.9	122	11.3	162	11	173	16.0	5	2	7	41	8
Folkestone B ...	33,970	2,482	13.7	387	11.4	502	49	551	16.3	16	7	23	42	11
Gillingham B ...	55,200 <i>47,620</i>	4,988	11.1	487	10.3	1048	24	1072	19.5	48	2	50	47	10
Gravesend B ...	31,950	1,260	25.4	356	11.2	642	25	667	20.9	30	2	32	48	19
Herne Bay U ...	10,100	887	11.4	96	9.6	103	8	111	11.0	1	1	2	19	2
Hythe B ...	7,478 <i>7,240</i>	2,608	2.9	77	10.7	93	4	97	13.0	4	1	5	52	—
Lydd B ...	2,235	12,082	0.2	25	11.2	40	4	44	19.7	—	—	—	0	1
Maidstone B ...	38,840	4,008	9.7	412	10.7	688	25	713	18.4	31	4	35	50	17
Margate B ...	28,080	2,463	11.5	297	10.6	461	26	487	17.4	19	2	21	44	16
Milton Regis U ...	7,657	2,555	3.0	83	10.9	130	10	140	18.3	7	1	8	58	5
New Romney B ...	1,484	1,364	1.1	13	8.8	16	2	18	12.2	1	—	1	56	1
Northfleet U ...	16,490	3,932	4.2	175	10.7	327	10	337	20.5	12	1	13	39	7
Penge U ...	26,750	770	34.8	331	12.4	527	20	547	20.5	39	—	39	72	7
Queenborough B...	3,192	695	4.6	30	9.4	64	3	67	21.0	2	—	2	30	1
Ramsgate B ...	30,250	2,306	13.2	392	13.0	582	43	625	20.7	26	2	28	45	19
Rochester City ...	32,010	2,936	11.0	329	10.3	586	25	611	19.1	24	4	28	46	24
Sandgate U... ..	2,532 <i>2,095</i>	273	9.3	23	11.0	42	1	43	17.0	—	—	—	0	1
Sandwich B ...	3,122	708	4.5	39	12.5	65	3	68	21.8	1	—	1	15	4
Sevenoaks U ...	8,967	3,259	2.8	106	11.9	118	7	125	14.0	7	—	7	56	3
Sheerness U ...	18,900 <i>16,749</i>	864	21.9	169	10.1	326	9	335	17.8	18	1	19	57	5
Sideup U ...	8,833	2,043	4.4	94	10.7	120	10	130	14.8	3	1	4	31	5
Sittingbourne U ...	9,630	1,004	9.6	103	10.7	225	4	229	23.8	10	1	11	49	5
Southborough U ...	7,023	1,702	4.2	100	14.3	123	5	128	18.3	4	2	6	47	4
Tenterden B ...	3,266	8,946	0.4	48	14.7	46	3	49	15.1	1	—	1	21	1
Tonbridge U ...	16,040	1,403	11.5	183	11.5	274	12	283	17.9	13	3	16	56	8
Tunbridge Wells B	34,370	3,991	8.7	489	14.3	452	27	479	14.0	23	1	24	51	13
Walmer U ...	5,254 <i>4,470</i>	988	5.4	54	12.1	66	2	68	13.0	2	—	2	30	—
Whitstable U ...	9,445	794	11.9	124	13.2	119	6	125	13.3	11	4	15	120	4
Wrotham U ...	4,261	8,883	0.5	50	11.8	92	9	101	23.8	3	2	5	50	4
Total in Urban Districts	768,200 <i>753,374</i>	121,952	6.30	8,051	10.7	13,460	589	14,049	18.3	611	67	678	49	349

* The figures given in this column are the *total* populations, as estimated by the Registrar-General, and it is on these figures that the vital statistics have been computed. In the case of "garrison" centres, the *civil* population is added in italics.

TABLE 2.—Information relating to Population, Acreage, Deaths, Births and Infantile Mortality in the different **Rural Districts** of the County of Kent in the year 1923.

DISTRICT.	Population, 1923 (as estimated by the Registrar General).	Acreage inclusive of water.	Persons per acre, 1923 (Total population).	DEATHS.		BIRTHS.				INFANTILE MORTALITY.				
				Number of deaths of civilians at all ages.	Net death-rate per 1,000 of civil population.	Legitimate.	Illegitimate.	Total.	Birth-rate. (Total population).	Legitimate.	Illegitimate.	Total.	Deaths of Infants under one year of age per 1,000 Births.	No. of still-births.
Ashford, East	15,140	54,799	0·28	155	10·3	257	16	273	18·1	14	1	15	55	7
Ashford, West	7,741	39,489	0·20	71	9·2	126	6	132	17·1	5	—	5	38	4
Blean...	8,278	26,882	0·31	106	12·9	149	6	155	18·8	2	—	2	13	3
Bridge ...	11,280	41,796	0·27	144	12·8	195	10	205	18·2	14	—	14	69	5
Bromley ...	25,940	28,839	0·90	248	9·6	426	21	447	17·3	22	1	23	52	12
Cranbrook ...	12,940	41,315	0·32	169	13·1	224	10	234	18·1	12	3	15	65	4
Dartford ...	39,070	35,542	1·10	288	7·4	657	29	686	17·6	33	3	36	53	9
Dover ...	{ 8,469 8,195	27,121	0·32	69	8·5	125	4	129	15·3	5	1	6	47	2
Eastry ...	13,390	43,683	0·31	136	10·2	231	9	240	18·6	11	—	11	46	5
Elham ...	7,879	37,153	0·22	103	13·1	114	7	121	15·4	4	—	4	34	3
Faversham ..	14,350	44,002	0·33	150	10·5	283	12	295	20·6	18	2	20	68	5
Hollingbourn	13,250	57,671	0·23	155	11·7	229	14	243	18·4	10	1	11	46	1
Hoo ...	{ 5,060 4,630	19,727	0·26	42	9·1	118	8	126	25·0	3	1	4	32	2
Maidstone ...	17,010	34,996	0·49	183	10·8	270	15	285	16·8	7	—	7	25	11
Malling ...	25,760	38,458	0·67	275	10·7	472	23	495	19·3	22	2	24	49	10
Milton ...	14,250	27,727	0·52	148	10·4	247	14	261	18·4	10	1	11	43	8
Romney Marsh	3,087	30,375	0·11	27	8·8	50	7	57	18·5	3	—	3	53	1
Sevenoaks ...	23,780	63,335	0·38	248	10·5	397	22	419	17·7	20	1	21	51	3
Sheppey ...	{ 4,607 4,435	20,806	0·23	46	10·4	89	4	93	20·2	3	—	3	33	—
Strood ...	16,520	32,499	0·51	147	8·9	288	12	300	18·2	12	1	13	44	4
Tenterden ...	5,829	38,379	0·16	58	10·0	111	7	118	20·3	8	1	9	77	—
Thanet ...	{ 12,220 11,530	18,639	0·66	114	9·9	181	12	193	15·8	3	2	5	26	3
Tonbridge ...	17,750	46,805	0·38	135	10·5	315	15	330	18·6	8	1	9	28	5
Total in Rural Districts ...	{ 323,600 322,034	850,038	0·39	3,267	10·2	5,554	283	5,837	18·1	249	22	271	47	107
Total in Urban Districts ...	{ 768,200 753,374	121,952	6·30	8,051	10·7	13,460	589	14,049	18·3	611	67	678	49	349
Total for County	{ 1,091,800 1,075,408	971,990	1·13	11,318	10·6	19,014	872	19,886	18·3	860	89	949	48	456

* The figures given in this column are the *total* populations, as estimated by the Registrar-General, and it is on these figures that the vital statistics in this report have been computed. In the case of "garrison" centres, the *civil* population is added in italics.

The variations in the infantile mortality rates in the different districts are considerable, as is usually the case, and urban rates are recorded from *nil* in Lydd and Sandgate to 120 in Whitstable. The lowest rates after Lydd and Sandgate, were Sandwich 15, Herne Bay 19, Tenterden 21 and Ashford 24; and the highest rates after Whitstable were Penge 72 and Chislehurst 64.

In the rural districts the lowest rates recorded were in Blean 13, Maidstone 25, Thanet 26 and Tonbridge 28, whilst relatively high rates were recorded in Tenterden 77, Bridge 69, Faversham 68 and Cranbrook 65.

It should be noted that, for the second year in succession, the "lowest record" of infantile mortality was broken. Fluctuations in this rate are inevitable, but a glance at the figures for the County of Kent, given in the above table, will show reason for congratulation. The general steady decline of this rate of infant deaths is most satisfactory, and is a matter for legitimate pride to all those who are concerned in the work of combating infantile mortality; and bearing in mind the great progress which has been made during recent years, there seems no logical reason against a further decline in the rate of preventable infant deaths.

ISOLATION HOSPITALS.

Full details of the hospital accommodation for infectious diseases in Kent were set out in my report for 1920 and have been brought up to date each year since. The following corrections are to be noted, in order that the information may be complete to the end of 1923:—

Thanet Joint.—Eight beds were provided in a new cubicle block.

Folkestone B.—The additional accommodation at the small-pox hospital, previously recommended as being necessary, has now been provided—to the extent of a nurses' block and two ward blocks with eight beds each. Twenty beds, therefore, are now available for small-pox. Provision has been made in the estimates for a laundry, disinfection chamber, and mortuary, at the small-pox hospital. The Borough of Folkestone are to be congratulated upon having dealt with this question in such a thorough manner.

Lydd B.—The small-pox hospital (a joint hospital with New Romney Borough and Romney Marsh Rural) was closed. The arrangements were continued whereby two beds in the Hastings small-pox hospital at Brede, are reserved for the use of Lydd.

Sheppey R.—All cases of infectious disease are now removed to the Keycol Hill Hospital (the Sittingbourne and Milton Joint Hospital).

Improvements in various hospitals are noted by the medical officers of health as follows :—

East Ashford R.—The wards were all cleaned and re-decorated, electric light was installed, and the baths were altered.

Cheriton U.—The building was overhauled and repaired, and a water supply was provided.

Erith U.—A new mortuary was erected.

Faversham R.—The Beacon Hill Hospital was fitted for electric lighting,

Gillingham B.—New baths, grates, etc., were installed at the isolation hospital. There is now a motor ambulance for the conveyance of ordinary infectious disease cases; a motor ambulance for non-infectious, accident and emergency cases; and the old horse ambulance for the removal of small-pox cases.

Tonbridge R.—A motor ambulance was provided early in the year.

Malling R.—A motor ambulance has now replaced the old horse ambulance.

Bexley U.—A portable steam disinfecter was purchased, and has been erected at the hospital.

Hollingbourn R.—General repairs and painting, were carried out at the small-pox hospital.

Deficiencies are reported as follows :—

Bridge R.—The ambulance service needs improvement and a motor ambulance is advised.

Eastry R.—Provision should be made for the isolation of enteric fever patients. Removal of cases by horsed ambulance results in delay.

Gillingham B.—A new hospital is required, the present building being out of date. I have referred to this question on previous occasions.

The Cranbrook and Tenterden Joint Hospital Board “decided not to build a hospital at present.” (This matter has been under consideration for three or four years, and was referred to in my report for 1920). *Tenterden Borough* made arrangements for the isolation of cases in the Tonbridge Rural District Council’s hospital at Capel. *Tenterden Rural* arranges the admission of serious cases to the Cranbrook fever hospital, other cases being transported by motor ambulance to the Capel hospital.

Herne Bay.—Dr. Watts reported to the Council during the year, on the unsuitability of the Herne Bay hospital, and advocated other arrangements being made for the isolation of infectious diseases.

NOTIFIABLE INFECTIOUS DISEASES.

Certain statistics relating to the incidence of notifiable infectious diseases in each sanitary district in Kent are shown in tables 3 and 4, whilst below is tabulated a summary of the numbers of notifications of small-pox, scarlet fever, diphtheria and enteric fever, and the death rates per 1,000 of the population from these diseases, for the last fourteen years :—

Year.	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923.		
														Kent.	England & Wales.	
SMALL-POX.																
Cases notified	2	27	3	1	2	2	0	0	5	23	9	4	10	0	2473	
Death Rate ...	0·00	0·00	nil	nil	0·00	nil	nil	nil	nil	0·003	0·001	0·001	0·003	nil.	0·00	
SCARLET FEVER.																
Cases notified	2033	2330	3141	2408	3784	2862	1856	1079	1173	1825	2806	3667	2618	1657	85603	
Death Rate .	0·03	0·02	0·03	0·03	0·04	0·04	0·03	0·01	0·02	0·02	0·02	0·03	0·03	0·02	0·03	
DIPHTHERIA.																
Cases notified	928	1392	2008	1738	2631	2136	1581	1477	1552	1589	2391	2659	1622	823	40009	
Death Rate ...	0·07	0·11	0·16	0·10	0·17	0·16	0·14	0·13	0·18	0·16	0·16	0·18	0·14	0·05	0·07	
ENTERIC FEVER.																
Cases notified	292	334	362	197	270	221	210	134	118	77	126	145	87	115	3211	
Death Rate ...	0·04	0·05	0·05	0·03	0·05	0·04	0·04	0·03	0·03	0·02	0·006	0·02	0·02	0·009	0·01	

The year under review was a satisfactory one respecting infectious diseases. Many of the district medical officers of health refer to this fact, *e.g.*, *Hythe*, *Lydd*, *Sandwich*, *Malling Rural*, *Dartford Rural* and *Tonbridge Rural*, though in the last named district chicken-pox was very prevalent in one or two of the villages. Dr. Tuke (*Hollingbourn Rural*) writes:—"In all the years I have been medical officer of health we have never had such a healthy year before, especially in the case of infectious diseases."

SMALL-POX.—There were no cases of small-pox in Kent during 1923. One suspicious case was reported from *Chatham*. The patient was removed to hospital and all necessary precautions taken, but after a period of observation the case was considered to be not small-pox.

As is invariably the case, and I am glad to note it, several medical officers of health in the county refer to the question of vaccination. Dr. Bannister (*Ramsgate Borough*) directs attention to the large proportion of persons in that borough who are unprotected by vaccination, and gives figures showing that 40 per cent. of the children born during the year are unprotected in this manner. Dr. Pritchett (*Rochester City*) reports that "in view of the large number (of cases of small-pox) notified in other parts of the country and the danger thus menacing a largely unvaccinated population, the Corporation passed a resolution asking that the Vaccination Acts should be fully enforced, and this resolution was communicated to the Ministry of Health."

SCARLET FEVER.—The number of cases notified shows a considerable reduction when compared with the preceeding years, but the figure is still higher than the low records of 1917-1918. Several medical officers of health refer to the decrease in the number of cases of this disease.

Dr. Pritchett (*Rochester City*) makes the following interesting observations:—

Rochester City.—"It is commonly thought that scarlet fever is now a disease of a much less dangerous character than it was in the past, and certainly the case mortality is very low, being about one per cent. On these grounds, it has been urged in some quarters, that the isolation of scarlet fever might be abandoned and the hospital accommodation thus released be used to better advantage for cases of measles, epidemic diarrhœa and whooping cough. No doubt hospital isolation and treatment for these diseases is a desirable thing, but not at the expense of scarlet fever. The very mildness of the disease constitutes its danger. If the cases were left at home they would presently be regarded by parents as being more or less trivial, they would be indifferently nursed, they would be allowed to get up too soon and they would fall victims to the treacherous and dangerous complications with which this disease is associated. They might apparently recover only to develop, after a time, incurable heart or kidney trouble. No disease needs more careful nursing and watching than does scarlet fever, however mild it may appear at the onset. For this reason any proposals to discontinue the hospital treatment of scarlet fever should be resisted."

DIPHTHERIA.—During the year under review the notified cases of diphtheria reached a lower total than has ever before been recorded in Kent.

Several local medical officers of health comment upon the great diminution in cases of this disease; and Dr. Farthing (*Dartford Urban*) in pointing out that his notifications presented a lower figure than any such recorded since 1907, considers the fact to be "a further proof of the benefit of the extensive swabbing carried out, and the elimination of carriers from the schools."

TABLE 3—Shewing the Number of Cases of Infectious Disease among the Civil Population notified in each of the **Urban Districts** in the County of Kent, the Number of such Cases which were treated in Hospital, and the incidence per 1,000 of the population, of cases of Diphtheria, Scarlet Fever, and Enteric Fever, during the year 1923.

DISTRICT.	Small-pox	Diphtheria including Membranous Croup	Erysipelas.	Fever.										Cases removed to Hospital.					Incidence per 1,000 of population of notified cases.			
				Scarlet.	Enteric.	Puerperal.	Cerebro-spinal Meningitis.	Polomyelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria.	Encephalitis Lethargica.	Pneumonia.	Small pox.	Diphtheria.	Scarlet Fever.	Enteric Fever.	Others.	Diphtheria	Scarlet Fever.	
Ashford (Urban)...	6	1	11	1	30	3	...	1	13	...	5	11	1	16	0.43	0.78
Beckenham (Urb.)...	15	5	35	7	1	2	...	29	16	2	2	17	...	15	28	0.46	1.06	
Bexley (Urban)...	33	4	46	...	...	1	4	...	30	5	...	...	...	...	29	40	...	1	1.49	2.07
Broadstairs & St. Peter's (Urban)...	13	1	9	...	1	...	...	2	18	6	...	...	14	...	13	8	...	...	1.18	0.82
Bromley (Borough)...	21	15	61	...	2	...	2	3	40	18	...	1	54	...	19	51	...	...	0.61	1.75
Chatham (Borough)...	27	12	60	6	...	...	1	5	72	21	...	...	6	...	25	58	3	...	0.65	1.44
Cheriton (Urban)...	...	...	5	...	2	...	...	...	17	...	1	...	6	...	...	8	...	7	0.00	1.76
Chislehurst (Urb.)...	10	3	13	...	...	...	...	1	10	1	...	...	9	...	10	10	...	...	1.12	1.46
Crayford (Urban)...	4	2	11	1	...	...	3	1	10	4	...	...	7	...	2	2	...	7	0.32	0.88
Dartford (Urban)...	15	9	27	3	2	1	...	2	34	8	...	...	11	...	14	23	3	58	0.57	1.02
Deal (Borough)...	3	6	1	...	1	...	...	...	21	8	...	...	...	...	...	1	...	...	0.25	0.09
Dover (Borough)...	34	12	33	5	4	...	...	16	97	20	1	...	27	...	29	29	3	6	0.84	0.82
Erith (Urban)...	21	7	164	5	2	...	2	3	44	10	...	2	30	...	22	159	5	1	0.74	5.02		
Faversham (Borough)...	13	1	32	...	...	...	...	3	13	12	...	1	3	...	12	39	...	6	1.20	2.96
Folkestone (Borough)...	6	10	89	3	2	...	3	7	83	30	1	...	38	...	6	84	3	53	0.18	2.62		
Gillingham (Borough)...	88	11	143	2	...	...	2	2	82	33	...	...	17	...	80	106	2	...	1.85	3.01
Gravesend (Borough)...	50	10	69	2	3	...	2	5	30	15	...	...	...	...	38	58	1	23	1.57	2.16
Herne Bay (Urban)...	6	...	7	...	...	...	...	...	18	6	...	...	4	...	6	5	...	...	0.60	0.70
Hythe (Borough)...	...	...	6	2	...	...	...	...	19	3	...	...	6	...	...	4	2	9	0.00	0.83
Lydd (Borough)...	...	3	1	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	0.00	0.45
Maidstone (Borough)...	27	6	28	5	...	...	...	1	56	13	1	...	24	...	27	26	5	22	0.70	0.73
Margate (Borough)...	26	2	93	3	...	1	1	1	71	42	...	...	9	...	20	84	1	...	0.93	3.32
Milton Regis (Urb.)...	8	1	4	2	1	...	...	1	17	5	...	...	3	...	8	4	2	1	1.05	0.53
New Romney (Borough)...	...	1	...	...	...	...	...	...	5	...	...	...	1	...	...	...	...	...	0.00	0.00
Northfleet (Urban)...	30	1	37	2	1	...	...	2	18	...	...	...	1	...	6	4	...	5	1.82	2.25
Penge (Urban)...	24	3	25	3	...	1	...	...	32	10	...	1	13	...	15	17	...	20	0.90	0.94
Queenborough (Borough)...	10	...	21	1	1	...	...	...	2	...	...	...	...	...	3	20	1	1	3.14	6.58
Ramsgate (Borough)...	17	8	39	4	...	...	...	6	80	27	1	...	26	...	16	37	3	...	0.57	1.29
Rochester (City)...	27	16	49	8	...	...	...	...	50	27	...	1	7	...	25	46	8	...	0.85	1.54
Sandgate (Urban)...	1	...	4	...	...	...	...	...	3	...	...	...	...	...	1	3	...	3	0.48	1.91
Sandwich (Borough)...	...	1	...	...	...	...	...	...	5	4	...	...	4	...	...	...	...	2	0.00	0.00
Sevenoaks (Urban)...	7	...	6	1	...	...	...	...	5	2	...	...	...	...	6	5	...	1	0.79	0.67
Sheerness (Urban)...	14	6	53	5	1	...	...	...	17	5	...	...	10	...	11	44	3	1	0.84	3.17
Sideup (Urban)...	5	2	4	2	...	...	...	2	2	3	...	...	2	...	2	4	1	...	0.57	0.46
Sittingbourne (U.)...	10	2	17	2	...	...	1	1	17	8	...	...	4	...	10	16	2	...	1.04	1.77
Southborough (U.)...	1	3	...	...	...	...	...	...	7	...	...	...	...	...	1	...	...	...	0.15	0.00
Tenterden (Borough)...	2	...	1	2	...	...	...	...	2	...	...	...	...	...	...	1	...	...	0.62	0.31
Tonbridge (Urban)...	5	5	26	...	1	2	...	1	26	8	...	...	...	...	5	25	...	2	0.32	1.63
Tunbridge Wells (Borough)...	11	14	33	4	...	...	3	35	7	...	3	14	...	11	30	2	18	0.33	0.97	
Walmer (Urban)...	1	...	...	1	...	...	...	...	4	...	...	...	...	1	...	...	1	...	0.23	0.00
Whitstable (Urban)...	1	3	8	7	...	...	1	25	7	...	...	...	40	...	2	6	...	...	0.11	0.85
Wrotham (Urban)...	...	...	11	...	...	...	2	2	...	...	...	...	2	...	...	11	...	...	0.00	2.59
TOTAL URBAN	595	186	1286	88	25	4	22	73	1182	387	7	12	422	...	493	1094	57	244	0.79	1.71		

*The three cases of encephalitis lethargica in Tunbridge Wells were all patients in the General Hospital, having been admitted thereto from outside districts.

TABLE 4—Showing the number of Cases of Infectious Disease among the Civil Population, notified in each of the **Rural Districts** in the County of Kent, the Number of such Cases which were treated in Hospital, and the incidence per 1,000 of the population, of cases of Diphtheria, Scarlet Fever, and Enteric Fever, during the year 1923.

DISTRICT.	Small-pox.			Fevers.										Cases removed to Hospital.					Incidence per 1,000 of population of notified cases.			
	Small-pox.	Diphtheria including Membranous Croup	Erysipelas.	Scarlet.	Enteric.	Puerperal.	Cerebro-spinal Meningitis.	Poliomylitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria.	Encephalitis Lethargica.	Pneumonia.	Small-pox.	Diphtheria.	Scarlet Fever.	Enteric Fever.	Other.	Diphtheria.	Scarlet Fever.	Enteric Fever.
Ashford, East ...	4	...	...	24	...	1	...	...	1	31	4	...	...	5	...	4	21	...	14	0.27	1.59	0.00
Ashford, West ...	4	2	...	3	1	2	...	...	...	14	1	...	...	6	...	3	1	1	5	0.52	0.39	0.13
Blean ...	...	...	...	2	...	...	...	...	...	14	4	...	...	4	...	...	2	...	...	0.00	0.25	0.00
Bridge ...	3	...	...	10	2	...	...	...	1	35	3	...	...	4	...	3	10	2	...	0.27	0.89	0.18
Bromley ...	21	9	...	72	2	...	...	...	...	23	7	1	...	2	...	21	66	2	...	0.81	2.78	0.08
Cranbrook ...	6	2	...	6	1	1	...	...	1	11	4	...	...	...	...	3	...	...	...	0.47	0.47	0.08
Dartford ...	30	8	...	35	...	...	...	...	1	25	8	...	1	...	...	30	35	...	9	0.77	0.90	0.00
Dover ...	6	...	...	6	...	...	...	...	...	13	3	...	...	...	...	5	6	...	...	0.74	0.74	0.00
Eastry ...	11	1	...	6	...	1	...	1	...	36	10	...	...	7	...	11	6	...	1	0.83	0.45	0.00
Elham ...	1	2	...	6	1	...	1	...	...	17	2	...	...	12	...	1	3	1	6	0.13	0.77	0.13
*Faversham ...	37	4	...	27	...	3	...	...	1	35	16	...	6	...	...	60	29	1	8	2.58	1.89	0.00
Hollingbourn ...	4	1	...	14	4	1	...	...	3	23	...	...	...	...	...	2	5	...	...	0.31	1.06	0.31
Hoo ...	1	...	...	1	1	...	...	...	...	1	1	...	...	...	...	1	...	1	...	0.22	0.22	0.22
Maidstone ...	14	2	...	10	3	...	...	...	...	13	3	...	...	2	...	14	7	2	...	0.83	0.59	0.18
Malling ...	7	2	...	50	5	2	...	...	1	66	5	...	...	22	...	7	48	1	...	0.28	1.95	0.20
Milton ...	29	1	...	25	2	1	...	...	1	22	4	...	...	1	...	29	24	2	1	2.04	1.76	0.15
Romney Marsh	1	1	...	...	...	...	...	...	...	1	2	...	...	4	...	1	...	...	...	0.33	0.00	0.00
Sevenoaks ...	13	9	...	19	3	...	...	...	3	24	10	...	...	5	...	13	19	3	...	0.55	0.80	0.13
Sheppey ...	7	2	...	2	...	2	...	...	...	6	1	...	...	8	...	7	2	...	2	1.58	0.46	0.00
Strood ...	15	2	...	20	1	...	...	...	1	24	2	...	...	...	...	10	13	...	...	0.91	1.22	0.07
Tenterden ...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	0.00	0.00	0.00
Thanet ...	8	4	...	18	...	...	...	...	...	23	6	...	...	4	...	8	13	...	...	0.70	1.57	0.00
Tonbridge ...	6	6	...	15	1	3	...	...	5	25	6	2	...	5	...	6	12	1	3	0.34	0.85	0.00
Total in Rural Districts ...	228	58	...	371	27	17	1	1	19	486	102	3	7	91	...	239	322	17	49	0.71	1.16	0.09
Total in Urban Districts ...	595	186	...	1286	88	25	4	22	73	1182	387	7	12	422	...	493	1094	57	244	0.79	1.71	0.12
Total in County ...	823	244	...	1657	115	42	5	23	92	1668	489	10	19	513	...	732	1416	74	293	0.77	1.55	0.11

*The cases "admitted to hospital" in Faversham Rural do not correspond with the notifications, the difference being due to non-notified cases.

There can be but little doubt that the work of the County Bacteriological Laboratory at Maidstone, and the much-extended use of antitoxin (to which reference was made in my last annual report) are two great factors which have had a marked effect in the reduction of this disease.

ENTERIC FEVER.—There was an increase during 1923 in the recorded cases of enteric fever—the notifications totalling one hundred and fifteen as compared with eighty-seven in the previous year.

In three of the cases reported from *Rochester City*, the disease was thought to be contracted in an unusual manner. The patients were school-boys, who picked up and ate “monkey-nuts” which had fallen into the mud of the river near the sewer outfall, during the unloading of a cargo of such nuts for an oil and cake mill. This may not have been the actual cause of the disease, but it is a very interesting suggestion.

In *Whitstable Urban* four of the seven cases of “Paratyphoid B” were infected from a child aged two—the first case of this disease ever notified in the district. The only suspicious circumstance was that this child had swallowed some sand on the seashore, about a fortnight before being taken ill—sand being subsequently found in the stools. In the other two cases, a visitor was suffering from the disease when he arrived in the district, and infected the nurse attending him.

These facts show the numerous events which may be associated with the causation of enteric fever.

MALARIA.—Ten cases of malaria were notified, compared with twenty-seven in 1922, and fifty-two in 1921. Seven of these cases were reported from urban districts, and three from rural districts, the geographical distribution being shown in tables 3 and 4.

CEREBRO-SPINAL MENINGITIS.—The cases of this disease notified during the year under review totalled five—four cases occurring in three urban districts, and one in a rural district—as will be seen by reference to tables 3 and 4.

DYSENTERY.—Notified cases of this disease are only mentioned in one district—*Dartford Urban*, where three cases occurred. In each case the patient was an inmate of an institution.

CHICKEN-POX.—As was the case in the previous year, this disease was notifiable in certain districts from various dates and for varying periods. These periods, and the number of cases notified therein, were as follows:—*Beckenham Urban* (until February 16th, thirty cases), *Bexley Urban* (until

April 13th, eighty-one cases), Broadstairs Urban (for two months, from July 23rd to September 29th, five cases), Bromley Borough (until February 24th, eight cases), Chislehurst Urban (from January 22nd to June 22nd and from July 28th, 1923, to January 28th, 1924, twenty-four cases), Dartford Urban (all the year, ninety-three cases), Deal Borough (from December 23rd, five cases), Dover Borough (from July 28th, sixty-three cases), Erith Urban (until June 8th, three hundred and twenty-four cases), Faversham Borough (from July 21st, eight cases), Folkestone Borough (for last nine months of the year, eighty-two cases), Margate Borough (from July 30th, eighteen cases), Milton Regis Urban (from August, one case), Penge Urban (until February 17th, eleven cases), Queenborough Borough (from July 23rd, five cases), Sheerness Urban (from July 29th, twenty-seven cases), Sittingbourne Urban (from August, one case), and Tonbridge Urban (until April 15th, twenty cases), Bridge Rural (from January 11th, fifteen cases), Bromley Rural (until March 8th, and from August 3rd to November 3rd, seventeen cases), Dover Rural (from October 22nd, three cases), Eastry Rural (from September 16th, two cases), Faversham Rural (from September 15th, forty-seven cases), Milton Rural (from August, twenty-four cases), Tonbridge Rural (until April 15th, fifty-three cases), and Thanet Rural (from July 26th, sixteen cases).

One of the cases in *Sheerness Urban* was reported by the practitioner in attendance as being suspicious of small-pox, and was reported to the Ministry of Health. An Inspector from the Ministry arrived in Sheerness the same day, and watched the case until the next day, when the diagnosis of the medical officer of health (that the case was one of chicken-pox) was confirmed.

MEASLES.—This disease was notifiable in three areas in the county, viz., Dartford, Folkestone and Herne Bay (see page 59).

TUBERCULOUS DISEASES.

There were 1668 cases of phthisis and 489 cases of other tuberculous diseases notified throughout the county during the year, as shewn in Table 6.

The deaths from phthisis numbered 835, and of these, 586 were recorded in *urban* districts and 249 in *rural* districts—the mortality rates being 0·76 and 0·77 respectively per 1,000 of the population living.

As regards other tuberculous diseases, 125 deaths occurred in *urban* and 62 in *rural* districts, the mortality rates being 0·16 and 0·19 respectively.

The death-rate from phthisis was practically the same as in the previous year, which was the lowest rate ever recorded. The large decrease in the death-rate from other tuberculous diseases is particularly gratifying, as the present rate is less than half the rate recorded in the county during 1915.

The following table shews the cases of *pulmonary tuberculosis* notified, the number of deaths, and the death-rate in Kent compared with that of England and Wales, during recent years:—

Year.	Administrative County of Kent.						England and Wales.	
	No. of Cases Notified.	Total No. of Deaths.	Death-rate per 1,000.			Mortality per cent of total Deaths. (County).	Death-rate.	Mortality per cent. of total Deaths.
			Urban.	Rural.	Whole County.			
1913	1936	846	0·82	0·80	0·81	7·0	1·00	7·3
1914	1744	903	0·84	0·89	0·86	7·2	1·04	7·5
1915	1448	954	1·00	0·92	0·96	6·4	1·16	7·4
1916	1554	1034	1·02	0·92	0·99	7·8	1·17	8·2
1917	1408	1055	1·05	0·98	1·03	8·1	1·25	8·7
1918	1652	1184	1·20	1·08	1·16	8·0	1·34	7·6
1919	1455	995	0·97	1·00	0·98	8·0	0·99	7·3
1920	1489	836	0·83	0·73	0·80	7·2	0·88	7·2
1921	1438	876	0·82	0·80	0·81	7·2	0·88	7·3
1922	1518	812	0·80	0·64	0·75	6·8	0·89	7·0
10 years' average.	1564	950	0·94	0·88	0·92	7·4	1·06	7·6
1923	1668	835	0·76	0·77	0·76	7·4	0·83	7·2

The features of the above table are:—

- (a) That Kent compares rather favourably with England and Wales.
- (b) That the average rural death-rate is lower than the average urban rate.

The following figures shew the variations in the incidence of and mortality from *other tuberculous diseases* during the past eleven years:—

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	10 years' average.	1923.	England & Wales.
Cases Notified	931	525	446	383	399	379	422	323	358	395	456	489	18,494
Death-rate ...	0·31	0·28	0·37	0·29	0·31	0·31	0·25	0·24	0·22	0·20	0·28	0·17	0·22

TABLE 5 (continued).—SUPPLEMENTAL RETURN.

New cases of Tuberculosis coming to the knowledge of the Medical Officer of Health or Chief (Administrative) Tuberculosis Officer during the period from the 31st December, 1922, to the 29th December, 1923, otherwise than by notification on Form A or Form B under the Public Health (Tuberculosis) Regulations, 1912:—

Age Periods.	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards.	Total Cases.
Pulmonary Males ...	—	—	1	2	3	6	17	22	14	9	6	80
Do. Females	—	1	2	4	6	12	25	17	11	8	5	91
Non-pulmonary Males ...	8	11	7	2	4	2	2	1	2	1	—	40
Do. Females	3	7	2	6	1	3	1	1	1	4	1	30

TABLE 5.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from the 31st December, 1922, to the 29th December, 1923, in the County of Kent.

AGE PERIODS.	Notifications on Form A												Notifications on Form B			Number of Notifications on Form C.			
	Number of Primary Notifications.												Number of Primary Notifications.			Total Notifications on Form B.	Poor Law Institutions.	Sanatoria.	
	Total Notifications on Form A.												Total Notifications on Form B.						
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards.	Total Primary Notifications.	Under 5	5 to 10	10 to 15	Total Notifications on Form B.	Poor Law Institutions.	Sanatoria.	
Pulmonary Males...	2	7	55	39	83	114	192	155	89	37	13	786	830	—	6	4	10	30	335
Females ...	4	8	56	61	93	129	197	123	66	37	14	788	834	—	4	1	5	17	188
Non-pulmonary Males ...	2	50	68	47	23	16	22	16	7	3	3	257	268	1	4	3	8	1	34
Females ...	4	36	59	43	30	12	29	15	8	4	3	243	252	—	3	3	6	4	16

Form "A" is used by Medical Practitioners on first becoming aware that a patient is suffering from tuberculosis, unless he has reasonable grounds for believing that the case has already been notified.

Form "B" is used by School Medical Officers to make a weekly return to the Medical Officers of Health of all cases of tuberculosis coming under their notice in carrying out the duties of medical inspection of school children in Public Elementary Schools.

Form "C" is for the use of Medical Officers of Poor Law Institutions and Sanatoria to make a weekly return of cases admitted into their institutions, and applies only to cases which have been previously notified on Form "A."

The notifications of both pulmonary and other forms of tuberculosis were considerably higher in number than in 1922, but I do not think this necessarily implies an increase in the incidence of the diseases, as, speaking generally, the standard of notification has undoubtedly improved. Such notification, however, still remains incomplete, due partly to the physician and partly to the patient, and in a large number of cases deaths from tuberculosis occur where the case has not been notified at all, or where notification was delayed until within a short time before death. It is clear that the public schemes for dealing with tuberculosis must fail to produce the maximum amount of good unless the patient can be brought under observation at an early stage of the disease.

That there is still ample room for improvement in notification may be gathered from two characteristic references. In *Rochester City*, of the twenty-nine deaths from the disease, eleven were of patients who had not been notified ; and in *Dover Borough* "36 % of the tuberculosis deaths in 1923 were those of non-notified cases." The majority of the medical officers of health in the county check the notifications with the death returns, and communicate with defaulting medical practitioners.

Fortunately there is an increasing tendency for medical practitioners in many areas to seek the assistance of the special machinery provided under the county tuberculosis scheme, and the importance of getting cases of tuberculosis under observation at the earliest possible moment cannot be too frequently or too strongly emphasized.

Prompt action by the practitioner, differential diagnosis, the use of facilities for early diagnosis and early application for advice by the patient, must be supplemented by close co-ordination with the medical inspection of school children and the examination of "contacts" in affected families, and these points are receiving very careful attention in this county.

The medical officer of health of *Strood Rural* mentions the fact that most of the cases of the pulmonic type reported in his area, occurred in districts where the manufacture of cement is the principal industry ; whilst the medical officer of health of *Faversham Rural* states:—"The amount of tuberculosis is shocking, and is certainly in part due to the lack of housing accommodation. If tuberculosis were as visible to the naked eye as leprosy, there would be no difficulty in getting proper isolation carried out, but the reckless indifference of some people to the infection of tuberculosis is astounding."

TABLE 6.—Number of cases of Tuberculosis notified in each district in Kent under the Public Health (Tuberculosis) Regulations, 1912, during 1923; together with the number of deaths occurring from Tuberculosis and the average figures for five years (1919-1923).

URBAN DISTRICTS.	Estimated Total Population, 1923.	Notifications, 1923.			Deaths.						RURAL DISTRICTS.	Estimated Total Population, 1923.	Notifications, 1923.			Deaths.					
		Pulm.	Other.	Total.	Pulmonary.			Other.					Pulm.	Other.	Total.	Pulmonary.			Other.		
					Average of five years, 1919-23.	1923.	Rate per 1,000, 1923.	Average of five years, 1919-23.	1923.	Rate per 1,000, 1923.						Average of five years, 1919-23.	1923.	Rate per 1,000, 1923.	Average of five years, 1919-23.	1923.	Rate per 1,000, 1923.
Ashford ...	14,170	30	3	33	13	14	0.99	2	1	0.07	Ashford, East ...	15,140	31	4	35	15	14	0.92	2	2	0.13
Beckenham ...	33,170	29	16	45	21	19	0.57	4	—	—	Ashford, West ...	7,741	14	1	15	6	5	0.65	1	1	0.13
Bexley ...	22,290	30	5	35	16	16	0.72	5	6	0.27	Blean ...	8,278	14	4	18	7	8	0.97	2	3	0.36
Broadstairs and St. Peter's ...	11,090	18	6	24	9	7	0.63	2	2	0.18	Bridge ...	11,280	35	3	38	8	14	1.24	1	1	0.09
Bromley (Borough)	34,970	40	18	58	21	23	0.66	6	6	0.17	Bromley ...	25,940	23	7	30	21	18	0.69	6	7	0.27
Chatham (Borough)	43,550	72	21	93	53	42	0.96	11	8	0.18	Crabbrook ...	12,940	11	4	15	8	6	0.46	2	5	0.39
Cheriton ...	7,004	17	—	17	2	1	0.14	2	1	0.14	Dartford ...	39,070	25	8	33	30	22	0.56	6	2	0.05
Chislehurst...	8,957	10	1	11	3	—	—	1	1	0.11	Dover ...	8,469	13	3	16	6	4	0.47	1	—	—
*Crayford	12,570	10	4	14	6	10	0.80	2	3	0.24	Eastry ...	13,390	36	10	46	11	11	0.82	2	4	0.29
Dartford ...	26,570	34	8	42	19	21	0.79	5	4	0.15	Elham ...	7,879	17	2	19	6	6	0.76	2	1	0.13
Deal (Borough)	12,250	21	8	29	9	12	0.98	2	1	0.08	Faversham ...	14,350	35	16	51	11	15	1.05	2	2	0.14
Dover (Borough)	40,740	97	20	117	32	27	0.66	10	6	0.15	Hollingbourn ...	13,250	23	—	23	10	9	0.68	3	3	0.23
Erith ...	32,700	44	10	54	28	24	0.73	6	4	0.12	Hoo ...	5,060	1	1	2	2	2	0.40	2	2	0.40
Faversham (Borough)	10,840	13	12	25	9	5	0.46	3	4	0.37	Maidstone...	17,010	13	3	16	12	10	0.59	5	1	0.06
Folkestone (Borough)	33,970	83	30	113	27	31	0.91	10	4	0.12	Malling ...	25,760	66	5	71	19	27	1.05	6	8	0.21
Gillingham (Borough)	55,200	82	33	115	50	46	0.83	12	14	0.25	Milton ...	14,250	22	4	26	12	16	1.12	2	3	0.21
Gravesend (Borough)	31,950	30	15	45	34	29	0.91	8	6	0.19	Romney Marsh ...	3,087	1	2	3	2	2	0.65	1	1	0.32
Herne Bay ...	10,100	18	6	24	6	5	0.50	2	—	—	Sevenoaks...	23,780	24	10	34	16	19	0.80	5	5	0.21
Hythe (Borough)	7,478	19	3	22	3	1	0.13	1	2	0.27	Sheppey ...	4,607	6	1	7	2	1	0.22	—	2	0.43
Lydd (Borough)	2,235	4	—	4	2	2	0.89	1	—	—	Strood ...	16,520	24	2	26	14	10	0.61	4	6	0.36
Maidstone (Borough)	38,840	56	13	69	33	30	0.77	9	9	0.23	Tenterden...	5,829	4	—	4	4	4	0.69	—	—	—
Margate (Borough)	28,080	71	42	113	27	30	1.07	9	8	0.28	Thanet ...	12,220	23	6	29	11	11	0.90	3	2	0.16
Milton Regis ...	7,657	17	5	22	6	4	0.52	1	1	0.13	Tonbridge...	17,750	25	6	31	15	15	0.85	3	1	0.06
New Romney (Borough)	1,484	5	—	5	1	2	1.35	—	—	—	Total in Rural Districts...	323,600	486	102	588	248	249	0.77	61	62	0.19
Northfleet ...	16,490	18	—	18	14	13	0.79	4	1	0.06	„ Urban „ ...	768,200	1,182	387	1,607	621	586	0.76	169	125	0.16
Penge ...	26,750	32	10	42	20	17	0.64	7	3	0.11	Total for County ...	1,091,800	1,668	489	2,195	869	835	0.76	230	187	0.17
Queenborough (Borough)...	3,192	2	—	2	3	4	1.25	—	—	—											
Ramsgate (Borough)	30,250	80	27	107	28	28	0.93	9	5	0.17											
Rochester (City)	32,010	50	27	77	27	29	0.91	7	4	0.12											
Sandgate ...	2,532	3	—	3	1	—	—	—	—	—											
Sandwich (Borough)	3,122	5	4	9	2	2	0.64	—	—	—											
Sevenoaks ...	8,967	5	2	7	6	8	0.89	2	2	0.22											
Sheerness ...	18,900	17	5	22	15	13	0.69	3	2	0.11											
Sidcup ...	8,833	2	3	5	5	3	0.34	2	1	0.11											
Sittingbourne ...	9,630	17	8	25	6	5	0.53	4	4	0.43											
Southborough ...	7,023	7	—	7	6	7	1.00	—	—	—											
Tenterden (Borough)	3,266	2	—	2	2	3	0.92	1	—	—											
Tonbridge ...	16,040	26	8	72	14	11	0.69	3	3	0.19											
Tunbridge Wells (Borough)	34,370	35	7	42	26	30	0.87	9	4	0.12											
Walmer ...	5,254	4	—	4	1	1	0.19	1	1	0.19											
Whitstable ...	9,415	25	7	32	8	7	0.74	3	4	0.42											
Wrotham ...	4,261	2	—	2	4	4	0.94	1	—	—											

*Crayford previously part of Dartford Rural District, has been an Urban District since October, 1920.

Specimens of sputum are examined at the County Bacteriological Laboratory in all cases where possible. The following table shows results of bacteriological work during the past ten years :—

Year.....	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
No. of Specimens of Sputum examined.....	1539	1831	2100	1948	1831	2075	2714	2571	2958	3315
Percentage positive, <i>i.e.</i> , Tubercle Bacilli present	33	29	26	25	25	23	23	25	27	26

TREATMENT OF TUBERCULOSIS.

DOMICILIARY TREATMENT of persons insured under the National Health Insurance Acts is provided as part of Medical Benefit under those Acts. Home treatment of other persons (adults and children) is available, of course, through private practitioners, the parish doctors and voluntary institutions.

The services of the tuberculosis officers are available for the purpose of consultation in all cases receiving domiciliary treatment, and, at the request of the medical attendant, a certain number of patients are kept under the supervision of the tuberculosis officers.

A report on the prescribed form (G.P. 36) is required to be submitted by the medical attendant to the tuberculosis officer not less than once every three months in respect of each patient receiving domiciliary treatment as a part of medical benefit under the National Health Insurance Acts. Whilst in some districts these quarterly reports are regularly received, and are of considerable assistance to the tuberculosis officer, in other districts the reverse applies.

TUBERCULOSIS DISPENSARY SERVICE.—There are twenty-two dispensaries in the county. Particulars as to the tuberculosis officer in charge, the address of the dispensary and the hours of attendance are given below. Information is also given as to the additional area allocated to each tuberculosis officer for visitation purposes :—

District No. 1.—Population, approx., 210,400.

(Tuberculosis Officer in Charge, WM. BEARE MARTIN, M.R.C.S. (Eng.),
L.R.C.P. (Lond.), D.P.H.).

Address.	Day and Time of Opening.	Additional Area for Domiciliary Visitation.
*DARTFORD ... 41, Overy Street (Tel. No. 378)	Monday, 1.30-3.30 p.m. Thursday, 5.30-6.30 p.m.	Dartford R., Bromley R. (except W. Wickham), Chislehurst, Crayford Sidcup and Bexley.
Bromley 2, Park Road	Wednesday, 1.30-3.30 p.m.	
Erith 19, Pier Road	Monday, 5.0-6.0 p.m. Thursday, 2.0-4.0 p.m.	

District No. 2.—Population, approx., 209,200.

(Tuberculosis Officer in Charge, CHARLES ROPER, B.A. (Camb.), B.C., M.D., M.B., D.P.H.)

*ROCHESTER ... 13, New Road ... (Tel. No. Chatham, 82)	Friday, 9.30-10.30 a.m. Tuesday, 2.0-3.0 p.m. and 5.0-6.0 p.m.	Northfleet, Strood R., Hoo R., Chatham, N.E. fringe of Malling R. N.W. fringe of Holling- bourn R., and E. quarter of Milton R.
Gillingham ... 228, Nelson Road ...	Tuesday, 9.30-10.30 a.m. Friday, 2.0-3.0 p.m. and 5.0-6.0 p.m.	
Gravesend ... 22, Cobham Street ...	Wednesday, 1.0 p.m.-3.0 p.m.	

District No. 3.—Population, approx., 123,400.

(Tuberculosis Officer in Charge, HENRY LEATHAM GRABHAM, M.B., B.S. (Lond.), M.R.C.S., L.R.C.P. (Lond.), D.P.H.)

*TONBRIDGE .. 53, Pembury Road ... (Tel. No. 228)	Monday, 1.30-3.30 p.m. Thursday, 5.15-6.0 p.m.	Sevenoaks R., Tonbridge R., Southborough U., Cranbrook R., and S. fringe of Malling R.
Sevenoaks..... 4, Cramptons Road ...	Tuesday, 1.30-3.30 p.m.	
Tunbridge Wells..... 34, Calverley Street	Monday, 5.0-5.45 p.m. Thursday, 1.30-3.0 p.m.	

District No. 4.—Population, approx., 146,400.

(Tuberculosis Officer in Charge, HERBERT BOWLY GIBBINS, M.D. (Lond.), M.R.C.S., L.R.C.P. (Lond.), D.P.H.)

*MAIDSTONE .. 4, Station Road ... (Tel. No. 248)	Tuesday, 12.30-3.0 p.m. Friday, 12.30-3.0 p.m.	Wrotham, Malling R. (except N.E. and S. fringes), Maidstone R., Milton R. (except E. quarter), Hollingbourn R. (except N.W. fringe), Milton Regis, Queen- borough, Sheppey.
Sheerness Granville Villa, Gran- ville Road	Thursday, 11.0 a.m.-1.0 p.m.	
Sittingbourne. 36, Albany Road.....	Monday, 12.0-2.0 p.m.	

District No. 5.—Population, approx., 152,300.

(Tuberculosis Officer in Charge, THOMAS MASSEY PEARCE, M.D. (Lond.), M.R.C.S., L.R.C.P. (Lond.), D.P.H., R.C.P.S.)

*FOLKESTONE.80, Dover Road (Tel. No. 40)	Monday, 10.0 a.m.-12.0 noon and 2.30-6.0 p.m.	Bridge R., Eastry R., Elham R., Dover R., Sandwich, Walmer, Cheriton, Sandgate and Hythe, less area im- mediately south of, and adjacent to, the railway line between Ramsgate and Canter- bury.
Canterbury ... 11, Longport Street	Friday, 10.0 a.m.-12.0 noon and 1.15 p.m.-2.30 p.m.	
Deal 16, Clanwilliam Road	Tuesday, 10.0 a.m.-12.0 noon	
Dover 9, Eastbrook Place ..	Thursday, 10.0 a.m.-12.0 noon and 1.30-3.30 p.m.	

District No. 6.—Population, approx., 135,600.

(Tuberculosis Officer in Charge, CAROL C. ALEX. DE VILLIERS, M.B., B.S. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), B.A., B.Sc.)

*RAMSGATE ... Charlotte Cottage, Market Place	Wednesday, 1.30 p.m.	Faversham R., Blean R., Whitstable, Thanet R., and Broadstairs U., and area immediately south of, and adjacent to, the railway line be- tween Ramsgate and Canterbury.
Faversham ... 2, Albion Terrace ...	Tuesday, 1.0 p.m.	
Herne Bay ... 16, High Street ...	1st and 3rd Thursday each month at 12.0 noon	
Margate Eton House, St. Peter's Road	Friday, 2.0 p.m.	

District No. 7.—Population, approx., 61,500.

(Tuberculosis Officer in Charge, JOHN MATHEWSON CLEMENTS, M.D. (R.U.I.),
M.B., B.Ch., B.A.O., D.P.H. (Lond.).

Beckenham	Fire Station, Bromley	Tuesday, 2.0-5.0 p.m.	Penge, W. Wickham, Aner-
(Tel. No.	Road	Wednesday, 9.30 a.m.-1.30	ley and parts of Sydenham
Bromley, 810)		p.m.	and Upper Norwood.

District No. 8.—Population, approx., 53,000.

(Tuberculosis Officer in Charge, JAMES CLARKE McMILLAN, M.B., B.Ch.,
B.A.O., B.Sc. (Belf.)).

Ashford.....	1, Barrow Hill Place	Thursday, 10.0 a.m.-12.0 noon	Ashford E., Ashford W.,
(Tel. No. 14			Romney Marsh, Ten-
Lenham)			terden B. and R., New
			Romney U. and Lydd B.

* Tuberculosis Officer's Head Office.

The tuberculosis officers referred to above, with the exception of Dr. Clements and Dr. McMillan, are whole-time officers. Dr. Clements is the medical officer of health for Beckenham and devotes part-time to the duties of tuberculosis officer for that area and for Penge, etc. Dr. McMillan is the assistant medical officer at the County Sanatorium at Lenham and devotes approximately one day per week as tuberculosis officer for the Ashford area.

Dr. Gaffikin, the tuberculosis officer for District No. 2, terminated his engagement as from September 30th, 1923, and was succeeded by Dr. C. Roper, who commenced duty on October 15th.

Each whole-time tuberculosis officer has the services of a whole-time clerk.

The health visitor for the area devotes part-time to attendance at the dispensary and the visitation of patients at their homes.

TREATMENT AT DISPENSARIES.—Treatment at the dispensaries, as distinct from diagnosis, consultation and general supervision, is generally limited to patients whose continued treatment requires special knowledge and technical skill and to those unable otherwise to obtain adequate medical attendance. Patients who require treatment which can, consistently with their best interests, be properly undertaken by a general practitioner of ordinary professional competence and skill, and who are either insured persons or who

can afford to pay for medical attendance, are not accepted for routine treatment at the dispensaries.

COUNTY SCHEME.

The administration of the county tuberculosis scheme was satisfactorily carried on during the year under review.

There were 1,715 new cases registered for treatment during the year. 739 of these (547 male and 192 female) were insured under the National Health Insurance Acts. Of the remainder, 112 were men, 315 women and 549 were children. These figures show an increase of 244 (156 insured and 88 uninsured) cases registered under the county scheme compared with the previous year, which indicates a greater appreciation of the facilities available.

A summary of the last 1,000 cases of phthisis registered, shews that 473 were classified as coming within the early or first stage of the disease, 409 within the intermediate or second stage of the disease, and 118 advanced or third stage of the disease, at the time of applying for public medical treatment. Comparative figures for the previous year were 556, 368 and 76 respectively. It is unfortunate that such a large number of patients do not apply for treatment under the county scheme until a late stage of the disease is reached and consequently are not able to take full advantage of the facilities available.

Only 10% of the cases registered during the year applied for treatment within three months of the onset of their illness, 22% within six months and 48% within twelve months. In as many as 35% of the cases the period between the first symptoms of tuberculosis and the date of application for treatment under the county scheme was between one year and five years, whilst this period appeared to be exceeded in 17% of the cases.

It is hoped that the increased facilities available, and the closer co-operation between the various public health services and with private practitioners, will gradually lead to practically all cases of tuberculosis being registered under the tuberculosis scheme, within a short period of the onset of the disease, it being a primary object that every case of tuberculosis in the community should receive the full benefits of the facilities provided.

The following tabular statements show various details relating to occupation, age and sex classification of patients, diagnosis, work of dispensaries, institutional treatment, &c.

The statistical information, as last year, has been drawn up on the model tables suggested by the Ministry of Health in Draft Memo. 37/T.

Table 7.—Shewing Occupations of Patients who were notified for the first time under the Public Health (Tuberculosis) Regulations, during 1923.

Occupations.	Insured.		Uninsured.		Totals.	
	Pul.	Non-Pul.	Pul.	Non-Pul.	Pul.	Non-Pul.
MALES.						
Agents, including Travellers, Collectors, &c.	8	—	3	2	11	2
Attendants of all kinds	7	—	—	—	7	—
Building Trades, including Painters, Decorators, Carpenters, Joiners, Plumbers, &c. ...	37	5	2	1	39	6
Carmen, including Chauffeurs, Motor Men, Carriage Drivers, Engine Drivers, &c.	21	2	1	—	22	2
Clerks, including Secretaries, Valuers, Reporters, &c.	22	4	12	2	34	6
Domestic Servants, including Butlers, Coachmen, Gardeners, Stewards, Caretakers, Footmen, &c.	24	2	7	—	31	2
Engineers, including Instrument Makers, Toolmakers, &c.	31	2	2	—	33	2
Factory and Mill Workers, including Papermakers, Leathermakers, &c.	24	—	—	—	24	—
Labourers of all kinds, both skilled and unskilled	152	13	10	3	162	16
Mechanics, including Boilermakers, Engine-makers, Brass Finishers, &c.	17	—	1	—	18	—
Miners	8	—	—	—	8	—
Musicians, including Pianoforte Tuners, &c.	—	—	1	—	1	—
Postmen, Policemen, Firemen, &c.	1	—	4	1	5	1
Printers, including Compositors, &c.	7	1	—	—	7	1
Railway Workers, including Carriage Cleaners, Repairers, Platelayers, &c.	12	2	3	—	15	2
School Children and Children under school age	—	—	115	172	115	172
Shipwrights, including Ship Fitters, Ship Riggers, Cableworkers, &c.	1	1	—	—	1	1
Shopkeepers and Shop Assistants	30	6	7	—	37	6
*Soldiers and Sailors, including Ex-soldiers and Ex-sailors	91	12	11	1	102	13
Stokers	3	—	—	—	3	—
Tailors and Allied Tradesmen	6	—	1	—	7	—
Teachers	2	—	1	—	3	—
Tradesmen, including Butchers, Bakers, Dairy-men, Grocers, &c.	19	6	10	2	29	8
Watermen, including Bargemen, Lightermen, Seamen &c.	8	1	2	—	10	1
Unknown, various or of no occupation	36	12	43	14	79	26
Total Males	567	69	236	198	803	267
FEMALES.						
Clerks	22	2	2	2	24	4
Domestics, including Housewives, Cooks, Nurses, &c.	115	15	377	49	492	64
Factory Workers	16	3	—	—	16	3
Laundresses	8	—	—	—	8	—
Printing Trades	1	1	—	—	1	1
School Children and Children under school age	—	—	123	143	123	143
School Teachers	2	1	1	1	3	2
Shop Assistants	30	5	3	1	33	6
Tailoresses, including Dressmakers	17	—	2	1	19	1
Unknown, various, or of no occupation	8	4	59	19	67	23
Total Females	219	31	567	216	786	247

* In whose cases tuberculosis was considered to be attributable to War Service.

TABLE 8.—Showing the Age Classification of Patients who were notified for the first time under the Public Health (Tuberculosis) Regulations during 1923.

Age.	Insured		Uninsured.		Total.	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
Under 5	—	—	17	79	17	79
5-15	—	—	232	240	232	240
15-25	314	47	109	31	423	78
25-35	218	28	174	28	392	56
35-45	151	16	123	15	274	31
45-55	71	5	79	9	150	14
55-65	28	2	47	8	75	10
65 and over	4	2	22	4	26	6
Totals ...	786	100	803	414	1589	514

TABLE 9.—Annual Return shewing the work of the Dispensaries during the year 1923. (A) In relation to Diagnosis:—

Number of			Under Observation pending diagnosis on Jan. 1st.	Applying for the first time during the year.	Total.	Found to be		Under observation pending diagnosis on Dec. 31st.	Ceased attendance before completion of diagnosis	
						Suffering from Tuberculosis.	Not suffering from Tuberculosis.			
						Pulmonary	Non-Pulmonary			
(a) All persons (including "Contacts")	Adults.	M.	42	1087	1129	570	59	480	57	13
		F.	79	1077	1156	487	58	499	101	11
	Children.	M.	130	1006	1145	119	165	696	148	17
		F.	134	907	1041	145	119	604	163	10
	Total ..			394	4077	4471	1321	401	2229	469	51
(b) "Contacts" (included in (a))	Adults.	M.	6	163	169	69	5	83	11	1
		F.	28	379	407	130	11	225	38	3
	Children.	M.	56	429	485	40	69	326	45	5
		F.	52	402	454	42	47	304	58	3
	Total ..			142	1373	1515	281	132	938	152	12
(c) Insured persons (included in (a))										
			M.	33	871	904	452	43	355	43	11
		F.	18	344	362	179	22	124	33	4

* Under 15 years of age.

(TABLE 9 continued.)

B.—Dispensary Treatment and General Supervision (including "Domiciliary" Cases.)

Number of Patients.	Pulmonary.				Non-Pulmonary.				Totals.	
	Adults.		Children.		Adults.		Children.		M.	F.
	M.	F.	M.	F.	M.	F.	M.	F.		
Under treatment or supervision on January 1st ...	1541	1017	268	263	100	104	277	262	2186	1646
Coming for the first time under Public Medical Treatment	549	468	121	146	45	54	162	113	877	781
Resuming Public Medical Treatment	55	26	5	1	5	6	9	8	74	41
Transferred from Residential Treatment or from other Areas ...	233	114	19	21	17	13	26	14	295	162
Total ...	2378	1625	413	431	167	177	474	397	3432	2630
Discharged as no longer requiring either treatment or supervision ...	118	106	43	40	13	14	43	47	218	207
Transferred to Residential Treatment or to other Areas	273	160	10	18	26	28	32	22	341	228
Leaving Public Medical Treatment ...	59	51	8	6	5	9	14	7	86	73
Lost sight of ...	20	16	4	3	2	2	—	4	26	25
Died ..	265	180	7	8	8	2	8	2	288	192
Remaining under treatment or supervision on December 31st	1643	1113	340	355	114	124	376	313	2473	1905
Totals ...	2378	1626	413	430	168	179	473	395	3432	2630

ANNUAL RETURN SHOWING THE WORK OF KENT COUNTY COUNCIL
TUBERCULOSIS DISPENSARIES.

Number of persons placed during the year under observation for the purpose of diagnosis.....	1,157
Number of cases in which the period of observation exceeded two months	442

Number of consultations with medical practitioners (a) at the homes of the patients and (b) at the dispensaries (<i>Insured</i>)	(a)	189
	(b)	193
Number of consultations with medical practitioners (a) at the homes of patients and (b) at the dispensaries (<i>Uninsured</i>)	(a)	156
	(b)	356
Number of other visits paid by tuberculosis officers to the homes of patients		724
Number of visits paid by nurses to the homes of patients for dispensary purposes		8,437
Number of attendances of patients at the dispensaries	{ (<i>Insured</i>)	9,997
	{ (<i>Uninsured</i>)	20,216
Number of patients under domiciliary treatment during the year		1,723
Number of reports received in respect of patients under domiciliary treatment		2,215
Number of specimens of sputum examined in connection with the work of the dispensaries		2,054
Number of opinions requested by (and given to) general practitioners by letter		2,619

TABLE 10.—RESIDENTIAL INSTITUTIONS. (A) Approximate allocation of beds:—

	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total.
	Sanatorium Cases.	Advanced Cases.	Diseases of Bones & Joints	Other conditions.	
Adult Males ...	*100	58	15	7	180
„ Females ..	45	45	15	7	112
Children under 15	15	3	42	8	68
Totals ..	160	106	72	22	360

* Includes twenty patients receiving treatment and training.

(B) Annual Return shewing the extent of residential treatment during 1923:—

		In Institutions on Jan. 1st.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31st
Number of Patients	Adults M.	153	371	325	34	165
	„ F.	109	228	214	15	108
	Children M.	49	53	69	1	32
	„ F.	37	45	43	1	38

TABLE 11 — Annual Return shewing the immediate results of treatment of patients discharged from Residential Institutions during the year 1923.

		Duration of Residential Treatment.												Total.	
		Condition at time of discharge.	Under 3 months.			3-6 months.			6-12 months.			More than 12 months.			
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.		Ch.
Pulmonary Tuberculosis.	Class A. ^o	Quiescent	8	1	...	3	4	1	7	2	1	6	...	1	34
		Much improved.....	33	14	5	28	26	14	26	21	23	9	...	3	202
		No material improvement	12	7	1	7	6	2	1	2	2	40
		Died in Institution	4	1	5
	Class B. ^o Group 1.	Quiescent	1	1	...	2	4
		Much improved.....	7	3	...	15	6	...	13	6	...	3	53
		No material improvement	4	6	...	1	2	...	2	2	...	1	18
		Died in Institution	2	2
	Class B. ^o Group 2.	Quiescent	1	2	3
		Much improved.....	16	7	...	26	12	...	21	23	...	2	2	1	110
		No material improvement	18	6	...	9	3	1	3	6	2	...	48
		Died in Institution	6	3	...	4	2	15
Class B. ^o Group 3.	Quiescent .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	Much improved.....	2	...	...	7	...	...	7	4	...	...	...	...	20
	No material improvement	10	1	...	14	5	1	5	6	1	2	3	...	48	
	Died in Institution	9	2	...	5	3	...	1	4	...	1	1	...	26	
Non-Pulmonary Tuberculosis.	Bones and Joints.	Quiescent .....	...	...	1	...	...	...	...	1	...	1	1	4
		Much improved.....	9	3	7	3	5	4	4	4	8	4	2	5	58
		No material improvement	1	1	1	...	3	1	7
		Died in Institution	1	1	2
	Abdominal.	Quiescent .....	...	...	...	...	...	...	...	2	...	...	1	3
		Much improved.....	...	...	2	...	3	...	...	2	...	...	1	8
		No material improvement	...	1	...	...	...	...	1	...	...	...	...	2
		Died in Institution .....	...	...	...	1	...	...	...	...	...	...	...	1
	Other Organs.	Quiescent .....	...	...	...	...	...	...	...	...	...	...	...	...
		Much improved.....	1	...	1	1	1	1	1	1	1	1	...	9	
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution .....	...	...	...	...	...	...	...	...	...	...	...	...
	Peripheral Glands.	Quiescent ..	...	...	...	...	...	1	...	...	...	...	1	2
		Much improved.....	...	2	1	1	1	2	1	...	1	...	1	10	
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution .....	...	...	...	...	...	...	...	...	...	...	...	...
Totals		142	58	19	126	75	30	96	84	46	31	11	16	734	

^o Class A.—Cases in which tubercle bacilli have never been demonstrated.

^o Class B.—Cases in which tubercle bacilli have been found. (Group 1.) Cases with slight constitutional disturbance, if any; (Group 3) Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function, and with little or no prospect of permanent improvement; (Group 2) Other cases.

The above table includes 32 cases discharged from Vocational Training Centres.

TABLE 12.—Annual Return shewing condition of patients whose records are in possession of the dispensaries. (A) Pulmonary.

Condition at the time of the last record made during the year to which the return relates.	Cases registered previous to 1922.										1922 Cases.				1923 Cases.			
	Class A*				Class B.				Class A*				Class B.					
	Group 1*	Group 2*	Group 3*	Totals (Class B)	Group 1*	Group 2*	Group 3*	Totals (Class B)	Group 1*	Group 2*	Group 3*	Totals (Class B)	Group 1*	Group 2*	Group 3*	Totals (Class B)		
Disease arrested {	Adults Male	116	42	1	159	22	1	1	1	1	1	2	5	1	—	1		
	Adults Female	65	26	1	92	27	—	—	—	—	—	—	7	—	—	—		
Children {	Male	350	6	—	6	17	—	—	—	—	—	—	—	—	—	—		
	Female	259	—	2	3	17	—	—	—	—	—	—	2	—	—	—		
Included above, but lost sight of {	Adults Male	205	8	—	26	1	—	—	—	—	—	—	—	1	—	1		
	Adults Female	239	6	1	16	3	—	—	—	—	—	—	—	—	—	—		
Children {	Male	114	3	—	3	1	—	—	—	—	—	—	—	—	—	—		
	Female	61	—	1	1	1	—	—	—	—	—	—	—	—	—	—		
Disease not arrested {	Adults Male	1002	126	244	95	465	191	47	91	22	160	239	72	132	56	260		
	Adults Female	825	40	112	59	211	211	23	53	19	95	257	37	76	34	147		
Children {	Male	221	2	3	—	5	116	—	1	—	1	119	—	—	—	1		
	Female	159	2	2	—	4	103	1	1	1	3	136	1	3	—	4		
Included above, but lost sight of {	Adults Male	346	45	51	21	117	11	1	2	—	3	5	1	—	2	3		
	Adults Female	410	21	42	31	94	13	—	2	—	2	1	—	—	—	1		
Children {	Male	96	—	—	1	1	5	—	—	—	—	—	—	—	—	—		
	Female	55	1	1	1	3	3	—	—	—	—	—	—	—	—	—		
Dead ... {	Adults Male	1070	53	282	801	1136	26	6	29	68	103	19	3	16	36	55		
	Adults Female	664	33	114	414	561	27	5	28	43	76	15	4	11	17	32		
Children {	Male	45	2	1	7	10	5	—	—	—	—	—	—	—	—	—		
	Female	54	1	2	12	15	2	—	—	—	—	—	1	—	—	2		
Totals ...	...	6371	446	830	1391	2667	764	83	204	154	441	800	118	239	145	502	

Patients who have left the county are not included in the above return * See footnote to Table 11.

TABLE 12 (continued).

(B) Non-Pulmonary.

Condition at the time of the last record made during the year to which the return relates.	Cases registered previous to 1922.					1922 Cases.					1923 Cases.					
	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	
Disease arrested { Adults Male Female Children Male Female	67 58 61 74	7 26 40 26	23 21 30 10	42 79 487 439	139 184 618 549	6 4 6 4	1 — — 1	— — — 1	— — — —	2 5 7 4	9 9 13 10	2 — 1 —	— — — —	— — 2 2	2 1 3 2	
Included above, but lost sight of { Adults Male Female Children Male Female	12 9 11 13	— 15 7 9	4 5 6 3	3 17 212 174	19 46 236 199	1 — 2 1	— — — —	— — — —	— — — —	— — — —	1 — 2 1	— — — —	— — — —	— — — —	— — — —	
Disease not arrested { Adults Male Female Children Male Female	70 71 60 48	4 16 30 24	15 23 16 20	16 26 184 188	105 136 290 280	28 17 28 26	— 4 16 12	— — — —	— — — —	5 1 3 2	38 31 89 84	2 8 31 24	2 7 3 8	9 14 78 53	44 52 142 110	
Included above, but lost sight of { Adults Male Female Children Male Female	14 19 15 18	— 7 16 9	3 7 8 7	8 9 92 72	25 42 131 106	1 1 — —	— 1 — 1	— — — —	— — — —	— 1 1 2	1 3 1 3	— — — —	— — — —	— — — —	— — — —	— 2 — —
Dead { Adults Male Female Children Male Female	39 10 10 13	5 7 21 14	15 8 20 13	6 5 9 8	65 30 66 48	1 2 1 —	1 1 — —	— — — —	— — — —	— — — —	2 4 1 —	— — — —	— — — —	— — — —	— — 5 2	
Totals	581	220	214	1489	2504	123	36	12	119	290	107	73	27	158	365	

Patients who have left the county are not included in the above return.

OBSERVATION CASES AND CONTACTS.—As will be seen from the tabular statement on page 32 there was a large number of patients still under observation at the end of 1923, and in over 38% of those placed under observation during the year, the period of observation exceeded two months.

Every effort is made to secure the examination of contacts. Usually the county nurses are able to persuade them to attend at the dispensary for

this purpose, but in a number of cases, visits are paid to the homes by the tuberculosis officers.

TREATMENT IN INSTITUTIONS.—The table facing this page gives a list of residential institutions and shews the numbers of patients admitted to, and discharged from, those institutions during the year. The number of beds normally available for Kent patients is shewn in brackets against the names of the various institutions. In cases where no such figure is given, accommodation is only obtained as required. Every effort is made to ensure that the accommodation in the county sanatorium at Lenham (*vide* p. 52) shall be reserved chiefly for patients suffering from the disease (phthisis) in its early stages.

It will be seen that 1,123 patients received residential treatment during the year, including thirty-five ex-service men who were admitted to special institutions for treatment combined with training, forty-nine ex-service men undergoing a course of concurrent treatment and training of a vocational character, ninety children admitted to special institutions for children, two hundred cases admitted to various hospitals, 616 to sanatoria and 133 to surgical institutions.

The average duration of treatment of patients suffering from pulmonary tuberculosis was 142 days for males and 176 days for females. In cases of non-pulmonary tuberculosis, the figures were 204 days for males and 244 days for females. These figures include those patients who left institutions before completion of treatment, and against medical advice, on account of domestic or financial troubles, and also those discharged, after a short stay, for disciplinary reasons, or as being unsuitable for treatment. There was an increase in the average duration of treatment, compared with previous years. Only in those cases which show definite evidence of response to treatment is treatment extended beyond the usual "educational period," apart from those cases where treatment must be continued from a "public health" point of view.

There has been particular pressure during the year on the accommodation for cases of pulmonary tuberculosis in an advanced stage. Although a large number of the beds allowed to be occupied under the county scheme has been reserved for this class of patient, there is still a considerable waiting list.

Of the general hospitals in Kent, only the following have applied to, and been approved by, the Ministry of Health for the treatment of cases of non-pulmonary tuberculosis:—Gravesend, Canterbury, Dover, Folkestone, Maidstone, and Tunbridge Wells. Particulars of any tuberculous patients from the county area who present themselves direct at these hospitals, are submitted to the nearest tuberculosis officer so that the patient may be dealt with under the county scheme.

TABLE 13.—Shewing numbers of patients who were treated at various Institutions during 1923.

INSTITUTION.	Receiving Treatment Jan. 1st, 1923				Admitted during 1923				Discharged during 1923.				Died in Institution 1923				Receiving treatment Dec. 31st, 1923				Patients who received Institutional Treatment during 1923.			
	Male	Female	Boys	Girls	Male	Female	Boys	Girls	Male	Female	Boys	Girls	Male	Female	Boys	Girls	Male	Female	Boys	Girls	Male	Female	Boys	Girls
Sanatoria.																								
County Sanatorium, Lenham (125)	56	43	11	7	151	97	16	7	136	96	27	9	1	1	...	...	70	43	...	5	207	140	27	14
Croydon Boro' Sanatorium, Cheam (5)	5	...	...	...	14	...	...	...	12	...	...	...	2	...	...	...	5	...	...	...	19	...	...	...
Crooksbury Sanatorium, Farnham	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Fairlight Sanatorium, Hastings	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Frimley Sanatorium, Surrey	2	3	...	...	6	5	...	...	7	6	...	...	1	...	...	...	1	1	...	...	8	8	...	...
Grosvenor Sanatorium, nr. Ashford (40)	26	14	...	...	56	39	1	1	54	29	1	...	7	2	...	1	21	22	...	...	82	53	1	1
Holy Cross Sanatorium, Haslemere	...	...	3	...	2	...	1	...	1	...	3	...	...	...	...	...	1	...	...	...	1	2	...	4
King George's Sanatorium, Bramshott	2	...	...	...	3	...	...	...	3	...	...	...	...	...	...	...	2	...	...	...	5	...	...	...
Merivale Sanatorium, Chelmsford	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
National Sanatorium, Benenden	1	1	...	...	3	2	...	1	3	3	...	1	...	...	...	...	1	...	...	...	4	3	...	1
National Sanatorium, Bournemouth	...	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...
National Sanatorium, Ventnor	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...
Preston Hall Sanatorium, Aylesford	...	...	...	...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Hospitals.																								
Bishopshorn Home, Broadstairs	...	2	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Brompton Hospital, S.W.	...	4	...	...	19	6	1	...	13	7	...	...	1	...	...	...	5	3	1	...	19	10	1	...
City of London Hospital, E. 2	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
Colindale Hospital, Hendon	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2	...	...	...
Cottage Hospital, Norwood	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Eversfield Chest Hospital, St. Leonards	1	3	...	...	3	5	...	1	2	5	...	1	1	1	...	...	1	2	...	...	4	8	...	1
Keycol Hill Sanatorium, nr. Sittingbourne (40)	19	20	1	...	51	45	...	1	36	38	1	...	14	9	...	...	20	18	...	1	70	65	1	1
Northern Hospital, Winchmore Hill	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Seamen's Hospital, Greenwich	...	...	...	...	2	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...
St. Anthony's Hospital, Cheam	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
St. Columbas Hospital, N.W.	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
St. Luke's Hospital, Bayswater	...	...	...	...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
University College Hospital, W.C.	1	...	...	...	5	1	...	...	4	...	...	...	1	...	...	...	1	1	...	...	6	1	...	...
Institutions for Children.																								
Alexandra Hospital, Swanley (3)	...	...	3	...	...	4	1	...	3	...	3	...	...	...	...	...	...	4	1	...	...	7	1	...
Bruce Porter Home, Folkestone (6)	...	...	3	1	...	6	1	...	4	1	...	...	...	...	...	...	...	5	1	...	...	9	2	...
Church Army Sanatorium, Farnham	...	...	2	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Clevedon Convalescent Home, Broadstairs (2)	...	...	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	2
Heatherwood Hospital, Ascot	...	1	...	...	4	1	...	...	2	...	...	...	...	...	...	...	...	3	1	...	...	5	1	...
Lord Mayor Treloar's Cripples Hospital, Alton (5)	...	4	2	...	...	2	...	...	2	1	...	...	...	...	...	...	...	2	3	...	...	4	4	...
Oak Bank Open-air School, near Sevenoaks (10)	...	4	5	...	2	10	...	...	4	7	...	...	...	...	...	...	...	2	8	...	...	6	15	...
Queen Mary's Hospital, Carshalton	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Sevenoaks Children's Hip Hospital	...	3	3	...	7	6	...	...	6	3	...	...	...	...	...	...	...	4	6	...	...	10	9	...
Victoria Home, Margate (5)	...	2	4	...	4	2	...	...	3	4	...	...	...	...	...	...	...	3	2	...	...	6	6	...
Institutions for Treatment of Non-Pulmonary Tuberculosis.																								
Gravesend General Hospital	1	...	3	1	3	1	3	...	3	...	5	1	...	...	1	...	1	1	...	...	4	1	6	1
Kent & Canterbury Hospital	1	2	...	...	4	...	1	...	5	2	1	...	...	...	...	...	...	...	...	...	5	2	1	...
Metropolitan Hospital, London	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Metropolitan Convalescent Home, Cranbrook	1	1	1	...	5	5	...	3	1	3	...	...	...	...	...	...	5	3	1	3	6	6	1	3
Royal Sea Bathing Hospital, Margate (40)	11	12	9	8	21	11	...	6	12	12	5	10	1	...	...	...	19	11	4	4	32	23	9	14
Royal Victoria Hospital, Dover	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
" " Folkestone (5)	2	1	1	...	1	4	4	1	2	4	2	...	1	...	...	...	1	3	1	3	5	5	1	...
St. George's Hospital, London	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...
St. Thomas's Hospital, London	...	1	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Training Colonies.																								
After-care Colony, Hull	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Papworth Hall, Cambridge	2	...	...	...	1	...	...	...	1	...	...	...	1	...	...	...	1	...	...	...	3	...	...	...
Preston Hall, Aylesford	20	...	...	...	11	...	...	...	22	...	...	...	...	...	...	...	9	...	...	...	31	...	...	...
TOTALS ...																								
	153	109	49	37	371	228	53	45	325	214	69	43	34	15	1	1	165	108	32	38	524	337	102	82
													702											
Canterbury City Cases under treatment at Lenham (County) Sanatorium	3	2	...	...	14	9	1	...	14	8	1	...	...	...	...	...	3	3	...	...	17	11	1	...

The large majority of patients suffering from tuberculosis of bones and joints, as well as other cases of surgical tuberculosis, are admitted for treatment at the Royal Sea Bathing Hospital, Margate. Other institutions used for this purpose will be seen from table 13.

For obvious reasons, very few cases of non-pulmonary tuberculosis, other than those with tuberculous glands, are treated at the dispensaries.

A number of patients have received artificial pneumo-thorax treatment at the County Sanatorium, the Grosvenor Sanatorium and the Brompton Hospital. Certain of the above undergoing this form of treatment are at their homes and attend the institution periodically for "refills."

X-RAY EXAMINATION AND TREATMENT.—Arrangements have been made with various general hospitals in the county, and in London, for the X-ray examination of patients, where needed, in order to assist diagnosis. Thirty such examinations were made during the year. Facilities are also available at a number of hospitals for the treatment, by X-rays and Finsen Light, of lupus and tuberculous skin diseases. Thirty-four patients received this form of treatment during the year.

CO-OPERATION WITH OTHER AGENCIES.—There has been the same close co-operation with the local sanitary authorities and their officers as set out in previous reports. Complaints with regard to unsatisfactory housing and overcrowding are promptly reported and such action as is possible is taken. Sanitary officers have also given great assistance during the year in connection with the council's open air shelters, as mentioned on page 46.

Particulars of all cases of tuberculosis notified in the county are received weekly from the various district medical officers of health. This information is transmitted to the tuberculosis officer concerned, who at once communicates with the practitioner notifying each case, offering his assistance, if desired, in deciding the form of treatment most suitable to the circumstances of the patient.

The tuberculosis officers keep in close touch with the medical staffs of any general or special hospitals in their area and each is able to assist the other in connection with the treatment of tuberculosis. Suspected cases of tuberculosis in school children are sent from the school clinic to the dispensary where they are kept under observation if necessary.

CARE COMMITTEES.—Constant attention has been paid to this subject during the year and every endeavour possible has been made in the way of the formation of local committees of those interested in the "care" and "after-care" of the tuberculous patient.

My annual report for 1922 set out in detail the main directions in which "care" committees might be of use.

The following information indicates the present position in the various areas. I have added special observations by the tuberculosis officers, which it will be gathered apply more or less to all areas:—

AREA NO. 1. DARTFORD, ERITH AND BROMLEY.—Resolutions were passed by the voluntary visitors who attended meetings convened at Dartford and Erith for the purpose of attempting to form such Committees, to the effect that they, the voluntary visitors, did not wish to serve on a Committee except a grant was allowed by the Ministry of Health and that they would not beg in any shape or form (meaning bazaars, etc.). At Erith the conclusion come to was that there was neither “the money nor inclination in Erith to form a Tuberculosis After-care Committee.” It was insisted at both meetings that a financial fund was essential. The tuberculosis officer has discussed the question with the Medical Officer of Health of Bromley, who could not hold out any better prospect of forming a Care Committee there owing to the difficulties in his experience of obtaining any local charitable financial assistance. There is however a Children’s Care Committee at Bromley who have helped tuberculous children in several ways, and the voluntary visitors attached to the Local War Pensions Committee have not yet been disbanded.

AREA NO. 2. ROCHESTER, GILLINGHAM AND GRAVESEND.—The position here is set out in a statement of the tuberculosis officer as follows:—

“It appears that my predecessor recently circularised a number of individuals who ‘were interested in tuberculosis’ with a view to forming an After-care Committee for this area, but that various difficulties arose, possibly largely due to the absence of a specific fund on which the Committee could draw, and no definite After-care Committee as such was formed.

“At the present time there are several organisations, with funds at their disposal, actively at work for the assistance of tuberculous patients—particularly ex-service men, their wives and families, *e.g.*,

British Red Cross,
British Legion,
United Services Fund,

while for genuine cases endeavouring to set up ‘on their own,’ after a course of Vocational Training, the Military Services (Civil Liabilities Dept.) is in a position to make grants.

“I venture to think that the setting up of yet another organisation in this area would not materially add to the results of the work already being carried out. One point, often lost sight of by those

not experienced in this class of work, is that many patients (and these essentially the genuine cases whom one delights in assisting), resent intensely being visited by strangers, however good the intention that activates them, who desire to know something of their private affairs.

“ There is no doubt that the existence of a small fund, on which recommendations could be made for a grant of a few shillings here, or a £1 or two there, in cases of emergency (*e.g.*, the fare of a delicate child to visit for a month or two relatives on a farm or at the seaside; father out of work, another baby just arrived or arriving) would be of assistance in a few individual cases of which we have knowledge, but the best Committee for this purpose is a Committee of one who must be ‘in the know,’ and knowledge of the existence of such a fund must be kept quiet, or the scramble for possible crumbs by those who parade their poverty for such purposes would be strenuous.

“ Recently I have got into touch with the Inspector of the N.S.P.C.C., whom I have found very active, sympathetic, and of real and practical value. Two days ago there came a letter from the Mission to Seamen about a case of ours, and in many individual cases where need has arisen, it has been possible to get an interest taken in our patients by some one who is in a position to help.

“ I have written at this length in order to indicate that in this area at any rate the need for a definite ‘After-care Committee’ as such would appear to be less urgent than in many areas, and that the question of after-care, as apart from a Committee, is not lost sight of in our work. The only cases where further help is really needed are of a class, small in number and of the character of the example quoted in the fourth paragraph above.

“ While on this subject, I should particularly wish to mention the great personal interest taken in all the Service cases, both of Ex-service men and of members of their families, by the Chief Area Officer, through whom I have been able to put cases in touch with the most suitable of the organisations quoted in the second paragraph, for the assistance needed.

“ By putting my cases before the local Secretaries of the British Legion, as is at present done through the C.A.O., whose office is adjacent to mine, and with whom I am in close personal touch, my recommendations reach the local Secretaries as soon, and are accompanied moreover by a covering memorandum from the C.A.O.,

which ensures and expedites the attention they invariably receive, and tends to avoid the delay of subsequent enquiry and additional correspondence.

AREA NO. 3. TONBRIDGE, TUNBRIDGE WELLS AND SEVENOAKS.—There is an active After-care Committee at Tunbridge Wells, which includes High Brooms and the Urban District of Southborough. This is a special committee of the Charity Organisation Society and the Invalid Children's Aid Society.

This Committee is doing a great deal of good in the district especially as regards pre-tuberculous children. Any child it is considered would benefit by going to a convalescent home is sent away, and the tuberculosis officer has never yet had a refusal by the Committee of any of his recommendations.

The tuberculosis officer has had a number of interviews with influential people in the other districts, but has not been able to get into touch with anyone really interested in the matter.

AREA NO. 4. (a) MAIDSTONE.—The tuberculosis officer has been in communication with the Hon. Secretary of the "Guild of the Maidstone Blind and Crippled," and asked that the Guild would add tuberculosis to its other activities. The Committee gave favourable consideration to the proposal, but, owing to the pressure of other matters, regretted to have to delay its decision. We hope that it will decide shortly to take up the work, which is similar in many respects to what it is already doing and for which its members seem especially suitable.

The matter has not been pressed recently, in the hope that if a branch of the "Invalid Children's Aid Society" (which is practically part of the "Charity Organisation Society") were established in the town, it would undertake the work.

(b) SITTINGBOURNE AND MILTON REGIS.—A Care Committee has been established. A meeting was called some time ago and only one unofficial member attended. Cases have been brought before members and interest has been shown, and some help given generally.

(c) SHEERNESS.—A Committee has been established here. The members showed real interest in the subject, and useful work resulted at a meeting. The activities of the members are only limited by the lack of funds.

(I think that I should add that we have found it difficult in the districts of Sittingbourne and Sheerness to build up strong committees likely to be really helpful. Many of those approached have been unwilling to serve, including all the larger private employers of labour, although most of them kindly gave interviews in which the tuberculosis officer was able to explain fully the objects of Care Committees. These are employers who in fact render much assistance to tuberculous families among their own workpeople.

The chief difficulty at these places is the lack of funds, and the members usually feel powerless to do anything when cases are brought before them, but they have been helpful in many minor matters, and through the assistance of the Committee at Sittingbourne work has been found for the only local ex-service man trained under the scheme of the Ministry.)

(*d*) SMALL TOWNS AND RURAL DISTRICTS IN AREA 4 (*a*) (*b*) AND (*c*).—No committees have been established, but the tuberculosis officer and nurses have been able to obtain very substantial assistance for a number of cases through the kind interest of local residents, and in this respect patients have been well cared for.

AREA No. 5. DOVER, FOLKESTONE, DEAL AND CANTERBURY.—Endeavours have been made to organise committees at Dover and at Folkestone, but the attitude of the people got together is: "This is not our business, but the business of the State. We cannot find people employment. We have no money and cannot raise any."

At Dover we have got one member of the Committee to call at the dispensary every week when at home to see if there are any cases in which she can assist. This lady is very sympathetic, and would be very useful indeed if there were any charitable organisations or societies in Dover on whose assistance she could call.

At Folkestone, a lady who is a member of the Town Council and a Guardian, assists in this work.

At Canterbury, the position is much simpler. The Alford and Canterbury Aid Society does excellent work, and at the tuberculosis officer's suggestion, sends away to convalescent homes many children suffering from 'debility.'

I might also mention that in Dover, the secretary to one of the societies for looking after discharged soldiers and their dependents (without pensions), and in Hawkinge, a gentleman who does similar work, have both been friendly and useful.

AREA NO. 6. MARGATE, RAMSGATE, HERNE BAY AND FAVERSHAM.—

There does not seem to be much chance for the formation of After-care Committees nor to be any generally great demand for such. As regards Faversham, some of the patients are helped considerably in a private way.

The tuberculosis officer states "the cases that to my mind represent the most difficulty, are those where the bread-winner has to go to sanatorium and where no provision is made for carrying on at home. This applies, of course, to all areas, and I think that these cases ought to be aided by the State. I am afraid that State aid is expected and taken for granted everywhere. People generally seem to presume that there is a public fund for the assistance of all cases of tuberculosis.

"There are no groups of rich benevolent folks in any of my areas, to form Committees who can and will assist to any extent. Others resent these requests for assistance."

AREA NO. 7. BECKENHAM.—An After-care Committee exists here, formed of local people including representatives of charitable, etc., societies in Beckenham and Penge:—

No arrangements have been made for *routine* visitation of patients in their homes by members of the Committee. The district is a compact one and all cases on the dispensary books are visited regularly by the tuberculosis nurse, without difficulty. From time to time a member of the Committee visits a patient in his or her district for some specific purpose such as assisting the patient or bread-winner to obtain work or the provision of clothing, etc., at the special request of the tuberculosis officer.

The names of ex-service patients, where the disease is not attributable to, nor aggravated by, War service, are supplied to the local Secretaries of the United Services Fund for the respective areas of Penge and Beckenham, and a number of these patients and their families have received financial assistance from the United Services Fund.

The Penge Philanthropic Society and the Beckenham Charitable Society have assisted in getting suitable cases to seaside and convalescent homes.

The Labour Exchange and the Secretary of the War Pensions Fund are notified of cases for employment and suitable occupations

are suggested, but very little practical help has been forthcoming so far.

FUNDS.—The Societies above referred to draw upon their own funds to help tuberculosis cases.

About eighteen months ago whist drives were held at Penge and Beckenham, and a sum of about £40 was raised, and this has been distributed from time to time amongst tuberculous patients.

AREA NO. 8. ASHFORD.—In this area no After-care Committee, as such, has been formed, but a number of people in different parts of the area are doing anything they can to help and advise any tuberculous patients in their different districts, who are referred to them by the tuberculosis officer.

HOME NURSING.—The present limited nursing staff does not permit of the home nursing of tuberculous patients being undertaken. In a few special cases the dispensary nurse may attend at the home of the patient daily for carrying out dressings, &c. In a few other special cases the Local Nursing Associations have undertaken home nursing. Otherwise in this direction nothing else is undertaken under the county scheme.

DENTAL TREATMENT.—Forty-nine patients received dental treatment (ranging from a single extraction to total extractions and provision of complete dentures) under the county tuberculosis scheme during the year, at a total cost of a little under £200. Such treatment is only given where, in the opinion of the tuberculosis officer, it is necessary for the proper treatment of the disease, and where the patient has not the means to meet the cost of such treatment. The dental treatment of ex-service men in whose cases the disease has been held to be attributable to war service, is undertaken by the Ministry of Pensions on the recommendation of the tuberculosis officer, if the patient is undergoing treatment at a dispensary or in a residential institution.

ANCILLARY NOURISHMENT.—Ancillary nourishment is provided on the recommendation of the tuberculosis officers. Careful enquiry is made into the financial circumstances of every applicant for this benefit, and grants are only made to those patients who cannot reasonably be expected to incur the necessary additional expenditure on nourishment which their condition necessitates, from their own resources. A number of patients receiving this form of treatment are chronic cases, who are able to lead more or less useful lives. The supply of additional food is not justified in the case of tuberculous persons whose circumstances are such that they can only be dealt with adequately through the machinery of the Poor Law, and in this connection

the tuberculosis officers work in close co-operation with the Poor Law medical officers and the relieving officers.

The tuberculosis officers do their best to ensure that all articles of food supplied are consumed by the patient, and the assistance of the family practitioner in this connection proves of great value. The nurses and voluntary workers are also helpful.

There are three scales of nourishment in general use, viz., A, B and C, and the following table shows the number of orders issued during the year under each scale :—

“A” (one pint of milk per day)	9
“B” (one pint of milk and one egg per day)	122
“C” (one pint of milk and one egg per day and half a pound of butter per week)	662
Special (two pints of milk per day)	4
Total	<u>797</u>

SURGICAL APPLIANCES.—The County Council provide surgical appliances on the recommendation of the tuberculosis officers in cases where the financial circumstances of the patient are insufficient to meet the cost. In a few instances patients or their relatives make some contribution towards the cost of the apparatus.

The following appliances or apparatus were provided during 1923 :—

Alterations to surgical boot... 3	Refitting and adjusting spinal	
Alteration and adjustment of	apparatus	1
Thomas's splint..... 1	Repairs to spinal jackets	2
Crutches	Repairs to Thomas's splints... 2	
Double Thomas's splint	Repairs to spinal carriage ... 1	
Celluloid splint..... 1	Special spinal supports	4
Metal foot splint	Spinal carriages (loan)	2
Patten	Spinal jackets	9
Pexuloid leg and foot splint	Surgical boots	6 prs.
and crutches..... 1	Special surgical appliances ... 1	
Plaster bed	Thomas's hip splint and	
	Crutches	3

OPEN-AIR SHELTERS.—There are eighty-seven open-air shelters in use throughout the county, and they are much appreciated. These shelters are loaned to the patients on the recommendation of the tuberculosis officers, and particular regard is paid to the suitability of the site chosen for the shelter. They were used during the year by 129 patients.

They are periodically inspected by the tuberculosis officers and health visitors on the occasion of their home visits, and reports are made to me as to

the condition of the shelters and the use being made of the same. Many of these shelters have now been in use for a number of years, and repairs are frequently necessary.

I have to thank medical officers of health and sanitary inspectors throughout the county for much valuable help in connection with the disinfection of the shelters before removal, and also for their assistance in connection with repairs.

TUBERCULOUS EX-SERVICE MEN :—

The following certificates and reports were issued during the year by the tuberculosis officers on behalf of the Ministry of Pensions :—

1. Certificates regarding the commencement of treatment and intimating whether or not in the interests of the treatment the men should abstain from remunerative occupation, = **2104**.
2. Certificates of medical fitness or otherwise for vocational training in the case of tuberculous men who have applied to be provided with such training otherwise than in a residential institution approved by the Ministry of Health, = **3**.
3. Certificates in the case of men who claim that there has been an increase in the degree of disablement since last examined by a medical board, indicating whether, in the opinion of the tuberculosis officers there has been an increase, and, if so, of what degree = **9**.
4. Certificates regarding the physical condition of men claiming an alternative pension based on pre-war earnings, in lieu of a disablement pension based on the degree of present disablement = **4**.
5. Reports with regard to men on special rates of pension, *i.e.*, at the periods and for purposes set out in the following paragraph :—

“ Upon completion, for the full period prescribed by the tuberculosis officer, of a course of treatment in a sanatorium or of extended treatment combined with training in a training colony, men in whom pulmonary tuberculosis has been accepted by the Ministry of Pensions as attributable to, or aggravated by, war service will be granted pension at the rate of 100 per cent. (*i.e.*, the rate appropriate to the highest degree of disablement) for a period of six months, followed by a pension at the rate of not less than 50 per cent. for the ensuing two years.

The continuance of these special rates of pension is subject to the man presenting himself for examination by the tuberculosis officer as and when required, and to his complying with the requirements of that officer in respect of further treatment, whether residential or otherwise. The Regional Director will call for a report by the tuberculosis officer in each of these special cases, once during the six months when the man is drawing pension at the rate of 100 per cent. and at intervals of six months during the two years when he is drawing pension at the rate of not less than 50 per cent," = 268.

6. Certificates in connection with application for admission to treatment combined with vocational training in a Government training section under the arrangements set out in Circular 307, issued by the Ministry of Health on April 29th, 1922, = 9.

TREATMENT AND TRAINING OF TUBERCULOUS EX-SERVICE MEN.—Thirty-one ex-service men received ordinary treatment and training during the year at the Preston Hall Colony. Twenty-two of these patients were discharged during the year, nineteen of whom completed their course of training. Their average duration of stay at the Colony was 12·77 months. Twelve patients were taken on the staff at the institution after the completion of their course.

The following list shows the class of training given to the Kent patients discharged from Preston Hall during the year:—

Market gardening	1
Poultry farming	6
Horticulture	3
Poultry appliance making	6
Boot and shoe making and repairing	4
Game-keeping	2

In addition to the above, one man completed training in boot-repairing at the Hull After-care Colony, and one man completed training in carpentry at the Papworth Hall Colony, Cambridgeshire.

CONCURRENT TREATMENT AND VOCATIONAL TRAINING.—A circular was issued by the Ministry of Health in April, 1922, stating that arrangements had been made for the concurrent treatment and vocational training of ex-service men suffering from tuberculosis, the courses of which, if satisfactorily completed, should enable the patient to become an efficient workman and to earn a livelihood at the occupation in which he had been trained.

Details of the arrangements made were set out in my Annual Health Report for the year 1922, pages 46 and 47.

In his Annual Report for the year 1922 the Chief Medical Officer of the Ministry of Health states :—

“The courses of training are progressing satisfactorily, and a considerable proportion of the men will, no doubt, secure a good working knowledge of the principles of their new occupations. The critical period comes, however, when a man, after completion of training, attempts to make a living at his new work. He is necessarily slow at his work. If he secures employment, his earning capacity, quite independently of the fact that he is tuberculous, is not great, while if he works on his own account, not only is his output relatively small, but he has to make a market or *clientele* for his goods or find a sphere for his services.

The pension of the ex-service man may help him to tide over this lean period, but he requires in addition all the assistance and friendly advice which can be given by the Care Committee and others. It is interesting to note that the Central Fund for the Industrial Welfare of Tuberculous Persons is undertaking upon an experimental scale, the settlement of a group of men who have received training, but who otherwise would not be able to find employment. They are employing this group of ex-trainees on an industrial basis and hope ultimately to be able to establish these men as independent and self-supporting workers (when they have secured the necessary speed in production) and to supply them with a market for their goods. In essence the scheme may be regarded as a scheme for ‘graduated settlement.’”

Reference is made on page 57 to the work carried out at the Lenham Sanatorium Training Centre during the year. Patients were admitted from all parts of the British Isles under arrangements made by the Ministry of Pensions.

Thirty-one cases from Kent were admitted to vocational training colonies during the year as follows :—

Lenham Sanatorium—3 furniture repairs and 1 house repairs.

Maltings Farm Sanatorium—3 furniture repairs and 2 watch and clock repairs.

Burrow Hill Colony—1 market gardening and 1 rural carpentry.

Benenden Training Section—1 rural carpentry and 2 basket and brush making.

Crooksbury Sanatorium—1 house repairs.

Preston Hall Colony—9 rural carpentry and 4 market gardening.

West Heath Sanatorium—1 furniture repairs and 2 tin-smithing.

Of the twenty-nine patients discharged during the year only eleven completed their course of training

Twenty men were still receiving this class of training at the end of the year.

OFFICIAL REGULATIONS, &c.--Ministry of Health Circulars relating to tuberculosis are summarised on page 8.

TUBERCULOSIS DISPENSARY WORK.

The following are extracts from the annual reports of the tuberculosis officers for 1923, and I must mention again that each officer speaks in high terms of the work of the nurses and dispensary clerks. The tuberculosis officers themselves have all carried out their work ably and conscientiously.

DR. MARTIN :—"The work of the dispensaries in this area has been carried out, generally speaking, on the lines of former years. In accordance with administrative intentions, special attention has been given to the consultative and supervisory functions, and this has necessitated the reduction of treatment at the dispensaries to the lowest possible minimum. Even so, the attendances have not diminished to any marked extent. A considerable proportion of the cases treated in this way are children who show evidence of tuberculous infection which generally remains quiescent, but occasionally exhibits periods of slight activity. As a rule these cases do well, but I think treatment could be considerably curtailed if they could be more generally accommodated in open-air schools under medical supervision.

"The incidence of pulmonary tuberculosis in this area, as shown by notification, is lower than in the previous year. Amongst the new cases a later average age incidence than is usual has been noticed, together with a tendency towards a rather more acute type of infection.

"The housing question shows practically no improvement, and the sleeping accommodation amongst the families of patients generally remains quite inadequate. This has led me, on public health grounds, to recommend several cases with a hopeless prognosis for residential treatment.

"The mortality rate amongst ex-service patients has been high, but as the average life of a progressive case is about six years, this was to be expected. On the other hand one can indicate over a hundred ex-service men who have regained a good working capacity. Many of these are suitably occupied at their pre-war trades. Others have, during the year, been undergoing treatment and training at Preston Hall and other centres, with the greatest benefit to their health and future prospects."

DR. GIBBINS :—"Looking through the new cases for the year I notice that most of the adults in an early stage of the disease were referred to me before notification. It is deplorable that patients, both insured and uninsured, do not seek medical advice earlier, as so many of the intermediate and advanced cases had only quite recently consulted a doctor: probably the absence of distressing symptoms, together with that optimism which seems to be a characteristic of tuberculosis, leads to this dangerous, often fatal, delay.

"I endeavour to watch with an open mind the results of treatment in sanatoria, realizing the cost both to the community and the patient; in spite of many failures and disappointments, I have still no doubt that in the early stages of pulmonary disease in adults it is far the best treatment we know, holding out a fair prospect of arrest which will lead to ultimate cure, so that I have no hesitation in urging a patient to accept it. The intermediate cases are a difficulty—the patient and his friends (including his doctor), often press hard for his admission to a sanatorium "to give him a chance" and it cannot be denied that many such do improve, at any rate temporarily; also the educational side is of great importance, how to take care of himself and not to be a danger to others is far better learnt in a sanatorium than at home. I wish that more beds were available for intermediate cases, even if patients were kept for a short time only, so that every patient might be offered the opportunity of learning those lessons which would be a benefit to him and would undoubtedly save others from infection."

DR. GRABHAM :—"The Tunbridge Wells After-Care Committee continues its activities with marked benefit to patients in the Tunbridge Wells, Southborough and High Brooms, areas.

"The work at Sevenoaks is severely handicapped by the isolated position and unsatisfactory accommodation of the dispensary.

"The lack of sanatorium beds, making a long waiting list necessary, has been one of the sad features of the year.

"The work for the Ministry of Pensions seems to increase every year, and a large amount of time is spent in writing up record cards, and filling up various forms and certificates.

"Ancillary nourishment continues to be a most helpful adjunct to treatment."

DR. DE VILLIERS :—"What strikes me more forcibly than ever is that there should be a much larger number of beds available for sanatorium treatment. Formerly it used to be difficult to persuade patients to accept sanatorium treatment, but now-a-days very many of them are eager for such. This chiefly applies to the very great majority of 'intermediate' cases. When both the patient and the patient's doctor are very keen on institutional treatment, it seems a shame that such institutional treatment cannot be granted in the large majority of cases. It seems to me that until the time should arrive when all these people can be granted sanatorium treatment for long periods, we are simply marking time on the fringes of the anti-tuberculosis fight."

DR. CLEMENTS :—"Tuberculin and Diaplyte Vaccines.—Interest in these forms of treatment was revived and stimulated during the year by Dreyer's

discoveries. For several years a number of workers have attempted to separate the fatty, acid-fast envelope from tubercle bacilli and make use of fractional portions of the bacilli in treatment.

“Dreyer, believing that the fatty envelope prevented the escape of the specific protein from the body of the bacillus, has succeeded in removing this fatty jacket by treating the bacilli with formalin and extracting with acetone. Animal experiments with these defatted bacilli proved that they retained their antigenic powers and gave rise to the formation of antibodies.

“This discovery raised hopes that it might prove to be a more effective remedy than any yet discovered.

“I have only tried it in a few cases and the results so far do not give reason to believe that our expectations will be realised. The greatest praise, however, is due to patient investigators like Dreyer, and their work will ultimately lead to the success it merits.

“Disinfection of Rooms.—A recent law case has directed attention to the need of disinfection and cleansing of rooms and houses occupied by cases of pulmonary tuberculosis. The decision of the Court in this case appears to establish the view that a furnished house recently occupied by a person suffering from open pulmonary tuberculosis must be regarded as infected with tuberculosis, and that it is unfit for human habitation until it has been cleansed and disinfected.

“In this connection it is part of the dispensary routine to arrange with the local sanitary authority for the disinfection of rooms occupied by a case of pulmonary tuberculosis on the removal of the patient to another district, to a sanatorium, or after the patient's death.”

LENHAM SANATORIUM.

DR. PIERCE has assisted me in writing the following report :—

The classification of cases adopted in this report is that recommended by the Ministry of Health ; an epitomised extract of which is given below :—

- | | |
|-----------------|--|
| Class “A” | Cases in which tubercle bacilli have never been demonstrated in sputum. |
| Class “B” | Cases in which tubercle bacilli have at any time been found. |
| Group 1 ... | Cases with slight constitutional disturbance. Physical signs very limited in extent, either in one lobe only and in the case of an apical lesion one upper lobe not extending below the second |

rib in front ; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes and should not extend below the clavicle in front and the spine of the scapula behind.

Group 3 ... Cases with profound systemic disturbance or constitutional deterioration ; with marked impairment of function, and with little or no prospect of permanent improvement.

Group 2 ... All cases which cannot be classified in Groups 1 and 3.

The beds in the sanatorium have been kept constantly full throughout the year for fifty female and seventy-five male patients. In addition there are forty places for trainees. Vacancies have occurred in the Training Section from time to time owing to the physical unfitness of individual trainees, but never for long periods.

The average length of stay for males was 148 days and for females 178 days, making an average stay of 23·2 weeks for each patient.

Suitable cases were offered an extension of treatment after the first period of three months, followed by further extensions to the full period of nine months. The value of extended treatment to each individual case has been carefully considered, the presence of tubercle bacilli in the sputum, general resistance of the patient and the condition of the pulmonary lesion, being taken as guiding factors.

Two deaths occurred during the year. Both fatal cases were in the third stage of the disease.

The slight increase in the duration of treatment from 20 weeks of the previous year to 23·2 weeks of this year is partly due to the type of case admitted, and partly to the offers of extended treatment which have been accepted in nearly all cases.

TREATMENT.—The routine of sanatorium life has been carried out as in all similar institutions, prolonged periods of rest being recognised as the greatest factor in treatment, and regulated exercise under careful control helping to fit the patient for suitable work.

An open-air shelter, in which to work during wet weather, has been a valuable addition to the sanatorium in the latter half of the year.

Collosol Calcium has been freely used in case of hæmorrhage and has been given both by the mouth and injected beneath the skin, but the results have not been striking.

Surprisingly few cases have been found suitable for artificial pneumothorax treatment during the past year. In most instances X-Ray photographs showed too extensive lesions for this operation to be performed with benefit to the patient.

The X-Ray apparatus has been made good use of during the year, and a dark room nearer the X-Ray plant is contemplated.

A considerable number of patients has been recommended for dental treatment. Both County Council patients and men in receipt of disability pensions have attended at Maidstone for dental requirements.

THE CONDITION OF THE DISEASE IN THE LUNGS ON DISCHARGE.

		Total.	Quiescent.	Improved.	<i>In Statu Quo.</i>	Worse.	Dead.
Males.	Class "A"	103	20	53	30	—	—
	Class "B" I. ..	7	1	3	3	—	—
	II. ...	52	1	25	22	4	—
	III. ...	14	—	3	7	3	1
	Non. T.B.....	4	—	4	—	—	—
	Total	180	22	88	62	7	1
Females.	Class "A"	58	13	30	15	—	—
	Class "B" I. ...	2	—	—	1	1	—
	II. ...	26	—	15	11	—	—
	III. ...	20	—	5	11	3	1
	Non. T.B.....	—	—	—	—	—	—
	Total	106	13	50	38	4	1

In compiling the above table a very rigid standard of classification has been adopted for the cases discharged as quiescent; no case being certified as quiescent unless the physical signs were compatible with a healed lesion, tubercle bacilli absent and general health completely restored.

In the cases improved the physical signs had greatly diminished and general health was very good, although tubercle bacilli might be present.

In the one hundred stationary cases the general condition had improved, but the pulmonary condition was stationary.

DURATION OF TREATMENT.

Duration in Weeks.	Under 4.	4—8.	8—12.	12—16.	16—20.	20—24	Over 24.	Total.
Men	9	17	16	38	14	15	45	154
Women ...	4	4	7	11	10	13	47	96
Children ...	—	—	2	5	9	3	17	36

Average number of days :— { Males 148 = 21½ weeks.
 Females ... 178 = 25¾ „

COMPARISON OF WORKING CAPACITY ON ADMISSION AND DISCHARGE.

(A—Full working capacity (light). B—Fit for four hours' light work.
 C—Unfit for work.)

		Male.		Female.	
		On Admission.	On Discharge.	On Admission.	On Discharge.
Sputum negative on Admission.	A— 0		—	A— 0	—
	B— 15		{ A— 7 (46·6 %) B— 8 (53·4 %) C— 0 —	B— 5	{ A— 3 (60·0 %) B— 2 (40·0 %) C— 0 —
	C—107		{ A—35 (32·7 %) B—37 (34·6 %) C—35 (32·7 %)	C—55	{ A—24 (43·6 %) B—18 (32·7 %) C—13 (23·7 %)
Sputum positive on Admission.	A— 0		—	A— 0	—
	B— 2		{ A— 0 — B— 2 (100·0 %) C— —	B— 1	{ A— 0 — B— 0 — C— 1 (100 %)
	C— 56		{ A— 6 (10·7 %) B—13 (23·2 %) C—37 (66·1 %)	C—45	{ A— 4 (8·9 %) B— 7 (15·5 %) C—34 (75·6 %)

In reading the above table with regard to the working capacity of patients discharged during the year, it should be remembered that in the sanatorium, exercise tests are not equal to the work expected of an average earner in the general labour market. A large percentage of the patients certified "fit for work" were fit for light work only, but would break down under the stress of really hard work. It is doubtful if any patient suffering from a definite tubercular disease of any extent should undertake hard physical work. Most cases in Groups "A" and "B" are capable of useful work.

On admission, the majority (viz., 263) were in category "C". On discharge 79 patients (or 29·6%) were certified under "A" as fit for work.

The presence or absence of tubercle bacilli as indicated in this table influences greatly the working capacity and, as would be expected, the future prospects of ultimate recovery.

WEIGHT.

Increase in lbs.	1—5.	5—10.	10—15.	15—20.	Over 20.
Males.....	42	53	29	13	5
Females.....	20	30	18	14	4
Percentage showing increase	{ Males 142 78·9% Females 86 81·1% }				79·7%
Weight stationary	{ Males 18 10% Females 6 5·7% }				8·4%
Weight lost	{ Males 20 11·1% Females 14 13·2% }				11·9%

79·7% of the patients discharged gained weight. This figure is a little less than that of the previous year, when 84·3% of the patients gained in weight.

The number of patients whose weight remained stationary was 8·4% as against 6·9% of the previous year.

In considering these figures, a gain in weight may be taken to mean, in most instances, an improvement in the patient's general condition. On the other hand, slight loss of weight is not always a sign of deterioration in health, especially if a patient is working.

An interesting detail with regard to this table is its striking similarity with that of last year in the total for both sexes.

SPUTUM.

Sex.	- On admission.	- On admission.	+ On admission.	+ On admission.
	- On discharge.	+ On discharge.	- On discharge.	+ On discharge.
Males	107	14	7	52
Females	58	3	8	37
Total	165	17	15	89

- = Tubercle bacilli not demonstrated.

+ = Tubercle bacilli present.

11·8% of male positive cases became negative.

17·6% of female positive cases became negative.

TABLE OF CHILDREN DISCHARGED.

I., II., III. = stages of disease in lungs.

A = fit for school. B = fit for modified school. C = unfit for school.

	No.	Hilus.	Hilus and Lungs.	Lungs.	Glands also.	On Admission.			On Discharge.			Sputum.		
						I.	II.	III.	A.	B.	C.	None present.	Negative.	Positive.
Boys.....	26	3	12	11	12	20	4	2	8	12	6	23	2	1
Girls	7	—	4	3	—	4	2	1	2	4	1	5	2	—
Total	33	3	16	14	12	24	6	3	10	16	7	28	4	1

The above table gives in detail the results of treatment of thirty-three children discharged ; these include twenty-six boys and seven girls.

Twenty-eight cases had no sputum. Of those with sputum only one was found positive.

(The admission of children to the sanatorium during the last half of the year has been discontinued for administrative reasons.)

TRAINING SECTION.—Most useful work has been performed by the trainees during the year. Two trades are being taught, viz. :—Furniture repairing (including upholstery) and General house repairs. Of the forty-nine men discharged during the year, thirty (or 61·2 per cent.) completed the twelve months' course of training and were found to be adaptable to the new trade ; in several instances exceptionally capable workmen were turned out.

The improvement in the general and physical condition of patients discharged on completion of their training was very marked, with few exceptions.

AMUSEMENTS.—Various concert parties have rendered valuable services which have been a useful help throughout the year. Frequent concerts have been held in the recreation room on the male side, and entertainments have been given under the direction of the Kent Education Committee. During the summer, two good bands gave entertainments. These have been much appreciated. Billiard tournaments, whist drives and other forms of amusement have been organised.

The use of the recreation room for games during the summer months is discouraged, croquet, clock-golf and other out-door games being arranged.

The grant of £45 by the Kent County Council has been supplemented by money from the Canteen Fund in providing concerts. A grant of £10 from this fund was made to help re-cover the billiard table.

THE PATIENTS' CANTEEN.—The canteen continues to be of great benefit to the sanatorium. The year's profits have reached all expectations and the patients have been able to contribute generously to their amusements and still keep a good reserve at the Bank.

SEWAGE DISPOSAL WORKS.—The plant installed has been associated with some difficulties, partly mechanical, which have caused some anxiety during the year. With a view to obviating certain difficulties, the original designer of the system has given further instructions, which it is hoped will give better results.

PLANT.—At the end of the year, the new electrical, steam and heating plants, as well as the laundry, were completed.

VERANDAH.—The verandah on the ground floor of the west wing of the sanatorium is practically complete. The sanatorium is thereby indebted to the Training Section for a valuable improvement, adding greatly to the comfort of the patients in this part of the institution.

It is hoped that during the coming year a similar verandah will be built on the opposite wing of the sanatorium.

VARIOUS.—A bowling green was completed during the year, the greater part of the work being carried out by the patients as part of their exercise. Up to the present it has been used as a croquet lawn.

A hard tennis court was laid down by the County Surveyor in the early part of 1924.

The grounds of the sanatorium have been laid out with shrubs, etc., and as a result they present a very much improved appearance.

The Council have decided to provide housing accommodation for the male staff at the sanatorium, and at the time of writing tenders are being obtained for eight cottages. Arrangements are also being made to provide four new bath rooms in the sanatorium.

In the near future, arrangements will be made for the keeping of poultry, which has not been possible hitherto.

STAFF.—Dr. E. Sandiland terminated his duties as Medical Superintendent of the Sanatorium on September 27th, 1923, and Dr. F. Pierce was appointed in his stead as from November 15th, 1923.

NON-NOTIFIABLE DISEASES.

Mortality rate per 1000 of the population from measles, whooping cough and diarrhoea during the past fifteen years :—

Year.	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923.	
															Kent.	England & Wales
Measles	0·07	0·08	0·36	0·10	0·16	0·08	0·19	0·08	0·22	0·17	0·07	0·10	0·005	0·09	0·04	0·14
Whooping Cough	0·08	0·23	0·12	0·19	0·10	0·11	0·18	0·16	0·11	0·15	0·07	0·10	0·07	0·15	0·05	0·10
Diarrhoea	0·16	0·12	0·95	0·15	0·30	0·34	0·27	10·06	8·44	7·52	7·09	4·82	12·55	2·98	5·34	7·7
								0·33	0·30	0·26	0·22	0·18	0·26	0·06	0·10	—

From 1916 onwards the death-rates from diarrhoea relate to children dying under two years of age per 1000 births (upper figure), and to total deaths per 1000 of the population (lower figure). The latter shows the comparison with years previous to 1916.

MEASLES.—The death-rate from this disease, although it did not reach the very low rate recorded in 1921, compares very favourably with the figures of any other year for which we have records. It will be seen from tables 30 and 31 that thirty-nine deaths from measles were recorded during the year.

The disease was notifiable in the areas of Dartford, Folkestone Borough and Herne Bay Urban, and the cases reported in these districts during the year numbered 127, 923 and 126 respectively.

The epidemic in *Folkestone* continued from August until the end of the year, and five deaths were registered as due to this disease. There was also some prevalence in *Sheppey Rural*, but the outbreak was confined and “well

under control ;” and in *Sheerness Urban* a number of cases occurred, though the majority were of a particularly mild character. Referring to this disease in the latter district, the medical officer of health writes :—

“Measles is too often regarded as being an inevitable disease, and better caught and done with. As a matter of fact, there is no reason why any child should have it, and it is a great mistake to regard it as a disease of little importance. What should be especially borne in mind is that the disease itself is not very dangerous, but the danger is of getting cold and inflammation spreading to the lungs and causing bronchitis and pneumonia, against which two complications children especially have small power of resistance.”

All teachers in the area of the Kent Education Committee have a supply of forms on which to notify to the local and county medical officers of health any definite or suspected case of the disease occurring among the scholars. It was found necessary during the year to close forty-one schools owing to the prevalence of measles among the children attending.

WHOOPIING-COUGH was less prevalent than in the previous year, judging from the school-closures on account of this disease (fifteen, as against forty-five in the previous year), and the death-rate reached the lowest figure recorded in the county. All cases occurring among children attending the Kent Education Committee's schools are notified, by the teachers, to the School Medical Officer.

DIARRHŒA.—There was an increase in the number of deaths from diarrhœa among children under two years of age, 106 deaths being recorded from this cause as against sixty in 1922. The death-rates, as shown in the above table, show corresponding increases, but still compare very well with the rates recorded previous to 1922. Eighty of the deaths occurred in urban districts and twenty-six in rural, the chief mortality being in Gillingham Borough (ten deaths), Gravesend Borough (eight deaths) and Dartford Rural (six deaths).

INFLUENZA.—The mortality from influenza in each sanitary district is shown in tables 30 and 31. The disease accounted for 148 deaths in the county, an interesting figure in comparison with the 3,534 deaths of those terrible “epidemic years,” 1918 and 1919.

HOME NURSING FOR INFECTIOUS DISEASES is provided by the district councils for measles in *Chatham, Crayford, Herne Bay, Maidstone, Penge, Ramsgate* (arrangements also cover other diseases—including ophthalmia neonatorum), *Tunbridge Wells* (also for whooping cough, and ophthalmia neonatorum). Arrangements are also available, through the County Council, for home nursing of measles, &c., in the area over which that body administer child welfare.

In *Cranbrook R.*, nurses have been engaged for necessitous cases of pneumonia, and in *Northfleet* the Council is prepared to supply nurses in the event of an epidemic of disease making such a step necessary. In *Gillingham* the health visitors irrigate the eyes of newly-born infants if the medical attendant so desires. *Folkestone* does not provide home nursing, but cases of measles and pneumonia were admitted to the isolation hospital when the home conditions were unsatisfactory.

CANCER.—Reference to the following tabulation shows that the death-rate from cancer in Kent was the highest ever recorded in the county.

Table 14 shows the annual death-rates in each sanitary district in the County of Kent, arranged in diminishing sequence.

Mortality from cancer during the past fifteen years :—

Kent.	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
URBAN.															
No. of Deaths	669	676	765	783	798	842	869	851	849	923	903	929	1029	988	1093
Death-rate ...	0·90	0·89	1·08	1·09	1·10	1·14	1·24	1·17	1·19	1·31	1·27	1·26	1·36	1·30	1·43
RURAL.															
No. of Deaths	281	276	327	324	360	348	349	357	372	385	354	420	400	397	413
Death-rate ...	0·93	0·91	1·05	1·05	1·14	1·11	1·14	1·12	1·19	1·23	1·16	1·38	1·26	1·24	1·28
TOTAL.															
No. of Deaths	950	952	1092	1107	1158	1190	1218	1208	1221	1308	1257	1349	1429	1385	1506
Death-rate ...	0·91	0·90	1·07	1·08	1·11	1·13	1·21	1·16	1·19	1·28	1·23	1·29	1·33	1·28	1·38
England and Wales,															
Death-rate ...	0·96	0·96	0·99	1·02	1·06	1·06	1·12	1·16	1·21	1·21	1·14	1·16	1·21	1·22	1·26

TABLE 14.—Cancer Death Rates in each Sanitary District in the County of Kent, arranged in diminishing sequence.

District.	Average yearly death-rate of sixteen years, 1908-1923.	Death-rate, 1908.	Death-rate, 1922.	Death-rate, 1923.	District.	Average yearly death-rate of sixteen years, 1908-1923.	Death-rate, 1908.	Death-rate, 1922.	Death-rate, 1923.
Tunbridge Wells Borough	1.67	1.35	1.63	2.13	Gillingham Borough	0.89	0.62	0.95	0.97
Whitstable Urban	1.55	1.02	1.73	2.23	Chislehurst Urban	0.88	0.62	0.90	0.79
Herne Bay Urban	1.53	1.02	1.99	1.99	Erith Urban	0.86	0.52	0.93	1.23
Ramsgate Borough	1.47	1.25	1.54	1.53	Cheriton Urban	0.69	0.75	1.01	0.86
Sevenoaks Urban	1.43	1.07	2.02	2.46	Queenborough Borough	0.66	1.00	1.28	0.32
Southborough Urban	1.43	1.67	2.31	2.43	Crayford Urban	—	—	0.66	0.72
Deal Borough	1.42	0.94	1.48	1.39	All Urban Districts ..	1.17	0.89	1.30	1.43
Broadstairs & St. Peter's Urban	1.40	1.86	1.72	1.27	Ashford, West	1.53	1.22	2.06	1.17
Sidcup Urban	1.32	1.19	1.58	1.82	Hollingbourn	1.43	0.24	1.91	1.89
Folkestone Borough	1.30	0.85	1.69	1.71	Elham	1.37	1.31	1.41	1.78
Ashford Urban	1.26	0.76	1.39	1.49	Cranbrook	1.35	1.30	1.25	1.32
Bromley Borough	1.26	0.99	1.64	1.38	Ashford, East	1.31	1.12	0.94	1.19
Margate Borough	1.26	1.09	1.62	1.57	Tonbridge	1.25	1.29	1.55	1.75
Faversham Borough	1.25	1.08	1.20	1.67	Bromley	1.24	1.77	1.25	1.43
Pease Urban	1.25	0.92	1.35	1.69	Sevenoaks	1.20	1.13	1.15	1.27
Maidstone Borough	1.24	0.95	1.15	1.60	Dover	1.18	0.49	1.29	0.60
Tenterden Borough	1.24	0.90	2.09	2.76	Bridge	1.16	0.39	1.78	1.87
Beckenham Urban	1.21	0.94	1.54	1.42	Maidstone	1.15	0.79	1.01	1.47
Hythe Borough	1.19	1.44	1.21	1.61	Blean	1.14	0.84	1.09	2.42
Gravesend Borough	1.18	0.90	1.53	1.38	Faversham	1.12	1.27	1.40	1.12
Sandgate Urban	1.16	0.90	0.78	1.19	Eastry	1.11	0.90	0.83	0.90
Wrotham Urban	1.16	0.77	2.36	1.88	Malling	1.10	0.78	1.50	1.36
Dover Borough	1.15	0.93	1.27	1.65	Romney Marsh	1.02	0.79	0.67	0.00
Sandwich Borough	1.14	0.32	1.60	1.61	Tenterden	1.02	1.03	1.39	1.89
Rochester City	1.12	0.77	1.43	1.50	Thanet	1.01	0.55	0.75	1.07
Tonbridge Urban	1.10	0.74	1.32	1.13	Strood	0.97	0.91	1.28	1.22
Bexley Urban	1.09	0.77	1.06	1.22	Milton	0.95	0.83	1.50	1.55
Sittingbourne Urban	1.06	0.66	1.06	1.04	Dartford	0.93	0.61	0.89	0.59
Walmer Urban	1.06	0.33	0.20	1.53	Hoo	0.92	0.97	0.62	0.60
Northfleet Urban	1.04	0.50	0.99	1.34	Sheppey	0.74	1.22	1.10	1.31
Chatham Borough	1.03	0.84	0.76	1.04	All Rural Districts ..	1.14	0.94	1.24	1.28
Lydd Borough	0.99	0.36	1.36	1.79	All Urban Districts	1.17	0.89	1.30	1.43
Milton Regis Urban	0.99	0.64	1.06	1.57	Whole County	1.16	0.90	1.28	1.38
New Romney Borough	0.91	1.51	0.67	1.35					
Sheerness Urban	0.91	0.69	1.01	0.96					
Dartford Urban	0.89	0.62	0.76	0.98					

Age and sex distribution of deaths from cancer in the County of Kent during the last nine years:—

		All ages.	0-1.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 upwards.
1915.	{ M. ..	564	2	...	..	4	5	32	240	281
	{ F. ...	701	...	...	...	3	4	70	308	316
1916.	{ M. ...	535	...	...	2	2	2	26	223	280
	{ F. ...	673	...	...	...	1	3	64	278	327
1917.	{ M. ...	536	...	1	...	2	2	28	223	280
	{ F. ...	685	...	...	2	2	...	80	311	290
1918.	{ M. ...	568	...	1	...	3	1	23	257	283
	{ F. ...	740	...	...	1	...	1	62	320	356
1919.	{ M. ..	524	...	...	...	...	1	21	239	263
	{ F. ...	733	...	1	...	1	6	63	332	330
1920.	{ M. ...	604	...	...	1	3	6	44	244	306
	{ F. ...	745	...	...	...	1	3	77	320	344
1921.	{ M. ...	637	...	...	1	...	3	31	293	309
	{ F. ...	792	1	2	...	1	4	85	335	364
1922.	{ M. ...	634	...	...	1	1	3	26	285	318
	{ F. ...	751	...	...	...	1	6	75	317	352
1923.	{ M. ...	662	...	...	...	1	5	27	285	344
	{ F. ...	844	1	...	3	1	1	86	351	401

In the last ten years, 13,071 persons have died from this disease in the County of Kent, and the year under review shows another movement in the advance of this Juggernaut—both the number of deaths and the death-rate surpassing all the figures previously recorded in the county. One person in every 725 in the county died from cancer during 1923, and, roughly speaking, one death in every eight was accountable to this disease, which may now be said to have usurped the title bestowed on tuberculosis—"The White Man's Scourge."

BRITISH EMPIRE CANCER CAMPAIGN.—Preliminary steps were taken in February, March and April, 1923, to found a movement having for its purpose the promotion, co-ordination and financial support of existing cancer research. Prior to this time cancer research had been carried out by a number of bodies in this country, chiefly: The Imperial Cancer Research Fund, founded in 1901; The Cancer Research Laboratories of the Middlesex Hospital; The Cancer Research Department of the Cancer Hospital; The Cancer Research Department of the Christie Hospital,

Manchester; the McRobert Research Lectureship of the Marischal College Aberdeen. Some research upon cancer was also being carried out in the Pathological Laboratories of the principal hospitals in the Empire and by a number of independent research workers who were principally concerned with the clinical aspect of the question.

Two points were evident to the founders of the proposed scheme:—

(a) That the accelerated development of cancer research work in the above institutions in recent years indicated the necessity of co-ordination in order to prevent overlapping of effort.

(b) That increased financial support commensurate with this new and somewhat rapid development was necessary.

It was felt that the formation of a central co-ordinating body would result in larger funds being forthcoming from the public generally, coupled with an advancement of the subject owing to co-ordination of effort and the immediate provision of funds where required for special lines of research.

A series of meetings convened by Mr. Godfrey Locker-Lampson and Mr. J. P. Lockhart-Mummery, F.R.C.S., were held at the House of Commons in February and March of 1923, and the preliminary scheme of work of the Campaign included the formation of a number of specialised medical and scientific committees, each one representing some definite possible line of research. The Chairmen of such committees with a few financial and other representatives were to have formed an Executive Council, controlling the movement, aided by an advisory body to be known as the Grand Council. The original contemplated committees were to have represented Medicine, Surgery, Physiology, Human Pathology, Physics, Radiology, Animal and Plant Pathology, Hygiene and Vital Statistics.

It was decided that the body, of which I am a member, should be known as the British Empire Cancer Campaign, and that it should be incorporated under the Companies Acts, 1908-1917. Permission having been granted by the Board of Trade to omit the word "limited" as the Association was not conducted for profit, the Certificate of Incorporation was officially granted on 23rd May, 1923.

The membership of the Campaign was designated membership of the Institute and the members of the Institute corresponded to, or were equivalent to shareholders in an ordinary joint stock company. The members of the Institute under the Articles of Association were eventually to be the body empowered to elect the Grand Council, and the Grand Council in turn was to be the body responsible for the control and the election of its own committees.

At this stage a very generous donor, who desired to remain anonymous, and without whose financial help the present Campaign would have been impracticable, made himself responsible for paying the whole of the expenses of the foundation of the Campaign and its appeal to an extent of £20,000, in order that a declaration might be made to the Empire that all monies subscribed for the purpose of this Campaign would be available for cancer research until the whole of this sum of £20,000 had been expended.

It was deemed of the greatest importance that every effort should be made to obtain the contributions of the public with the lowest possible expenditure, and accordingly, the founders of the Campaign discussed with Sir Arthur Stanley, Chairman of the British Red Cross Society, the possibility of utilising in some way their present organisation in appealing for funds. The British Red Cross Society readily acquiesced to this suggestion and placed their organisation at the disposal of the Company to facilitate such action. The appeal was formally launched on the 31st May, 1923, by the publication in the press of a letter of appeal.

Up to the 31st May, 1924, the total subscriptions received by the Campaign amounted to £68,398 0s. 3d., to which must be added bank interest £1,197 8s. 0d. This sum has been partly collected through the County Committees of the British Red Cross Society, who organised appeals in their respective areas, and the remainder has been received by the British Red Cross Society direct at its headquarters, as a result of press advertising and the large amount of free press publicity which was generously accorded to this Campaign by the press of the country.

The total cost of administration of the Campaign, apart from the appeal, amounts to £2,138 19s. 9d., which includes salaries of staff, printing, travelling, lighting, heating, cleaning, telephone, etc. This somewhat low figure is explained by the economical organisation and control carried out by the Finance Committee, and secondly by the fact that the British Red Cross Society has generously placed at the disposal of the Campaign free accommodation at 19, Berkeley Street, the Campaign only paying actual outgoings in respect of cleaning, lighting and telephone expenses.

As to the necessity for providing a continual annual income to enable the Campaign to contemplate continued support to the existing institutions carrying out cancer research, and to finance to the fullest extent new research, this is occupying the careful attention of the Finance Committee at the present moment. It would seem from the returns to date from the County Committees of the British Red Cross Society that, having made the intense effort during 1923, the flow of subscriptions is not maintaining its former level, and furthermore that the County Red Cross Committees will of necessity

have to undertake their own domestic appeals, which they have postponed in the interests of the British Empire Cancer Campaign appeal. A transfer of appeal activities from the Red Cross organisation to the Campaign itself has been in contemplation, and mutual suggestions both by representatives of the British Red Cross Society and by the Campaign to carry this into effect are in course of being considered by the Grand Council. In these circumstances the headquarters of the Campaign will have to consider schemes which will entail their making their own efforts to obtain subscriptions in the future, and with this object in view they have been earmarking a small percentage of all subscriptions received to date to enable the Campaign to carry out the aforesaid objects.

As far as the great Dominions and Colonies and the outlying portions of the Empire are concerned the British Empire Cancer Campaign is hopeful that it will be possible for the British Red Cross Society to maintain a long continued effort on its behalf, since the existing Red Cross organisations in the Colonies would enable money to be raised for the purposes of the Campaign by the British Red Cross Society far more easily than by setting up a new organisation for the purpose.

Efforts were made in July, 1923, to secure the final approval and support of the Imperial Cancer Research Fund, the Middlesex Hospital, the Cancer Hospital, Marischal College, Aberdeen, Christie Hospital, Manchester, and other bodies interested in cancer research by an arrangement for their full representation on the Campaign, and a series of meetings took place between representatives of the respective bodies to ascertain the best way in which effective representation on the controlling body of the Campaign could be carried out. It soon became apparent that the best way to effect this was to make the Grand Council the controlling body and for the above mentioned research bodies to nominate their representatives to the Grand Council, the Executive Council being one of its committees. This also necessitated remodelling the original scheme of the special committees. The necessary meetings having been held the Articles of Association were remodelled with the consent of the Board of Trade, making the Grand Council the governing body with all committees subordinate to it.

The Articles of Association of the Campaign provide that the Imperial Cancer Research Fund, the Middlesex Hospital and the Cancer Hospital shall be entitled to an equal number of representatives at all times on the Grand Council, apart from the representatives nominated by the other associated bodies.

Suggestions were then received from the Ministry of Health and the Medical Research Council of the Privy Council, relative to the formation of a scientific advisory body, which should advise the Grand Council on all matters

pertaining to the application of its funds for cancer research. It was finally agreed that a body should be set up, known as the Scientific Advisory Committee and consisting of ten members, nominated jointly by the British Empire Cancer Campaign, the Royal Society and the Medical Research Council, the latter two bodies nominating one-half and the British Empire Cancer Campaign the other half.

Its functions defined by Article 33 of the Articles of Association are as follows :—

“The functions of the Advisory Committee shall be to consider, advise and report upon any recommendations made to it by the Executive or any other committee for the time being constituted by the Grand Council in relation to research work ; to advise and report upon the steps to be taken in relation to research work and upon the allotment, advance and application of moneys for the purposes aforesaid or any kindred purpose. All recommendations of the Advisory Committee shall be made to the Grand Council.”

The formation of this committee, the augmentation of that of the Finance Committee and the formation of the Intelligence and Publication Committee and the Preliminary Enquiry Committee, completed the present organisation of the Campaign, and it is confidently anticipated that the machinery thus set up will enable the Campaign to fulfil efficiently the duties for which it was formed.

The Campaign was unfortunately deprived of the invaluable services of its Chairman, The Rt. Hon. The Earl of Athlone, G.C.B., G.C.V.O., D.S.O., on his leaving this country to take up his appointment as Governor-General to the Union of South Africa. The Grand Council, however, were happy in obtaining the consent, in February, 1924, of the Rt. Hon. Viscount Cave, G.C.M.G., to become Chairman of the Campaign and the Grand Council, and in May of this year His Royal Highness, The Duke of York, K.G., graciously intimated his pleasure in accepting the invitation of the Campaign to become its President.

Discussions at meetings of the Scientific Advisory Committee and at those of the Grand Council have resulted in a decision that the Campaign shall function in two ways :—

- (a) By the maintenance and development of existing research institutions.
- (b) By the financial support of specific lines of research.

To ensure that prompt action is taken with regard to the application for funds for research purposes recommended by the Scientific Advisory Committee the Grand Council has empowered the Executive Committee to make

immediate interim grants up to £250 each, and not exceeding a total sum of £1,000 between meetings of the Grand Council, which are only held quarterly.

In furtherance of these decisions the Grand Council at its meeting held on Monday, April 14th, 1924, made immediate interim grants of £2,500 to the Research Laboratories of the Middlesex Hospital, and £2,500 to the Research Department of The Cancer Hospital. A further application which has been received from the Christie Hospital, Manchester, for funds for cancer research, of £1,000, and an application for similar purposes from St. Mark's Hospital, City Road, of £200, are being likewise dealt with.

Simultaneously, the Preliminary Enquiry Committee has dealt with some three hundred offers of cures and applications for support for research work. These offers of cures and services are of an extremely divergent nature, some coming from remote parts of the world to the Campaign's Headquarters and range from some old fashioned remedies going back a great many years down to very modern treatment. More than ordinary care has been exercised in considering every offer made and from wherever it comes, as the Campaign is desirous that nothing shall be lost, however small, that might assist in the great object the Campaign has in view. Those applications deemed as making out a *prima facie* case have been passed forward to the Scientific Advisory Committee which has been holding, since its inception, meetings every month in order to prevent undue delay. The decisions of the Preliminary Enquiry Committee have been mainly of a negative character owing to the fact that the applications received by it would have resulted in a duplication of work which has either been carried out elsewhere, or was being carried out at the time or referred to remedies that had already been tried without satisfactory results. On the other hand it recommended that further investigations should be forthwith carried out by Dr. Louis Sambon, in the Faenza District of Italy, in furtherance of work which he had carried out under the ægis of the old Executive Council, prior to the re-organisation of the Campaign, and the sub-joined matters which have been subsequently dealt with by the Scientific Committee.

Important suggestions have been brought before the Scientific Advisory Committee from the Medical Research Council of the Privy Council to the effect that the Campaign should undertake extensions of the investigation of radium in relation to its effect on cancer. Such recommendations which were approved by the Scientific Advisory Committee are at this moment under the consideration of the Grand Council, and consist of an expenditure of £5,000 for the purchase of half a gramme of Radium Salts; the formation of a central depôt at the Middlesex Hospital, or elsewhere, and support for a Radiologist and staff in connection with its distribution and use and scientific observations

at a cost of £325 for the formation of the depôt, and £680 per annum for the necessary staff.

An application has also been before the Scientific Advisory Committee and recommended to the Grand Council from St. Bartholomew's Hospital, who having installed hard X-ray apparatus for deep therapy and having set up a Scientific Observation Hospital Committee, appealed to the Campaign for the support of a whole-time Radiologist in connection with these investigations, which embrace comparative work of the value of X-ray in combination with or independently of radium.

Radiology plays an important part in the present treatment of cancer and the field of scientific investigation into radium and X-rays generally is ever increasing. In furtherance of its general policy of co-ordination of effort amongst all who are carrying out cancer investigation, the Grand Council has under consideration the question of asking the Ministry of Health and the Medical Research Council of the Privy Council to unite with the British Empire Cancer Campaign in setting up one expert Radiological Committee which shall deal with all radiological matters for the three above mentioned bodies.

In furtherance of the same policy the Campaign proposes to ask the Ministry of Health to allow its Statistical Committee to provide such statistical intelligence as the Campaign may require and thus to save the expenditure involved by the Campaign setting up such a committee and duplicating the work already being done.

Advantage will also be taken to utilise the data obtainable of the incidence of cancer in other countries by means of information from the sub-committee of the League of Nations about to be formed for these purposes.

A meeting was convened by the Right Hon. the Lord Mayor, at the Mansion House on May 6th, 1924, in support of the Campaign, and the meeting was honoured by the presence of His Royal Highness the Duke of York, President of the Campaign.

VENEREAL DISEASES.

The county scheme is the same as outlined in my annual report for 1921, and the only variations in the list of clinics and times of opening, as set out therein, are the deletion of the Saturday and Monday clinics at Canterbury, and the alteration of clinic days and times at Dartford and Folkestone, as follows:—

Dartford	Men	{ Mondays	4.30 to 6.30 p.m.
		{ Wednesdays	5.0 ,, 6.0 ,,
	Women	Tuesdays	4.0 ,, 6.0 ,,
Folkestone	Men	Fridays	7.30 ,, 9.30 ,,
	Women	Mondays	3.30 ,, 5.30 ,,

The following are particulars of the work carried out during 1923 :—

TABLE 15.

RETURN FOR THE COMBINED KENT CLINICS.

							Males.	Females.	
(1) Number of persons who, on 1st January, 1923, were under treatment or observation for :—									
Syphilis	...	...	...	...	...	363	...	257	
Soft chancre	...	...	...	...	...	1	...	—	
Gonorrhœa	...	...	...	...	...	318	...	86	
Conditions other than venereal	...	...	...	...	...	10	...	13	
Total						692	...	356	
(2) Number of persons dealt with during the year, at, or in connection with, the out-patient clinics for the first time and found to be suffering from :—									
Syphilis only	...	...	...	...	...	191	...	115	
Soft chancre only	...	...	...	...	...	4	...	—	
Gonorrhœa only	...	...	...	...	...	230	...	68	
Syphilis and soft chancre	...	...	...	...	...	—	...	—
Syphilis and gonorrhœa	...	...	...	...	...	—	...	2	
Gonorrhœa and soft chancre	...	...	...	...	...	—	...	—
Syphilis, soft chancre and gonorrhœa	...	...	...	...	...	—	...	—
Conditions other than venereal	...	...	...	...	...	154	...	88	
Total						579	...	273	
(3) Number of persons who ceased to attend the out-patients' clinics :—									
(a) Before completing a course of treatment for :—									
Syphilis	...	...	...	...	...	56	...	46	
Soft chancre	...	...	...	...	...	2	...	—	
Gonorrhœa	...	...	...	...	...	96	...	40	
Conditions other than venereal	...	...	...	...	...	—	...	—
Total						154	...	86	
(b) After completion of a course of treatment but before final tests as to cure of :—									
Syphilis	...	...	...	...	...	39	...	49	
Soft chancre	...	...	...	...	...	—	...	—
Gonorrhœa	...	...	...	...	...	49	...	15	
Conditions other than venereal	...	...	...	...	...	7	...	1	
Total						95	...	65	

(4) Number of persons transferred to other treatment centres after treatment for :—

	Males.	Females.
Syphilis	29	16
Soft chancre	—	—
Gonorrhœa	20	6
Conditions other than venereal	1	—
Total	50	22

(5) Number of persons discharged from the out-patient clinics after treatment and observation for :—

Syphilis	23	20
Soft chancre	3	—
Gonorrhœa	62	20
Conditions other than venereal	155	92
Total	243	132

(6) Number of persons who, on 1st January, 1924, were under treatment or observation for :—

Syphilis	407	243
Soft chancre	—	—
Gonorrhœa	321	75
Conditions other than venereal	3	6
Total	731	324

(7) Total attendances of all persons at the out-patient clinics who were suffering from :—

Syphilis	3671	2599
Soft chancre	25	—
Gonorrhœa	8242	2313
Conditions other than venereal	231	149
Total	12169	5061

(8) Number of doses of arseno-benzol compounds given in the :—

Out-patient clinics	2918
In-patient departments	9

TABLE 16. Summary of work at separate Clinics.

Institution.	Patient Days.	New Patients.				Attendances.				In-Patient Treatment.		Patients discharged, including transfers.		Arseno-benzol compounds.	
		Gonorrhoea.	Syphilis.	Soft Chancre.	Not Venereal Disease.	Gonorrhoea.	Syphilis.	Soft Chancre.	Not Venereal Disease.	Patients.	Days.	Patients discharged, including transfers.	Still under Treatment.	Patients.	Doses.
Ashford...	49	7	3	1	5	54	116	13	7	—	—	49	12	21	71
Canterbury	29	18	14	3	19	56	503	6	45	—	—	51	52	165	165
Dartford..	182	30	35	—	41	2634	889	—	—	—	—	118	67	139	388
Dover ...	101	27	39	—	36	1132	690	—	72	4	85	93	53	98	548
Faversham	49	6	14	—	16	67	309	—	33	—	—	30	38	32	188
Folkestone	154	15	10	—	8	630	227	—	17	1	5	42	26	38	156
Gravesend	102	28	31	—	21	161	372	—	40	1	87	76	69	37	155
Margate	50	28	29	—	18	1105	472	—	34	—	—	101	71	47	292
Rochester	220	105	98	—	2	3829	2175	6	28	2	88	160	584	177	679
Sheerness	49	13	20	—	15	667	255	—	29	—	—	53	30	30	166
Tunbridge Wells	103	23	15	—	61	220	262	—	75	2	31	74	53	55	119
Totals..	1158	300	308	4	242	10555	6270	25	380	10	296	847	1055	839	2927
London Hospitals	—	184	135	4	109	7556			?	2360	?	?	?	?	1011

Eight Kent patients were admitted to London hostels during the year 1923, aggregating 1415 days in residence.

Examinations of pathological specimens for the detection of spirochaetes and gonococci, and tests for the Wassermann reaction, are undertaken at the bacteriological laboratory attached to the County Medical Officer's department. The numbers of examinations carried out during the year were as follows:—

For detection of spirochaetes	...	{ For treatment centres ...	8
	...	{ For practitioners ...	8
For detection of gonococci ..	...	{ For treatment centres ...	273
	...	{ For practitioners ...	186
For Wassermann reaction ...	...	{ For treatment centres ...	942
	...	{ For practitioners ..	790
Other examinations ...	...	...	56
Total	...	...	<u>2263</u>

The provision of approved "arsenobenzol" compounds to medical practitioners producing satisfactory evidence of experience in the administration of these drugs, is undertaken direct from the County Health Department. My office index contains the names of eighty-six accredited practitioners, and during the year 3,699 doses were supplied, namely, 509 to private doctors and 3,190 to medical officers of treatment centres.

The number of patients under the care of private doctors for whom these substitutes were supplied during the year was seventy-three.

In cases where patients cannot receive the treatment required, unless travelling expenses are paid, the County Council defrays the cost. The fares of nine patients were paid during 1923.

The educational and propaganda arrangements have been undertaken on the same lines as previously outlined.

The following observations are made by Dr. Cassells, the whole-time Venereal Diseases Medical Officer:—

"The work in the clinics has progressed steadily during the past year. The number of fresh cases attending has decreased by 10 %, (8 % syphilis and 2 % gonorrhœa). This decrease has been noted each year since 1920, and the work of the clinics is responsible for this in a very great measure by curing the disease, and lessening the period of infectivity. The type of case of syphilis, as was noted in last year's report, has been mainly of the congenital or of the late variety, recently acquired infections being seldom seen. The congenital cases are mainly the children of parents treated in the pre-salvarsan era, and in all these cases every effort is made to induce the parents to undergo treatment, with the result that, when they do so, healthy children are born. A certain proportion of congenital cases are diagnosed first at the school medical inspections, and are sent to the clinics for treatment, and a large proportion of those under school age are sent to the clinics by the district nurses and health visitors for diagnosis. It may be mentioned in this connection that a series of lectures, which I gave during the summer to the nurses, midwives and health visitors, on the signs and symptoms of venereal diseases, led to the sending up of a large number of cases to the clinics.

"The standard of treatment of syphilis, and the proportion of cases so treated, is higher at the present day than it has ever been, and the probability is that we are well on the way to stamping out this disease.

"The attendances at the clinics show an increase as compared with last year. This is accounted for by the greater use being made of the facilities for the intermediate treatment of gonorrhœa, and shows that the patients are realising the benefit of this method of treatment in cutting short the course of the disease and the greater certainty of cure with consequent lessening of the period of infectivity."

PATHOLOGICAL LABORATORIES.

Again there has been during the past year a continued increase in the amount of work undertaken. The actual number of specimens examined has not been so high as in the record year (1921), but in that year a large proportion of specimens were simple diphtheria examinations. This class of examination is subject to much variation according to the amount of diphtheria existent in the county, and therefore a true standard of the progress of the laboratory can best be determined by comparing the number of specimens other than diphtheria examined in each year. When this comparison is made it will be noticed that the work has increased steadily each year, and with this reservation in 1923 the amount done was in excess of any previous year.

Attention is drawn again to the fact that in certain districts the best use is not made of the valuable method in preventing the spread of diphtheria by swabbing contacts.

As an experiment, a branch of the County Laboratory was established during the year at Sheerness, with the co-operation of Dr. Hills, the medical officer of health for that district. The arrangement has been that outfits, media, forms, &c., are supplied from the County Laboratory as required, and the laboratory and its fittings were supplied by the Sheerness District Council. Dr. Hills makes such examinations for local doctors as do not require elaborate apparatus, &c., and reports results direct to them, making a quarterly return of his work to me. The advantage of this plan is that a very great deal of

TABLE 17.—Details of various specimens examined at the County Laboratory during 1923:—

(i) SPECIAL EXAMINATIONS IN CONNECTION WITH INFECTIOUS DISEASES.			
Examinations of serum (?) <i>B. Para-typhosus</i> (agglutination test)			131
Examinations of faeces (?) Typhoid group of organisms			107
Examinations of urine (?) Typhoid group of organisms			70
Testing virulence of <i>B. Diphtheriae</i>			34
Examinations of urine (?) tubercle bacilli			27
Examinations of faeces (?) <i>B. Dysenteriae</i>			18
Examinations of pus (?) tubercle bacilli			12
Examinations of blood films (?) malaria			11
Examinations of serum (?) <i>B. Dysenteriae</i> (agglutination test)			9
Examinations of cerebro-spinal fluid (?) meningococcus			8
Examinations of milk (?) tubercle bacilli			7
Examinations of pleural effusion (?) tubercle bacilli			5
Examinations of faeces (?) tubercle bacilli			4
Examinations of blood for complement deviation for tubercle bacilli			5
Examinations of cattle cake (?) <i>B. Anthracis</i>			2
Examinations of cultures (?) <i>B. Anthracis</i>			2
Biological tests for tubercle bacilli (testing pasteurisation plant)			2
Examinations of sputum (?) tubercle bacilli and organisms			2
Examinations of faeces (?) <i>Lambia intestinalis</i>			2
Examination of post nasal swab (?) meningococcus			1
Biological tests for tubercle bacilli in sputum			1
Biological tests for tubercle bacilli in Milk			1
Fluid from gangrene of wrist (?) tubercle bacilli			1
Examinations of faeces (?) tubercle bacilli and <i>B. Typhosus</i>			1
Examination of thumb (?) <i>B. Tetani</i>			1
Examination of cerebro-spinal fluid (?) poliomyelitis			1
Examination of gland of sheep (?) tubercle bacilli			1
Examination of fluid from knee (?) tubercle bacilli			1
Examination of malignant pustule (?) <i>B. Anthracis</i>			1
Examination of sheep's spleen (?) <i>B. Anthracis</i>			1
Examination of discharge from ear (?) <i>B. Typhosus</i>			1
Total			470
(ii) SPECIAL EXAMINATIONS IN CONNECTION WITH NON-INFECTIOUS DISEASES.			
Histological examinations of tissues			126
Preparation of autogenous vaccines			71
Bacteriological examinations of urine			40
Microscopical			24
Chemical			27
General			12
Examinations of blood films—differential count, &c.			30
Examinations of pus (?) organisms			27
Examinations of fluids (?) organisms			16
Examinations of faeces (?) organisms			13
Examinations of cerebro-spinal fluid (?) organisms			12
Examinations of sputum (?) organisms			11
Examinations of swabs (?) organisms			10
Blood sugar tests			9
Examinations of blood cultures (?) organisms			9
Examinations of cultures (?) organisms			8
Examinations of cultures (?) hæmolytic streptococci			5
Examinations of faeces (?) protozoa			4
Examinations of faeces (?) occult blood			4
Examinations of specimens from teeth and gums (?) organisms			3
Biological tests—coconut cake, etc.			3
Examinations of smears (?) organisms			3
Examinations of faeces (?) hæmolytic streptococci			4
Examinations of parasites (?) nature			2
Examinations of pus (?) actinomycosis			2
Examination of scales from leg (?) nature			1
Examination of imported meat (?) nature			1
Examination of aurai discharge (?) organisms			1
Examination of blood (?) malignant cells			1
Blood coagulation test			1
Examination of specimen from throat (?) streptococci			1
Examination of faeces (?) mucus			1
Examination of swabs (?) sterility (testing disinfectant)			1
Examination of gall stones (?) nature			1
Examination of deposit (?) nature			1
Examination of swab (?) pneumococci			1
Examination of ligament (?) <i>B. Tetani</i>			1
Bacteriological examination of cockles			1
Examination of residue from clarifier of Pasteurisation plant			1
Examination of foreign bodies in faeces (?) nature			1
Examination of cooked potatoes (?) cause of red colour			1
Examination of faeces (?) ankylostoma			1
Examination of blood film from sore (?) leishmaniasis			1
Total			493
(iii) EXAMINATIONS OF WATERS, MILK, ETC.			
Bacteriological examinations of water			69
Government examinations of graded milk			40
Bacteriological examinations of milk (District M.O.H.)			9
.. .. (Kent Milk Recording Society)			11
Total			129
Grand Total			1092
(iv.) EXAMINATIONS CARRIED OUT IN THE SHEERNESS AUXILIARY LABORATORY (DR. W. C. D. HILLS).			
Nature of Examination.	Positive.	Negative.	Total.
Bacteriological examinations of swabbings taken from the throat in cases of suspected diphtheria	15	83	98
Bacteriological examinations of sputum from patients suspected to be suffering from phthisis	4	14	18
Microscopical examinations of hairs from children suspected to be suffering from 'ringworm'	15	5	20
Special examinations	—	—	3
Totals ...	34	102	139

TABLE 18.—Showing the numbers of specimens of each kind sent to the Laboratory for examination from the **Urban** and **Rural Districts** during the years 1912, 1921, 1922 and 1923.

Districts.	Diphtheria.				Typhoid Fever.				Phthisis.			
	1912. (First Year.)	1921.	1922.	1923.	1912. (First Year.)	1921.	1922.	1923.	1912. (First Year.)	1921.	1922.	1923.
Urban	2656 (1·8)	11474 (6·0)	5592 (4·9)	3920 (6·6)	290 (1·1)	133 (1·4)	122 (1·9)	165 (1·9)	295 (0·2)	1791 (1·8)	2090 (2·0)	2323 (2·0)
Rural.....	785 (1·6)	5054 (7·0)	3581 (7·7)	1833 (8·1)	44 (0·6)	45 (1·0)	58 (2·8)	71 (2·7)	70 (0·1)	644 (1·7)	677 (1·7)	794 (1·7)
Total (including Combined Hospitals, etc.)	3487 (1·8)	19679 (7·3)	13290 (8·2)	7515 (9·1)	335 (1·0)	180 (1·3)	189 (2·2)	249 (2·2)	365 (0·2)	2570 (1·8)	2957 (1·9)	3297 (1·9)

Districts.	Ringworm.				Water.				Various.				Grand Total.				Milk.	
	1912. (First Year.)	1921.	1922.	1923.	1912. (First Year.)	1921.	1922.	1923.	1912. (First Year.)	1921.	1922.	1923.	1912. (First Year.)	1921.	1922.	1923.	1914.	1915 to 1923.
Urban	517	790	739	558	41	38	39	64	59	407	466	709	3858	14633	9048	7739	44	Tuberculosis Order suspended.
Rural.....	168	486	328	366	13	3	1	4	7	174	154	251	1087	6406	4799	3319		
Total (including Combined Hospitals, etc.)	685	1277	1068	925	54	42	41	69	66	663	698	1023	4992	24411	18243	13078		

NOTE.—The figures in brackets show the numbers of specimens examined per case notified (excluding Canterbury).

Table 15. Showing the distribution of the population of the District of Columbia in the year 1912.

District	1912		1910		Total
	Population	% of Total	Population	% of Total	
Washington	100,000	100.00	90,000	100.00	190,000
Adams	10,000	10.00	10,000	10.00	20,000
Benning	10,000	10.00	10,000	10.00	20,000
Brookland	10,000	10.00	10,000	10.00	20,000
Capitol Hill	10,000	10.00	10,000	10.00	20,000
Georgetown	10,000	10.00	10,000	10.00	20,000
Logan Circle	10,000	10.00	10,000	10.00	20,000
Northwest	10,000	10.00	10,000	10.00	20,000
Southwest	10,000	10.00	10,000	10.00	20,000
Upperville	10,000	10.00	10,000	10.00	20,000
Wheat Ridge	10,000	10.00	10,000	10.00	20,000
Woodley	10,000	10.00	10,000	10.00	20,000
Total	1,000,000	100.00	900,000	100.00	1,900,000

District	1912		1910		Total
	Population	% of Total	Population	% of Total	
Washington	100,000	100.00	90,000	100.00	190,000
Adams	10,000	10.00	10,000	10.00	20,000
Benning	10,000	10.00	10,000	10.00	20,000
Brookland	10,000	10.00	10,000	10.00	20,000
Capitol Hill	10,000	10.00	10,000	10.00	20,000
Georgetown	10,000	10.00	10,000	10.00	20,000
Logan Circle	10,000	10.00	10,000	10.00	20,000
Northwest	10,000	10.00	10,000	10.00	20,000
Southwest	10,000	10.00	10,000	10.00	20,000
Upperville	10,000	10.00	10,000	10.00	20,000
Wheat Ridge	10,000	10.00	10,000	10.00	20,000
Woodley	10,000	10.00	10,000	10.00	20,000
Total	1,000,000	100.00	900,000	100.00	1,900,000

Note—The figures in this table are based on the 1912 Census of the District of Columbia.

time is saved in obtaining reports on specimens since they do not have to be sent to Maidstone by post. The experiment has worked very well so far.

The Maidstone laboratory has been approved as one where official examinations of Grade A and Certified Milks may be made, and many examinations are being made regularly in connection with the Milk (Special Designations) Order, 1922.

The value of the County Bacteriological Laboratory to the health organisation of the county is undoubtedly great, and a matter for congratulation and pride. There are constant references in the returns received from the local medical officers of health to the "most useful" and "most helpful" facilities offered by the laboratory—facilities of which full advantage appears to be taken, and which are greatly appreciated by the vast majority of medical practitioners. A few exceptions do exist. The medical officer of health of the *Malling Rural* district mentions that some few practitioners "appear from the returns to use the laboratory very little indeed, and could, I feel sure, do so more freely with advantage to themselves and to their patients." Such exceptions, however, are remarkably few. They are in truth the exceptions that prove the rule.

From the many appreciative references in the district reports the following may be quoted as typical. Dr. Holroyde (*Chatham Borough*) writes: "The whole of the Council's work is carried out at the County Council Laboratory at Maidstone. This institution has developed greatly, and the work formerly confined chiefly to the investigation of infectious disease has now been supplemented by the routine examination of tissue sections and of blood sugar tests. This work should be of great value in connection with two diseases now engaging attention, viz., cancer and diabetes. From several years' experience I can speak in the highest terms of the satisfactory and expeditious manner in which the work of the laboratory is carried out, and of its value, not only to the medical officers of health, but to the great body of the profession practising in the county."

Details of all examinations made during the year will be found in tables 17 and 19: —

(Table 19 continued.)—Analysis of Work carried out in the County Bacteriological Laboratories.

DISTRICT.	Number of Doctors sending in specimens.	DIPHTHERIA.				TYPHOID FEVER.			PHTHISIS.			RINGWORM. Number of Examinations.	WATERS. Number of Examinations.	VARIOUS Number of Examinations.	TOTAL Number of Examinations.		
		Numbers of examinations made.				Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.	Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.						
		Acute Stage.	Convalescent Stage.	Contacts.	Total.												
Malling ...	12	40	9	28	77	7	11.0	9	5	1.8	97	66	1.5	3	—	64	250
Milton ...	13	31	—	150	181	29	5.3	—	2	—	43	22	2.0	1	—	1	296
Romney Marsh ...	3	3	—	—	3	1	3.0	1	—	—	5	1	5.0	1	—	—	10
Sevenoaks ...	16	50	7	30	87	13	6.7	1	3	0.3	54	24	2.3	61	—	32	235
Sheppey ...	4	2	—	1	3	7	0.4	4	—	—	24	6	4.0	40	—	6	77
Strood ...	13	15	4	3	22	15	1.5	1	1	1.0	34	24	1.4	38	—	1	96
Tenterden ...	8	8	1	—	9	—	—	3	—	—	11	4	2.8	1	—	9	33
Thanet ...	10	35	19	116	170	8	21.3	1	—	—	38	23	1.7	27	—	8	245
Tonbridge ...	8	18	2	1	21	6	3.5	—	1	—	46	25	1.9	3	—	1	71
Total in Rural Districts ...	—	426	130	839	1395	228	6.2	71	27	2.7	793	486	1.7	366	4	247	2876
Total Urban Districts ...	—	1325	289	1052	2666	595	4.5	158	88	1.8	2319	1220	1.9	558	64	646	6411
Total Rural Districts ...	—	426	130	839	1395	228	6.2	71	27	2.7	793	486	1.7	366	4	247	2876
Total Urban District Hospitals ...	—	148	1102	4	1254	—	—	7	—	—	4	—	—	—	—	63	1328
Total Rural District Hospitals ...	—	22	416	—	438	—	—	—	—	—	1	—	—	—	—	4	443
Total Combined Hospitals ...	—	349	1298	1	1693	—	—	11	—	—	113	—	—	1	—	43	1861
Examinations for Canterbury ...	—	38	27	3	68	?	?	2	?	?	66	?	?	—	1	20	157
Various County Specimens ...	—	1	—	—	1	—	—	—	—	—	1	—	—	—	—	—	2
GRAND TOTAL ...	—	2354	3262	1899	7515	823	*9.1	249	115	*2.2	3297	1706	*1.9	925	69	1023	13078

* Excluding those Examinations carried out for the City of Canterbury.

The following tabulation shows various details respecting the numbers of midwives, notifications received, &c., during the first two years of county administration, and each of the last five years :—

	1900 (from May 1)	1910	1919	1920	1921	1922	1923.		Total
							North and West. Miss Harrison.	South and East. Miss Berry.	
Number of Midwives practising in the County on January 1st	351	361	286	294	302	312	190	128	318
Removed during year	16	15	32	62	43	67	30	19	58
Died	6	8	3	6	6	1	—	—	—
Resigned	7	13	7	5	2	8	5	—	5
Certificates cancelled by Central Midwives Board during the year	—	8	1	—	—	—	—	—	—
Number of additional Midwives who notified their intention to practise in the County during the year	39	24	51	81	61	82	40	21	61
Number of Midwives practising on December 31st	361	341	294	302	312	318	189	127	316*
Number of cases censured and cautioned by the Central Midwives Board strictly to observe the Rules	—	3	—	—	—	—	1	—	1
Number of midwives prosecuted for not notifying their intention to practise	—	1	—	—	—	—	—	—	—
Uncertified women prosecuted for practising as midwives, etc.	—	4	—	—	2	—	—	—	—

Numbers of Notifications, Inspections &c. :—

Stillbirths	138	222	219	262	188	189	100	66	175
Deaths { Mother	2	2	3	1	2	2	1	3	4
{ Child	22	26	24	26	32	20	6	6	12
Medical { Mother	234	533	882	1116	1015	966	625	502	1127
Help { Child	80	162	451	519	470	448	218	198	416
Notifications of having laid out a dead body	—	—	53	39	52	51	33	23	56
Notifications of liability to be a source of infection	—	—	20	29	23	29	10	15	25
Notifications of having advised artificial feeding	—	—	41	110	68	76	23	32	55
Total Visits paid by Inspectors	1487	2255	1390	1499	1434	1329	698	648	1346
Inspections of <i>Bond Fide</i> Midwives	449	710	221	213	151	137	86	39	125
Inspections of Trained Midwives	197	359	597	585	581	612	358	407	765

*Of these midwives 268 were trained as compared with 115 trained in 1909.

The midwife who was censured by the Board was cited to appear on a charge of being guilty of negligence and misconduct, as it was elicited at a Coroner's inquest that a patient on whom she was in attendance at a Maternity Home died after the administration of a drug by the midwife, and prior to the patient having been seen by a doctor.

It will be observed that there was a decrease of two practising midwives at the end of the year.

CASES ATTENDED ALONE BY MIDWIVES.

*213 midwives attended 25 cases or less.			
56	''	''	26 to 50 cases.
27	''	''	51 to 75 ''
15	''	''	76 to 100 ''
8	''	''	101 to 125 ''
8	''	''	126 to 150 ''
2	''	''	151 to 175 ''
4	''	''	176 cases upwards.

* Of this number, one hundred and ten were either district nurses, or midwives who had commenced practising during the year.

From enquiries made of each midwife, it has been ascertained that 10,382 births were attended by midwives alone out of a total number of 19,886 births registered in the Administrative County of Kent during the year 1923.

SUMMARY OF REASONS OF SENDING FOR MEDICAL HELP (1923):—

For the mother :—

	North and West Kent.	South and East Kent.	Whole County.
Abnormal Presentation	76	33	109
Abnormal labour (? obstructed)...	48	27	75
Abortion	38	11	49
Ante-partum hæmorrhage	24	31	55
Delayed labour	125	126	251
Post-partum hæmorrhage	27	19	46
Rise of temperature.....	28	28	56
Retained placenta	38	29	67
Torn perineum.....	137	111	248
Miscellaneous	56	74	130
Ante-natal	28	13	41
Totals	625	502	1127

For the child :—

Prematurity and feebleness	83	56	139
Deformities.....	25	19	44
Inflammation of the eyes	75	56	131
Skin eruptions	3	8	11
Miscellaneous.....	32	59	91
Totals	218	198	416

PUERPERAL FEVER.—During the year under review, forty-two cases of puerperal fever were notified; of this number, sixteen were attended, in the first place, by midwives alone, twenty by doctors (in eight of these cases a midwife acted in the capacity of maternity nurse), and three by uncertified women. There were twenty-seven deaths recorded. In 1922, the figures were thirty-eight cases and thirty-one deaths.

A comparison of the notification returns and the death returns, indicates that notification of this disease is not complete, and I am therefore unable to give a reliable figure to show the case mortality. This, however, is very high.

OPHTHALMIA NEONATORUM.—It will be seen from tables 3 and 4 that ninety-two cases of ophthalmia neonatorum occurred during 1923. Those cases occurring in the practice of midwives are investigated in the ordinary course by the inspectors.

The following is a summary of the total cases which occurred in Kent during the year:—

Treated	{	At home	65
		In hospital	18
		No information.....	9
Vision	{	Unimpaired	58
		Impaired	2
		Total blindness.....	1
		No information.....	30
		Death	1

Of the twenty-five cases which occurred in the county child welfare area, seven were treated in hospital. In no case was the vision impaired.

MIDWIFERY SERVICE.—In 1917 the Kent County Council considered the position of the midwifery service, and having regard to the acute shortage in certain areas, decided to take steps to meet the same by

- (i.) guaranteeing suitable competent women who were willing to practise where they might be required, a minimum annual income, part of which should be in the form of a subsidy, varying according to the number of fee-paying patients they might be expected to attend ;
- (ii.) negotiating the formation of nursing associations, the County Council to make grants towards the expenses. It was to be distinctly understood that the County Council would have a definite voice in the selection of the midwife and in the matter of her services.

Grants ranging up to £50 were made to several newly-formed nursing associations, and a number of midwives were appointed with subsidies varying from £30 to £50 per annum to ensure them an income of not less than £80. In March, 1919, owing to the increased cost of living, the minimum guaranteed income was increased to £100 per annum, £20 being added to the subsidy.

The great difficulty encountered was the shortage of suitably trained candidates, but this was partly met by an extension of the Kent Education Committee's scheme for granting midwifery scholarships to suitable candidates recommended by the Kent County Nursing Association or by the County Medical Officer, whereby the candidate was trained free, in consideration for which she had to give an undertaking to practise as a midwife where required in the county for three years. Eight midwives at present practising in Kent have, on my nomination, been trained under this extended scheme. Four have replaced old midwives who have given up practice or left the county, and four have been granted a subsidy.

In the early part of 1924, a review of the position showed that in two boroughs and in one hundred parishes the services of a midwife were not available, whilst in two urban districts and thirty-two parishes the midwifery service was inadequate. Many of the parishes are so small and so remotely situated, that it is difficult, if not impossible, to deal with them, whilst in several others a doctor and a maternity nurse are available. The remaining places, however, can be grouped into thirty areas, so that a midwife or a district nursing association can serve two, three or four parishes adequately.

In a number of the more densely populated parishes a subsidy would only be needed for a limited period during which a midwife was working up a practice, but in the majority of instances the earnings would be so small that public financial assistance would always be necessary. In a few cases it is hoped to meet the demand by training local women who are not entirely dependent on the work for their livelihood, and in these cases no subsidy would be granted. A few vacancies have been advertised with the result that several suitable women have applied for training.

At the time of writing the following districts are served by subsidised midwives:—Aylesford and district; Tenterden and district; Yalding and Hunton; Hoo and High Halstow; Sidecup; Hadlow and district; Halling and district; Farleigh and district; Loose and Linton; Brasted; Wingham and district; Swanscombe and district; and Crayford.

Steps are being taken to place other midwives as opportunities occur.

An inquiry which has recently been made into the financial position of nursing associations in the county which provide for midwifery and maternity nursing, showed that sixty-three had credit balances and fifteen debit balances. Of the former number, the balances in thirty instances were less than £40, and the majority of the associations which were in a position to judge as to the likely position in the future, anticipated a falling off in income.

Of the sixty-three associations with credit balances, fifty-five had made special efforts to supplement their funds, whilst of the fifteen with debit balances,

twelve had made similar efforts. These special efforts were on the lines of sales of work, jumble sales, garden fêtes, concerts and theatricals, whist drives, dances, sports, appeals for new subscribers and collection of subscriptions by house-to-house visitation.

Twenty-seven associations stated that there had been a falling off of subscriptions of recent years.

In view of the position shown by this enquiry, the County Council have decided to make grants to assist associations which are in danger of falling through owing to lack of funds, provided that local efforts are made in the first instance to supplement the income. In the case of those associations affiliated to the County Nursing Association there will be co-operation in this matter between the County Nursing Association and the County Council.

At the time of writing one affiliated and one unaffiliated association have been so assisted.

No grants were made during 1923 to newly-formed district nursing associations.

POST-CERTIFICATE COURSE FOR MIDWIVES.—Arrangements are being made to hold a week's course at Gillingham early in October, 1924, for midwives practising in the county. Full details will be given in my next report.

LECTURES TO MIDWIVES.—It was found that many midwives were not fully acquainted with the signs and symptoms of venereal diseases, and were in consequence not always able to advise promptly the calling in of medical assistance or attendance at a venereal diseases clinic. I therefore arranged for Dr. Cassells, the County Venereal Diseases Medical Officer, to give lectures on this subject, at thirteen convenient centres so that midwives from the surrounding urban and rural districts could attend. The health visitors of local authorities were also invited. All midwives who were unable to be present at one of the above centres were given an opportunity of hearing this lecture at Maidstone. A total of 261 persons attended.

In view of the great interest with which the above lecture was received and the educational benefits resulting therefrom, Dr. Ponder, Assistant County Medical Officer and County Bacteriologist, gave a lecture at the same centres on "Bacteria in relation to the causes of infection, and the necessity for disinfection." 257 persons attending these lectures, including a final lecture at Maidstone.

Where County Council premises were not available, accommodation was kindly provided by the local authorities.

MATERNITY AND CHILD WELFARE.

HEALTH VISITING.—The population of the area covered by the county maternity and child welfare scheme during 1923 was 380,622. The duties of all the whole-time nurses on the County Medical Officer's staff include health visiting (where undertaken by the County Council), school nursing and tuberculosis visiting. The aggregate number of days per week devoted to child welfare work under this arrangement is equivalent to the time of 12.22 whole-time nurses. Table 21 shows the work of the health visitors in home visiting during the year under review. It will be seen that 48,421 visits were paid, as compared with 41,019 in 1922.

MATERNITY AND CHILD WELFARE CENTRES.—Table 22 shows the maternity and child welfare centres coming within the administration of the Kent County Council, with information as to the attendances, etc. A new county centre at Leeds, and a voluntary centre at Plaxtol, were established during the year. The West Malling voluntary centre was taken over by the County Council as from October 1st, 1924. The attendances at the county centres were higher than in 1922 by 1,516.

The reports from the medical officers of the centres are most satisfactory and show that there has been very definite evidence of progress.

One medical officer states that the centre engenders a proper pride in the mothers for the cleanly care of their children, which lasts and is an abiding influence in their lives. Another statement is that many of the very poor and dirty attend only irregularly. They seem to object to having the baby undressed for weighing, but they are met in this direction, where possible. How to get such mothers, who need the clinic most, to attend regularly, is a problem as yet unsolved. In certain centres medical officers display sufficient keenness in the work to attend more often at the centre than arranged for by the council. In the words of one medical officer, "the whole work is excellent and valuable beyond words in assisting the growth and development of healthy human beings and diminishing the infantile death-rate."

From the reports made by health visitors, it is found that, in many instances, the mothers put down the general improvement in their children to the advice and help obtained at the centres. In some centres the sale of artificial food has much decreased owing to appreciation of the value of breast-feeding the infants. Ground is being gained slowly but surely in regard to feeding methods, and many mothers have given up the pernicious habit of supplementing breast feeding with biscuits or "boiled bread," and are beginning to appreciate the difference it makes both to themselves and to their children when the latter are brought up on healthy and correct lines. Although it has taken as long as four years to convince a mother, success in this direction appears sure.

HEALTH VISITING IN COUNTY AREA DURING 1923.

District.	Present Health Visitor.	Average.	Total Population, 1923.	No. of Births, 1923.	No. of Visits paid.			Percentage of Births notified by			Percentage of Feeding Methods at first visit.			Percentage of Feeding Methods at seventh month.			Complaints dealt with.	
					First.	Subsequent and Special.	Fruitless.	Doctors.	Midwives.	Other persons.	Breast.	Breast and Hand.	Hand.	Breast.	Breast and Hand.	Hand.	Housing.	Other.
Sheppey R.	Miss Galvin	20,866	4,607	93	49	242	3	19	62	19	86	4	10	15	54	31	—	—
Faversham R.	Miss Turnell	26,743	9,989	1205	207	2,303	147	31	69	—	91	3	6	55	17	28	3	3
Faversham B.																		
Blean R.	Mrs. Masker	22,335	16,535	1287	231	2,314	38	42	52	6	86	7	7	64	10	26	2	—
Blean R.																		
Bridge R.	Miss Worthington	25,073	14,621	1270	232	1,549	64	28	61	11	86	3	11	63	10	27	1	3
Herne Bay U.																		
Whitstable U.																		
Blean R.	Mrs. Stokes	7,842	22,244	1286	166	2,564	270	85	14	1	66	9	25	59	17	24	8	6
Broadstairs U.																		
Thanet R.	Mrs. Morris	21,409	23,310	320	324	2,206	99	57	37	6	83	7	10	52	9	39	—	—
Eastry R.	Mrs. Cheesman	33,794	10,710	1192	203	2,018	62	61	35	4	86	8	6	53	21	26	12	1
Deal B.																		
Walmer U.	Mrs. Smithson	2,102	17,504	285	291	2,009	115	40	53	7	84	3	13	61	7	32	12	5
Elham R.																		
Bridge R.	Miss Harvey	26,021	5,096	179	117	782	13	48	50	2	73	20	7	36	23	41	2	21
Dover R.																		
Dover R.																		
Bridge R.																		
Eastry R.	Miss Orpin	37,679	18,160	1355	261	1,380	65	43	54	3	76	18	6	61	30	19	3	2
Cheriton U.																		
New Romney B.																		
Lydd B.																		
Romney Marsh R.																		
Tenterden R.	Miss Jervis	50,796	7,791	1139	224	1,204	120	82	18	—	84	4	12	55	20	25	1	4
East Ashford R.																		
Hythe B.																		
Sandgate B.																		
Elham R.																		
East Ashford R.	Miss Tustain	22,198	13,968	1202	104	946	51	85	11	4	84	4	12	43	6	51	2	—
Hollingbourn R.																		
Maidstone R.																		
Faversham R.	Mrs. Butler	50,565	12,382	1225	192	920	100	75	22	3	87	3	10	61	20	19	10	2
Tenterden B.																		
Tenterden R.																		
Cranbrook R.	Miss Blackmore ..	69,312	15,376	1282	304	1,413	45	67	22	11	87	5	8	62	21	17	5	1
Cranbrook R.		16,320	6,102	1108	38	38	10	94	3	3	82	6	12	41	32	27	—	—
Maidstone R.																		
Malling R.	Miss Herd	34,843	16,912	1287	325	904	226	52	44	4	78	11	11	37	38	25	2	—
Hollingbourn R.																		
Malling R.	Miss Johnson	22,325	11,511	1220	236	1,091	45	36	58	6	82	9	9	60	17	23	12	—
Strood R.	Miss Miles	19,593	13,674	1261	254	1,030	49	29	60	1	87	6	7	66	12	22	25	2
Tonbridge U.																		
Malling R.	Miss Stanford	4,814	18,139	1326	281	1,264	277	49	48	3	83	5	12	39	29	32	—	1
Southborough U.																		
Sevenoaks R.																		
Malling R.	Miss Workman	9,188	9,903	1179	137	1,006	32	33	59	3	81	8	11	48	16	36	—	—
Wrotham U.																		
Bromley R.	Miss Watt	38,880	18,288	1350	220	1,108	72	36	60	4	89	5	6	72	12	16	—	—
Strood R.	Miss Barnes	17,251	5,958	1108	69	850	79	25	75	—	83	10	7	60	15	25	3	—
Strood R.	Miss Foster	10,436	4,972	791	110	1,185	46	70	29	1	89	3	8	64	19	17	—	—
Hoo R.	Miss Main	22,688	8,249	1184	170	1,268	54	21	79	—	85	7	8	61	21	18	1	—
Sevenoaks R.	Local Nurses	59,224	34,938	1605	503	5,569	122	37	50	13	88	4	8	64	11	25	—	—
West Ashford R.	Mrs. Young	79,489	7,741	132	119	528	—	59	38	3	81	10	9	63	22	15	—	—
Chislehurst U.	Nurses Staines and	4,834	17,790	256	166	1,344	16	47	48	5	88	6	6	59	14	27	—	—
Sidcup U.	(Eke																	
East Ashford R.	5 Local Nurses	46,907	14,144	1254	337	1,145	11	73	26	1	79	6	15	44	31	25	—	—
Totals		790,457	380,622	6,581	5,870	40,330	2,221	51	44	5	84	7	9	57	136	25	104	51

† Estimated.

* Mrs. Fairburn was absent from duty, owing to illness, during part of 1923, and died early in 1924. Work in the following parishes was transferred from district nurses to the whole-time health visitors during the year:—Otford, Kemsing, Aldington, Bonnington, Bilsington and Hurst (March 31/23); Hever, Four Elms and Bough Beech (Sept. 30/23); Chipstead and Chevening (October 26/23).

COUNTY MATERNITY AND CHILD WELFARE CENTRES.

Name of Centre.	Situation of Premises.	Day and time of opening.	Medical Officer.	Nurse.	No. of times open.	Total Attendances.				Percentage of Feeding Methods of Children under seven months of age on day of first atten.			Percentage of Feeding Methods of Children who attained the age of seven months during the year.		
						Children.		Mothers.		Breast.	Breast and Hand.	Hand.	Breast.	Breast and Hand.	Hand.
						First Attendance.	Subsequent Attendances.	First Attendance.	Subsequent Attendances.						
Borough Green	High Street	Each Thursday at 2 p.m.	Dr. Walker	Miss Watt	45	36	610	1	3	70	10	20	61	29	10
Boughton-under-Blean	Church Hall	Each Monday at 2 p.m.	Dr. Kennedy	Mrs. Masker	42	38	555	1	—	61	12	27	45	5	50
Breasted and Sandridge	Sundridge Parish Room	1st and 3rd Tuesday in each month, 2 p.m.	Dr. Alexander	Miss Watt	21	12	278	1	—	91	9	—	79	—	21
Cheriton	Village Hall	Each Wednesday at 2 p.m.	Dr. Gore	Miss Orpin	52	136	2221	9	8	69	19	12	43	29	28
Chislehurst	Hornbrook Social Women's Institute	Each Thursday, at 2.30 p.m.	Dr. Hodgson	Miss Eke	51	31	531	—	—	79	4	17	55	5	40
Cobham	Meadow Road	First Tuesday each month, at 2 p.m.	Dr. McDonnell	Miss Barnes	12	13	85	—	—	75	—	25	63	25	12
Deal and Walmer	Masonic Hall	Each Friday at 2.30 p.m.	Dr. White	Mrs. Smithson	51	106	2596	—	—	50	6	44	50	4	46
Elham	Parish Hall	First Wednesday each month at 1.30 p.m.	Dr. Matthews	Miss Harvey	13	16	85	—	3	29	14	57	38	31	31
Farnborough	Parish Hall	Each Friday at 2 p.m.	Dr. Douse	Miss Odell (District Nurse)	52	44	1641	—	1	70	22	8	52	26	22
Faversham	Queen's Hall	Each Friday at 2 p.m.	Dr. Evers	Mrs. Masker	52	59	1504	—	—	50	13	37	48	19	33
Herne Bay	Parochial Institute, Underdown Road	Each Monday at 2 p.m.	Dr. Evans	Mrs. Stokes	48	48	1118	6	6	59	19	22	63	8	29
Hollingbourn	Parish Hall, Hollingbourn	Third Friday at 2 p.m.	Dr. Whitestone	Mrs. Butler	20	39	386	2	2	81	—	19	70	10	20
*Leeds	Village Hall, Leeds	First Friday at 2 p.m.	Dr. Whitestone	Mrs. Butler											
Newnham	Village Hall	Each Friday at 2 p.m.	Dr. Selby	Miss Turnell	43	17	401	3	—	91	—	9	82	9	9
Snodland	Devonshire Rooms	Each Wednesday at 2 p.m.	Dr. Cole	Miss Miles	50	118	1397	23	15	68	17	15	52	17	31
Southborough	Wesleyan Schoolroom, London Road	Each Friday at 2.30 p.m.	Dr. Pain	Miss Workman	52	49	939	3	1	69	25	6	38	16	46
Southborough High Brooms	St. Matthew's Parish Hall	Each Tuesday, at 2.30 p.m.	Dr. Neild	Miss Workman	50	44	797	11	25	71	6	23	39	16	45
Teynham	St. John's Hut	Each Thursday, at 2 p.m.	Dr. Selby	Miss Turnell	50	62	719	2	4	85	11	4	63	6	31
Tonbridge	St. Eanswyth's Hall, Priory Rd.	Each Wednesday at 2 p.m.	Dr. Tucker	Miss Stanford	48	87	1253	1	—	62	14	24	33	13	54
Westerham	Moreton Almshouses	Each Tuesday at 2.30 p.m.	Dr. Robertson	Miss Mayhew (District Nurse)	46	33	722	1	—	88	6	6	47	15	38
†West Malling	Women's Institute	Each Thursday at 2.0	Dr. Roberts	Miss Miles	51	01	778	7	2	73	15	12	58	10	32
Whitstable	Congregational Schools	Each Tuesday at 2 p.m.	Dr. Piper	Mrs. Stokes	50	40	1142	—	2	53	13	34	69	8	23
Voluntary Centres:—															
Cudham	Jail Lane, Biggin Hill	—	—	Miss Dilloway						(Figures not available for whole year)					
Hythe	Congregational Hall	Each Thursday at 2.30	Dr. Wolverson	Miss Tustain	47	86	1107	—	—	63	4	33	30	22	48
Meopham	Village Hall	First Friday in month, at 2.30 p.m.	Dr. Bates	Miss Hewitson	16	18	259	2	—	75	—	25	25	13	62
Plaxtol (opened 29/11/23)	Women's Institute	—	Dr. R. Walker	Miss Mayger	3	31	44	2	2	89	—	11	67	—	33
Stone Street	Parish Room Stone Street	1st and 3rd Monday at 2.30	—	Miss Wilkinson	26	10	257	—	—	80	—	20	20	40	40
Ivy Hatch	Nr. Post Office, Ivy Hatch	2nd and 4th Monday at 2.30	—	—											
Tonbridge	St. Saviour's Hall	Each Thursday at 2.0	—	Miss Stanford	47	45	488	—	—	52	12	36	37	16	47
Walmer	Baptist Parish Room	Each Wednesday at 2.30	Dr. F. Hughes	Mrs. Smithson	47	45	1001	—	—	48	—	52	20	—	80
					1085	1364	22714	75	74	66	12	22	50	15	35

The following removals of centres took place during the year:—

Hollingbourn—Eyhorn Street to Parish Hall on June 15th.

Southborough—From 28, Pennington Road to the Wesleyan School Rooms on June 27th, 1923.

* Opened July 6th, 1923.

† Taken over by County Council on October 1st, 1923.

Another nurse remarks that the young mother with her first baby is most willing to follow the advice given to her, and the fat and podgy child fed on much sweetened milk or farinaceous food, is giving place to the firm, sturdy infant, not overburdened with fat, and with consequent good development of bone and teeth.

The following report, written by a health visitor who works in a very remote and sparsely populated district, may be of interest as showing the "human" side of the work. In comparing her present area with a big "slum" district she states:—

"But, how different in the country. Here, health visiting is full of variety and adventure, and, far from being unsociable, kindness and hospitality reign supreme—even though the country mother is often as poor and downcast as her town sister, and carking care is written plainly on her patient face. Still more is loneliness a constant guest—'It's so nice to have a chat, I do 'ope you'll come again. I ain't got a mother nor an aunt, nor a nothink, and we hardly sees anyone from week to week.' The babe's health is excellent as a rule. Faults in feeding are the chief sources of trouble, and on your first visit indigestion is probably doing its worst, the two-hourly breast feed day and night being still in vogue with a certain proportion of handy women (for alas! there are no midwives). 'Yes, baby *has* been bad' (two weeks old) 'Oh! is that indigestion when he draws up his legs and is always sick? Well we gave him rabbit brains to suck, and raw beef like 'Nurse' said.' (Baby was still alive). Next week's visit found that four-hourly feeds, all night's rest and sleep out of doors, had restored the infant. The 'toddler' is usually as healthy. Defective teeth are very prevalent, due probably to mother's continual 'poor' diet."

The long distances which mothers travel to the centres show there is much need for centres in the country districts. In one case a mother wheels her child in a perambulator for six miles to attend, and it takes her nearly the whole day to complete the journey. Dr. Selby mentions the need of a centre at North Preston Without, and more accommodation at Teynham.

In many districts the housing question is still very acute and several families live in hopper huts, wooden huts and caravans; one of the health visitors, however, is of the opinion that the children living in these do not appear to be any the worse, in fact they are sturdier than those living in ill-ventilated and cramped cottages.

Voluntary committees in many county centres gave invaluable help. Baby shows were held at Herne Bay, Cheriton, Whitstable and other centres, and other events were arranged such as jumble sales, sales of work, picnic teas, Christmas trees, etc. Some of the centres have thrift clubs.

ADMISSION OF CONFINEMENT CASES TO HOSPITALS, MATERNITY HOMES, &c.—Owing to the need for economy, the only arrangement which had been approved by the Ministry of Health, to the end of 1923, was one with the Dane John Maternity Hospital, Canterbury, for the reception of patients from homes where the conditions were unsuitable, or complicated cases. One patient was admitted during 1923.

At the time of writing the Ministry of Health have sanctioned the County Council negotiating arrangements with various other institutions in the county, and it is hoped within the next few weeks to have beds available wherever needed throughout the area. It is proposed in several instances to arrange with midwives to accept patients into their homes.

RAMSGATE HOSTEL FOR UNMARRIED MOTHERS AND THEIR CHILDREN.—The four places reserved by the County Council in this institution have been kept filled during the year.

VARIOUS.—Arrangements exist with the Kent County Nursing Association for a nurse to be available for home nursing, where necessary, in cases of measles, whooping cough, diarrhoea and poliomyelitis. The services of the whole-time health visitors are also available for the home visiting of measles, &c.

Recommendations for a free supply of milk are made by the health visitors to the County Medical Officer in accordance with the conditions laid down by the Ministry of Health. Orders for 1,729 gallons of cows' milk and fifty-two pounds of dried milk were issued in 1923, and the actual expenditure during that year was £182. It is reported that great benefits have accompanied the operation of the Circular which enables such grants of milk to be made.

Stillbirths are investigated and reported upon by the health visitors. In seventy-eight instances in 1923 the following causes were definitely given:—Injury 16, abnormality 18, shock 6, venereal disease 3, various illnesses 29, prematurity 6. In fifty-two instances the cause was stated to be unknown, and a proportion of these would undoubtedly be due to venereal disease.

The following figures show certain infantile mortality rates during 1923:—

Kent urban districts	48·26	per 1,000 births.
„ rural districts	46·43	„
Whole county	47·73	„
Area of county scheme	47·41	„
Rest of Kent	47·88	„
England and Wales	69	„

It is generally recognised that the saving of child life in recent years, has been due in great part to the activities of public child welfare schemes, but, as stated previously, the efforts now being made in all directions will not show their full results till later years.

I have again to speak in high terms of the work of the health visitors and members of voluntary child welfare committees.

DISTRICT ADMINISTRATION:—The following table gives particulars of maternity and child welfare work carried out in areas in which the local district councils are responsible for this administration:—

TABLE 23.

	Number of Health Visitors.		Births in 1923.	Visits of Health Visitors, 1923.	Maternity and Child Welfare Centres—Average Attendance of		Total amount of milk granted during year (free or at reduced price).
	Whole-time.	Part-time.			Mothers.	Children	
Ashford.....	—	1	252	2598	4	20	5762 pints
Beckenham.....	1	†1	487	1670	34	62	6944 pints
Bexley.....	2	—	507	5668	—	—	£672 (approx.)
Bromley.....	2	—	578	5204	121	131	2751 pints & 216 lbs. dried milk
Chatham.....	2	†1	919	7431	1	52	3493 packets dried milk
Crayford.....	1	—	304	3381	—	132·7 (three centres)	14040 pints
Dartford.....	1	—	430	4895	6	130	28854 pints and 115 lbs. dried milk.
Dover.....	—	†5	875	8394	3	95	35694 pints
Erith.....	2	—	623	3906	4·2	78 (two centres)	70439 pints and 2166 packets dried milk
Folkestone.....	2	—	551	3460	1·72	77·96	6711 pints & 369 pkts. dried milk
Gillingham.....	1	†1	1072	3680	—	104	1043 pints and 1063 lbs. dried milk
Gravesend.....	1	—	667	4243	20	70	11972 pints
Maidstone.....	2	—	713	2738	68	64	405 pints
Margate.....	1	—	487	3441	77	32	199 lbs. dried milk
Milton Regis ...	—	1a	140	464	Combined with Sittingbourne See below		474 pints and 113 packets dried milk.
Northfleet.....	1	—	337	2757	52·5		2836 lbs. dried milk
Penge.....	1	—	547	1720	30·5	67·2	£89
Queenborough ...	1	—	67	1853	36	43	134 lbs. dried milk
Ramsgate.....	—	†4	625	8463	38·2	37·0	£9 12s.
Rochester.....	2	—	611	7925	No centre		9744 lbs. dried milk
Sandwich.....	—	1	68	799	30	15	None
Sevenoaks.....	—	1	125	492	—	30 to 40	None
Sheerness	1	—	335	1338	159	171	101 lbs.
Sittingbourne ..	—	1a	229	599	41	46	343 pints and 72 packets dried milk
Tunbridge Wells	1	†2	479	6404	54	60	6534 pints
Dartford Rural	3	2	686	4508	(Seven centres)		37426 pints and 1235 packets dried milk
Milton Rural ...	—	1a	261	674	16	19	536 pints and 112 packets dried milk
Tonbridge Rural	—	11	330	2820	9	30	—

† Whole-time officials, but dividing their time between health-visiting and school-nursing.
a. Whole-time health visitor for combined districts, as shown.

Beckenham and *Penge* have a joint Maternity Home containing fourteen beds, *Bexley* one of six beds, and *Erith* one of six beds. *Folkestone* has also one bed. Other beds, provided by voluntary bodies, are utilised where necessary as follows:—*Chatham* six, *Crayford* four. In *Tunbridge Wells* beds have been obtained at Nursing and Maternity homes in a few instances by a voluntary association of ladies who have collected funds for this purpose.

Dr. Yunge Bateman, of *Folkestone*, states that a residential home for children of mothers in domestic (living in) service, is required.

Plans have been submitted by the *Gravesend* Council for a new maternity centre to be erected, and the provision of an eighth centre (for *Eynsford* and *Farningham*) is contemplated by *Dartford Rural*.

In *Sandygate* there is a voluntary centre managed privately by the Nursing Association, and in *Milton Rural* a voluntary centre was started at *Newington* in December, 1923.

A dental clinic has been established in *Erith*, the average attendance of nursing and expectant mothers and children during the year being 3·35.

The following are a few comments from the reports of the district medical officers of health:—

Bexley Urban.—"Many causes may and probably do operate in bringing about the fall in the infantile death-rate, but one cannot help feeling that the various agencies that are at work are having their effect upon this matter; not the least important of these are the services rendered by the health visitors."

Bromley Borough.—" The great difficulty with which any centre has to contend is its tendency to develop into an out-patient department, to which come mothers who are either too poor to afford private medical provision, or who wish to avoid incurring expenditure which may, of necessity, be considerable. The diverting of those cases to the appropriate sources of treatment is by no means simple, having regard to the particular circumstances and necessities of each case. The family doctor's aid is naturally the proper channel into which to steer them, but too often it is obvious at the very outset that by no stretch of imagination can adequate treatment be paid for, or repeated journeys to a London hospital, and it is this consideration and the consideration that the scope of treatment for school children at the instance of the Education Authority is limited, that persuades one of the necessity for an out-patient department at the local Cottage Hospital."

Chatham Borough.—"I cannot speak too highly of the value of dried milk as a food for infants. Its keeping properties, its freedom from con-

tamination, its digestibility, and nutritive value place it in the front rank of infant foods."

Rochester City.—In making reference to the "unprecedentedly low record" of infantile mortality, Dr. Pritchett says:—"The credit should be given to the intelligent and sympathetic activities of the two health visitors and to the practice of a wide distribution of dried milk. The value of this form of food for infants becomes more apparent day by day, and although its issue costs the Corporation a considerable sum of money each year, it is money well laid out, and will produce an ultimate dividend in the more robust physique of the children."

Dartford Rural.—"The grant of large quantities of cows' milk by the Maternity Committee, in the case of nursing mothers and delicate children brought to their notice by the health visitors, has contributed largely to the better health of our infant population, suffering from the present conditions of unemployment and low agricultural wages. No money granted by the Ministry of Health has been more beneficially spent."

MILK SUPPLY.

All the medical officers of health within the county continue to devote much attention to the milk supply of their districts, and close supervision is exercised over the dairies, cowsheds and milkshops. Tables 26 and 27 show the numbers of visits, defects, prosecutions, etc., in this connection.

Early in 1923 I drew up a clean milk poster, as reproduced herewith, and forwarded the same to each district medical officer of health in Kent, with the following letter:—

"My attention has been drawn to the need for issuing some simple instructions or suggestions for farmers and milk producers as to the production of clean, pure milk. There is, undoubtedly, at the present time a developing interest in this subject, and I am of the opinion that a farmer who is anxious to make his business a success at the present time will welcome help and advice from the sanitary authorities if suggestions are made in a practical form.

"Accordingly I have had the accompanying poster drawn up, which aims at giving simple information on the production of milk with good keeping qualities and free from disease-producing bacteria. I have endeavoured to avoid fads and suggestions on the value of which doubt might be cast, so that I hope the farmer will regard the advice given as sound and of practical value from his point of view.

"The poster can be pasted up in the dairy or cowshed in its present form, or can be hung up if mounted on cardboard.

“If you desire to have copies of this poster for distribution in your district I shall be very glad to let you have such a number as you may require. Perhaps you will kindly let me know your requirements within a few days, as the number printed will depend on the demand.”

During 1923 the Agricultural Education Sub-Committee of the Kent Education Committee decided to organise a clean milk competition for four purposes :—

- (a) To show that there is already available a supply of clean milk in the county, in addition to what is sold as Grade A and Certified Milk.
- (b) To assist those dairy farmers in the county already interested in, and anxious to produce, clean milk, by examining their milk from time to time, by visiting their cowsheds, and as a result of the examination and visits by advising them how their methods could be improved.
- (c) By friendly rivalry, to stimulate those dairy farmers who entered this competition, and especially their milkers, to learn the essential conditions necessary for the production of clean milk and to encourage them to pay still closer attention to the conditions under which their milk is produced and handled.
- (d) To demonstrate to dairy farmers in general how reasonably clean milk can be produced in ordinary farm buildings and under ordinary farm conditions, without excessive increase of cost, so that a larger supply of such milk may be available for the public.

In order that the competition should be successful it was essential that there should be a large number of competitors. As most of the leading dairy farmers in Kent are members of the Kent Milk Recording Society it was decided to solicit the influential support of that society in running the competition. Fifty-three entries were received.

The total number of samples of milk examined was 395, these samples representing 11,731 gallons of milk. Licensed producers of Certified or Grade A milk were not allowed to compete in the competition, because it was felt that ordinary dairy farmers might consider that they would have no chance against such competitors, and yet out of the 395 samples examined no less than 212 samples (representing 6,300 gallons of milk) came up to Grade A milk standards for the number of bacillus coli, and total number of bacteria of all kinds present, whilst 109 samples (representing 3,250 gallons of milk) even came within the standard for certified milk. To put it another way, the fifty-three competitors were producing between them 3,150 gallons of milk daily, and of the samples taken of this milk during the three months of

CLEAN MILK.

Milk does not keep well because bacteria (germs or microbes) have gained access to it. These bacteria have multiplied rapidly and as a result of their growth they have produced an acid which sours the milk. Dirt, dampness and darkness all favour the existence of such bacteria.

Details as to the way the bacteria may get into milk, and remedies to prevent such occurring, are set out in the following notes:—

SOURCES OF CONTAMINATION.	REMEDY.
Dirt and dried dung on cow's hindquarters, flanks, belly or udder, which drop off into milk pail or which are rubbed off in process of milking. (This source of contamination is especially troublesome in winter.)	(1) Keep the cows as clean as possible. Cowshed to be so constructed that it is easily cleaned out (smooth concrete floor); a gutter provided at rear of cow to catch dung and urine which can be washed away. (2) Ample provision of clean bedding. (3) Grooming of cows; In winter, when the cows begin to lie in at night, all long hair round hindquarters, flanks, tail or udder, &c., should be clipped with horse clippers. Each day before milking, these parts should be scrubbed clean with a brush and frequent changes of water, and the loose moisture dried off with a clean cloth. Especial care in this process should be given to the udder.* (4) Allow first draws from each teat to fall on to the ground and not into the pail.*
Bacteria collected inside teat.	
Dirt on milker's hands:— (a) Lack of personal cleanliness. (b) Handling dirty stool as he passes from cow to cow.	(a) The hands should be washed immediately before milking (preferably before milking each cow). For this purpose, a pail or basin of hot water, soap and clean towel, should be provided. (b) The milking stool should be kept very clean by being scrubbed regularly with hot water and soda.
"Wet-milking."	Dry milking should be gradually introduced and insisted upon.†
Air-borne Dust getting into milk.	(1) Cowshed should be cleansed and limewashed at regular intervals. (N.B. Limewashing to a certain extent acts as a disinfectant but its chief object is to show up any collection of dirt which forms dust and which blows into the milk on a windy day). (2) Employment of partially covered-in milking pails thereby minimizing surface of milk exposed to dust from air or dirt falling in from movements of cow.‡
Dirty utensils, &c.:— (1) Milking Pail. (2) Strainers. (3) Cooler. (4) Churns.	These should be properly constructed with seams flushed smooth with solder so that there are no crevices into which dried milk and dirt can collect. They should be washed in cold water immediately after use so that a film of milk may not dry on the surface, then with hot water and soda, and finally, if possible, they should be boiled or steamed. If not washed in cold water first the hot water may harden the collection of milk on the surface which will act as a persistent source of contamination to all milk introduced into the pail. After cleansing they should be placed bottom upwards on a clean rack to drain. They should not be dried with a cloth as by this means fresh bacteria would be introduced. The most satisfactory form of strainer is a fine meshed cloth. Several should be provided so that there is always a clean one available. After use they should be carefully washed and boiled. Details of cleansing, etc., as for pails; especial attention to be given to the tap. If responsibility for cleanliness of these rests with the farmer they should be treated like pails. Owing to their size, scalding with hot water, or steaming, must take the place of boiling.

*In large farms it would probably be found an economy of labour if it could be made the duty of one man or boy to clean all the cows' udders, etc., and to express the first few draws of milk from each teat, so as to wash away the bacteria contained in them.

†Many farmers do not approve of dry milking and even if they wish to introduce this method it is found that the milkers are very averse to making the change. It should be noted, however, that in the opinion of many who have had much practical experience, dry milking is in no way detrimental to the milk-producing capabilities of the cow. Provided the milker's hands and the cow's teats are quite clean, soreness is not caused, and it is found that the teat soon develops a soft, tough character which leads to easy milking. No one can deny that "wet milking" is theoretically most objectionable.

‡This type of pail is objected to by many farmers on the grounds that milk is lost through unskilful aiming of the stream. It should be remembered, however, that if such pails are upset or partially upset by a fractious cow, the loss of milk is much less than would be the case with the ordinary pail and it is a point for the practical farmer to decide whether the milk saved in this way does not more than counter-balance that lost through bad aiming of the stream.

PREVENTION OF THE CARRYING OF DISEASE TO HUMAN BEINGS THROUGH MILK.

Disease may be carried in two ways—

1. The cow may be suffering from a disease communicable to human beings. The only common disease of this description is *Tuberculosis*.
2. Bacteria, producing disease, may be introduced into the milk by human agency at or after milking. Outbreaks of Typhoid Fever (Enteric) Diphtheria, and Scarlet Fever, have been traced to this cause.

Methods of preventing the conveyance of disease are shown below:—

Tuberculosis.—Herd of milk cows must be healthy; careful inspection detects wasting, sores or swellings (of special importance if situated in the udder), which may be due to tuberculosis.

Whenever suspicions exist milk should not be used for human food. Suspected cows should be tested with tuberculin by a Veterinary Surgeon.

Typhoid Fever.—All water used for washing utensils, etc., should be pure. (Disease has been caused by washing pails, etc., with water from a well contaminated by a leaking cesspool).

Diphtheria,
Scarlet Fever,
etc. No person suffering from any infectious condition must handle milk, but also it must be remembered that infectious diseases may be contracted from persons who are not suffering from the disease, in its typical form, but who carry the germs because they have suffered previously or are suffering from it in a mild unrecognised way.

The remedy lies in not allowing any person possibly carrying infection to handle milk and by insisting on strict cleanliness of the hands and habits of all concerned.

ALFRED GREENWOOD, M.D., D.P.H.,
County Medical Officer

CLEARING

The following table shows the results of the clearing operations during the year 1900. The total area cleared was 1,200 acres, and the total cost was \$100,000. The work was done by the county and the land was sold to the highest bidder.

DATE	DESCRIPTION OF PROPERTY	AMOUNT
Jan 1	100 acres of land	\$10,000
Feb 1	200 acres of land	\$20,000
Mar 1	300 acres of land	\$30,000
Apr 1	400 acres of land	\$40,000
May 1	500 acres of land	\$50,000
Jun 1	600 acres of land	\$60,000
Jul 1	700 acres of land	\$70,000
Aug 1	800 acres of land	\$80,000
Sep 1	900 acres of land	\$90,000
Oct 1	1,000 acres of land	\$100,000
Nov 1	1,100 acres of land	\$110,000
Dec 1	1,200 acres of land	\$120,000

The above table shows the results of the clearing operations during the year 1900. The total area cleared was 1,200 acres, and the total cost was \$100,000. The work was done by the county and the land was sold to the highest bidder.

the competition 54 per cent. came up to Grade A standards, and 27 per cent. up to certified milk standards for bacterial contents. This is a very high commendation for Kent milk.

Full particulars of the competition are contained in the handbook, "Clean Milk in Kent," issued by the organisers.

Dr. Wernet, Medical Officer of Health of the *Sittingbourne and Milton United Districts*, refers as follows to this competition in his annual report:—

"The cleanliness of milk is everything, and the production of clean milk depends more on the human element than any other factor—in other words the man or women engaged in the work must be educated up to the necessity of absolute care and cleanliness.

"The proper sterilization of utensils, the cooling of milk, and clean milking are not dependent on expensive equipment, but on the man doing the job. With the right man clean milk can be produced in any premises, and the most expensive buildings and equipment under the control of a careless, dirty man would result in dirty milk.

"It is a matter for regret that no dairy farmers in your district took part in the Clean Milk Competition organised by the Kent Education Committee in conjunction with the Kent Milk Recording Society.

"With a view to gaining first hand knowledge, I personally visited the farms of the first twelve prizewinners in the competition, and what struck me most was that expensive buildings are not necessary for the production of reasonably clean milk. Well lighted and suitably constructed buildings, with standings of the right length and good drainage are desirable, because they make the work of cleaning the cows and keeping them clean easier; but what is far more important is intelligent labour and close attention to details in the washing and sterilisation of the utensils and everything else that may come in contact with the milk. One single flaw may ruin what would otherwise have been an excellent sample of milk; it may be one careless milker, one dirty cow, one dirty bucket, one dirty tap, or a straining cloth not properly sterilised. Methods are far more important than equipment; and the additional expense in producing reasonably clean milk does not take the form of additional capital outlay so much as of additional time and trouble in getting and keeping everything else scrupulously clean."

The medical officers of health of the "sister-towns" of *Chatham Borough* and *Rochester City* make each interesting comments on the "production" side of the milk trade. Dr. Holroyde (*Chatham B.*) writes:—

"The difficulty of securing clean milk is very great, but there is some progress. For all milk there should be a bacteriological standard, which every producer could attain with reasonable care.

"Pasteurisation of milk is a confession of weakness, because a clean milk should not need pasteurisation. Milk producers have the remedy in their own hands. It is desirable that the provision and sale of fresh clean milk should be extended. This could be done, and the support of the medical profession could be assured if the owners of dairy herds would only take the necessary trouble. For infant feeding dried milk is largely taking its place, and rightly so, because it is free from forms of contamination, which ordinary milk contains in abundance."

Dr. Pritchett (*Rochester City*) is equally emphatic. He says:—

"The dairies and milkshops are, on the whole, managed with a proper regard to cleanliness and to the protection of milk from extraneous contamination. No considerable improvement, however, can be observed with regard to the cowsheds. The small milk producer appears to be ineducable in the matter of cleanliness, if, indeed, he has even yet learned the meaning of the word."

The following additional extracts from annual reports are typical of many others:—

Bexley U.—The medical officer of health writes:—"In previous years I have remarked upon the standard of cleanliness observed by the persons milking and handling milk vessels, also upon the condition of some of the cows when housed in the sheds during the winter months. Present day conditions still leave much to be desired in this respect, and it is feared that quite an amount of extraneous matter still finds its way into the milking pail and consequently to the consumer."

Hollingbourn R.—Dr. Tuke points out that this district has become a "dairy district," and has improved with regard to both sheds and cleanliness of the cows. He says:—"The inspection that began last year has been carried out through the whole district, and both the inspector and myself have been met by the farmers in a very good spirit, and also by the landlords in re-construction where needed of the cowsheds."

I am indebted to the County Analyst for the following information respecting his examinations during 1923, for the presence of preservatives in new milk, separated milk and cream.

1,461 samples of new milk, twenty-two of separated milk, and twenty of cream were examined. Four of the cream samples were found to contain preservative—boric acid, to the extent of 0.25%, 0.20%, 0.03% and 0.02% respectively. In all four cases the vendor was cautioned.

Fourteen samples of preserved cream were analysed, to confirm the accuracy of the label-statements as to preservatives. In each instance the percentage of the preservative stated on the label was 0·4, and the percentages present were 0·36, 0·33, 0·33, 0·32, 0·31, 0·28, 0·26, 0·24, 0·24, 0·20, 0·20, 0·20, 0·19 and 0·06. The amount of milk fat found in these twelve samples was above 35% in each case. No instances occurred of incorrect labelling. No evidence of the addition of thickening substances to either cream or preserved cream was found. No action was considered necessary in any case.

FOOD SUPPLY.

The amount of food condemned during the year in the various districts, the activities of the local sanitary inspectors in connection with inspection of bakehouses and slaughter-houses, and prosecutions in connection therewith, are shown in tables 26 and 27.

Several medical officers of health again advocate the establishment of public abattoirs.

The following are a few references of interest from the schedules and reports of local medical officers of health:—

Folkestone Borough.—“Since September, 1922, when the Bye-laws compelling butchers to give notice of slaughtering came into force, the condemnations of unsound or diseased meat has been increased by about 140 per cent.”

Ramsgate Borough.—The Ramsgate Corporation Act, 1922, makes it unlawful to “blow or inflate the carcase or any part of the carcase of any animal slaughtered within or brought into the borough, and any person so blowing or inflating any carcase or part of a carcase or exposing or depositing for sale within the borough a carcase so blown or inflated or any part thereof shall be liable to a penalty not exceeding five pounds.” Efforts are made to supervise, as thoroughly as possible, the meat killed in the borough, but Dr. Bannister refers to the difficulty of efficient supervision owing to the fact that the slaughter-houses are situated in different parts of the town, and killing takes place on different days and hours.

“34,614 gallons of cockles were sterilised at the Council’s Shellfish Station, which has been referred to in previous reports.”

West Ashford Rural.—Dr. MacDougall refers to the “growing practice of farmers killing pigs in their farm-yards, without any satisfactory arrangements for slaughtering.”

SANITATION OF HOPPER ENCAMPMENTS.

Complaints in connection with the hopper encampments in the county were very few indeed. Mention was made in my last annual report of the probability that reduction of the acreage under hops has affected the question of sanitation in the encampments to some extent; since, with fewer pickers employed, there is a resulting diminution in the number of "foreign" pickers, who have to use such encampments.

Generally speaking, the accommodation provided for hop-pickers has greatly improved in recent years. Tents are used in some encampments, but these are not altogether satisfactory, particularly in wet seasons. When so used they should be passed as sound before the season commences, and if possible reserved for adults.

Privy accommodation, water supply and scavenging are not always good. The privy accommodation provided should be separate for men and women and should be plainly distinguishable, and each partitioned off inside—otherwise pickers frequently prefer to use the surrounding woods, &c.

So far as cleanliness is concerned, this depends to a large extent upon the extent of the supervision exercised, and a lot of extra work is thrown on the local sanitary inspectors during the picking season.

I believe a fairly sharp control is kept on the sale of foods by hawkers, but here again complete control is impossible with only one sanitary inspector available in each rural district.

In several districts, improvement was noted, *e.g.*, *Faversham Rural*, where the medical officer of health reported "general improvement in the housing and sanitary conditions of the hop-picking encampments;" and *Tenterden Borough*, where a new "hopper-hut," to accommodate forty pickers, was erected.

The medical officer of health of the *Malling Rural* district remarks that there is too great concentration of pickers at several camps, especially at one in the parish of Offham.

From *Tonbridge Rural* the suggestion is made that each encampment would be improved by the provision of an incinerator of simple make, with some person appointed by the farmer to collect and burn rubbish.

Infectious disease, due to the introduction of "foreign" pickers, was scarce. Diphtheria appeared at Little Chart (*West Ashford Rural*), but it was confined to the one case; at Selling (*Faversham Rural*), two cases; in *Malling Rural*, one case; in *Maidstone Rural*, four cases: and in *Tonbridge Rural*, two cases, one of which was fatal. Scarlet fever totalled one case in *Faversham Rural*, and one in *Malling Rural*.

HOUSING.

Tables 24 and 25 show the action taken in each district with regard to housing inspection and the remedy of defects, and the number of new houses erected during the year.

The following is a short comparison of certain figures, with those of 1922 :—

	1922.	1923.
Houses inspected	30,339	40,864 +
„ found unfit for human habitation...	274	249
Closing Orders made	112	83
Houses demolished.....	47	25
„ where remedy of defects was effected	13,920	15,214
New houses erected	3,094	2,417

The tables also set out the approximate shortage, in each district, of accommodation for the working-classes, so far as this shortage can be ascertained.

It will be seen that this shortage of accommodation still presents a grave problem in many areas, and there are numerous comments to this effect in the district reports and schedules. I quote a few typical paragraphs:—

Bexley U.—“The council have a housing estate consisting of 412 houses, but despite this fact there is a waiting list of upwards of three hundred applicants desiring housing accommodation. This waiting list was closed in October, 1922, as the council cannot accommodate such numbers.”

Bromley B.—The houses built by private enterprise during the year, and others now in hand, are of the villa type, or larger; but the council have provisionally accepted a contract to build sixty flats on their housing estate, subject to the approval of the Ministry of Health. This matter is still unsettled.

“The 186 council houses are all occupied, and some three hundred names are still on the waiting list.”

Dartford U.—“The work of dealing with the older and most insanitary property in the town is still largely held up by the lack of alternative housing accommodation for the re-housing of those tenants who would be displaced if this property were dealt with, as it should be, under the Housing Acts by Closing and Demolition Orders.”

Chatham B.—Dr. Holroyde during the year, presented a special report to the Housing and Town Planning committee of his council, on the housing conditions of the borough; and in his annual report he makes the following interesting comments :—

"I regret that little progress has been made in this vitally important matter, and the slum question remains practically the same; nor can there be any alteration until accommodation suitable for the needs of the poorer sections of the population is available. In Chatham there is a large number of houses not capable of repair, which should be demolished, but it is useless to issue Closing Orders.

"The question of providing small flats of the two-storey type has been under consideration, but no decision has been taken. They would be suitable for the class who can only pay a low rent and who are at present dwelling under most unsatisfactory conditions. Many cases of overcrowding have come to the notice of the department, some by personal complaints, others discovered in the course of inquiries in connection with tuberculosis and other infectious diseases. The sub-letting of houses intended for one family only is prevalent. During 1922 the percentage of houses in which infectious diseases occurred, containing two or more families, was 15; in 1923 it was 26. . . .

"There can be no reasonable doubt that environment has a very great influence as regards disease prevention. It is not one class of disease only that is accentuated by bad environment; it is every class. Infectious diseases, tuberculosis, respiratory diseases, syphilis, diseases of the digestive and circulatory organs are all more prevalent. Bad housing is associated with bad habits and a generally low standard of living, which in conjunction cause illness, incapacity, and high death-rates. The housing question is really a health question, and its solution lies in the abolition of slum property.

"Private building of better-class houses and for well-to-do artisans will probably increase, but for people who have no regular work, who are unskilled, whose earnings are precarious, and whose families are often large, there will be no provision by private enterprise. It is not an economic proposition.

"As a rule, no local authority ought to build houses when by so doing it is a competitor, but for the section of the community who are unable to pay a decent rental, and who at the same time provide disease and pauperism, for which the public have to pay, there is no other method, and no competitor.

"Recent Housing Acts expressly provide assistance for the erection of small dwellings, and for local authorities who are anxious to get rid of slums, now is an opportunity.

"The improvement of environment is contingent on the provision of more houses suitable for the displaced tenants, and if these are erected on various sites in small numbers, then the work of closing and demolishing insanitary dwellings can be proceeded with.

Year	Month	Day	Time	Location	Temperature (°C)		Humidity (%)		Wind Speed (km/h)		Wind Direction		Cloud Cover (%)	Sunlight (h)
					Air	Water	Relative	Dew Point	Max	Min	From	To		
2010	Jan	15	08:00	Station A	15.2	12.5	65	10.5	12	8	SE	SW	10	12
2010	Jan	16	08:00	Station A	14.8	12.1	68	10.2	10	7	SE	SW	12	11
2010	Jan	17	08:00	Station A	15.5	12.8	62	10.8	15	9	SE	SW	8	13
2010	Jan	18	08:00	Station A	16.0	13.2	60	11.0	18	10	SE	SW	5	14
2010	Jan	19	08:00	Station A	15.8	13.0	63	10.7	14	9	SE	SW	7	13
2010	Jan	20	08:00	Station A	15.3	12.6	66	10.4	11	8	SE	SW	9	12
2010	Jan	21	08:00	Station A	15.7	12.9	64	10.6	13	9	SE	SW	11	12
2010	Jan	22	08:00	Station A	15.4	12.7	67	10.3	10	8	SE	SW	10	11
2010	Jan	23	08:00	Station A	15.9	13.1	61	10.9	16	10	SE	SW	6	13
2010	Jan	24	08:00	Station A	15.6	12.8	64	10.6	14	9	SE	SW	8	12
2010	Jan	25	08:00	Station A	15.1	12.4	69	10.1	9	7	SE	SW	11	11
2010	Jan	26	08:00	Station A	15.4	12.7	66	10.4	11	8	SE	SW	10	12
2010	Jan	27	08:00	Station A	15.8	13.0	63	10.7	13	9	SE	SW	8	13
2010	Jan	28	08:00	Station A	15.5	12.8	65	10.5	12	8	SE	SW	9	12
2010	Jan	29	08:00	Station A	15.2	12.5	68	10.2	10	7	SE	SW	11	11
2010	Jan	30	08:00	Station A	15.6	12.9	64	10.6	13	9	SE	SW	10	12
2010	Jan	31	08:00	Station A	15.3	12.6	67	10.3	11	8	SE	SW	10	11
2010	Feb	1	08:00	Station A	15.7	12.9	64	10.6	13	9	SE	SW	11	12
2010	Feb	2	08:00	Station A	15.4	12.7	66	10.4	11	8	SE	SW	10	11
2010	Feb	3	08:00	Station A	15.8	13.0	63	10.7	13	9	SE	SW	11	12
2010	Feb	4	08:00	Station A	15.5	12.8	65	10.5	12	8	SE	SW	10	11
2010	Feb	5	08:00	Station A	15.2	12.5	68	10.2	10	7	SE	SW	11	11
2010	Feb	6	08:00	Station A	15.6	12.9	64	10.6	13	9	SE	SW	10	12
2010	Feb	7	08:00	Station A	15.3	12.6	67	10.3	11	8	SE	SW	10	11
2010	Feb	8	08:00	Station A	15.7	12.9	64	10.6	13	9	SE	SW	11	12
2010	Feb	9	08:00	Station A	15.4	12.7	66	10.4	11	8	SE	SW	10	11
2010	Feb	10	08:00	Station A	15.8	13.0	63	10.7	13	9	SE	SW	11	12
2010	Feb	11	08:00	Station A	15.5	12.8	65	10.5	12	8	SE	SW	10	11
2010	Feb	12	08:00	Station A	15.2	12.5	68	10.2	10	7	SE	SW	11	11
2010	Feb	13	08:00	Station A	15.6	12.9	64	10.6	13	9	SE	SW	10	12
2010	Feb	14	08:00	Station A	15.3	12.6	67	10.3	11	8	SE	SW	10	11
2010	Feb	15	08:00	Station A	15.7	12.9	64	10.6	13	9	SE	SW	11	12
2010	Feb	16	08:00	Station A	15.4	12.7	66	10.4	11	8	SE	SW	10	11
2010	Feb	17	08:00	Station A	15.8	13.0	63	10.7	13	9	SE	SW	11	12
2010	Feb	18	08:00	Station A	15.5	12.8	65	10.5	12	8	SE	SW	10	11
2010	Feb	19	08:00	Station A	15.2	12.5	68	10.2	10	7	SE	SW	11	11
2010	Feb	20	08:00	Station A	15.6	12.9	64	10.6	13	9	SE	SW	10	12
2010	Feb	21	08:00	Station A	15.3	12.6	67	10.3	11	8	SE	SW	10	11
2010	Feb	22	08:00	Station A	15.7	12.9	64	10.6	13	9	SE	SW	11	12
2010	Feb	23	08:00	Station A	15.4	12.7	66	10.4	11	8	SE	SW	10	11
2010	Feb	24	08:00	Station A	15.8	13.0	63	10.7	13	9	SE	SW	11	12
2010	Feb	25	08:00	Station A	15.5	12.8	65	10.5	12	8	SE	SW	10	11
2010	Feb	26	08:00	Station A	15.2	12.5	68	10.2	10	7	SE	SW	11	11
2010	Feb	27	08:00	Station A	15.6	12.9	64	10.6	13	9	SE	SW	10	12
2010	Feb	28	08:00	Station A	15.3	12.6	67	10.3	11	8	SE	SW	10	11
2010	Feb	29	08:00	Station A	15.7	12.9	64	10.6	13	9	SE	SW	11	12
2010	Feb	30	08:00	Station A	15.4	12.7	66	10.4	11	8	SE	SW	10	11
2010	Feb	31	08:00	Station A	15.8	13.0	63	10.7	13	9	SE	SW	11	12

TABLE 25.—Showing housing inspections, the remedy of defects, building activities and housing shortage in the Rural Districts of Kent during 1923.

DISTRICT.	Total number of dwelling-houses inspected.		Number of dwelling-houses found to be dangerous or injurious to health, as to be unfit for habitation.	Number of dwelling-houses (exclusive of those in the preceding column) found not to be fit for human habitation.	Number of defective dwelling-houses rendered fit in consequence of orders issued by the Local Authority or their officers.	Proceedings under Sec. 28 Housing, Town Planning, &c. Act, 1919.			Proceedings under Public Health Acts.			Proceedings under Sections 17 & 18 of the Housing, Town Planning, &c. Act, 1919.					Number of new houses erected during the year.			Approximate shortage of accommodation for the working classes.		
	For Housing defects, under P.H. or Housing Acts.	Under Housing, District Regulations.				By Owners.	By Local Authority in default of Owner.	Number of dwelling-houses which Closing Orders became operative in consequence of notices served by owners of houses in default of attention to close.	By Owners.	By Local Authority in default of Owners.	Representations made with a view to the issue of Closing Orders.	Number of dwelling-houses in which Closing Orders were made.	Number of dwelling-houses in respect of which Closing Orders were made, but which dwelling-houses have not been rendered fit.	Number of dwelling-houses in respect of which Demolition Orders were made.	Number of dwelling-houses demolished in pursuance of Demolition Orders.	Total.	By the Local Authority.	By other bodies or persons.	To replace unwholesome factory property.	To provide accommodation.		
Ashford, East	153	27	8	50	106	1	—	—	3	9	9	—	8	8	4	—	—	50	4	—	—	?
Ashford, West	141	141	2	20	4	—	—	—	—	—	—	—	1	1	1	—	—	31	—	—	—	?
Blean...	201	36	4	141	120	3	8	—	—	4	5	—	4	—	—	—	—	131	—	—	20	40
Bridge	64	64	3	17	9	17	17	—	—	17	17	—	—	—	—	—	—	13	—	—	?	?
Bromley	220	21	6	220	124	21	21	—	—	177	170	—	6	6	—	—	—	137	12	125	72	?
Crasbrook	—	74	—	2	42	—	—	—	—	—	—	—	—	—	—	—	—	14	—	14	?	?
Dartford	1346	390	14	352	325	30	30	2	—	424	356	—	3	3	1	—	—	14	—	14	?	?
Dover	37	37	4	5	5	—	—	—	—	8	8	—	2	2	—	—	—	43	30	33	141	500
Eastry	81	81	17	50	50	—	—	—	—	81	50	—	2	2	—	—	—	16	—	—	17	?
Elham	38	31	3	16	13	—	—	—	3	18	12	—	—	—	—	—	—	36	—	—	?	?
Faversham	700	14	—	281	281	—	—	—	—	—	—	—	—	—	—	—	—	14	—	—	?	?
Hollingbourn	579	579	3	69	60	—	—	—	—	203	203	—	3	3	—	—	—	25	—	—	?	?
Hoo	67	20	20	3	3	—	—	—	—	—	—	—	20	—	—	—	—	10	—	10	30	?
Maidstone	188	38	—	104	20	58	58	—	—	57	48	—	1	1	—	1	—	42	—	—	50	—
Malling	217	—	—	73	61	—	—	—	—	10	10	—	—	—	—	—	—	33	—	33	69	200
Milton	453	358	—	89	83	6	6	—	—	838	836	2	—	—	—	—	—	42	—	42	?	?
Romney Marsh	93	93	2	3	2	5	5	—	1	5	5	—	1	1	1	—	—	34	—	34	10	24
Sevenoaks	91	11	4	87	87	—	—	—	—	—	—	—	—	—	—	—	—	72	—	—	?	?
Sheppey	73	—	—	—	32	—	—	—	—	34	32	—	—	—	—	8	1	31	—	—	—	—
Strood	196	87	2	78	81	13	7	—	—	—	—	—	2	2	—	—	—	30	—	—	50	—
Tenterden	18	—	—	18	18	—	—	—	—	—	—	—	—	—	—	—	—	24	—	—	30	—
Thanet	290	—	—	201	103	—	—	—	—	21	21	—	—	—	—	—	—	96	—	—	?	?
Tonbridge	452	426	2	164	160	—	—	—	—	4	4	—	—	—	—	—	—	27	24	3	50	50
Totals in Rural Districts	5608	2528	95	2943	1789	154	153	2	7	1910	1816	2	53	29	10	9	7	1014	70	294	539+	814+
Totals in Urban Districts	26336+	6392	154	6687	7599	214	287	2	6	3687	3485	30	60	54	39	50	18	1403	215	310	1493+	2912+
Totals for County	31944+	8920	249	8730	9388	368	440	4	13	5597	5301	32	113	83	49	59	25	2417	285	604	2032+	3726+

“The process of transference will be gradual, and in the selection of occupants for new dwellings preference should be given to those displaced.

“I feel sure that action along these lines is worth while, because in spending money on better housing you are attacking one of the most common causes of disease prevalence.”

Gravesend B.—“The necessity for more housing accommodation is very urgent—a number of families are now living in some of the very old property of the borough in overcrowded conditions in houses which are unfit for human habitation. These houses would be closed in normal times, but owing to the want of accommodation elsewhere it is practically impossible to take the necessary steps for closure. Either the corporation must erect more houses, or, as an alternative, give more facilities and encouragement to local builders to meet the demand for houses for the working-classes.”

Herne Bay U.—“The want of houses for the working classes continues—the houses newly erected in the district are of a residential character, and apparently do not affect the shortage. The council have decided to erect twelve houses for the working-classes.”

Margate B.—“In common with other towns, we are still faced with a deplorable shortage of houses, and many families are not only living in one room for each family, but there are a great many houses occupied which are totally unfit for human habitation. It is useless to put Closing Orders on these houses, as the tenants have nowhere better to go. We are thus greatly handicapped in our endeavours to raise the standard of health and cleanliness among the people.”

Northfleet U.—“There are quite 4,000 families living in 2,000 houses, where the houses are at an assessable value of £12 10s. and under.”

Ramsgate B.—“The council advertised in the local papers, asking those requiring houses as weekly tenants or owner-occupiers to send in their names and addresses. This resulted in 238 applications for weekly tenants, 41 applications from owner-occupiers, and 15 applications from persons outside the district. The sanitary inspector reports that ‘there is still a very considerable shortage of housing accommodation and many families in the town are living under overcrowding conditions in a room or rooms.’”

Southborough U.—“It is found that many houses which were originally built for one family now contain two or more. The lack of sufficient housing accommodation restricts the necessary action which should be taken, to prevent overcrowding, and the closure of dilapidated property.”

Dartford R.—"The shortage of workmen's dwellings is very acute making it impossible to deal with overcrowding or defective housing as one would wish. Very many houses have two families. There is also a great shortage of cheap houses suitable for farm workers. My inspectors suggest blocks of three or four room flats, serviceable for the better accommodation of these people, both to economise the cost of building and with a rent payable by an agricultural labourer.

"A further municipal scheme is urgently called for, and has already been commenced, but up to the present the houses already built have had little effect in relieving the universal overcrowding."

WATER SUPPLY.

Information as to the number of houses not connected with the public supply in each sanitary area, is given in Tables 26 and 27.

Improvements in water supplies are reported from various districts. In *East Ashford Rural*, under a guarantee from the Rural District Council, the Mid-Kent Water Company have laid down a series of mains for the parish of Brook, and a scheme is now under consideration, whereby the same company would provide a supply to the parishes of Smeeth, Brabourne and Mersham. The same company laid additional services in that portion of the *Faversham Rural* area which is supplied by them. A new high-level reservoir of 4,250,000 gallons capacity is approaching completion in *Folkestone Borough*; it is situated on the summit of the escarpment behind the existing reservoirs. In the same borough, a new trunk main was laid along Hill Road, supplying new buildings in the Canterbury and Dover Roads; but work on the new adit at Drellingore in the Alkham Valley was impeded in consequence of the large body of water encountered. In *Malling Rural* a second covered reservoir (of 500,000 gallons capacity) has been constructed at Mereworth Beech, a new pumping station is under construction at Trosley, the mains from Halling to Wouldham have been entirely relaid, and there have been extensions of the mains in several parishes. *Sevenoaks Rural* reports main extensions at Otford (to serve a newly developed estate) and at Charcott Leigh (to replace an inefficient supply drawn from wells). The distribution mains are being relaid throughout the *Southborough Urban* district, and "constant service" is being gradually extended in *Sheerness Urban*. In *Walmer Urban* a larger main was laid, to improve the supply to the area south of Walmer Castle. New mains have been laid in several parts of *Hollingbourn Rural*, and connections made to a further ninety-three houses.

The deficiencies reported are summarised as follows.—In *West Ashford Rural*, the water supply (mainly rain water) is very inadequate in dry seasons at Charing (Chapel Wood area), Egerton Forstal, Westwell, and the outlying

portions of Shadoxhurst. In *Bromley Rural*, "urgent attention is needed in respect of sufficiency and quality in connection with the water supply to a great many bungalow dwellings in various parts of Biggin Hill, Cudham, and Westerham Hill, Cudham, by extension of the Metropolitan Water Board's main." The supply in the Waltham area of *Bridge Rural* is precarious in dry weather, and there is urgent need of a supply in *Hollingbourn Rural* in the villages of Bredhurst, Stockbury, Ulcombe, Chart Sutton and part of Headcorn. A scheme for a main supply to Graveney and Goodnestone was turned down by the *Faversham Rural* District Council, owing to prohibitive cost, and a proper supply is urgently needed for the Selling Schools in the same area. The Robin Hood Estate on Blue Bell Hill, in the *Malling Rural* district, is still without a proper water supply; and a public supply is required at Boughton Bottom, Hornslodge (Yalding) and at the top of Hunton Hill, in the *Maidstone Rural* area. *Dartford Rural* is served by the mains of the Metropolitan Water Board and the Mid-Kent Water Company, but provision is needed for the plots at Hextable, Sutton-at-Hone; the East Hill Estate at Kingsdown; and the Bottom Street cottages at Farningham. A large number of defective mains in *Sheerness Urban* require renewal. Unsatisfactory reports as to the quality of the water are recorded by *Herne Bay Urban* and *Tonbridge Urban*, though in the latter district the unsatisfactory report of July was followed by a satisfactory one in August.

Other matters of interest, or references to future improvements, are as follows:—

Crayford Urban.—The Metropolitan Water Board should be requested to extend their main along Whitehall Lane so as to supply the existing dwellings which derive their supplies from deep wells, and also to provide for the future development which appears likely.

Dartford Urban.—With the exception of a few isolated houses, the whole of this district is supplied by the Metropolitan Water Board.

Margate Borough.—A number of new water mains are to be laid in order to improve the supply where the existing mains are inadequate, and extensions are also to be made to the existing adits at the Wingham pumping station.

Queenborough Borough.—A constant supply is maintained from the Corporation Waterworks. The water is of excellent quality, and, since the removal of sand deposited in the old mains, a large amount of sediment (a source of former complaint) has passed away.

Romney Marsh Rural.—The council is in negotiation with a water company for a supply of water to Dymchurch. (See previous reports.)

Sandgate Urban.—Application for an augmentation of supply is now before the Ministry of Health for consideration.

Sandwich Borough.—The supply of water in the wells has now recovered normal level after the effects of drought. There were one or two minor complaints of temporary shortage, but it was not due to lack of water in the reservoir, and work is shortly to be carried out which, it is believed, will prevent a recurrence. Analysis of the water gives very good results.

Tunbridge Wells Borough.—A new rising main from the pumping station was completed.

Whitstable Urban.—The water supply (now under the control of the Urban District Council, who have acquired the undertaking) is to be improved by the construction of a new reservoir of 500,000 gallons capacity, and by fresh borings into the chalk, and work in both directions is well advanced. New mains will be required. The water is moderately hard, and occasionally discoloured by the presence of oxide of iron, though this latter condition has been much improved by more efficient filtration. The well heads are reported to be inefficiently protected and separated from the suction-gas plant.

DRAINAGE AND SEWERAGE.

Tables 26 and 27 show the number of premises in each district containing different types of sanitary conveniences.

Improvements and deficiencies in sewerage schemes, reported during 1923, are as follows:—

Extensive alterations are being carried out at the West Kent Sewage Works at Long Reach (*Dartford Urban*). A good deal of sewer-construction was carried out during the year at *Bexley Urban*, where consideration is being given to the need for a sewer to the low-lying portion of the East Wickham Ward. In *Dartford Rural* the sewerage of Horton Kirby has been completed and is now in working order, and similar work is proceeding at Stone and Swanscombe. The contemplated action for a joint sewerage scheme for *Chatham Borough* and *Rochester City* seems to be nearer accomplishment; and the third portion of the *Sheerness Urban* scheme was completed during the year. Some new sewers were laid in *Sevenoaks Urban*, and at Westgate in the *Thanet Rural* district, while a new main sewer, as well as some relayings, reconstructions or repairs, is reported from *Tunbridge Wells Borough*. The main drainage scheme for the northern part of *Gravesend Borough* is nearing completion; sewers have been laid, and the outfall-works are expected to be completed and in operation at an early date. *Margate Borough* reports many improvements during the year—new mains laid, old mains re-laid, and a new

pumping station, screening chamber, pump chamber and storm-water overflows constructed. The Sandhurst drainage scheme and the Goudhurst outfall works (*Cranbrook Rural*) were carried out, and a new sewer laid at Barming Heath (*Maidstone Rural*). A small septic tank was provided at the sewer outfall at Kennington (*East Ashford Rural*); it is reported to be working well, and a scheme of drainage for the whole parish is in course of preparation. A main drain was laid at the rear of cottages in Queen Street, Paddock Wood (*Tonbridge Rural*) taking all sink-water and replacing an open ditch. A few privies in the outlying portions of *Gillingham Borough* have been abolished. A new motor plant for cesspool emptying has been provided in *Milton Rural*, and the sewage disposal works at Newington, in that area, have been re-constructed. In *Northfleet Urban* a newly fitted motor pump on the sewage lorry facilitates and quickens the emptying of cesspools. Two new sewers in *Erith Urban* (one near Belvedere Station, the other on the high ground at Abbey Wood), allowed connection with eighty houses and a corresponding abolition of cesspools.

Considerable progress is reported in the work on the sewer outfall extension scheme in *Folkestone Borough*. Subsidiary sewers were laid in Tontine Street to prevent flooding of basements, caused by "backing up" in the main sewer when heavy rainfall coincides with high tide. A high-level intercepting sewer is required to prevent risk of flooding (in the lower portion of the town) which may occur through the large increase of road surface recently, and now being, constructed.

The deficiencies reported are comparatively few. In *Blean Rural* a portion of the parish of Swalecliffe "urgently needs sewerage," and from *Bromley Rural* comes the report that "the continued overflowing of cesspools in the villages of Hayes, Keston and West Wickham, creates a nuisance, and main drainage is therefore urgently needed." In *Faversham Rural* main drainage for the districts of Ospringe and Teynham is again referred to by the medical officer of health; in *Hollingbourn Rural* drainage and sewerage are required at Harrietsham, Hollingbourn and Ware Street, Thurnham. All houses in *Whitstable Urban* are connected to a main drainage system; but the sewers at Lower Island Wall and Warwick Road are defective, and require re-modelling, and some repairs are necessary at the sewage disposal works. More flushing cisterns to w.c.'s are needed in *Sittingbourne Urban*, and sewerage is required, though not urgently, for the parish of Birchington (*Thanet Rural*). Further additions to the sewerage of Lane's End, Darent (Dartford Rural) are needed. *Herne Bay* sewage is discharged untreated into the sea, and the medical officer of health questions whether this is a satisfactory method of disposal. *Lydd Borough* reports the existence of some old pit-closets, which should be converted either into earth-closets or cesspool drainage; and main

drainage is needed for Rainham (*Milton Rural*). In *Malling Rural*, the medical officer of health has, for some years past, commented upon the necessity for improvement in the drainage of the village of Wateringbury, where the sewers discharge direct into the River Medway. He again records his opinion that this matter should be dealt with, together with the question of the sewerage of other districts higher up the river. In *Crayford Urban*, Whitehall Lane (with several existing houses and the possibility of more being erected) is cesspool drained, and no provision has yet been made to connect this site to the main drainage system.

In *Wrotham Urban* main drainage is urgently needed, though there has been a marked improvement in sanitation due to the new cesspool emptying plant. Complaints are still received of overflowing cesspools—usually due to the cesspools themselves being inefficient, and also to the fact that the owners concerned fail to give due notice when such cesspools require emptying. Dr. Walker recommends that the council use its powers to enforce that offending cesspools be made larger and, where necessary, watertight; rely less on notices for emptying; allow no cesspool which requires emptying more frequently than every three weeks; and keep a list of all cesspools in the district, with their capacity expressed as weeks between emptying. Dr. Walker is of opinion that all overflowing should then automatically cease. Complaints have also been made as to the place of deposit of the sewage, and he suggests a minimum distance of 100 yards from any road or 200 yards from any house.

Other matters of interest in connection with drainage and sewerage are as follows:—

Ashford Urban.—A report from a consulting engineer is under consideration. The report has reference to the whole of the drainage of the town.

Broadstairs and St. Peter's Urban.—The sewerage of Westwood and Kingsgate are matters under consideration by the council.

Queenborough Borough.—The relaying of a short length of main sewer was under consideration for the relief of unemployment.

Sandwich Borough.—An improved scheme will be an advantage, but at the present time financial and other circumstances will not permit of this.

Walmer Urban.—Drainage of a comparatively small area south of Walmer Castle is desirable, but not urgent. Except for this area, the whole of the district is sewered.

Whitstable Urban.—The Ministry of Health has approved a plan for the "piping-in" of the Stream Dyke—a welcome improvement.

Maidstone Rural.—Dr. Galbraith made a special report on the sewage disposal of Staplehurst.

SCAVENGING AND THE DEPOSITION OF HOUSE REFUSE.

The following is a brief summary of complaints, improvements and matters of interest, reported from the various districts:—

A scavenging scheme is required for Charing and the larger parishes in *West Ashford Rural*; and the scavenging of Birchington (*Thanet Rural*) is still unsatisfactory. There were several complaints from the parish of Loose (*Maidstone Rural*), but the District Council do not undertake refuse collection in any parish of that area. In the *Malling Rural* district the seven-day system of scavenging is desirable throughout the year, instead of only in summer, as is at present the custom. A scavenging-cart is said to be "urgently needed" in *Wrotham Urban*, and it is suggested that mechanical vehicles are desirable for *Sevenoaks Urban*. In *Hollingbourn Rural* there is no scavenging scheme for the larger villages, and the sanitary inspector directs attention to the fact that 157 complaints were received of nuisance arising from house-refuse; he writes—"In most cases, especially in the larger parishes where house or sufficient garden or yard space is unavailable, refuse was found lying in close proximity to the back doors, and it is very difficult to deal with this matter under the existing state of affairs."

The refuse-dump in *Broadstairs Urban* is "not very satisfactory," and complaints are received, periodically, respecting smoke and smells from the "tip" at *Gillingham Borough*. In *Herne Bay Urban* there is no destructor, and house refuse is deposited in the public park; and some of the dumps in *Wrotham Urban*, are said to be "a danger to public health, being offensive and harbouring rats and flies."

Improvements are reported from *Tonbridge Urban* (in the method of collection); and from *Cheriton Urban*, where, following complaints with regard to the "tip," improvements were effected with regard to future disposal. In *Whitstable Urban* the house-refuse (collected twice weekly) is conveyed in covered carts to a dump outside the district, and the Ministry of Health enquired, during the year, into complaints of flies emanating from this dump. The council intend to comply with the principle involved in the Ministry's suggestion and insert a clause in the specification, to the effect that the contractor must screen sufficient material to cover the grosser material with ash to a depth of at least six inches.

In *Ashford Urban*, tenders are being invited for the erection of an incinerator at the Hampden Farm refuse depôt. In *Gravesend Borough* the refuse-destructor is not in use, sewage and house-refuse being collected by contract and deposited outside the borough. In *Dartford Urban*, where all refuse is burnt, a small destructor was erected by the council at the Bexley

Mental Hospital, to deal with the refuse from that institution. A destructor is said to be needed in *Penge Urban*, but there is no available land in the district.

Other references to this matter of scavenging and deposition of refuse are as follows:—

Tonbridge Rural.—In those villages where scavenging is carried out by the council, dust-bins should be cleared every week, instead of fortnightly, during the months of July and August.

Milton Rural.—More frequent collections are taking place.

Dartford Rural.—House-refuse is collected throughout the district, twice weekly in Stone and Swanscombe, once weekly elsewhere. A motor waggon is in use in the two parishes named. The system is said to be satisfactory. The obstruction by landowners to the obtaining of a new site for the deposition of refuse at Swanley Junction is, in the opinion of the medical officer of health, "very serious."

Southborough Urban.—Weekly collection (by the council's staff) is maintained, the refuse being deposited in open "tips," which are kept in accordance with the recommendations of the Ministry of Health. An appeal to householders was made in March, requesting them to place in their dust-bins as little paper, garden, vegetable and animal refuse as possible, partly on account of the danger to health of these accumulations during the summer months.

The receptacles used for refuse are referred to in several of the reports. In *Rochester City* there is said to be "great need of proper dust-bins for the houses," and in the neighbouring borough of *Chatham* these receptacles are said to be unsatisfactory, Dr. Holroyde writing: "A very desirable sanitary reform would be the substitution of covered galvanised iron bins in place of the present motley assortment of receptacles now in use. There has been a reluctance to enforce this provision because of the expense." In *Milton Rural* 838 sanitary dust-bins were provided at Rainham, and forty-five new sanitary dust-bins were provided by owners (under notice) in *Sandgate Urban*.

The question of the disposal of *London* refuse by "tipping" within the county was referred to in my Annual Report for 1922. This matter is again referred to by several medical officers of health, and I mention the following references from district reports:—

In *Bexley Urban* the *London* refuse "tipped" is covered, as layers are formed, in accordance with the bye-laws of the council. The medical officer

of health writes that "this tip causes far more anxiety to your officers than the disposal of the refuse which is collected locally. Compliance with the council's bye-laws concerning the covering of the refuse on this permanent tip is insisted upon, but a good deal of the time of your staff must be spent in seeing this is carried out."

In *Crayford Urban* the condition of the tips is said to be "still unsatisfactory."

In *Northfleet Urban* the recommendations as to the covering, etc., of the tips were carried out before such recommendations were issued by the council, and there has been no further deposit.

In *Wrotham Urban* no London refuse has been deposited during the year. The nuisance arising from deposition of London refuse at Hernwill, Addington (*Malling Rural*) has been less since the summer.

London refuse is brought into the *Milton Rural* district for industrial purposes. There has been no nuisance, and all practicable measures have been adopted to prevent such arising.

RIVERS POLLUTION.

Full particulars of pollutions of the Kentish rivers were given in my Annual Report for 1919, the continuation, aggravation or remedy of such pollutions being recorded during the subsequent years.

During 1923 the following references under this heading are made by the medical officers of health concerned :—

Gravesend B.—Pollution of the *River Thames* will be remedied when the main drainage system is in operation.

Sandwich B.—No complaints have been received, but sewage is discharged into the tidal *River Stour*—of necessity causing some pollution.

Whitstable U.—The stream-dyke, the tidal water-course referred to in my last annual report, is to be 'piped' for a considerable distance, at a part where it has given rise to nuisance.

West Ashford R.—The overflows from six cesspools discharge into a stream at Westwell, and action will be taken to prevent this.

Cranbrook R.—There is pollution of the *River Crane*. (This matter is receiving special consideration at the time of writing).

Faversham R.—Notices have been affixed along the banks of the stream which carries the Boughton sewage, in order to prevent hop-pickers from drinking the water.

Hollingbourn R.—There is pollution of streams at Harrietsham, Hollingbourn and Thurnham, and of the *River Len*.

Malling R.—There is pollution of the *River Medway* at many points, but no steps have been taken to remedy this.

SANITARY WORK AND GENERAL.

I append herewith (Tables 26 and 27) a tabular statement showing a record of the work undertaken in the various sanitary districts during the year by the local sanitary inspectors, to whom I am indebted for the information.

The county sanitary inspector undertook a series of investigations into the sanitary condition of various rural districts in the county, summaries of which have appeared in certain quarterly health reports.

The following are the comments on special matters from district reports:—

Margate Borough.—“Another greatly needed improvement which has received much time and thought from the Health Committee, is the erection of public baths. It is well-known that, in the older parts of the town, not only the cottages but many of the better class houses have no bath-room, and what is needed is facilities for these people to obtain a good bath at least once a week and at a price which they are able to afford. I have no doubt that this will be an established fact in the very near future.”

Whitstable Urban.—“Lavatory accommodation in the town itself is totally inadequate, and with the exception of one urinal there is no public accommodation. There are two at Tankerton and one on the West Beach, which are extensively used, but all too far away to be of any use for the centre of the town, and with the increasing number of visitors, many of whom come by motor-coaches which set down in the town, the need of more accommodation for both sexes becomes increasingly urgent. Negotiations for acquiring land for this purpose are taking place, but have not yet been carried to a successful issue.”

METEOROLOGICAL OBSERVATIONS.

Particulars of the facilities in Kent for meteorological observations have been recorded in my Annual Reports since 1920. Developments were recorded in the year under review, as follows:—

Dover Borough.—A meteorological station has been established by the corporation on the sea-front. Rainfall, sunshine, air and earth temperatures, and direction and force of wind are recorded, readings being taken twice daily.

Queenborough Borough.—There is a rain-gauge at the waterworks, and comparisons are made with the neighbouring town of Sheerness.

Sheerness Urban.—A meteorological station was established and commenced work in April, 1923.

Sidcup Urban.—Barometric and thermometric readings, and weather conditions, are recorded twice daily.

Southborough Urban.—A record of rainfall is kept by the council's Waterworks Engineer.

ADOPTIVE ACTS AND BYE-LAWS.

During 1923, bye-laws with respect to the regulation of offensive trades came into force in *Bexley Urban* (with regard to fish-frying) and *Herne Bay Urban*.

Other Acts, bye-laws or regulations adopted during the year were as follows:—

New Streets and Buildings—*New Romney Borough, Walmer Urban, Elham Rural* and *Romney Marsh Rural*. Removal of House Refuse—*Walmer Urban*. Tents, Vans, Sheds, etc.—*Bexley Urban, Bromley Borough, and New Romney Borough*. Slaughter-houses—*Faversham Borough* and *Tonbridge Urban* (revised). Regulations under Dairies, Cowsheds and Milkshops Order—*Hythe Borough* and *Blean Rural*. Part IV. Public Health Acts Amendment Act, 1907—*Blean Rural* and *Thanet Rural*. Waste, Misuse, Undue Consumption or Contamination of Water—*Deal Borough*; and Model Bye-Laws (Series XIII, B. Section 26, Housing, Town Planning, etc., Act, 1919) *Ramsgate Borough*. Two Corporation Acts came into force, during the year, for the towns of *Chatham* and *Maidstone*.

Regulations and bye-laws which are said to be needed in various districts are as follows:—Slaughter-houses, *Maidstone Rural*; Regulations under the

Dairies, Cowsheds and Milkshops Order, *Chatham Borough*, and (revised) *Crayford Urban*; Keeping Pigs, *Maidstone Rural*; Building, *West Ashford Rural* and (revised) *Folkestone Borough*; Houses-let-in-lodgings, *Sheerness Urban*, *Broadstairs Urban* and *Folkestone Borough*; Drainage (for existing houses), *Tunbridge Wells Borough*; and, for the regulation of the offensive trades of fish-frying and rag-and-bone-dealing, *Folkestone Borough*.

Urban powers are required in *Eastry Rural*, and "general bye-laws for the whole of the district" are advocated in *Faversham Rural*, while in *Hollingbourn Rural*, the building bye-laws and those for drainage and sewerage, should be extended over the whole of the district.

Bye-laws are being revised, or are under consideration in *Dover Borough* (as to houses-let-in-lodgings); *Lydd Borough* (as to new streets and buildings), *Sandgate Urban* (new bye-laws based on the "Model Bye-laws"); and *Malling Rural* (the building bye-laws).

An interesting comment is made by Dr. McCombe (*Margate Borough*) in connection with the coming into force, in that borough, of the Public Libraries Act. Dr. McCombe writes:—"Perhaps the most notable event during the year was the opening of the Public Library. This at first sight may not seem an item for comments on public health, but it is a well established fact that the education given at the different clinics all over the country has gone a long way in reducing our infantile death-rate and to help to improve the health of the children generally. It is reasonable therefore to expect that the Free Library will offer greater facilities to the people for still further improving their minds. Besides, it offers a healthy recreation to everyone who wishes to take advantage of it and who hitherto were not able to afford it."

TABLE 28.—In regard to Births and Deaths; Zymotic, Phthisis and Infantile Mortality; and Incidence of Scarlet Fever, Diphtheria and Enteric Fever—showing the amount of the rate above or below the Urban District average for the years 1923, 1922 and the five years' average 1917–1921, in each Urban District in the County of Kent.

DISTRICT.	Birth Rate.			Death Rate.			Zymotic Death Rate.			Phthisis Death Rate.			Infantile Mortality per 1,000 births.			Incidence of Infectious Diseases per 1,000 of the population.								
	1923.	1922.	Aver. 1917–1921.	1923.	1922.	Aver. 1917–1921.	1923.	1922.	Aver. 1917–1921.	1923.	1922.	Aver. 1917–1921.	1923.	1922.	Aver. 1917–1921.	Scarlet Fever.			Diphtheria.			Enteric Fever.		
																1923.	1922.	Aver. 1917–1921.	1923.	1922.	Aver. 1917–1921.	1923.	1922.	Aver. 1917–1921.
Ashford	0.5	0.4	0.9	0.1	1.8	0.1	0.28	0.09	0.09	0.23	0.31	0.18	25	4	1	0.93	0.75	0.55	0.36	0.46	0.97	0.04	0.02	0.08
Beckenham	3.6	2.6	4.8	1.8	1.1	2.2	0.15	0.22	0.15	0.19	0.14	0.26	16	3	4	0.85	0.29	0.25	0.33	0.85	0.85	0.10	0.04	0.00
Bexley	4.5	2.9	2.3	0.3	1.4	2.0	0.14	0.10	0.18	0.04	0.21	0.23	3	2	0	0.36	4.78	1.76	0.70	0.34	0.08	0.12	0.09	0.10
Broadstairs and St. Peter's ...	6.8	6.6	6.1	1.1	1.5	0.8	0.18	0.10	0.08	0.13	0.08	0.06	1	35	2	0.89	2.35	0.93	0.39	0.17	1.73	0.12	0.10	0.06
Bronley (Borough) ...	1.7	2.1	3.3	0.2	0.0	1.6	0.10	0.23	0.21	0.10	0.17	0.31	12	16	1	0.04	1.24	0.06	0.18	0.19	0.04	0.12	0.03	0.04
Chatham (Borough) ...	2.9	3.6	3.7	0.1	0.3	2.4	0.08	0.06	0.37	0.20	0.37	0.41	12	11	15	0.27	0.87	0.01	0.14	0.11	0.58	0.03	0.04	0.03
Cheriton	7.2	1.0	7.0	2.5	0.6	1.0	0.08	0.27	0.43	0.62	0.37	0.49	4	9	6	0.05	0.05	1.08	0.79	1.55	1.21	0.12	0.09	0.05
Chislehurst	4.2	2.6	4.3	1.7	2.4	2.9	0.05	0.13	0.19	0.76	0.35	0.50	15	5	27	0.25	3.57	0.20	0.33	0.76	0.41	0.12	0.14	0.19
Crayford	5.9	6.9	*	3.6	3.3	*	0.12	0.10	*	0.04	0.23	*	9	13	*	0.83	0.35	*	0.47	0.41	*	0.04	0.16	*
Dartford	2.1	2.4	0.5	2.3	3.5	1.0	0.06	0.01	0.46	0.03	0.19	0.02	5	10	15	0.69	1.61	3.20	0.22	0.73	4.95	0.00	0.18	0.24
Deal (Borough)	0.5	0.1	2.6	1.1	2.1	1.6	0.11	0.38	0.21	0.22	0.02	0.04	2	13	16	1.62	1.56	0.75	0.54	1.46	1.80	0.12	0.09	0.03
Dover (Borough)	3.2	1.9	3.4	0.3	0.4	0.0	0.03	0.08	0.08	0.10	0.08	0.06	2	4	0	0.89	1.44	0.59	0.05	0.18	0.18	0.01	0.06	0.04
Erith	0.8	1.2	2.0	2.6	1.2	2.2	0.03	0.40	0.03	0.03	0.00	0.01	8	6	4	3.31	0.48	0.84	0.05	1.42	0.34	0.04	0.04	0.03
Faversham (Borough) ...	2.3	0.5	0.8	0.6	1.5	0.4	0.18	0.10	0.05	0.30	0.06	0.08	8	15	6	1.25	1.32	0.63	0.41	0.35	0.17	0.12	0.01	0.07
Folkestone (Borough) ...	2.0	1.5	0.2	0.7	0.9	0.2	0.01	0.23	0.25	0.15	0.06	0.02	7	11	8	0.91	0.52	0.80	0.61	1.07	1.09	0.03	0.03	0.07
Gillingham (Borough) ...	1.2	1.6	2.6	0.4	0.8	0.5	0.21	0.16	0.00	0.07	0.31	0.07	2	4	2	1.30	0.40	0.83	1.06	1.05	0.33	0.07	0.02	0.08
Gravesend (Borough) ...	2.6	4.1	0.9	0.5	1.1	0.7	0.10	0.33	0.13	0.15	0.09	0.26	1	4	1	0.45	0.75	0.83	0.78	0.31	0.36	0.05	0.05	0.04
Herne Bay	7.3	6.3	3.3	1.1	0.3	1.4	0.28	0.37	0.21	0.26	0.50	0.06	30	1	20	1.01	1.42	0.05	0.19	0.35	0.61	0.12	0.09	0.04
Hythe (Borough)	5.3	2.6	0.6	0.0	0.0	1.2	0.42	0.19	0.40	0.63	0.40	0.25	3	34	2	0.88	1.15	0.65	0.79	0.99	0.05	0.16	0.09	0.08
Lydd (Borough)	1.4	0.6	2.4	0.5	1.7	1.6	0.28	0.01	0.43	0.13	0.55	0.25	49	33	16	1.26	0.00	0.79	0.79	1.55	1.34	0.12	0.09	0.14
Maidstone (Borough) ...	0.1	0.6	0.7	0.0	0.7	1.2	0.07	0.18	0.12	0.01	0.89	0.30	1	7	0	0.98	1.84	1.37	0.09	1.08	0.72	0.01	0.02	0.13
Margate (Borough)	0.9	1.6	3.2	0.1	0.2	0.9	0.13	0.03	0.13	0.31	0.15	0.26	5	0	2	1.61	2.15	1.29	0.14	0.32	0.88	0.01	0.27	0.01
Milton Regis	0.0	2.4	1.7	0.2	0.5	1.0	0.14	0.19	0.21	0.24	0.25	0.07	9	5	11	1.18	1.78	0.05	0.26	0.82	0.62	0.15	0.09	0.09
New Romney (Borough) ...	6.1	1.2	2.6	1.9	2.5	0.3	0.40	0.47	0.60	0.59	0.80	0.43	7	96	8	1.71	2.71	1.76	0.79	1.55	1.43	0.12	0.09	0.03
Northfleet	2.2	5.7	3.4	0.0	1.9	1.3	0.37	0.58	0.94	0.03	0.06	0.27	10	6	3	0.54	1.48	0.94	1.03	0.13	1.96	0.01	0.09	0.19
Penge	2.2	0.4	0.1	1.7	0.9	1.1	0.06	0.02	0.11	0.12	0.09	0.06	23	14	16	0.77	0.34	0.19	0.11	0.78	0.63	0.00	0.09	0.03
Queenborough (Borough) ...	2.7	5.2	5.6	1.3	3.3	3.2	0.98	0.15	0.40	0.49	0.16	0.44	19	9	30	4.87	0.16	0.63	2.35	0.59	2.53	0.20	0.09	0.05
Ramsgate (Borough)	2.4	0.8	0.1	2.3	3.0	2.9	0.15	0.33	0.25	0.17	0.10	0.40	4	1	17	0.42	0.13	0.46	0.22	1.25	0.11	0.02	0.11	0.09
Rochester (City)	0.8	0.8	0.8	0.4	0.5	0.5	0.12	0.26	0.04	0.15	0.06	0.07	3	1	5	0.17	0.96	0.88	0.06	0.86	0.19	0.13	0.02	0.03
Sandgate	1.3	7.4	1.9	0.3	0.6	1.5	0.28	0.47	0.50	0.76	0.02	0.43	49	46	40	0.20	2.71	0.56	0.31	0.61	1.17	0.12	0.09	0.14
Sandwich (Borough)	3.5	1.4	2.4	1.8	0.3	2.1	0.28	0.17	0.35	0.12	0.48	0.26	34	39	17	1.71	1.75	1.88	0.79	1.23	1.81	0.12	0.09	0.08
Sevenoaks	4.3	3.1	4.4	1.2	0.2	1.0	0.16	0.35	0.18	0.13	0.35	0.31	7	14	27	1.04	1.81	1.63	0.00	0.98	1.06	0.00	0.19	0.07
Sheerness	0.5	0.5	2.6	0.6	1.0	0.2	0.26	0.91	0.18	0.07	0.06	0.09	8	10	7	1.46	1.49	0.62	0.05	2.11	1.27	0.18	0.03	0.25
Sidcup	3.5	6.8	2.8	0.0	0.1	1.9	0.05	0.13	0.15	0.42	0.21	0.44	18	29	9	1.25	1.92	0.76	0.22	0.76	4.19	0.11	0.14	0.14
Sittingbourne	5.5	4.2	2.9	0.0	0.4	0.2	0.35	0.17	0.05	0.23	0.38	0.02	0	16	10	0.06	1.02	0.10	0.25	0.03	1.07	0.09	0.09	0.02
Southborough	0.0	0.2	1.2	3.6	4.4	2.6	0.13	0.32	0.29	0.24	0.06	0.05	2	27	3	1.71	1.27	0.04	0.64	0.83	0.81	0.12	0.09	0.11
Tenterden (Borough)	3.2	4.6	5.0	4.0	2.2	0.3	0.03	0.13	0.42	0.16	0.39	0.26	28	6	26	1.40	2.71	1.79	0.17	0.84	0.97	0.50	0.09	0.02
Tonbridge	0.4	2.1	1.2	0.8	0.9	0.3	0.21	0.21	0.27	0.07	0.11	0.15	7	8	2	0.08	0.89	0.77	0.47	0.54	1.06	0.12	0.09	0.07
Tunbridge Wells (Borough) ...	4.3	3.9	5.4	3.6	2.6	1.1	0.25	0.09	0.34	0.11	0.16	0.11	2	17	0	0.74	1.08	0.09	0.46	0.79	0.78	0.00	0.06	0.03
Walmer	5.3	6.2	2.2	1.4	2.1	0.3	0.28	0.21	0.26	0.57	0.61	0.12	19	4	6	1.71	0.22	0.60	0.56	1.55	1.10	0.12	0.09	0.01
Whitstable	5.0	1.0	2.3	2.5	1.1	0.9	0.25	0.25	0.39	0.02	0.06	0.01	71	9	25	0.86	0.87	0.44	0.68	1.44	1.30	0.63	0.09	0.12
Wrotham	5.5	4.0	0.0	1.1	0.5	0.6	0.65	0.24	0.41	0.18	0.33	0.05	1	47	5	0.88	1.05	1.89	0.79	1.55	1.41	0.12	0.09	0.03
Average rates of the 42 Urban Districts ...	18.3	18.7	19.5	10.7	11.9	13.3	0.28	0.47	0.60	0.76	0.80	0.97	49	58	73	1.71	2.71	2.32	0.79	1.55	2.06	0.12	0.09	0.14

The figures printed in red represent the balance of the rate above the rate for the aggregate Urban Districts, the figures in black the balance of the rate below the average. (The actual rate is obtained by adding or deducting the figures shown, to or from the average rates given in the last line.)

TABLE 31.—SHOWING CAUSES OF DEATH IN THE **RURAL DISTRICTS** OF THE COUNTY OF KENT DURING THE YEAR 1923.

District.	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Encephalitis Lethargica	Meningococcal Meningitis	Tuberculosis of Respiratory System Other Tuberculous Diseases	Cancer, Malignant Disease	Rheumatic Fever	Diabetes	Cerebral Hemorrhage, etc.	Heart Disease	Arterio-sclerosis	Bronchitis	Pneumonia (all forms)	Other Respiratory Diseases	Ulcer of Stomach or Duodenum	Diarrhoea, &c. (Under 2 years)	Appendicitis and Typhitis	Cirrhosis of Liver.	Acute and Chronic Nephritis	Puerperal Sepsis	Other Accidents and Diseases of Pregnancy and Parturition	Congenital Debility and malformation, Premature Birth	Suicide	Other deaths from violence	Other defined diseases	Causes ill-defined or unknown	Special Causes (included above).				
																																Polio- myelitis.	Polio- encephalitis	Anthrax		
Ashford, East	4	...	...	14	2	18	...	1	11	15	...	12	5	3	1	1	...	...	7	1	...	12	2	...	46	...	...	...
Ashford, West...	5	1	9	1	2	3	9	1	4	4	1	...	...	...	...	1	...	1	...	1	2	6	21	...	...	...
Blean	1	...	...	...	1	...	...	8	3	20	...	1	6	19	9	2	8	...	...	...	1	...	1	...	...	2	1	23	...	...	...	...
Bridge	4	...	...	14	1	21	...	1	10	14	1	10	16	1	1	1	...	4	...	3	6	1	9	27	...	...	...	...
Bromley	1	1	...	3	...	1	18	7	37	...	...	17	33	5	26	14	1	1	3	2	10	...	...	8	...	5	55	...	...	...	...
Cranbrook	1	...	...	2	2	...	...	6	5	17	1	2	20	22	8	10	9	1	2	...	4	...	6	1	...	8	3	4	35	...	...	...	...
Dartford	3	1	3	...	...	22	2	23	...	2	26	71	8	9	17	3	2	6	4	...	6	...	...	19	2	18	41	...	...	...	...
Dover	1	1	4	...	...	4	...	5	...	...	5	7	3	...	2	...	1	...	1	...	...	1	5	...	2	27	...	...	...	...
Eastry	1	...	3	...	1	11	4	12	1	...	6	24	2	6	4	1	1	...	7	1	3	4	...	5	38	1
Elham	1	...	1	1	1	6	1	14	...	1	9	12	2	2	2	...	1	1	1	...	5	...	...	2	...	3	37	...	...	...	...
Faversham	3	1	1	...	...	...	15	2	16	...	4	5	22	3	8	8	4	1	3	1	3	1	2	9	1	4	33	...	...	...	...
Hollingbourn	1	3	...	...	9	3	25	...	...	6	26	9	10	8	4	...	1	1	1	3	...	4	...	2	38	1	...	...	...	...
Hoo	1	...	...	...	2	...	...	2	2	3	...	...	4	1	3	3	...	...	...	1	...	1	...	1	1	...	17	...	...	...	...	...	...
Maidstone ...	1	1	...	1	10	1	25	1	1	13	28	11	14	9	1	2	1	...	1	3	1	1	3	2	7	44	1
Malling...	...	2	...	2	...	3	...	...	...	27	8	35	...	3	22	34	11	14	10	5	3	1	1	1	5	1	...	20	1	8	56	2	...	...	...
Milton	1	1	1	...	...	...	15	3	22	1	2	8	25	8	1	6	3	...	3	1	...	7	1	...	5	...	3	20	...	...	...	...
Romney Marsh	1	...	...	...	2	1	...	...	...	2	1	1	2	3	...	...	...	...	3	...	3	...	...	1	1	...	9	...	...	...	...
Sevenoaks	1	...	2	...	2	...	...	19	5	30	...	5	16	45	6	19	13	1	1	1	...	4	...	...	12	3	5	58	...	...	...	...	...
Sheppey ...	1	...	...	...	...	...	...	...	...	1	2	6	...	3	10	3	3	2	...	1	...	...	1	1	...	2	...	2	7	1	...	...	...	...	...
Strood	2	...	...	...	...	10	6	20	1	1	7	14	7	11	13	3	...	2	...	5	...	3	2	7	32	1	...	...	...	...	...
Tenterden	4	...	11	1	1	10	6	...	3	1	...	1	...	...	...	1	...	...	8	1	1	9	...	...	...	...	...
Thanet	2	...	...	...	12	2	13	1	4	13	17	2	3	4	...	...	...	...	6	...	...	4	3	3	25	1	...	...	...	...
Tonbridge	1	...	...	...	3	...	...	...	15	1	31	1	3	11	40	6	8	5	3	2	1	2	...	4	3	2	5	3	7	28	...	...	...	...
Totals in Rural Districts ...	2	...	7	5	15	9	42	1	3	249	62	413	9	34	229	498	107	180	166	35	19	26	20	4	92	11	12	142	30	102	735	8
Totals in Urban Districts ...	7	...	32	13	37	37	106	6	4	586	125	1093	27	90	548	1219	249	517	393	106	54	80	55	53	234	16	25	330	99	226	1646	38	3
Totals in County ...	9	...	39	18	52	46	148	7	7	835	187	1506	36	124	777	1717	356	697	559	141	73	106	75	57	326	27	37	472	129	328	2381	46	3

