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BOROUGH OF EASTBOURNE.



ANNUAL REPORT

FOR 1899 ON THE

Health of Eastbourne,

VITAL STATISTICS, SANITARY WORK, &c.

W. G. WILLOUGHBY, M.D., LOND.,

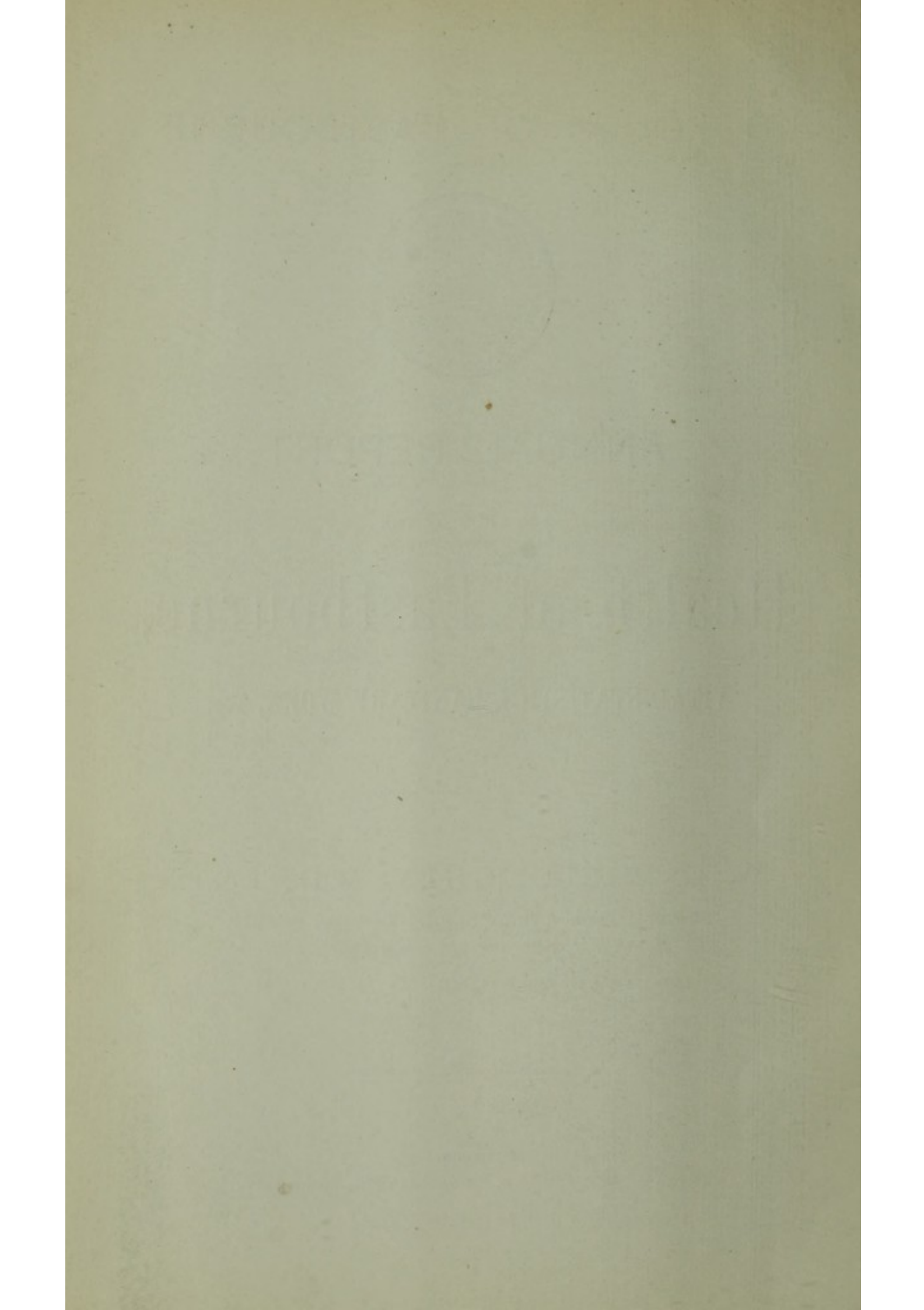
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Health of London and Cambridge Universities.*

MEDICAL OFFICER OF HEALTH.

Eastbourne:

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1900.



SANITARY DEPARTMENT, 1899.

SANITARY COMMITTEE, 1898-9.

Mr. Alderman STRANGE, J.P., *Chairman.*

Mr. Councillor SHERWOOD, *Deputy-Chairman.*

The Mayor (Mr. Alderman KEAY, J.P.)

Mr. Alderman SKINNER, J.P.	Mr. Councillor HILLMAN.
„ Councillor BRADFORD.	„ „ MARTIN.
„ „ BREACH.	„ „ NEWMAN.
„ „ O'BRIEN HARDING.	„ „ ROWE.
Mr. Councillor WHITE.	

1899-900.

Mr. Councillor CLIMPSON *vice* Mr. Alderman SKINNER, J.P.

STAFF.

Medical Officer of Health:

DR. W. G. WILLOUGHBY.

Sanitary Inspectors:

Mr. W. GRANT, Mr. J. H. OLLETT, and Mr. R. M. METCALFE.

Clerks:

Messrs. R. PEIRCE and C. H. TAYLOR.

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APPENDIX.

Tables of Society of Medical Officers of Health and others.

BOROUGH OF EASTBOURNE.

1899.

SITUATION.—Latitude, $50^{\circ} 46'$ N.; Longitude, $0^{\circ} 17'$ E.

ELEVATION OF THE AREA BUILT OVER.—Varies from 140 feet above (at West End) to 4 feet below high-water mark (in the East of the Borough).

SLOPE.—From West to East. ASPECT.—South and South-East.

AREA.—Of the Borough, 5,410 Acres; of the Town (about) 1,000 Acres.

DENSITY OF POPULATION.—For the Borough 8·6 persons per acre; for the Town, 47·0.

NO. OF INHABITED HOUSES.—At Census (April, 1891), 5,190; at end of 1899, 6,858.

POPULATION.—Census (1891), 34,960; Estimated at the middle of 1899, 47,000.

BIRTH-RATE.—19·91 per 1,000; Males, 461; Females, 475.

DEATH-RATES.—Including all deaths, 12·04; and excluding deaths of visitors 11·34 per 1,000.

Zymotic total, 2·90; and from the seven principal zymotic diseases, 2·08 per 1,000.

Infantile Mortality, 145 per 1,000 births.

MEAN ANNUAL TEMPERATURE.—51·3.

HOURS OF BRIGHT SUNSHINE RECORDED—2118·8.

TOTAL RAINFALL.—28·32 inches.

To His Worship the Mayor, and to the Aldermen
and Councillors of the Borough of Eastbourne.

GENTLEMEN,

In accordance with Section 14 of the Local Government Board Order as to the duties of the Medical Officer of Health, I have the honour of submitting herewith my Annual Report on the Health of Eastbourne, Vital Statistics, &c., for 1899.

This is the sixth Annual Report I have had the honour of submitting to you, and in it I have kept to the same form of Report as in previous years, so that any parts of the various reports may be compared and easily referred to.

Each report having to be complete in itself, there is necessarily some repetition, but the figures in the report are of course all new.

The death-rate for the year 1899 in Eastbourne was 12·04 per 1,000, that for England and Wales 18·3, a difference of 6·26. The difference for 1898 was 6·8, so that, although the death-rate for Eastbourne is somewhat higher than it was last year, it still bears about the same proportion to the death-rate of the country generally, viz., over 6 per 1,000 less. Excessive heat in the third quarter of the year accounted for much of the increase owing to the consequent Infantile Diarrhœa.

The Annual average death-rate for the ten years previous to 1899 in Eastbourne had been 12·20, so that although above the average for the previous five years, the death-rate for the last year was below the average for the past ten. It will be found that the country generally has an increased death-rate for 1899 compared with immediately previous years. In 1896, 1897, and 1898, Eastbourne occupied the position of 2nd, 1st, and 3rd lowest respectively of the death-rates of the 100 large towns of the country. It is now five years since it has occupied any place but 1st, 2nd, or 3rd lowest.

The rates I have referred to above are inclusive rates, and do not exclude any deaths whatever which took place within the Borough.

The sickness rate, that is, the number of Notifications of Infectious Disease in proportion to the population, is the second lowest which has been recorded since the Notification Act was adopted in the beginning of 1890.

The proportion of notified cases of Scarlet Fever, Enteric Fever, and Diphtheria which were removed to the Borough Hospital continues about 90 per cent.

I am much indebted to the Members of the Council for sending me to the Sanitary Congress in 1899. Attendances at Congresses are important in that they are one of the ways in which one is kept up-to-date as to what is going on in the Sanitary World, not only from the various exhibitions, papers, and discussions, but also from intercourse with one's fellow Medical Officers.

The fact that I have been permitted to arrange for a twice a week collection of house refuse during the summer months of 1900 will be much appreciated, I believe, by the inhabitants. I trust it will also have the effect of reducing the mortality from infantile diarrhoea.

The new "Sale of Food and Drugs Act" and the "Seats for Shop Assistants Act" have to be carried out and worked by this Department, starting from 1st January, 1900.

There is so much ordinary work for each of the Inspectors of Nuisances during the year that it would be worth while to have an Inspector appointed to carry out thoroughly the department's duties under the "Factories and Workshops Act" the "Shop Hours Act" the "Seats for Shop Assistants Act" and for conveying information to the parents of children suffering from Measles, Diarrhoea, and Whooping Cough, and to Phthisical Patients and their friends, and to make the necessary inspections in connection with the same, special work which cannot

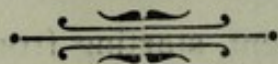
be thoroughly done with the present staff, but which would tend to improve the health of Eastbourne in those directions, especially if Phthisis, Measles, Whooping Cough, and Infantile Summer Diarrhoea were made notifiable diseases. There are other duties which might be imposed on this special Inspector.

I beg, in conclusion, to sincerely thank the members of the Sanitary Authority, and particularly those of the Sanitary Committee, for their kindness during the year. I have also to acknowledge with many thanks the assistance of the members of the Staff of the Department.

I am, Gentlemen,

Yours obediently,

W. G. WILLOUGHBY, M.D., LOND.





THE BOROUGH.

The Borough of Eastbourne is formed by the combined civil parishes of Eastbourne and Norway. In this report Norway is not separately treated, but is part of the East Ward.

The acreage of the Borough is as follows :—

Eastbourne Parish ...	...	4,755
Norway ...	...	655
		<hr/>
The Borough ...	...	5,410

The name "Eastbourne" throughout this report refers to the Municipal Borough, *i.e.*, Eastbourne and Norway parishes, and the statistics given apply to the Borough, and not to the parish alone or to the registration district of that name as mentioned in the Registrar-General's reports.

A large portion of the Borough, especially on the West and North, consists of agricultural and other land not occupied by houses. Of the total 5,410 acres, over 1,000 acres are built on and form the town. The area built on is surrounded by agricultural land or sea in all directions, and the buildings in no case extend to the Borough boundaries except towards the sea.

The Borough is divided into four wards and into eight Ecclesiastical sub-districts, as follows :—

WARDS.—East, Central, West, and St. Mary's.

ECCLESIASTICAL PARISHES.—St. Mary's, St. John's, All Saints', St. Saviour's (with St. Peter's), Holy Trinity, All Souls', St. Anne's, and Christ Church.

The wards are of unequal population, but for statistical and sanitary purposes the division into wards is very convenient.

The Borough is divided into three Sanitary Districts, each in charge of a Sanitary Inspector. Under the Medical Officer of Health each Inspector has full charge of his district in all respects, including the removal of infectious cases, the working of the Sale of Food and Drugs Acts, &c. The three Sanitary Districts are constituted as follows :—(1) St. Mary's Ward; (2) West and Central Wards; and (3) East Ward.

The principal institutions from a sanitary point of view are the following :—

The Borough Infectious Diseases Hospital in St. Mary's Ward.

The Isolation Cottage in the East Ward.

The Union Workhouse and Infirmary in St. Mary's Ward.

All Saints' Convalescent Home in the West Ward.

The Princess Alice Hospital in St. Mary's Ward.

Just beyond the Borough Boundary in the East is the Langney Hospital, which, although outside the Borough, belongs to the Eastbourne Sanitary Authority.

Site, Soil, etc.

The Borough is situate on and at the foot of a slope running chiefly from the Downs on the West to the level ground at the East end of the South Downs.

The highest point of the Borough on the Downs is about 590 feet above sea level, but the elevation of the portion covered by houses varies from about 150 feet above in the West to 4 feet below high-water mark in the East. The Downs shelter the town from the West and South-west, the latter being the direction of most of the storms or gales. The front of the town is open to the sea facing South and South-east, and this ensures a very large amount of sunshine, as is shewn by the sunshine record.

One of the most satisfactory characteristics of Eastbourne is the large extent of the Borough and of the area built over compared with the number of its houses and population. The large extent and number of open spaces and gardens conduces to its healthiness.

The geological survey shews much variation in the soil in the different parts of the Borough. Eastbourne is for the greater part on chalk. There is a certain amount of clay soil in the central part of the town and a strip of upper greensand, which is narrow along the Grand Parade and widens as it passes from West to East to about Bourne Street, where it narrows again until it ends about half-a-mile East of the Pier. The remainder of Eastbourne in the East is on alluvium and on the beach.

Of the four Wards, the whole of the West Ward, and, with a small exception adjoining the railway, the whole of St. Mary's Ward is on chalk ; the East Ward is to a small extent on chalk and greensand, but mainly on alluvium and shingle ; the Central Ward is on chalk principally, but also on alluvium, and, to some extent, on greensand and clay.

In the valleys the chalk and greensand are covered by valley gravel.

Meteorology.

The Meteorology of the Borough is recorded in Mr. Sheward's Annual Report, where full details can be obtained. Some of the *data* have been arranged in a table in the Appendix to this Report, where a coloured chart is also given, showing in a graphic manner some of the principal meteorological items and the deaths, daily and week by week respectively.

The Meteorological Instruments in use in Eastbourne and their positions are as follows :—

The Barometer, a "Fortin," is hung in one of the shelters on the Grand parade 36 feet above the sea level.

The Thermometers are in a "Stevenson's Screen" in the middle of the lawn on the sea front to the west of the Wish Tower, where they are as far as possible free from any disturbing influences. There are four thermometers in the screen, viz., a "Maximum" and a "Minimum Self-registering," a "Dry Bulb" and a "Wet Bulb" ordinary pattern. They stand 4ft. above the ground.

The Rain-gauge, an "Eight-inch Snowdon," is situated in an open garden between the Wish Tower and Devonshire Park, where it is free from special air currents. The reservoir projects six inches above the ground, and is 39 feet above sea-level.

The Sunshine-recorder, a "Campbell-Stokes" instrument, is situated on the top of the tower of the Grand Hotel. This pattern was adopted by the Royal Meteorological Society as the standard instrument for recording "bright sunshine" as distinct from "sunshine."

The Anemometer is of the usual Robinson pattern, and is fixed on the top of the Wish Tower, where it is free from any disturbing effects from artificial draughts, but fully exposed to the force of the wind. This last remark applies equally to the observations of wind direction. This instrument is not of much value.

The Sea Temperature is taken with a standard thermometer from the Pier head, and

The Earth Temperature thermometer, 4 feet deep, is in the enclosure in the Upper Avenue near the Cavendish Place Bridge.

The instruments are all by Negretti and Zambra, of standard pattern, and originally verified at Kew, but since then annually inspected and tested by an officer from the Meteorological Office, the whole of the observations and records being under the immediate supervision of that office.

In addition to the above instruments, it would be interesting and useful to have also the following :—Additional earth thermometers at 1 and 6 feet, a recording wind pressure gauge, and a self-registering rain gauge.

It has been suggested that the meteorological instruments would be better collected in a single station ; but, as Mr. Sheward, the Meteorologist, justly remarks, when records have been carried out for a number of years with instruments in certain positions which are satisfactory, it breaks the series and to some extent interferes with their interest to move the instruments. There could not, on meteorological grounds, for instance, be a better place for the sunshine-recorder than the present, but there might be a more convenient place.

A second set of thermometers, in a "Stevenson's Screen," inland, say at Upperton, away from the sea, would probably show interesting differences of temperature from those now used, situated so close to the sea.

During 1899 there were but 52 sunless days, and there were 147 days on which rain fell. Complete details will be found in the Meteorologist's Report.

Water Supply.

The sources of the Water Supply of Eastbourne are three in number, viz. : Friston, Holywell (including the Warren), and Wannock. A fourth source, Bedford Well, though abandoned for the greater part of the year was used for two months of 1899 to some extent to supplement the supply from the other sources. In this way a constant supply at a good pressure has been maintained in the mains throughout the year.

The three sources referred to above will in future, it is believed, be amply sufficient for the needs of the town, but the permanent works in connection with them are unfinished, hence the temporary use of Bedford Well.

As Bedford Well had to be used to some degree in the middle of the year, the chlorine in the water was somewhat high in the summer months, and the water was harder than it should be.

The average chlorine (representing chlorides) in the Eastbourne water is three grains per gallon, the average number of

degrees of hardness about 15, which is low for a chalk water. While Bedford Well was being used for a month or two in the summer to make up the deficiency in the other sources the chlorine reached 16 grains per gallon, and the hardness 27 degrees. The organic purity of the water was not affected. Owing to its salinity and hardness, Bedford Well is now abandoned, though recent analyses have shown it to be organically quite pure.

Analyses (including bacteriological analyses) of the water were made during 1899, samples being taken from each of the sources and from the high and low level supplies. The subjoined analyses by the Borough Analyst are typical. The samples from the sources were taken on December 15th, 1899 :—

ALL RESULTS IN GRAINS PER GALLON.

*Sample from	F.	H.	W.
Total Solids	25·2	22·4	21·9
Loss on ignition	8·0	8·4	7·9
Chlorine	2·8	3·5	2·2
Free Ammonia	·0000	·0028	·0028
Albuminoid Ammonia	·002	·0098	·0084
Oxygen consumed in 1 hour at 100° C...	·028	·043	·054
Nitrogen as Nitrates	·29	·29	·154
Alkalinity as CaCo	11	8	9
Nitrites	none	none	none
Hardness—Permanent	6	6	6
Temporary	11	8	9
Total	17	14	15

* F—Friston.

H—Holywell.

W—Wannock.

The above are typical results of the examinations of the sources. The following by Professor Percy F. Frankland are typical results of the examination of the supplies united :—

RESULTS OF ANALYSIS, EXPRESSED IN PARTS PER 100,000.

Description.	Total solid matters.	Organic Carbon.	Organic Nitrogen	Amm'nia	Nitrogen as Nitrates and Nitrites.	Total combin'd Nitrogen	Chlorine.	Hardness.			Remarks
								Tem-porary.	Per-manent.	Total.	
High service, 15th Dec., 1899...	30.20	.033	.004	0	.465	.469	3.55	14.9	4.0	18.9	Clear, palatable no poison'us metals
Low service, 15th Dec., 1899...	31.40	.041	.008	0	.322	.330	3.80	13.8	5.3	19.1	

The amount of water pumped into Eastbourne from the various sources in 1899 varied from about thirteen million gallons per week down to rather over seven-and-a-half million gallons, the average amount being between nine and ten million gallons per week.

The proportions contributed by the various sources were for the week ending December 31st, 1899:—Friston, about 63%_o; Wannock, about 21%_o; Holywell and Warren, about 16%_o. The actual amounts pumped during that week from the sources were, in gallons:—Friston, 6,441,409; Wannock, 2,184,126; Holywell and The Warren, 1,682,748. The water from each source is practically similar, being from the chalk and having less than the usual hardness of such waters. The neighbourhood of each source is satisfactory.

The total number of complete chemical analyses of the water received has been 24. The number of partial analyses made by the Medical Officer of Health has been 71.

The water is in the hands of a private Company, who have kindly given me some of the above information.

Drainage.

Much drainage work has been done during 1899 owing to the rapid growth of the Borough. Most of the sewage passes to the outfall at Langney Point by natural fall at low tide and by ejectors at high tide; some is at all tides raised into the sewers by ejectors. There are storm water outfalls elsewhere, but all the sewage goes into the sea by one outfall, untreated, at Langney Point, far to the east of the Borough and a very long distance from any houses.

House Refuse.

House Refuse is collected by the Corporation, except over a small area in the East Ward, where a private contractor removes the refuse; most of that collected by the Corporation is burnt in a "destructor."

Collection of refuse is now made once weekly in all houses, and during 1899 many large houses were collected twice weekly, and some oftener. Information has been obtained by this Department from other towns as to the frequency of collection in those places, and the Medical Officer of Health has reported at length to the Sanitary Committee and to the Council on the subject, and has urged a more frequent general collection for the summer months. In the hot part of the summer of 1900 it is hoped that the suggestions as to more frequent collection will be carried out.

Excluding a portion of the East Ward, the Borough is at present divided into seven districts for dust collection, each district being worked by a shoveller and two carters, the whole being under the direction of the Foreman. Occasionally extra carts are needed to complete the weekly collection. The continual growth of the Borough will shortly necessitate a permanent increase in the staff. Unfortunately, the best type of cart cannot be used for dust collection in Eastbourne because of the inconvenient roadway up to the Destructor. Some of the refuse of the town cannot be destroyed in the Destructor owing to its inability to cope with the amount produced ; hence the collection over a part of the Borough is still left in private hands. This part is situated in the east of the East Ward.

Population.

At this distance of time, nearly nine years from the census, it is very difficult to obtain an accurate estimate as to the number of the population. In tabulating returns and calculating rates of mortality, birth rates, &c., it is essential for accuracy that the number of the population should be as exact as possible.

The Registrar-General's method of estimating the number of the population is based on the assumption that the rate of growth of population is still the same as it was in the previous intercensal period, and though this is liable to inaccuracy through various fallacies, it is fairly reliable as a rule. By this method

of calculation the population in the middle of 1899 was 51,226—that is to say, that if the population of Eastbourne increased after 1891 at the same rate as it increased from 1881 to 1891, the population in the middle of 1899 was 51,226. This is the number that the Registrar-General uses in his returns and calculations.

The obvious fallacy in the above method of calculation is that possibly Eastbourne has not grown at such a phenomenal rate since 1891 as it did between 1881 and 1891. Calculating strictly according to the new houses since the census and the population per house shewn at the census, the population would be rather over 46,000. After comparing the various methods, I find it probable that the population in 1899 was about 47,000, and it is on that number that the rates in this report are calculated. By taking a lower figure than the Registrar-General's estimate, in the case of the death-rate, for instance, the worst is given and the death-rate not made out any lighter than it really is. For example, the death-rate according to my estimate of the population for 1899 is 12·04. According to the Registrar-General's method of calculating, the death-rate was 11·05, so that the Registrar-General makes the death and other rates of Eastbourne to be rather lower than I should do.

In this estimate of 47,000, visitors are not included, except in so far as they were by the April, 1891, census ; in the death-rate, however, their deaths are included unless the contrary is expressly stated, so that here again the worst of the death-rate is given.

Between the census of 1881 and that of 1891 the population increased just twice as much by excess of immigration over emigration as by excess of births over deaths. This latter, known as "natural increase," was 370 in 1899. If the conditions of increase existing from 1881 to 1891 continued, therefore, the population increased about 1,110 in the year. Calculating according to the number of new houses built and occupied, the population increased nearly 2,000 in the year 1899.

By these and various other methods of calculation it is found that the number 47,000 may be fairly taken as that of the population of Eastbourne in 1899; at all events, it is probably an under-estimate rather than an over-estimate.

SEX CONSTITUTION OF THE POPULATION.

The sex constitution of the population of Eastbourne for 1899, calculated on the supposition that the comparative rates of increase of the sexes still continue as in 1881—1891, when the males constituted 35·55 per cent. and the females 64·45 per cent. of the total increase of population in the ten years, is shown in the following table. The estimated numbers can, of course, only be approximate :—

Year.	Males, Total.	Per- centage.	Females, Total.	Per- centage.	Total.	Excess of Females.
1881 (census)	10,060	45·7	11,954	54·3	22,014	1,894
1891 (census)	14,665	41·9	20,304	58·1	34,969	5,639
1899 (estimated)	18,937	40·3	28,063	59·7	47,000	9,127

It is improbable that this decrease in percentage of males compared with females has been continually going on at the same rate, but the above fairly represents the proportion of the sexes. If, however, the proportions of the sexes remain as in 1891 and have not altered as shewn in the above table, the numbers for 1899 would be 19,693 males, and 27,307 females, a difference of 7,614.

In Eastbourne as in other similar health resorts there are fewer occupations and means of obtaining livelihood for men than in other places, hence the large disproportion in the numbers of the sexes.

AGE CONSTITUTION OF EASTBOURNE POPULATION.

The following table gives the 1891 and 1899 population of Eastbourne sub-divided according to age groups. The

estimates for 1899 are calculated according to the tables given in the 1891 census report of the Registrar-General. The sexes are taken as given in the preceding table, and the age groups in the same proportion as they were at the last census.

Ages.	Census, 1891.			Approximate Estimate, 1899.		
	Males.	Females.	Total.	Males.	Females.	Total.
0—1	344	387	731	444	535	979
1—5	1354	1422	2776	1748	1965	3713
Total under 5 ...	1698	1809	3507	2192	2500	4692
5—15... ..	3727	3685	7412	4813	5098	9911
15—25... ..	2848	5161	8009	3678	7133	10811
25—65... ..	5786	8771	14557	7471	12123	10504
65 and upwards ...	606	878	1484	783	1209	1992
Totals	14665	20304	34969	18937	28063	47000

The percentage composition of the population of Eastbourne at different groups of ages is as in the following table. The figures for England and Wales are added for comparison, and the figures for 1891 are chosen, since they are exact.

Age Groups.	Eastbourne, per cent.	England and Wales, per cent.
Under 5 years of age	10·02	12·25
5—15	21·19	22·82
15—25	22·90	19·29
25—65	41·63	40·89
65 and upwards	4·24	4·72

This table is given, since it is often said that the death-rate of Eastbourne is so remarkably low because we have such a number of people of healthy ages compared with England and Wales as a whole. It will be seen by this table that as regards ages of the population Eastbourne is on the whole very much in the same position as England and Wales generally.

In the period of very small death-rate—viz., from 5–15—Eastbourne has a smaller percentage of population; this is, however, more than counterbalanced by the smaller percentage of population in the under 5 years of age group, in which, owing chiefly to infantile mortality, the death-rate is a high one.

The above tables and figures are worked out carefully, because the age and sex constitutions of a population have an important bearing on the death and other rates.

The effect of the influence of sex on Eastbourne death-rates caused by the excess of females, though small, is definite. In comparing Eastbourne rates with others it should be remembered that the excess of females renders a death-rate slightly smaller than it otherwise would be.

The distribution of the population according to Wards is shewn in the subjoined table. The 1899 estimate is only approximate and based principally on the increase in the number of dwelling-houses in each locality.

Wards.	Population in 1891. (Census.)	Population in 1899. (Estimate).
East	12113	17700
Central	10501	11285
West	5736	7382
St. Mary's	6619	10633
	<hr/> 34969 <hr/>	<hr/> 47000 <hr/>

The increase recently has been principally in the East and St. Mary's Wards and to a less extent in the West, as is shewn by the table below shewing the number of new houses in the respective Wards.

HOUSING OF THE POPULATION.

The following table shews the number of dwelling-houses in Eastbourne and in each Ward at the census of 1891, and as estimated in 1899. The figures in the second column are only approximate, but may be taken as fairly correct:—

Wards.	Houses inhabited at Census, 1891.	Houses built since Census to end 1899.	Persons per house 1891 Census.	Houses certified in 1899.*
East	1927	711 900	6.2	189
Central	1528	69 83	6.8	14
West	716	149 158	8.0	9
St. Mary's	1019	446 524	6.5	81
	—	—	—	—
Totals	5190	1375 1668	6.7	293
	—	—	—	—

The population density in the Borough as a whole in 1899 was 8.6 persons per acre; in the part of the Borough built over it was approximately 47 persons per acre.

The statement that the density of the population in the Borough is but 8.6 persons per acre must be taken with the supplement just given—viz., that the real density is about 47, which is still comparatively small. It is considerably to the advantage of the health of the population to be surrounded and intersected by open spaces as Eastbourne is.

House building in Eastbourne showed a slight decrease in 1899 compared with 1898, but on the whole the houses built and the plans for new dwelling houses remain about the same in number. The houses are well let, although the continual house building has relieved to some extent the great difficulty which used to exist in the obtaining of small houses. There is still a want of cheap, healthy workmen's homes in the Borough. The rents of houses for the working class are comparatively high, and it is almost impossible for the average working man to occupy a house of his own without taking in lodgers.

* From figures kindly supplied by Mr. Field, Building Surveyor.

Building is being carried on mainly in the East and in St. Mary's Wards. The sites in St. Mary's Ward, being chalk and at a good elevation, are satisfactory. Unfortunately, the sites in the East Ward are not so satisfactory, as they require so much filling in and raising. A Bye-law has been drafted and has passed the Council that all sites shall be raised to the level of high-water mark at least ; and it is sincerely to be hoped, in the interests of the general health, that the Local Government Board will give their sanction to the adoption of this very necessary Bye-law.

MARRIAGES.

The number of marriages recorded in the Borough during 1899 was 298, equal to a rate of 12·68 per 1,000 persons living. The number in 1898 was 291 and the rate 12·78 ; in 1897, 293 and 13·16 ; in 1896, 267 and 12·26 ; and in 1895, 238 and 11·32.

The annual marriage rates throughout England and Wales since 1895 have been 15·0, 15·8, 16·0, and 16·2 up to 1898, the last being the highest rate since 1876.



BIRTHS.

The births registered during 1899 numbered 936, and comprised those of 461 males and 475 females.

The births occurred in the succeeding quarters of the year as follows :—222, 243, 248, 223.

The birth-rate for the year was 19·91 per 1,000, equal to the lowest on record, that of 1897. The birth-rate of Eastbourne, therefore, continues to decrease at a much greater rate than the gradual decrease in England and Wales generally.

The births in Eastbourne and the birth-rates for Eastbourne and for England and Wales for the past 14 years are as follows :

Years.	Number of Births.	Eastbourne Birth-rate per 1,000 living.	England & Wales, Birth-rate per 1,000 living.
1886	889	32·01	32·8
1887	848	29·09	31·9
1888	780	25·49	31·2
1889	790	24·59	31·1
1890	735	21·79	30·2
1891	857	23·18	31·4
1892	921	24·77	30·5
1893	897	22·99	30·8
1894	975	23·8	29·6
1895	917	21·8	30·3
1896	919	21·12	29·7
1897	886	19·91	29·7
1898	934	20·52	29·4
1899	936	19·91	29·3

*(Addendum to Medical Officer of Health's Annual Report
for 1899.)*

The Town Hall,
Eastbourne.

March 29th, 1900.

"Since this Report was printed the Registrar-General for England and Wales has issued his Annual Report for 1899 on the 100 large towns. Among other items in this Report it appears:—

1. That the Registrar-General's estimate of the population of Eastbourne is 51,227.

2. That Eastbourne is now the 71st town in England and Wales in size according to population.

3. That in 1899 Eastbourne had fewer deaths than any other of the large towns, including those smaller than Eastbourne.

4. That calculating on his estimated population of 51,227, the Registrar-General reports the death-rate of Eastbourne for 1899 to be 10·8 per 1,000.

5. That the death-rate of Eastbourne for 1899 was the third lowest of the 100 towns, the other two being only 0·2 and 0·3 per 1,000 lower respectively."

W. G. WILLOUGHBY, M.D.

Medical Officer of Health.

The Town Hall,

Eastbourne.

March 23rd, 1909.

Since this Report was printed the Registrar-General for England and Wales has issued his Annual Report for 1908 on the 700 large towns. Among other items in this Report it appears:

1. That the Registrar-General's estimate of the population of Eastbourne is 51,327.

2. That Eastbourne is now the 71st town in England and Wales in size according to population.

3. That in 1891 Eastbourne had fewer deaths than any other of the large towns, including those smaller than Eastbourne.

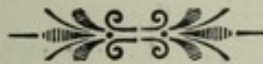
4. That calculating on his estimated population of 51,327, the Registrar-General reports the death-rate of Eastbourne for 1908 to be 10.5 per 1,000.

5. That the death-rate of Eastbourne for 1908 was the third lowest of the 700 towns, the other two being only 9.8 and 9.3 per 1,000 towns respectively.

W. G. Wainwright, M.D.
Medical Officer of Health.

Of the total number of births registered, 40 were illegitimate, being in the proportion of 42 to 1,000 births, as against 47, 48, 48, and 63 in the four previous years respectively.

The average proportion of illegitimate to legitimate births in recent years throughout England and Wales, up to 1894, was about 45 to each 1,000 births.



VACCINATION.

The vaccination returns for recent years for Eastbourne are as follows :—

Year.	Births registered.	Successfully Vaccinated.	Percentage of Children born, Vaccinated.
1883	890	699	78·54
1884	935	692	74·01
1885	1002	650	64·87
1886	984	631	64·12
1887	902	477	52·88
1888	864	371	42·94
1889	879	270	30·71
1890	828	166	20·04
1891	934	194	20·77
1892	969	224	23·11
1893	897	132	14·71
1894	975	107	10·97
1895	917	183	19·95
1896	919	206	22·4
1897	886	88	10·0
1898	934	54	5·8
1899	936	218	23·2

The above table shows how the practice of vaccination steadily diminished down to 1894. Owing to nervousness resulting from the occurrence of a few small-pox cases in 1895 and to outbreaks of small-pox in various parts of the country, vaccination increased in 1895 and 1896. In 1897-8 it again decreased, partially owing to the uncertainty about a new Act that was

about to come into operation, and there was a period when the practice fell into disuse altogether owing to local causes connected with the appointment of a new Vaccination Officer. The figures for 1899 shew that the new Act and the new Vaccination Officer are getting to work, and it is expected that the improvement will continue. No doubt many of the so-called anti-vaccinators neglected to have their children vaccinated simply because of the trouble it entailed. That trouble is now being minimised, and accordingly more children will be vaccinated and thus protected from the possibility of small-pox. It is too often lost sight of that children should be vaccinated not merely for their own sakes, but for that of the community at large.

Mr. E. J. Hodges, the Vaccination Officer, has kindly given me the figures for the Eastbourne and Seaford Registration Sub-Districts contained in his district, which are as follows :—

RETURN FOR THE PERIOD JANUARY—DECEMBER, 1899.

Return to be made on or before the 8th day of February, 1900, by Mr. E. J. Hodges, Vaccination Officer of the Eastbourne District of the Eastbourne Union, respecting the Vaccination of Children whose Births were registered in his District, from the 1st January to the 31st December, 1899, inclusive.

Registration Sub-Districts comprised in the Vaccination Officer's District.	No. of Births returned in the "Birth List Sheets" as registered from 1st Jan. to 31st Dec., 1899.	No. of these Births duly entered by 31st January, 1900, in columns I., II., IV., and V. of the "Vaccination Register" (Birth List Sheets), viz. :				No. of these Births which on the 31st January, 1900, remained unentered in the Vaccination Register on account (as shewn by Report Book) of				No. of these remaining on 31st Jan. 1900, neither duly entered in the Vaccination Register (cols. 3, 4, 5, 6 & 7 of this return) nor temporarily account'd for in the Report Book (cols. 8, 9 & 10 of this return).
		Col. I. Successfully Vaccinated.	Col. II.		Col. IV. No. in respect of whom certificates of conscientious objection have been received.	Col. V. Dead Unvaccinated.	Postponement by medical certificate.	Removal to districts the Vaccination Officer of which has been duly appraised.	Removal to places unknown or which cannot be reached; and cases not having been found.	
			Insubsc'ptible to Vaccination	Had Small-pox.						
1	2	3	4	5	6	7	8	9	10	11
1. Eastbourne ...	949	133	2	—	94	96	23	13	67	521
2. Seaford ...	102	43	2	—	4	5	1	—	1	46
Totals ...	1051	176	4	—	98	101	24	13	68	567

INFECTIOUS DISEASES.

The Infectious Diseases Prevention Act (1890) and the Infectious Diseases Notification Act (1889) have been adopted in Eastbourne since about the time they were passed, and notification has been in force since 1890. The Notification Act is now compulsory all over the country, and no longer a Voluntary Act.

In my last Report I dealt at length with the fact that the Notification Act as at present in use does not apply to diarrhœa, measles and whooping cough, which three zymotic diseases cause more deaths in Eastbourne every year than all the others put together. In 1899 the deaths from diarrhœa, measles and whooping cough were 90 in number. The deaths from the notifiable diseases were 16 in number.

If it were possible to isolate after notification then notification of these three diseases would be useful in spite of the difficulties in the way, but there are many drawbacks to a useful notification, and until isolation can be provided it is doubtful if any practical good could arise from adding them to the notification list in Eastbourne, though it might be advisable to try in the case of measles.

Dealing first with the notifiable diseases in 1899, 157 cases of infectious illness were notified, which represents a rate of 3·34 per 1,000 of the population, and this is the second smallest sickness rate recorded in past years, the lowest being 3·12 in the year 1898.

Subjoined is a table showing the total number of cases notified and the sickness-rates for each year since 1890, when notification came into operation:—

Year.	Total number of cases notified.	Sickness-rate per 1000 of population
1890	569	16.53
1891	243	6.94
1892	179	4.81
1893	335	8.58
1894	143	3.48
1895	156	3.71
1896	223	5.12
1897	213	4.78
1898	142	3.12
1899	157	3.34

A complete table, giving details of the various diseases notified from January, 1895, to December, 1899, divided and sub-divided according to years and quarters is given in the appendix.

The Notification Act came into force in Eastbourne in 1890, so that we have now 10 years complete record of the notifications, and therefore of the "sickness-rate" of Eastbourne calculating the rate on the notified cases of infectious disease. The rate for the ten years has averaged 6.04 persons per 1,000 of the population. Dividing the ten years into two periods of five years each, the rate for the first five years was 8.06, and the rate for the second five years was 4.01 per 1,000. Though there has been this large improvement in the second five years it must be remembered that the record of the first five years was unusually increased by the epidemic of diphtheria which occurred in 1890, the first year of notification.

Compared with 1898 there was a slight increase in diphtheria and scarlet fever and a slight decrease in enteric fever during 1899.

The distribution of the notified cases according to Wards and the sickness-rate per 1,000 for each Ward for 1899 is shown in the following table :—

Disease.	Wards.				The Borough.
	East.	Central.	West	St. Mary's.	
Diphtheria	21	16	—	10	47
Scarlet Fever.....	21	16	8	23	68
Enteric „	11	3	4	4	22
Puerperal „	—	—	—	2	2
Erysipelas	6	4	1	7	18
Total.....	59	39	13	46	157
Sickness-rate	3·3	3·4	1·7	4·3	3·4

The sickness-rate per 1,000 for the Wards for the past six years are also tabulated and shown below :—

Sickness-rate per 1,000.	East.	Central.	West.	St. Mary's.
1899	3·3	3·4	1·7	4·3
1898	3·4	1·7	0·8	5·9
1897	4·0	2·4	2·7	10·1
1896	4·7	2·9	2·9	9·8
1895	3·2	2·1	2·1	7·8
1894	4·1	2·7	1·4	4·9

It will be noticed that the sickness-rate in St. Mary's Ward is still larger than in any of the other Wards, as it has been since the notification of infectious disease has been instituted. As I mentioned in my Report last year the cases are not in any way

due to the fact of the Sanatorium being in the St. Mary's Ward as has been suggested, as most of the cases were far from the Sanatorium and cannot have any connection with it. The cottages in the immediate vicinity of the Sanatorium contribute less even than their share towards the number of patients suffering from infectious disease. The disease of St. Mary's Ward in 1899 was especially scarlet fever; of the East, diphtheria; half of the cases of enteric fever also occurring in the East Ward.

The causes of the comparatively larger number of scarlet fever cases in St. Mary's Ward during 1899 were as follows:—A small epidemic of four cases at the Workhouse, which was a continuation of the epidemic of last year; six cases at one school and six at others, either imported from other districts or due to such importations; leaving seven cases in St. Mary's Ward generally; of these seven, four were at the east end of the Ward far away from the Sanatorium. The excess of sickness in St. Mary's Ward in 1899 was therefore "accidental," so to speak, and not due to any inherent defect in the Ward itself, although the age of some of the houses would lend colour to that idea. It is often said that the Sanatorium should be in the East end of the town rather than in St. Mary's Ward, but while St. Mary's Ward provides the larger number of cases it is to the advantage of the many that the Hospital should be near the cases, that is, in St. Mary's Ward.

Notifications, 1899.

AGE INCIDENCE.

Disease.	0--1	1--5	5--15	15--25	25--65	65 and upwards
Scarlet Fever ...	1	12	38	13	4	—
Diphtheria ...	—	16	21	6	4	—
Enteric Fever ...	—	—	4	8	10	—
Erysipelas ...	1	—	—	1	11	5
Puerperal Fever...	—	—	—	1	1	—
Totals ...	2	28	63	29	30	5

SEX INCIDENCE.

Disease.	Males.	Females.	Totals.
Scarlet Fever	39	29	68
Diphtheria	15	32	47
Enteric Fever	8	14	22
Erysipelas... ..	7	11	18
Puerperal Fever	—	2	2
Totals	69	88	157

In a health resort such as Eastbourne many of the cases of infectious illness are importations or due to imported cases. Each disease is dealt with separately later on in the Report, and the importations are mentioned.

HOUSE DISTRIBUTION.

The 157 notified cases of illness occurred in 119 different houses, being an average of 1·32 cases per house.

In 99 houses one case occurred in each ...	99
In 13 houses two cases „ ..	26
In 3 houses three cases „ ...	9
In 1 house four cases occurred	4
In 1 house five cases „	5
In 1 house six cases „	6
In 1 house eight cases „	8
	—
	157
	—

The following table shews the number of houses affected by cases of notifiable disease, and to some extent their sanitary condition roughly classified :—

Houses affected by	Good.	Fair.	Indifferent.	Bad.	Not reported	Total.
Enteric Fever ..	11	6	—	1	2	20
Scarlet Fever ...	25	10	2	2	6	45
Diphtheria	18	13	1	2	6	40
Puerperal Fever...	—	2	—	—	—	2
Erysipelas	5	8	1	—	2	16
Totals ...	59	39	4	5	16	123

The total comes to 123 instead of 119, as before mentioned, because in some instances two diseases occurred in the same house at different times. In the previous year 102 houses were affected. The proportion of houses affected reported as "bad" in the above table is smaller than ever, and this, as mentioned last year, is accounted for by the fact that most of the houses in the Borough have now been at some time or other in recent years pretty well thoroughly examined, and the sanitary conditions improved where necessary.

The procedure on a notification of infectious illness being received includes an inspection of the sanitary condition of the house. The table just given is a result of such inspection, and is only approximate, as it refers to structure, whereas temporary insanitary conditions are frequently concomitants of infectious illness. It must be remembered that when cases are imported or due to importations, as so many cases were, and when cases occur by direct infection from person to person, at school or elsewhere, the condition of the house is a secondary matter.

In the case of houses whose sanitary condition required attention, steps were taken to procure amendment.

No outbreak of infectious illness during 1899 was due to either milk or water supply or laundry.

When a notification is received enquiries are made, as detailed in my Report for 1897, and the public librarian and the masters or mistresses of the schools concerned are communicated with. Removal to the Sanatorium is also urged on the patients' friends, with success in 1899, as shewn by the figures later on.

MEANS OF ISOLATION IN THE BOROUGH.

The means of isolation in the Borough remain the same as last year, and are satisfactory in principle. They comprise the following :—

1. A General Infectious Diseases Hospital—viz., the Sanatorium—for Scarlet Fever, Diphtheria, and Enteric Fever.

This is situated high up on the extreme border of the town ; it is the last house out towards the Downs at the back of the town. This is about to receive the enlargement necessary to meet the growing requirements of the town.

2. Acacia Villa. A cottage isolated and in its own grounds, used for these two purposes :—

(a) For the lodging of persons whose houses are being disinfected.

(b) For the temporary lodgment of persons who have been exposed to infection and not themselves ill.

This was used by 26 persons during 1899.

3. Langney Hospital. For Small-pox.

This is situated just outside the eastern border of the Borough, on the Crumbles, half-a-mile from the nearest house and a mile from the next to that, and over a mile distant from either of the two other Institutions of Isolation.

A description of these three Institutions and their working during 1899 has been given in the Medical Officer's Annual Report on the same.

REMOVALS TO THE SANATORIUM.

In 1899, of the three diseases received at the Sanatorium—viz., Scarlet Fever, Diphtheria, and Enteric Fever—89·0 per cent. of the patients whose cases were notified were removed and isolated—that is to say, 122 cases of the 137 notified. There was, therefore, in this large percentage of removals a double advantage—one, that so many patients were placed in such a position that they could not assist in spreading the disease from which they were suffering to others ; and, secondly, they themselves were nursed at a small cost to themselves (often nothing) in an Institution specially prepared for them, and by nurses skilled and trained in nursing those particular diseases.

The whole of the 68 cases of Scarlet Fever were removed with but three exceptions, two of which were left in a School Sanatorium and in one case the accommodation was declined.

With regard to Diphtheria, there was a slight decrease in the percentage of removals. Unfortunately, two cases had to be declined owing to illness of the nursing staff at the Hospital during the Influenza epidemic ; 40 cases out of the 47 notified were removed to the Sanatorium.

In the case of Enteric Fever there was a greater percentage of removals than in any previous year ; the numbers are given in a table below.

The percentage of cases of these three diseases removed—namely, 89·0—is the second largest on record, and is probably unbeaten by any Borough Infectious Diseases Hospital.

The figures for the past eight years are given below :—

In 1892, 56·9 per cent. of the cases.		
In 1893, 64·5	„	„
In 1894, 72·9	„	„
In 1895, 72·5	„	„
In 1896, 70·0	„	„
In 1897, 83·8	„	„
In 1898, 90·1	„	„
In 1899, 89·0	„	„

The steady continuation of the popularity of the Sanatorium is most satisfactory, not only for the patients themselves, but for the town at large. The excellent policy of the Sanitary Committee and the Corporation in maintaining a Hospital fit to receive anyone is rewarded by the appreciation of the inhabitants and the remarkable lessening of the centres of spread of disease, and is a true economy.

Visitors to the town greatly appreciate the advantage of the Hospital, and it is an usual occurrence for the Medical Officer to be able to report to inquiring visitors that there is no notifiable infectious illness in the town outside the Borough Hospital.

The percentage of cases removed in 1899, 1898, and 1897 of each disease were as follows :—

Disease.	Number of cases notified.			Number removed.			Percentage of removals.		
	1899	1898	1897	1899	1898	1897	1899	1898	1897
Scarlet Fever.....	68	54	66	65	53	62	95·6	98·1	93·9
Diphtheria	47	43	121	40	38	96	85·1	88·3	79·3
Enteric Fever	22	25	11	17	19	8	77·3	76·0	72·7

Apart from the many other advantages to the patient derived from the Hospital, removal from the house in which the patient took the disease is often very important.

For the past two years no charge has been made in the case of the poor, and this, perhaps, has added to the Hospital's popularity. Under previous arrangements the improvident could get off altogether, whereas equally poor or even poorer persons who happened to be more grateful and provident, stinted themselves to pay something towards their cost of maintenance.

The nett cost of the three Institutions of Isolation to the ratepayers during 1899 (October, 1898, to October, 1899) was £1,521 11s. 2d.

SMALL-POX.

No case of this disease occurred in Eastbourne during 1899. There are, however, occasional cases about the country, and in a Borough where vaccination is at a low ebb, the other preventives have to be carefully kept ready for any emergency.

SCARLET FEVER.

Sixty-eight cases of this disease were notified during 1899. In 1898 there were 54 and in 1897 there were 66 cases, the average for the previous six years having been 90.

There was one fatal case ; this case occurred in a child from the Workhouse who was suffering from other disease. In tracing or attempting to trace the origin of the 68 cases, it was found that 23 were imported or due to imported cases ; and, in addition, there were six others in a school where the cause was not traced, but importation was probable. Four of the cases notified were, on farther examination, found to be probably not Scarlet Fever. Many of the isolated cases could not be traced to their origin. Four of the cases were in continuation of the epidemic at the Workhouse which had begun in 1898.

ENTERIC FEVER.

There were 22 cases of Enteric Fever notified during 1899, as compared with 25, 11, 84, 18, 15, 16, 16, and 17 respectively in previous years. Six cases were imported, and it is probable that three others were due to imported cases. Persons who feel "run-down" in health come to the seaside for a change, and as in cases notified in Eastbourne last year, they are often suffering from Enteric Fever at the time. Two of the imported cases were nurses from London Hospitals, ill on arrival. Other importations were from Erith and Cadiz. Oysters were responsible certainly for four cases, and probably for seven ; direct infection was the cause in the case of a nurse ; the origin in the remaining cases was not conclusively traced. One of the nurses at the Sanatorium developed the disease from direct infection, a case which is not common. Five of the patients were not removed to

the Sanatorium. Of the 22 cases of Enteric Fever, 4 were fatal, a mortality of 18·2 per cent.

ERYSIPELAS.

Eighteen cases of this disease were notified, compared with 18 in the previous year.

The use of the notification of Erysipelas is doubtful. It gives, however, the opportunity of examining the sanitary condition of the patient's house, and sometimes this condition may have been a predisposing cause of the disease.

PUERPERAL FEVER.

Two cases were notified (the same number as last year); both occurred in St. Mary's Ward, and one was fatal.

MEMBRANOUS CROUP.

This disease is practically the same as Diphtheria. There were no special notifications of it apart from Diphtheria during 1899.

DIPHTHERIA.

As regards mortality, Diphtheria is decidedly the most serious notifiable disease for Eastbourne. The number of cases notified in 1899 was 47, which is about the average of recent years, though considerably below the average for the past ten years. The numbers for the previous nine years from 1898 backwards were as follows:—43, 121, 42, 36, 40, 58, 59, 184, and 495. Nearly half the cases occurred in the East Ward; no cases were notified in the West Ward. Of the 21 cases which occurred in the East Ward, 14 occurred in the low-lying district known as the Marsh, and not in old houses. Undoubtedly dampness of site and soil has something to do with the onset of Diphtheria, though it cannot alone cause Diphtheria. There were nine deaths from Diphtheria in 1899, as compared with eleven in 1898, so that the fatality was lower. The great majority of the cases occurred, as usual, among the poor, though

there were some severe cases among the well-to-do. There was no necessity to close any particular school for Diphtheria in 1899.

THE NON-NOTIFIABLE DISEASES, such as Measles, Whooping Cough, Diarrhoea, &c., except when fatal, are only known of incidentally, and are dealt with under the head of "Deaths." Whooping Cough and Measles were epidemic to some extent during 1899. St. Mary's Boys', Girls', and Infants' Schools were closed on account of Measles in the early part of the year.

DISINFECTION.

A summary of the work done in the Steam Disinfector is appended :—

112	Loads of Bedding Disinfected.
5	„ Washing „
19	Boxes of Wearing Apparel Disinfected.
120	Sets of Patients' Clothes „
47	„ Hospital Bedding „

In addition to the above, many isolated articles were disinfected in other ways. Articles that would not stand the steam have been disinfected by perchloride of mercury solution and by fumigation with sulphur dioxide gas or formalin gas.

The disinfection of rooms and houses has been carried out by the "Equifex" Perchloride of Mercury Sprayer, by fumigation with sulphur candles, by sulphur dioxide gas from tins, or by formalin gas. Much better disinfection, however, in the case of infected houses has been carried out by re-papering, lime-washing, re-painting, and in other ways. The disinfection of infected houses or rooms is always done by the Sanitary Inspectors or one particular man in the Sanitary Department under their immediate instructions.

DEATHS.

The deaths registered during 1899 in Eastbourne were 566 in number. This is the largest number yet registered in any one year except in 1893, when the number was 576. The town, however, has grown at such a pace that the number is not above the average in proportion to the population. The death-rate for 1899 is still just below the ten years' average, although it is higher than the death-rates of 1896-7-8. The death-rate throughout the country for 1899 will, like that of Eastbourne, be found to have been higher than those of previous years.

Appended is a table of the deaths and death-rates of recent years in Eastbourne ; the rates for England and Wales for corresponding years are added as a matter of interest. The death-rates of no two districts can, however, be fairly compared until each is properly "corrected."

Years.	Number of Deaths.	Death-rate.	Death-rate, excluding deaths of visitors.	Death-rate of England and Wales.
1889	416	12·95	10·92	18·2
1890	485	14·38	12·92	19·5
1891	468	13·21	12·51	20·2
1892	505	13·58	11·67	19·0
1893	576	14·76	12·79	19·2
1894	430	10·49	9·59	16·6
1895	521	12·40	10·71	18·7
1896	454	10·43	9·10	17·1
1897	399	8·96	7·91	17·4
1898	494	10·85	10·20	17·6
10 years } average }	475	12·20	10·83	18·3
1899	566	12·04	11·34	18·3

The total death-rate for the Borough for 1899, inclusive of every death that took place, was **12·04** per 1,000 per annum. Excluding the deaths of non-residents of Eastbourne, which numbered 33, the rate was **11·34** per 1,000 per annum.

The excessive heat in the third quarter of 1899 accounts for much of the increase, there having been 37 more deaths in Eastbourne in August and September, 1899, than there were in August and September, 1898. There were also 23 more deaths in March, 1899, than in March, 1898, the causes of the extra deaths in that month being pulmonary complaints.

The following table compares these numbers with those of last year.

Seasonal Mortality.

The deaths during 1898 and 1899 occurred in months as follows :—

	1898.		1899.
First Quarter ...	129 { January ... 47 February ... 43 March ... 39	146 {	January ... 42 February ... 42 March ... 62
Second Quarter	104 { April ... 35 May ... 37 June ... 32	112 {	April ... 37 May ... 48 June ... 27
Third Quarter...	130 { July ... 24 August ... 43 September 63	178 {	July ... 35 August ... 73 September 70
Fourth Quarter	131 { October ... 39 November 41 December 51	130 {	October ... 30 November 43 December 57

Comparative Quarterly Mortality.

The following table shows how the death-rate of Eastbourne compares quarter by quarter with that of England and Wales :—

1899. Districts.		1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year.
Eastbourne	... ..	12·42	9·55	15·15	11·06	12·04
England & Wales	Town Districts }	19·5	17·1	20·9	19·5	19·2
	Country Districts }	17·4	15·6	15·6	16·8	16·3

The table just given of Comparative Quarterly Mortality shows that Eastbourne still holds a favourable position even with the country districts of England and Wales generally. For five years following Eastbourne has been one of the three towns which have regularly had between them the three lowest death-rates of the 100 large towns of England and Wales.

The deaths registered as occurring in the Borough of Eastbourne include deaths at the Union Workhouse and its Infirmary, which is used by a large surrounding neighbourhood as well as by the borough itself. They also include deaths in the various small Hospitals and Convalescent Homes, and in the general Hospital, which serves the whole of the district around Eastbourne; and, finally, also a large number of visitors, many of whom are invalids. The total death-rate therefore includes various deaths which cannot properly be ascribed to Eastbourne. On the other hand, it is possible that servants and others in Eastbourne who are ill go to their own homes and die there. Accurate full correction is so difficult that the total rate is therefore given as well as the rate excluding deaths of non-residents.

The excess of females in Eastbourne would lead to a slightly diminished death-rate, since the female death-rate is lower than the male. This would not, however, amount to very much. The age groups of the population given earlier in this Report show that they compare very equally with those of England and Wales, there being a slight excess of persons of a healthy age in

Eastbourne. Other factors leading to the comparatively small death-rate of the Borough are its excellent climatic conditions, its non-manufacturing character, and its small density of persons per acre. While the above factors lead to a general small rate, the care and attention that are given to the various branches of sanitation have their effect on this already small death-rate by diminishing it from year to year on the average, as shewn in my last Annual Report.

The deaths during 1899, excluding deaths in institutions, were distributed over the various Wards of the Borough as follows :—

Wards.	Number of Deaths. 1899.	Annual Death-rates per 1,000.			
		1899	1898	1897	1896
East	226	12·8	11·9	8·8	12·6
Central	107	9·4	8·7	6·6	6·5
West	38	5·1	5·7	4·1	4·4
St. Mary's... ..	127	11·9	10·1	7·1	9·4
Institutions	68	—	—	—	—

Owing to the fact that we have not the addresses from which the persons were removed to the Institutions, except in the case of the Sanatorium, we are unable to give the true death-rate for the various Wards by dividing the deaths in Institutions among the Wards. The patients at the Sanatorium, at the Princess Alice Hospital, and at the Union Infirmary it may be taken for granted, have come mainly from the East and St. Mary's Wards, and therefore these rates would have been altered to some extent if the deaths had been distributed over the Wards, although many of the deaths in the Institutions were those of non-residents.

Sixty-eight deaths occurred in the chief Institutions, as follows :—

Institutions.	Ward.	Number of Deaths.
Workhouse	St. Mary's... ..	34
Princess Alice Hospital.	St. Mary's... ..	18
Borough Sanatorium ...	St. Mary's... ..	10
Other Institutions ...	East and West ...	6

During 1899 the causes of death in comparative excess in the East Ward were Influenza, Whooping Cough, Diarrhœa, Phthisis and other forms of Tuberculosis, Meningitis, Convulsions, Enteritis, Inanition. Most of these are as a rule coincident with poverty, especially when fatal. Those causes in comparative excess in St. Mary's Ward were Diphtheria, Apoplexy, and Heart Disease. The Sanatorium and Workhouse Infirmary are included in St. Mary's Ward, so that an undue number of deaths is ascribed to that Ward, which accounts for the excess of Diphtheria, as most of the Diphtheria cases are removed to the Sanatorium. On the whole, it is a more satisfactory Ward for Public Health than the East Ward, as is shown by the death-rates in the table on the preceding page. It is situated much more healthily and the building sites are better, and these more than counteract the effect of the age of some of the property.

The deaths recorded during 1899 were distributed amongst the various classes of disease as follows. Deaths during 1897 and 1898 are similarly classified for comparison :—

Class.	Disease.	No. of Deaths.	Percentage of total Deaths.		
		1899	1899	1898	1897
Class I.....	Zymotic Diseases.. ...	136	24·0	19·0	13·8
„ II. ...	Parasitic Diseases ...	—	0·0	0·0	0·0
„ III ..	Dietic Diseases	6	1·1	0·6	0·5
„ IV ...	Constitutional Diseases.	112	19·8	19·0	21·0
„ V.....	Developmental Diseases	41	7·2	8·1	7·8
„ VI ...	Local Diseases	234	41·4	48·6	49·4
„ VII..	Deaths from violence ...	16	2·8	2·2	3·5
„ VIII.	Deaths from ill-defined and not specified causes	21	3·7	2·5	4·0
Total...		566	100·0	100·0	100·0

The 566 deaths include those of 278 males and 288 females. The death-rate for males was 14·7, for females 10·3 per 1,000 per annum. This is approximate insomuch that it is based on the calculations as to the proportions of sex given earlier in the Report. Males especially exceeded females in deaths from Dietic Diseases, Meningitis, Convulsions, Enteritis, and Diseases of the Urinary System; females especially exceeded males in deaths from Influenza, Diphtheria, Rheumatism, Cancer, and Apoplexy.

It is noticeable that the deaths from so-called Meningitis and Enteritis occurred very much at the same time and in the same class, age, and sex of patient as deaths from Diarrhœa, and are, in my opinion, often in those circumstances a part of acute infective infantile Diarrhœa.

Ages at Death.

The death-rates at different ages and of different sexes are in some respects more important for instituting comparisons than the total death-rate, since in them there are no sex and age fallacies. Hence the following table is subjoined :—

Males.				Females.			Both Sexes
Ages.	No. living.	Deaths.	Death-rate per 1,000 living at each age group.	No. living.	Deaths.	Death-rate per 1,000 living at each age group.	Death-rate per 1,000 living at each age group.
Under 1	444	74	166·6	535	62	115·9	138·9
1—5	1748	36	20·6	1965	26	13·2	16·7
Total under 5 ...	2192	110	50·2	2500	88	35·2	42·2
5—15	4813	14	2·9	5098	6	1·2	2·0
15—25	3678	9	2·4	7133	13	1·8	2·0
25—65	7471	79	10·5	12123	104	8·6	9·3
65 and over ...	783	66	84·3	1209	77	63·7	72·3

Infantile Mortality.

The total number of deaths of infants—that is, of children of ages under one year—was 136; males 74, females 62. Infantile mortality is calculated on the number of births registered, and for 1899 was at the rate of 145 per 1,000 births.

This is a high rate of infantile mortality for Eastbourne, far above the average. There was a general increase in nearly all the causes, Diarrhoea especially.

Year.	Deaths under 1 year.	Mortality per 1,000 births.
1899	136	145
1898	130	139
1897	98	110
1896	105	115
1895	122	133
1894	95	97
1893	130	144
Average of ten years up to 1893	106.6	125

The infantile mortality for England and Wales for 1899 was 163 to every 1,000 registered births, or 12 above the average for 1889-1898.

The subjoined tables shew the principal causes of the deaths of infants in recent years :—

Deaths.	1894	1895	1896	1897	1898	1899
From Zymotic Diseases	9	38	26	26	45	65
Constitutional Diseases	14	13	9	8	11	8
Developmental Diseases	22	26	23	21	22	17
Local Diseases	38	34	24	28	41	29
Deaths from violence	—	2	7	4	2	2
Deaths from ill-defined and not specified causes	12	9	16	11	9	15

It is noticeable that the deaths of infants from Zymotic Diseases increased very largely in 1899, whereas those from Local Diseases were fewer than usual. The excessively hot summer was responsible for the increase of Diarrhœa. Although various other items are included in the causation of Infantile

Summer Diarrhœa, intense heat is probably the most important factor after the presence of the specific germ itself.

DEATH OF INFANTS (UNDER 1 YEAR).

Disease.	1894	1895	1896	1897	1898	1899
Measles	—	2	6	—	4	—
Whooping Cough	1	5	—	2	1	14
Diarrhœa	7	30	20	20	38	45
Other Zymotic Diseases	1	1	—	4	2	6

Two of the 45 infants who died from Diarrhœa were illegitimate, 19 at least were insured, and 43 were bottle-fed or fed with patent foods. In eight of the cases the mother had to go to work. Summer high temperature, especially of the ground, illegitimacy, insurance, bottle-feeding, biscuit and similar feeding, the going to work of the mother and insanitary homes are important factors in illness and deaths from Infantile Diarrhœa. The bottle alone is responsible for many deaths, it being a favourite breeding ground for the specific poison of Diarrhœa.

The New Sale of Food and Drugs Act, 1899, referred to later on, should have some little effect on lessening the mortality of infants, as it will probably interfere with the sale of *separated* condensed milk as infants' food.

I mentioned in my last Report what I considered should be the restrictions in the insurance of infants.

The 45 fatal cases of Infantile Diarrhœa occurred—29 in the East, 8 in St. Mary's, 8 in the Central, and 0 in the West Ward.

The 130 deaths of infants occurred—70 in the East, 20 in the Central, 0 in the West, and 38 in St. Mary's Ward.

Senile Mortality.

Of the 566 deaths which occurred in 1899, there were 143 of persons over 65 years of age.

Between 65 and 75 years of age	58	Males	23	Females	35
Between 75 and 85 years of age	63	„	32	„	31
Over 85 years of age	22	„	11	„	11

Deaths from Zymotic Diseases.

Though this class of disease is the one that Sanitary Authorities have to deal with most, from the fact that it includes most of the so-called "preventible" diseases, it is incomplete as a class, since Phthisis and others should in reality be added to it. It is a common mistake to think that the Public Health Service is not concerned in all classes of disease. From the nature of Zymotic diseases, the means of preventing them are more or less obvious; but in the prevention of most, if not all, disease, Sanitation in one or other of its branches has an important share. Any illness is borne better in a healthy house and in a person previously under good sanitary surroundings, other things being equal. Moreover, diseases such as Rheumatism, Bronchitis, Pneumonia, and many others not called Zymotic, are to as large an extent preventible as many of the so-called Zymotic diseases. The Zymotic death-rate of the Registrar-General refers to the rate caused by deaths from seven principal Zymotics, as follows:—Smallpox, Measles, Whooping Cough, Scarlet Fever, Diphtheria, Fever (Typhoid, Typhus, Continued), and Diarrhœa. The other Zymotic diseases include Miasmatic, Septic, Venereal and Zoogenous diseases.

In 1899 in Eastbourne there were 136 deaths from Zymotic diseases, as compared with 94 during the previous year. There was an increase in deaths from Influenza, Diarrhœa, and Whooping Cough principally, and a decrease in deaths from Measles. In the appendix there will be found a complete list of the seven principal Zymotic diseases compared with those of other years. The 136 Zymotic deaths of 1899 resulted from the following diseases:—

Disease.	Males.	Females.	Total.
Influenza	10	21	31
Scarlet Fever	—	1	1
Measles	3	4	7
Whooping Cough... ..	12	11	23
Diphtheria	3	6	9
Enteric Fever	3	1	4
Diarrhoea	26	26	52
Syphilis	1	3	4
Puerperal Fever	—	1	1
Pyæmia	1	1	2
Erysipelas... ..	—	1	1
Others	—	1	1
Totals	59	77	136

The Zymotic death-rate for 1899—that is, the death-rate from the seven principal Zymotic diseases—was 2·08 per 1,000 per annum. The Zymotic death-rate for England and Wales was 2·21 per 1,000 per annum. The total Zymotic death-rate was 2·90.

The highest recorded Zymotic rate for Eastbourne was in 1893, when it was 3·71, the lowest being in 1894, when it was 0·80 per 1,000 per annum.

The Zymotic deaths were distributed as follows :—

Ward.	Number of Deaths.	Zymotic Death-rate.
East	69	3·8
Central	27	2·3
West	6	0·8
St. Mary's	34	3·2

For the purposes of this table, the Zymotic deaths in institutions have been distributed among the Wards to which they belong, otherwise the deaths in St. Mary's Ward and the Zymotic death-rate there would be unduly high owing to the presence in that Ward of the Infectious Diseases Hospital. Of the ten deaths which occurred in the Sanatorium, two patients came from St. Mary's Ward, five from the East Ward, and three from the Central Ward.

MEASLES.

Seven deaths occurred from Measles in 1899, compared with 20 in 1898. The average for the previous five years was 15. In 1894 and in 1897 there were no deaths from Measles in Eastbourne.

SCARLET FEVER.

One death from this disease occurred in a child from the Workhouse ; this child was also suffering from severe Whooping Cough.

There were 68 cases notified, the mortality therefore being 15 per cent.

WHOOPING COUGH.

This disease was somewhat epidemic during 1899, the number of deaths being twenty-three, as compared with two for the previous year ; the average number of deaths before that was just over five.

INFLUENZA.

This disease occurred, as usual, in the early part of the year and at the close. In 1895 thirty-three deaths occurred, and since then the deaths per year respectively have been four, seven, and six. In 1899, however, thirty-one deaths occurred, the type being more severe. There were six deaths of young children, the remainder being in older persons, twelve being over 65 years of age.

DIPHTHERIA.

There were nine deaths from Diphtheria during 1899, as compared with eleven during the previous year. The average for past years has been about ten, not including the epidemic

years of 1890 and 1891. Three males and six females died from this disease.

There were 47 cases notified, the mortality therefore being 19.1 per cent.

ENTERIC FEVER.

There were four deaths from this disease in 1899, four in 1898, and none in 1897.

There were 22 cases notified, the mortality therefore being 18.2 per cent.

DIARRHŒA.

Deaths from this disease have been already commented on under the heading of "Infantile Mortality." There were altogether 52 deaths, 26 of males and 26 of females. Of these cases, only two were in adults, the remainder being under five and 45 of them under one. This number is an increase for past years, and is connected with the hot summer. Two of the deaths occurred in July, twenty-five in August, and twenty-four in September.

The table on the preceding page shows from what other Zymotic diseases patients died during 1899.

Dietic Diseases.

In this class of disease there were six deaths, viz., three from Chronic Alcoholism and three from Delirium Tremens.

As a rule, when deaths occur from Alcoholism they are described as having occurred from some other concurrent malady.

Constitutional Diseases.

The deaths from these diseases are tabulated in the appendix, therefore only the more important ones are commented on here.

RHEUMATISM.

Seven deaths were recorded as having occurred from Rheumatism during 1899, whereas the average for past years has been just under three.

Four deaths were recorded as having occurred from Gout during 1899; there were none in 1898.

RICKETS.

One death only was recorded from Rickets during 1899; no death was recorded from Rickets during 1898. To have had but one death in two years—that is, in 1,870 births—is satisfactory.

CANCER.

The deaths from Cancer numbered 32, 13 of males and 19 of females. There were 23 in 1898. The average for the previous six years had been 29.5.

Under this heading is included all the diseases popularly known as "Cancer."

A young patient was in the 15-25 age group; the majority were over 65.

In 19 of the 32 cases the abdominal, including generative, organs were affected.

PHTHISIS.

During 1898 the number of deaths registered from this disease was 40, 19 males and 21 females. Males are usually in excess of females in deaths from Phthisis. The number of deaths registered in 1898 was 42, which is also the average for the past four years in Eastbourne. The death-rate for the year from this disease was 0.85 per 1,000. The average rate per year for England and Wales, 1891-97, was 1.5 per 1,000 for males and 1.2 per 1,000 for females; the rates for 1898 and 1899 have not yet been published.

The age period 35-45 suffered most, as it had in other years. Deaths occurred in all the age periods except from 1-5 up to 75 years of age.

The deaths from other forms of Tuberculosis numbered 18.

The crusade against the unnecessary spread of Tuberculosis has been continued. In Eastbourne the following leaflet has been issued and circulated concerning precautions which should be taken with a view to preventing Tubercular Disease :—

BOROUGH OF EASTBOURNE.

TOWN HALL,
EASTBOURNE.PRECAUTIONS AGAINST THE SPREAD OF CONSUMPTION.

- 1.—Consumption is a preventible disease.
- 2.—Consumption is an infectious disease which is communicated from one person to another.
- 3.—The usual mode of communication of infection in Consumption of the lungs is by certain matter coughed or spat up by consumptive people. This matter dries and is dispersed as dust, and thus reaches the lungs of others whom it may infect, especially those liable to the disease.
- 4.—It is important that this matter should not be coughed or spat up and allowed to dry ; it should be spat into a hand vessel containing water and disinfectant (or water alone), or into pieces of rag or paper which can immediately be burnt. The vessel used should be emptied directly into the drains and well scalded out.
- 5.—The habit of spitting in public places is dangerous to the public health.
- 6.—Among the agencies which predispose to Consumption are insanitary conditions, including want of sunlight in the house, badly ventilated and overcrowded houses, damp houses, and workshops similarly defective, and in which there is much dust, metallic or otherwise.
- 7.—When it is decided that an inmate of a house has Consumption, the other inmates should observe precautions as to kissing, sleeping in the same room, &c., as the patient, as should be done in any other infectious illness.

- 8.—The removal of infectious matter is important, not only for persons round the patient, but for patients themselves, as, with care, Consumption is in a large degree curable. The Sanitary Authority will disinfect after the death or removal of any patient who has suffered from Consumption on application being made at the office in the Town Hall.
- 9.—The furniture of a Consumptive patient's room should be as simple as possible, to avoid lodgment of dust; hangings, carpets and rugs should be avoided. There should be no dark corners and recesses in the room that cannot be got at for thorough cleansing.
- 10.—Many animals suffer from Consumption, and it is therefore important that all food should be thoroughly cooked, as thorough cooking destroys infection in meat.
- 11.—The milk from consumptive cows is dangerous, especially to children. All milk should be boiled before use, unless it is certain that the milk is from absolutely healthy cows.
- 12.—A mother who is suffering from Consumption should not suckle her child.
- 13.—Any household pet animals suffering from chronic disease ought to be destroyed.

W. G. WILLOUGHBY, M.D., Lond.,
Medical Officer of Health.

In a disease so eminently preventible as Phthisis, it is not surprising that at last the public as well as the Medical Profession has woken up to the fact that it should be prevented.

It is absolutely certain that the Specific Bacillus is the actual exciting cause of the disease, and that its two principal means of entering into the human body are by means of human sputa and by the flesh and milk of diseased animals, principally cows. Dr. M'Vail has found that during the period 1891-5 one

death in every nine occurred from Tubercular Disease, and that Tubercular Disease caused as many deaths as the whole group of principal Zymotic Diseases, that is, Scarlet Fever, Measles, Whooping Cough, &c. Between the ages of 5 and 55, the most important from a national economic point of view, 25 per cent. of all deaths were due to Pulmonary Consumption, and nearly 50 per cent. between the ages of 25 and 35. This number, although large, is smaller than it used to be, there having been already a great diminution in tubercular mortality. This is due largely to better sanitation, the adoption generally of Building Bye-laws leading to improved house accommodation and drier sites, better ventilation of rooms, damp-proof courses and houses raised higher above the ground level, more sensible furniture, more frequent and systematic refuse removal, better personal and municipal cleanliness. The best protective against Tubercular disease is good general health, and this is so more than in any other infectious disease. For good general health the public must exist in good sanitary surroundings.

I have gone somewhat into this question in previous reports, and therefore simply repeat that since the Specific Bacillus is known to be the cause, and that it is known to enter the body principally by infective matter from human sputa and by the flesh and milk of diseased animals, the means of prevention are clear and are as follows :—

Firstly, the maintenance by general good sanitation of good general health.

Secondly, the dealing as mentioned in the leaflet above with the sputa from infected or diseased persons and with these persons themselves in the ways detailed therein.

Thirdly, the prevention of the eating and drinking of tuberculous meat and tuberculous milk respectively, unless these have been so thoroughly cooked as to render the bacillus inert.

The principal municipal means of attention to the last of these are the following :—

(a) The provision of proper accommodation for slaughtering human food and for the inspection of the same. (b) The careful looking after of cows and cowsheds. It is not sufficient to advise simply that milk should be boiled ; it is far more important to go to the root of the matter and deal with the cows, cowsheds, and dairies themselves, and so provide milk that should not need boiling. It is one of the greatest defects of the present Public Health Acts that in a town like Eastbourne, where the Medical Officer of Health is giving his whole time to the duties of preventive medicine, neither he nor the Sanitary Authority have any practical control or right of inspection over the cows and cowsheds beyond the borough boundaries from which most of the milk used in the town is obtained.

Boiling even for a single minute will destroy tubercular infection in milk. Prolonged exposure to a temperature of 170° Fahrenheit will probably destroy the power of the poison, but this as a preventive, although useful temporarily, is beginning at the wrong end.

Early in 1901 a general Conference is to be held on the Prevention of Tubercule.

The question of the provision of Municipal Sanatoria for Consumptives is very much before the public at present. It is doubtful, however, if such a system would work well as compared with private Sanatoria. The prolonged nature of the cases, the number of different social grades of the patients, the herding together of infected people who could make one another even worse, are questions which have to be well discussed ; and even if these were decided in favour of the Sanatoria, there would still be the ordinary difficulties of any Infectious Diseases Hospital to contend with, and many districts have not even these. There could be no compulsory removal at present to such Sanatoria.

The notification of the existence of cases of Phthisis is increasing throughout the country, and systematic notification is undoubtedly useful in this disease. There is no doubt that if the infected houses were known and were open to visitation by the

Public Health Officials, overcrowding and general insanitary conditions could be dealt with and the other items mentioned in the leaflet could be attended to. On the other hand, care would have to be taken that there was not attached to individuals a sort of physical stigma, which might put them under personal disadvantages in the community, and might to some extent deprive them of the opportunity of earning a livelihood.

This objection would not apply to a system of *post-mortem* notification, whereby proper disinfection could be effected and other steps taken.

Compared with previous years the deaths from Phthisis and other tubercular diseases have been as follows :—

Diseases.	Number of Deaths.					
	1894	1895	1896	1897	1898	1899
Phthisis	40	51	46	37	42	40
Other Tubercular Diseases ...	19	14	19	11	21	18

Developmental Diseases.

There were 14 deaths from premature birth in 1899, which is below the average for the previous six years, which was 19·2. These included 6 males and 8 females.

Six of the deaths occurred in the East Ward, seven in St. Mary's Ward and the remaining one in the Central Ward. This distribution among the wards shows the association of poverty with premature birth.

There were twenty-four deaths ascribed to old age.

Local Diseases.

Diseases of the Nervous System caused 55 deaths as compared with 68 in 1898; these deaths were principally from

Meningitis (14), (11 under five years of age and connected as I have previously said with Infantile Diarrhœa), Apoplexy (23), and Convulsions (8); of the patients dying from Convulsions there were 6 males and 2 females, all under five.

The average number of deaths from Diseases of the Nervous System for the six years up to 1899 was 48.1.

Diseases of the Circulatory System caused 56 deaths in 1899 as compared with 62 in 1898, the average number of deaths from this cause for the past six years being 41.

Of the 56 deaths from Diseases of the circulatory system, heart disease, almost entirely valvular, caused 50.

The deaths from Diseases of the Respiratory System were mostly in children under five and old people over 65, only six occurring in patients from 5 to 55; this, of course, is exclusive of Phthisis.

The deaths from Diseases of the Respiratory System were 58 in number, and occurred in Quarters as follows:—1st Quarter, 18; 2nd Quarter, 11; 3rd Quarter, 7; and 4th Quarter, 22.

Diseases of the Digestive System caused 40 deaths, which is rather over the average; 19 males and 21 females.

Fourteen deaths were due to Cirrhosis of the Liver and six to Obstructive Diseases of the Intestine.

Diseases of the Urinary and Reproductive System caused 20 deaths, the principal cause being "Bright's Disease."

There were six deaths in connection with Partuition.

There were five deaths from Diseases of the Locomotive System, four being from Caries and Necrosis.

Deaths from Violence.

There were 16 deaths from Violence, the average number for the six preceding years having been about 13. The ages ranged from under 1 to over 55.

There were three cases of suicide, as compared with one in 1898, and all were from hanging.

The deaths from Violence were in the proportion of 0·34 per 1,000 of the population, as compared with 0·64 per 1,000 of the population for England and Wales generally.

Deaths from Ill-defined and not Specified Causes.

There were 14 deaths of infants registered from Debility and Inanition during 1899, as compared with 8 during 1898.

Ten of these deaths occurred in the East Ward and four in St. Mary's Ward, and were, as usual in such cases, among the very poor.

Uncertified Deaths.

This class of death included three cases, two in the East and one in St. Mary's Ward. It is a blot on the system of death registration that there should be any deaths not certified either by a medical man or the Coroner. The deaths of two infants and one old woman have occurred practically no one knows how.

During 1899 there were throughout England and Wales 10,647 uncertified deaths.

Inquests.

Twenty-one inquests were held—that is, on 3·7 per cent. of the deaths.

The rate for England and Wales for 1899 was 6·3 per cent.

The inquests were on the bodies of 12 men, 6 women, and 3 children.

The verdicts were as follows:—Natural causes, 7; accidental death, 8; suicide, 3; misadventure, 2; insufficient feeding, 1.

SANITARY WORK, 1899.

Under this heading I propose to give, as usual, various tables summarizing some of the work carried out in the Sanitary Department during 1899. It is obviously impossible in such a way to give a complete account of the work done, nor is it necessary to give every detail. The staff, including three Inspectors and two Clerks, has been busy throughout, for when ordinary calls are not pressing, there is the general house-to-house inspection, which can never be finished. There is ample work in Eastbourne for another Inspector, more especially if Measles, Whooping Cough, and Phthisis are to be included as notifiable diseases. Each Inspector has complete charge of his district in all respects, there being no separate Inspector for Meat and Food Inspection or Infectious Disease Removals, &c.

HOUSE SANITATION.

Eastbourne's position year after year at the head of the low death-rates of the 100 large towns of the country is due partially, I am assured, to the fact that great attention is given to individual house sanitation. Good general health is necessary for the combating of any form of disease, and does not merely apply to Zymotic Diseases. Attention to house sanitation has been continually in hand throughout the year. As a rule the Inspectors have a street in hand, in which they are making inspections not merely for structural alterations, which fall as a rule on the owner, but for general cleanliness, &c., duties which are imposed on the occupier. In the case of a nuisance being found, the procedure is to call the owner's or occupier's attention, verbally or by letter, to the fact; if no steps are then taken, the matter is brought before the Committee, and if necessary legal notice is issued. If no steps are taken on the issue of this notice, the attention of the owner or occupier is again called to the matter by letter, and then legal action must follow. The legal proceedings, as will be seen from the table given later on, have been few in number.

960 entries were made in the Inspectors' Permanent Journal as to objectionable conditions found in certain premises; 338 notices were issued, as shown in the tables appended, and 905 letters and reports written concerning nuisances on premises. In addition to the 338 notices, 343 letters were written requesting structural amendments to be made, with a view to getting the work done without legal formalities; these 343 letters affected 502 different premises, almost entirely dwelling houses.

Over fifty old pan closets have been found during the year and removed, and 170 D-traps in connection with w.c.'s were also removed; these are fortunately becoming fewer and fewer in number. Structural amendment as a rule refers to unsound and too small soil and ventilating pipes, defective w.c.'s, absence of intercepting traps and proper ventilation to drains, the undue conjunction of Water Supply for domestic use with that for closets, unsound drains, insanitary forms of dustbins and other minor matters. The notices summarised later on set forth these in more detail.

In my last report I set out the specification now required for the Sanitary Certificate and as far as possible house sanitation is being brought up to that standard even when no certificate is required. There are, however, matters in the specification for a Sanitary Certificate which sometimes cannot be insisted on, and therefore less complete work is occasionally done.

I append a summary of the structural work done during 1899 in the various wards.

	Wards.		
	St. Mary's. W. GRANT.	Central & West. J. H. OLLETT.	East. R.M.METCALF
Drains examined and tested ...	106	174	117
„ re-laid and amended ...	78	153	96
„ provided with intercepting traps	89	99	104
„ ventilation improved ...	101	94	121
New w.c. apparatus fixed ...	110	198	136
W.c. apparatus repaired... ..	91	123	84
W.c. flushing power improved ...	77	239	130
Foul D-traps cleared away ...	36	93	41
New soil-pipes fixed	18	84	27
Soil-pipe ventilators enlarged ...	69	97	101
Special w.c. supply cisterns fixed	34	92	35
Drinking taps connected direct to main	27	111	39
Waste pipes trapped	59	210	46
Sanitary dust-bins provided ...	71	110	152

Mr. Grant has continued his work in the St. Mary's Ward, reference to which has been made in previous reports. In that ward the notes made show that at least 548 houses were visited and inspected during the year; many of these, such as Slaughter-houses and others, were visited many times even in a week.

The Districts in St. Mary's Ward receiving special attention during 1899 were:—The Avenue, Brightland Road, Crown Street, Enys Road, The Goffs, St. Ann's Road, Upperton Gardens, Willingdon Road, and scattered houses in nearly every road in the ward.

SANITARY CERTIFICATES.

During 1899, 39 new Sanitary Certificates were issued, bringing the total number up to 826, and 13 old Certificates were endorsed, that is to say, the premises to which they referred were re-examined and re-tested, and, if found satisfactory (or if not found so, made so) as at the date of the issue of the Certificates, the Certificates were endorsed.

The requirements are now more comprehensive than they were, and the fact that so many houses are now already certified reduces the number now issued year by year.

The certificates, which are a feature of Eastbourne's sanitation, are extremely well appreciated. Each bears on its face an abstract of the requirements, and so it can be seen at once to what the Authority certifies. At the Conference, to which the Authority kindly sent me, held at Blackpool in 1899, I had the pleasure of describing and initiating a discussion on these Sanitary Certificates; and there is no doubt that, although they might hardly do for large manufacturing cities in some ways, they are very applicable to a borough such as Eastbourne, and this is shown by the fact that their adoption in Eastbourne has been imitated elsewhere. What is said on the Certificate is simply that the specification has been complied with and the house was found all right on the date of examination. We recommend re-examination after at most three years, but no special time is mentioned; the maximum of three years is simply given as an indication.

Notices Issued in 1899.

WEST WARD.

Section of Act.	No. Issued.	No. com- plied with.	No. lapsed.	No. out- standing.
<i>a</i> Sec. 91 Public Health Act...	2	2	...	...
<i>f</i> Sec. 46 " " " ...	1	1	...	...
Totals... 	3	3	...	...

ST. MARY'S WARD.

Section of Act.	No. Issued.	No. complied with.	No. lapsed.	No. outstanding.
<i>a</i> Sec. 91 Public Health Act...	52	42	...	10
<i>b</i> Sec. 36 ,, ,, ...	7	4	...	3
<i>f</i> Sec. 46 ,, ,, ...	14	14	...	...
<i>e</i> Sec. 106 Eastbourne Improvement Act	11	8	1	2
Totals 	84	68	1	15

CENTRAL WARD.

Section of Act.	No. Issued.	No. complied with.	No. lapsed.	No. outstanding.
<i>a</i> Sec. 91 Public Health Act...	49	38	9	2
<i>b</i> Sec. 36 ,, ,, ...	8	3	4	1
<i>c</i> Sec. 41 & 19 of 1890 Act ...	27	23	...	4
<i>f</i> Sec. 46 Public Health Act...	9	9	...	...
<i>d</i> Sec. 49 ,, ,, ...	3	3	...	...
<i>e</i> Sec. 106 Eastbourne Improvement Act	13	8	5	...
Totals 	109	84	18	7

EAST WARD.

Section of Act.	No. Issued.	No. complied with.	No. lapsed.	No. outstanding.
<i>a</i> Sec. 91 Public Health Act...	75	70	...	5
<i>b</i> Sec. 36 „ „ ...	28	27	...	1
<i>f</i> Sec. 46 „ „ ...	36	36	...	...
<i>c</i> Sec. 41 & 19 of 1890 Act ...	2	2	...	...
<i>d</i> Sec. 49 Public Health Act...	1	1	...	...
Totals	142	136	...	6

a To abate nuisances of various sorts.

b To provide proper closets, dust-bins, &c.

c To relay and repair defective drains.

d To remove offensive accumulations.

e To separate the water systems of closets from those for domestic use.

f To cleanse, disinfect, &c., houses.

In addition to these Statutory Notices 343 letters requesting amendments of premises were issued (181 of which were complied with) which otherwise would have necessitated the issuing of two, and in some instances three, notices in each case.

REFUSE REMOVAL.

During 1899 a weekly collection of refuse throughout the town, even in small property, has been carried out. I have suggested to the Sanitary Committee, and the Sanitary Committee has recommended to the Council, a twice-a-week collection in future, during the summer months at least. The Council has consented to this twice-a-week collection during July, August, and September, and this will be begun in 1900. During 1899 the refuse of many of the larger houses was collected twice a week. In many premises the dustbins have been very much improved; over 300 new dustbins have been supplied. The management of the refuse has been in this Department throughout the year. The town is

divided into eight districts for the purpose of collection; seven of these districts are collected by the Corporation men, and the eighth district is cleared by a private contractor, and complaints as to his method of collection have now practically ceased. I still feel that the whole of the refuse of the town should be collected and destroyed, preferably burnt, by the Council, and that the twice-a-week collection should extend over more than three months of the year. I append herewith the more important points of a report made by me to the Authority on the desirability of a more frequent collection :—

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

In accordance with your instructions, I beg to report on the suggested arrangements for collecting the house refuse of Eastbourne a second time each week from the beginning of May to the end of September.

The arrangements I suggest for the extra collection are the following :—

The town will, as at present, remain divided into districts or collecting areas, in each of which there will be a “shoveller” and two “carters.”

It will be necessary for the extra weekly collection to increase the number of districts by one half, there being twelve districts for the summer collection instead of eight, as at present. The present districts will be disturbed as little as possible during the summer collection, so that the change to twice a week and the return to the once a week collection in October will be easy. Each shoveller at present in charge of his collecting area will be in charge of nearly the same district in the summer, each of the extra four gangs having its collecting area formed out of adjacent portions of two of the present districts. Each shoveller will be responsible under the foreman for the clearance of his particular area.

The maps I submit herewith show this arrangement much better than any written report can do, and I submit also a list of roads in each of the twelve districts.

I have consulted Mr. Allcock, the Borough Accountant, as to the cost of these extra arrangements, and he reports the estimated cost to be as follows :—

(Here follow figures showing annual charge, £594, the horses being hired).

Mention has been made that this expense refers to collection only, and that the cost of destruction would also be increased. The amount of refuse in a town, however, will remain about the same whether collected once a week or once a day ; it is possible that, owing to the more frequent collection, a small amount of matter which is now got rid of in other ways would be left for the men to remove, but this would be very small.

SLAUGHTER-HOUSES AND MEAT INSPECTION.

No farther steps were taken during 1899 to provide a public Abbatoir. Most of the meat consumed in the Borough is slaughtered outside with probably little supervision. It is well known that the flesh of diseased animals is often sold as meat for human consumption, and when such meat is dressed it is very difficult to detect.

The Slaughter-houses of the Borough are six in number as they were in previous years ; they are all private, and with the exception of Chapel Drove Slaughter-house are fit for their purpose. I have suggested the compulsory closing of this slaughter-house, as it is quite unfit for a license, but it is still used although it has been said to be about to be demolished shortly.

Two of the Slaughter-houses are in St. Mary's Ward, viz., Upwick and Ocklynge Slaughter-houses, and four are in the East Ward, viz., The Crumbles, Latimer Road, Bourne Street and Chapel Drove.

Meat Inspection in Eastbourne can only be partially carried out owing to the scattered position of the Slaughter-houses and the fact that most of the meat is slaughtered before being brought into the Borough. No unsound meat has been seized in the Slaughter-houses and it is only just to the Butchers who slaughter

in Eastbourne to say that the animals slaughtered in the Eastbourne Slaughter-houses have been found almost if not quite uniformly to be of excellent quality.

UNSOUND FOOD.

Although the tables appended show some of the work done in the seizure of unsound food I am unable to record the number of warnings that have been given for food exposed for sale just on the border-line between passable and bad. The action of the Magistrates in looking on the exposure for sale of unsound food as a grave offence has had an excellent effect. Where we have the co-operation of the owner in the destroying of unsound food no legal proceedings are taken.

UNSOUND MEAT, &c., DESTROYED, BUT NO LEGAL PROCEEDINGS TAKEN.

3 Wild Ducks.

5 lbs. of Walnuts.

UNSOUND MEAT, &c.

LEGAL PROCEEDINGS.

Description and Quantity of Article.	Where exposed for Sale.	Proceedings, &c.
Tomatoes, 19½lbs. ...	{ No. 61, Susans Road...	Manager fined £10 and 19/6 costs.
Bacon, 30½lbs. ...		
Lemons, 4 ...		
Beef, 4lbs. ...	{ No. 258, Seaside ...	Owner fined £4 8s. 6d. & 11/6 costs; manager fined £4 8s. 6d. & 11/6 costs.

ANALYSES.

A summary of the work done under the Sale of Food and Drugs Acts during 1899 is herewith appended; 108 samples were taken of various articles of food, as the table shows. No article was found adulterated save five samples of milk. Proceedings were taken in each of these cases; in one there was a conviction and fine; two were ordered to pay the costs; one absconded, the summons therefore not being served; and one defendant was cautioned.

RETURN OF WORK UNDER THE FOOD AND DRUGS
ACT IN 1899.

Foodstuffs, &c.	Samples taken.	Returned as		Proceedings, &c.
		Genuine.	Adulterat'd	
Milk	35	30	5	1 convicted & fined, 2 ordered to pay costs, 1 absconded (sum- mons not served), 1 cautioned (bottle containing third sample burst).
Butter	17	17	...	
Lard	4	4	...	
Coffee	6	6	...	
Pepper	2	2	...	
Ground Ginger ...	3	3	...	
Brandy	3	3	...	
Whiskey	7	7	...	
Rum	1	1	...	
Gin	4	4	...	
Lime Juice	1	1	...	
Borax	6	6	...	
Olive Oil	1	1	...	
Sugar	1	1	...	
Camphorated Oil...	1	1	...	
Castor Oil	1	1	...	
Spirits of Nitre ...	1	1	...	
Jalap	1	1	...	
Powdered Rhubarb	1	1	...	
Flower of Sulphur..	1	1	...	
Compound Liquori'e Powder	1	1	...	
Compound Tincture of Camphor	1	1	...	
Compound Tincture of Benzoin	2	2	...	
Ale... ..	4	4	...	
Flour	3	3	...	
Total	108	103	5	

The "Sale of Food and Drugs Act, 1899," which came into operation on the 1st January, 1900, contains various improvements, and the leaflet which is subjoined has been made out and circulated so that tradesmen and the public in general should have condensed information on the subject :—

BOROUGH OF EASTBOURNE.

SALE OF FOOD AND DRUGS ACT, 1899.

For the Information of Tradesmen and the Public in general.

1. The above Act came into operation on the 1st January, 1900.

2. Attention is specially drawn to the following enactments :—

Section 6 provides (*a*) that where under this Act, or the Margarine Act, 1887, it is required that any package containing margarine or margarine cheese shall be branded or marked, the brand or mark shall be on the package itself, and not solely on a label, ticket, or other thing attached thereto. (*b*) That the letters required to be printed on the paper wrapper in which margarine or margarine cheese is sold shall be capital block letters not less than half-an-inch long and distinctly legible, and no other printed matter shall appear on the wrapper.

Section 7.—Manufactories of margarine and margarine cheese, and the business premises of wholesale dealers in the same substances, must be registered with the local authority. A register must also be kept by such manufacturers or wholesale dealers showing the quantity and destination of each consignment of these substances.

Section 9 requires every person who, himself or by his servant, in any highway or place of public resort sells milk or cream from a vehicle or from a can or other receptacle to have his name and address conspicuously inscribed on the vehicle or receptacle, under a penalty not exceeding Two Pounds.

Section 11 provides that every tin or other receptacle containing condensed separated or skimmed milk must bear a label clearly visible to the purchaser on which the words "Machine-skimmed Milk" or "Skimmed Milk," as the case may require, are printed in large and legible type; and that if any person sells or exposes or offers for sale condensed separated or skimmed milk in contravention of this section, he shall be liable on summary conviction to a fine not exceeding Ten Pounds.

Section 12 provides that where mixtures are sold the label giving notice thereof to the purchaser, under Section 8 of the Food and Drugs Act, 1875, must be distinct and legible.

Section 16 provides that penalties not exceeding £20, £50, and £100 respectively, may be imposed on any person on first, second or subsequent conviction for wilfully obstructing or impeding any Inspector or other officer in the course of his duties under the Sale of Food and Drugs Acts, or, by any gratuity, bribe, promise, &c., preventing or attempting to prevent the due execution by any such Inspector or Officer of his duty under these Acts.

Section 26 defines "Food" as including every article used for food or drink by man, other than drugs or water, and any article which ordinarily enters into or is used in the composition or preparation of human food, and as including flavouring matters and condiments.

H. W. FOVARGUE,

Town Clerk.

FACTORIES AND WORKSHOPS ACT AND SHOP HOURS ACT.

These Acts have been carried out to some degree, but with the staff at its present strength it has been hitherto impossible to take the work properly in hand, except in the case of the bake-houses, which are regularly and systematically kept in a satisfactory condition.

At the end of the year the Seats for Shop Assistants' Bill came into operation, which has also been passed on to the Sanitary Department.

These three Acts will, I hope, receive more systematic attention as the work of house sanitation becomes less.

The 37 bakehouses of the borough have been under continual supervision, and the sections of the Factories and Workshops Act relating to them have been most thoroughly carried out.

CELLAR DWELLINGS.

It has not been necessary during 1899 to obtain the closure of any cellar dwelling in Eastbourne; they are extremely rare.

OVERCROWDING.

Additional small houses continue to be built, and although rents remain high in Eastbourne there are now many empty houses among the small property, and overcrowding is therefore not so difficult to deal with; warnings or notices have been sufficient without prosecutions.

INFECTIOUS DISEASES.

The important work of the department in this respect has been dealt with earlier in this report.

	West Ward.	S. Mary's Ward.	Central Ward.	East Ward.	Total.
Number of cases notified ...	13	46	39	59	157
Number removed to Sanatorium	10	31	31	50	122
Number of houses disinfected	12	34	27	51	124

COWSHEDS, DAIRIES, AND MILKSHOPS.

I submit below a table showing the work done as regards these. They are under constant inspections:

DAIRIES, COWSHEDS, AND MILKSHOPS ORDERS OF 1885-6.

	West Ward.	S. Mary's Ward.	Central Ward.	East Ward.	Total.
No. of Dairies on Register...	5	4	7	6	22
„ Cowsheds „	2	5	—	3	10
„ Milkshops „	—	3	7	25	39
Infectious disease among employés	—	—	1	—	—
Infectious illness on premises	—	—	—	1	—
Notice to abate Nuisance...	—	—	—	—	—
Number Registered in 1899	—	3	2	7	12
Number removed from Register in 1899	—	1	—	3	4

The condition of the Cowsheds is one of the most important factors in the prevention of the spread of Tubercular Disease. The Cowsheds in Eastbourne are very satisfactory; three new ones have been added of modern construction and are extremely satisfactory, two in St. Mary's Ward and one in the East. As I have previously mentioned, it is far more important, in the case of infected milk, to deal with the Cowsheds in the way of prevention rather than merely to deal with the milk already infected by boiling or sterilization.

COMMON LODGING HOUSES.

The erection of a Municipal Common Lodging House having been practically abandoned the department has taken in hand seriously the amending of the existing Common Lodging Houses.

There are at present one registered and one unregistered house nearly fit for registration in the Borough; the remainder of the tramps spread themselves over various houses, as a rule in the East Ward.

LEGAL PROCEEDINGS, 1899.

On thirteen occasions it was necessary to have recourse to legal proceedings. A case remaining from 1898 was decided *re* the adulteration of gin; five proceedings were taken against persons for selling adulterated milk; against three for non-abatement of nuisance; and against four for the exposure for sale of unsound food, really two cases in each of which the owner and manager of the premises were summoned.

No.	Nature of Offence.	Date of Hearing.	Result.
1	Selling Adulterated Gin ...	Jan. 20th	Fined 5/6 and 14/6 costs
2	Non-compliance with Notice to Abate Nuisance	Apl. 24th	Summons withdrawn, Defendant to pay costs, 7/-, the work having been done
3	Non-compliance with Notice to Abate Nuisance	Mar. 20th	Summons withdrawn and Amended Summons to issue
4	Non-compliance with Notice to Abate Nuisance	Apl. 14th	Order made on Defendant to do the work and pay costs, 19/6
5	Selling Adulterated Milk ...	July 10th	Fined 1/6 and 18/6 costs
6	Exposing for Sale Unsound Fruit and Meat (Manager)	July 31st	Fined £10 and 19/6 costs
7	Exposing for Sale Unsound Fruit and Meat (Owner)	July 31st	Dismissed, Defendant Co. having no guilty knowledge
8	Selling Adulterated Milk ...	Sept. 29th	Withdrawn on payment of costs, £1 os. 6d.
9	Exposing for Sale Unsound Meat (Manager)	Oct. 2nd	Fined £4 8s. 6d. and 11/6 costs
10	Exposing for Sale Unsound Meat (Owner)	Oct. 2nd	Fined £4 8s. 6d. and 11/6 costs
11	Selling Adulterated Milk ..	Nov. 20th	Ordered to pay 19/- costs, no penalty imposed

In the two remaining milk adulteration cases, the proceedings fell through; in one because defendant absconded so that the summons could not be served; in the other because the bottle containing the third sample of milk burst before the proceedings were commenced.

Office Work during 1899.

Calls and Communications received and entered ...	...	2,162
Letters and Reports written ... ..	...	905
Complaints received of Non-removal of Dust ...	...	32
Entries made in Inspectors' Journal ... ..	...	960
Entries made in Register of Defects and Nuisances	...	256
Notices Issued ... ..	...	338
Entries made in Register of Samples taken ...	...	108
Returns of Inspectors' Work made to Committee	...	21
Entries made in Notification Register ... ..	...	157
Entries made in "Report Book" on Infectious Cases	...	157
Monthly Returns on the Health of Eastbourne to Members of Sanitary Committee ... ..	...	168
Entries made in Voluntary Sanitary Register ...	...	39
Sanitary Certificates Issued... ..	...	39
Entries made in Register of Cowsheds and Dairies	...	16
Certificates of Registration issued for same ...	...	16
Entries made in Register of Bakehouses ... ..	...	75
Entries made in Register of Slaughter-houses ...	...	5
Licenses issued for the same ... ..	...	5
Entries made in Register of Seizures of Unsound Meat	...	4
Entries made in Register of Letters requesting Amend- ments... ..	...	343
Letters written requesting Amendments to be made	...	343
Samples of Eastbourne Water taken for Analysis by Public Analysts ... ..	...	12
Samples taken and Analysed by Medical Officer of Health		71

Premises receiving constant inspection and attention
during the years 1898-9.

EAST WARD.						1898.	1899.
Number of Bakehouses	...	...	...	...	...	13	13
„ „ Cowsheds ...	...	...	...	...	...	2	3
„ „ Farmyards	...	...	...	...	...	2	2
„ „ Dairies and Milk-Shops...	...	...	...	...	...	26	31
„ „ Private Stables	...	...	...	...	...	54	54
„ „ Livery Stables	...	...	...	...	...	3	3
„ „ Piggeries ...	...	...	...	...	...	5	5
„ „ Slaughter-houses	...	...	...	...	...	4	4
„ „ Offensive Trades	...	...	...	...	...	4	4
WEST WARD.							
Number of Bakehouses	...	...	...	...	...	2	2
„ „ Cowsheds ...	...	...	...	...	...	3	3
„ „ Farm Yards	...	...	...	...	...	3	3
„ „ Dairies and Milkshops	...	...	...	...	...	10	9
„ „ Private Stables	...	...	...	...	...	53	60
„ „ Livery Stable.	...	...	...	...	...	6	5
„ „ Piggeries ...	...	...	...	...	...	3	3
„ „ Slaughter-houses	...	...	...	...	...	Nil.	Nil.
„ „ Offensive Trades	...	...	...	...	...	Nil.	Nil.
CENTRAL WARD.							
Number of Bakehouses	...	...	...	...	...	16	16
„ „ Cowsheds	...	...	...	...	...	Nil.	Nil.
„ „ Farm Yards	...	...	...	...	...	Nil.	Nil.
„ „ Dairies and Milkshops	...	...	...	...	...	14	14
„ „ Private Stables	...	...	...	...	...	90	97
„ „ Livery Stables	...	...	...	...	...	12	16
„ „ Piggeries ...	...	...	...	...	...	Nil.	Nil.
„ „ Slaughter-houses	...	...	...	...	...	Nil.	Nil.
„ „ Offensive Trades...	...	...	...	...	...	Nil.	Nil.
ST. MARY'S WARD.							
Number of Bakehouses	...	...	...	...	...	7	6
„ „ Cowsheds ...	...	...	...	...	...	5	5
„ „ Farm Yards	...	...	...	...	...	7	8
„ „ Dairies and Milkshops	...	...	...	...	...	9	7
„ „ Private Stables	...	...	...	...	...	81	81
„ „ Livery Stables	...	...	...	...	...	9	10
„ „ Piggeries ...	...	...	...	...	...	4	5
„ „ Slaughter-houses	...	...	...	...	...	2	2
„ „ Offensive Trades...	...	...	...	...	...	Nil.	Nil.

Appendix.



TABLE I.

Table shewing the Births and Marriages and Deaths, at certain age periods in Eastbourne, for 1899, and for the 10 preceding years.

Year.	Population estimated at middle of Year.	Births registered.	Marriages.	Deaths registered.			
				At all Ages.	Under 1 year.	Under 5 years.	In Public Institutions.
1899	47,000	936	298	566	136	198	68
1889	32,124	790	216	416	98	147	72
1890	33,724	735	199	485	81	161	111
1891	35,405	857	250	468	103	158	74
1892	37,168	921	236	505	153	181	73
1893	39,020	897	249	576	130	231	91
1894	40,964	975	256	430	95	119	63
1895	42,000	917	238	521	122	171	80
1896	43,500	919	267	454	105	151	62
1897	44,500	886	293	399	98	126	82
1898	45,500	934	291	494	129	178	51
Avrge. of 10 years	39,390	883	249	474	111	162	76

TABLE II.

Weekly Notifications of Infectious Disease, 1899.

Week.				Diphtheria.	Erysipelas.	Scarlet Fever.	Typhoid Fever.	Puerperal Fever.	Totals.
No.	Date of Ending.								
1	January	7	...	1	1	2	...	...	4
2	"	14	...	...	1	1	...	...	2
3	"	21	...	1	...	...	...	...	1
4	"	28	...	2	...	1	...	...	3
5	February	4	...	...	...	...	...	...	...
6	"	11	...	...	...	3	...	...	3
7	"	18	...	1	...	2	...	...	3
8	"	25	...	...	...	2	...	...	2
9	March	4	...	...	1	4	...	...	5
10	"	11	...	...	1	...	...	...	1
11	"	18	...	...	1	1	...	...	2
12	"	25	...	1	2	2	...	...	5
13	April	1	...	...	...	1	...	...	1
14	"	8	...	...	1	...	...	...	1
15	"	15	...	...	...	2	...	...	2
16	"	22	...	1	...	...	...	...	1
17	"	29	...	...	...	1	...	...	1
18	May	6	...	2	...	3	...	...	5
19	"	13	...	...	...	3	...	...	3
20	"	20	...	...	...	...	...	...	...
21	"	27	...	...	2	...	...	...	2
22	June	3	...	...	...	3	1	...	4
23	"	10	...	1	...	...	...	...	1
24	"	17	...	1	...	...	...	...	1
25	"	24	...	2	...	...	...	...	2
26	July	1	...	1	...	...	2	...	3
27	"	8	...	1	...	...	...	...	1
28	"	15	...	3	...	1	...	...	4
29	"	22	...	3	...	...	...	...	3
30	"	29	...	3	...	...	...	...	3
31	August	5	...	1	...	2	...	...	3
32	"	12	...	2	...	...	...	...	2
33	"	19	...	1	...	...	...	...	1
34	"	26	...	...	...	...	2	...	2
35	September	2	...	...	...	1	...	...	1
36	"	9	...	...	...	...	...	...	...
37	"	16	...	...	...	1	1	...	2
38	"	23	...	1	...	...	...	...	1
39	"	30	...	1	...	4	1	...	6
40	October	7	...	1	2	4	...	...	7
41	"	14	...	...	...	1	1	...	2
42	"	21	...	2	...	5	3	...	10
43	"	28	...	...	...	1	...	...	1
44	November	4	...	1	...	...	...	...	1
45	"	11	...	5	1	1	...	1	8
46	"	18	...	3	...	1	1	...	5
47	"	25	...	...	1	2	1	1	5
48	December	2	...	2	...	3	...	...	5
49	"	9	...	...	1	3	...	...	4
50	"	16	...	...	2	1	3	...	6
51	"	23	...	1	1	3	2	...	7
52	"	30	...	1	...	3	4	...	8
	December	31	...	1	...	...	...	...	1
Totals				47	18	68	22	2	157

TABLE III.

Table shewing the Number of Deaths from the seven principal Zymotic Diseases in the 10 years, 1889—1898, and in the year 1899.

	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899.	
											Deaths.	Death-rate.
Small-pox ...	...	...	...	..	...	...	2	...	...	...	...	...
Measles ...	10	3	...	2	55	...	4	16	...	20	7	0.15
Scarlet Fever ...	...	1	1	1	7	1	1	1	...	1	1	0.02
Whooping Cough ...	2	3	20	3	29	1	14	2	3	2	23	0.49
Diphtheria ...	52	80	33	5	8	6	4	6	18	11	9	0.19
Enteric Fever ...	3	2	2	2	3	4	2	9	...	4	4	0.09
Diarrhoea ...	20	15	8	37	39	8	36	25	23	46	52	1.10
Totals ...	87	104	64	50	141	20	63	59	44	84	96	2.04
Zymotic Death-rate per 1,000 population ...	2.80	3.32	1.92	1.46	3.71	0.53	1.50	1.33	0.97	1.85	2.04	...

TABLE IV.
NOTIFICATIONS OF INFECTIOUS DISEASE. RETURNS FOR 1895-1899.

YEAR.	Quarter.	1895.				1896.				1897.				1898.				1899.			
		1	2	3	4	Year	1	2	3	4	Year	1	2	3	4	Year	1	2	3	4	Year
	Diphtheria	9	6	15	6	36	7	6	9	20	42	36	37	24	20	177	19	9	3	11	42
	Scarlet Fever	28	4	8	19	59	28	14	13	19	74	18	13	13	22	66	7	6	20	21	54
	Enteric Fever	4	1	9	4	18	2	2	47	33	84	3	...	5	3	11	9	...	6	10	25
	Puerperal Fever ...	...	1	1	1	3	6	...	...	...	6	1	1	...	...	2	2	...	...	...	2
	Erysipelas.....	6	4	5	6	21	2	3	5	7	17	4	2	4	3	13	6	5	2	5	18
	Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Membranous Croup	1	...	...	...	1	...	...	...	...	...	2	2	...	...	4	1	...	...	...	1
	Small-pox.....	...	...	13	5	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	48	16	51	41	156	45	25	74	79	223	64	55	46	48	213	44	20	31	47	142

Sickness-rate for 1892 (estimated population, 37,168)—4'81.
 " " 1893 " " 39,020)—8'58.
 " " 1894 " " 40,964)—3'48.
 " " 1895 " " 42,000)—3'71.
 Sickness-rate for 1896 (estimated population, 43,500)—5'12.
 " " 1897 " " 44,500)—4'78.
 " " 1898 " " 45,500)—3'14.
 " " 1899 " " 47,000)—3'34.

Table V.

Estimated Population, 47,000.

1899.					1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year.
BIRTHS.	Males	110	119	132	100	461			
	Females	112	124	116	123	475			
	Total	2'22	243	248	223	936			
	Equivalent annual rate per 1,000 persons	18'19	20'68	21'11	18'89	1991			
NOTIFICATIONS.	Diphtheria	6	7	17	17	47			
	Erysipelas	7	3	—	8	18			
	Small-pox	—	—	—	—	—			
	Scarlet Fever	18	13	9	28	68			
	Enteric Fever	—	2	5	15	22			
	Puerperal Fever	—	—	—	2	2			
	Membranous Croup	—	—	—	—	—			
	Total	31	25	31	70	157			
Sickness-rate	2'64	2'13	2'64	6'14	3'34				
DEATHS.	Males	69	52	90	67	278			
	Females	77	60	88	63	288			
	Total	146	112	178	130	566			
	Non-Residents	3	6	20	4	33			
	Corrected Total	143	106	158	126	533			
	Under 1 year	27	24	74	12	136			
	1-5 years	19	16	14	12	62			
	5-15 years	4	3	4	9	20			
	15-65 years	56	41	53	55	205			
	Over 65 years	40	28	33	42	143			
	Equivalent annual rate per 1,000 persons	12'42	9'54	15'15	11'06	12'04			
	Deaths under 1 year per 1,000 births ..	122	105	298	56	145			
	Death-rate, excluding deaths of visitors ..	12'16	9'22	13'45	10'72	11'34			
	CAUSES OF DEATH, &C.	Zymotic Diseases. { Miasmatic Diseases	27	17	11	21	76		
Diarrhæal Diseases		1	—	51	—	52			
Septic Diseases		1	—	1	2	4			
Other Zymotic Diseases		1	2	1	—	4			
Dietic Diseases		1	1	3	1	6			
Constitutional Diseases. { Malignant Diseases		13	5	4	10	32			
Phthisis		11	7	11	11	40			
Other Tubercular Diseases		4	5	6	3	18			
Glycosuria		1	—	3	1	5			
Other Constitutional Diseases		4	6	4	3	17			
Premature Birth		5	1	7	1	14			
Old Age		5	9	7	3	24			
Local Diseases. { Apoplexy		9	6	4	4	23			
Convulsions		2	3	2	1	8			
Other Nervous Diseases		6	5	6	5	22			
Diseases of Circulatory System		12	13	14	17	56			
Respiratory		18	11	7	22	58			
Digestive		8	8	15	9	40			
Urinary		4	1	4	2	11			
Reproductive		4	1	4	—	9			
Other Local Diseases		1	1	3	2	7			
Accident, Violence and Negligence		3	5	4	4	16			
Ill-defined Causes		4	4	5	5	18			
Inquests held	4	5	6	6	21				
Deaths in Institutions	20	11	15	22	68				
Other Developmental Diseases	—	1	—	2	3				
Not Certified	1	—	1	1	3				
METEOROLOGY.	Atmospheric Pressure, inches { Mean	29'904	30'059	29'995	30'042	30'000			
	Highest	30'687	30'426	30'405	30'681	30'687			
	(corrected) Lowest	28'893	28'877	29'318	28'708	28'708			
	Temperature { Mean	41'7	52'4	63'0	48'3	51'3			
	Highest	55'7	72'4	78'6	64'0	78'6			
	Lowest	24'3	35'0	43'3	24'0	24'0			
	Total Rainfall (inches)	6'62	5'90	6'18	9'62	28'32			
	Bright Sunshine, hours recorded	378'3	687'9	764'3	288'3	2118'8			
	Wind, prevailing direction	S.W.	E.N.E.	W.	S.W.	S.W.			
	mean hourly velocity (miles)	11'4	9'6	10'2	9'9	10'3			

TABLE VII

(A) TABLE OF DEATHS DURING THE YEAR 1899, IN THE EASTBOURNE URBAN DISTRICT,
CLASSIFIED ACCORDING TO DISEASES, AGES AND LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities. (Columns for Population and Births are in Table B.)	Mortality from all causes, at subjoined ages.							Mortality from subjoined causes, distinguishing Deaths of Children under Five years of age.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	At all ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	(i)	Small-pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.					Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	TOTAL.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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The subjoined numbers have also to be taken into account in judging of the above records of mortality.

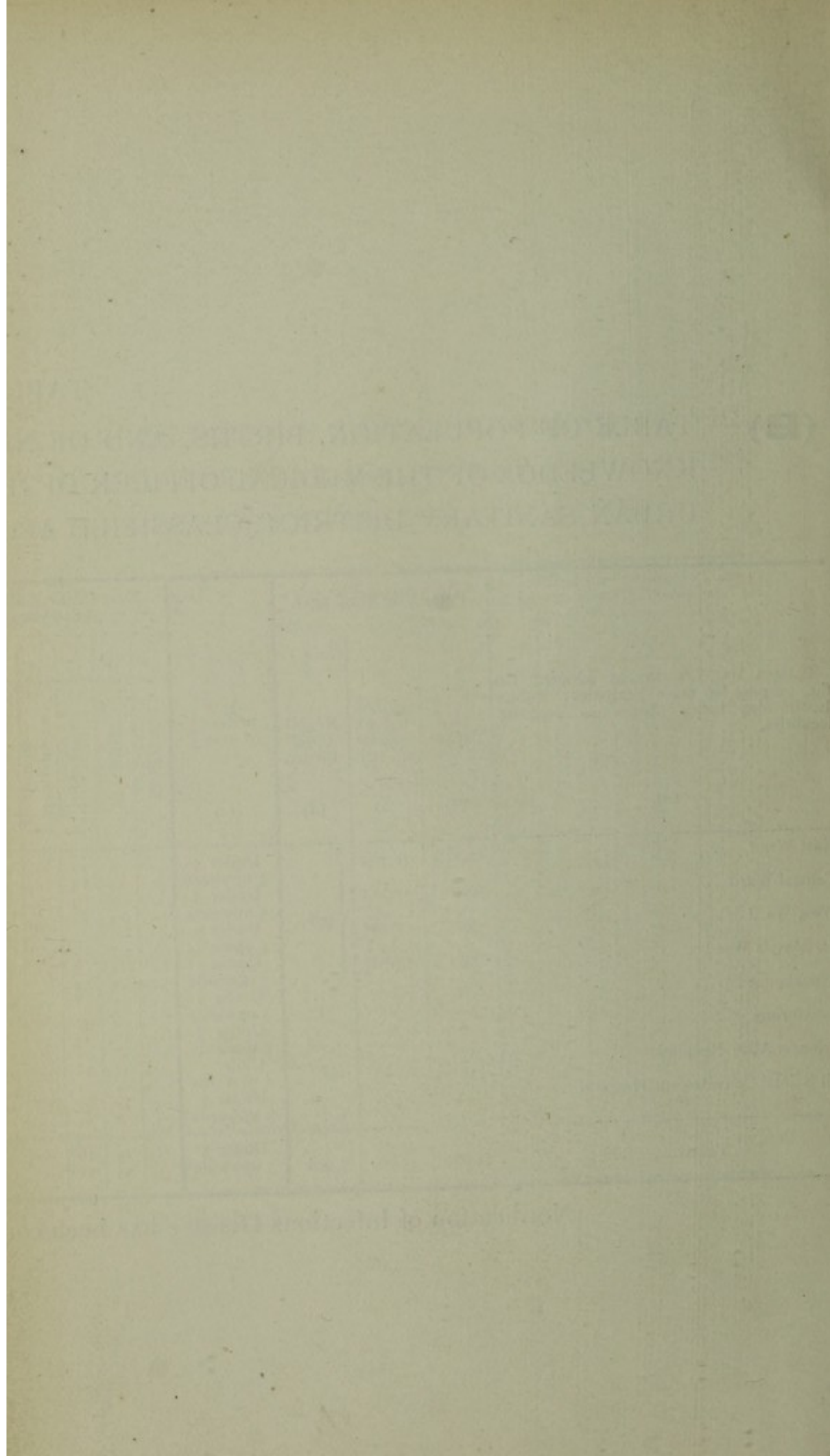
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TABLE VIII.

(B) TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH, DURING THE YEAR 1899, IN THE EASTBOURNE URBAN SANITARY DISTRICT, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	Population at all ages.			Aged under 5 or over 5.	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.													Number of such Cases removed from their Homes in the several localities for treatment in Isolation Hospital.														
	Last Census	Estimated to middle of 1899.	Registered Births.		1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13		
(a)	(b)	(c)	(d)	(e)	Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.				
East Ward	12,113	17,700	936	Under 5	..	6	7	..	..	..	..	..	..	..	..	..	..	..	6	7	..	..	..	..	..	..	..	..	..	..	..	..
Central Ward	10,501	11,285		5 upwards	..	13	14	..	..	11	..	..	..	..	..	6	..	..	..	14	13	..	..	10	..	..	..	..	..	..	..	..
West Ward	5,736	7,382		5 upwards	..	2	3	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..
St. Mary's Ward	6,619	10,633		5 upwards	..	14	13	..	..	3	..	..	..	..	..	4	..	..	..	14	11	..	..	2	..	..	..	..	..	..	..	..
Workhouse .. .. .	..	..		Under 5	..	7	..	..	..	3	..	..	..	..	..	1	..	..	..	7	..	..	..	1	..	..	..	..	..	..	..	..
Sanatorium .. .. .	..	..		5 upwards	..	4	5	..	..	..	..	..	..	..	..	1	..	..	..	4	3	..	..	2	..	..	..	..	..	..	..	..
Princess Alice Hospital .. .. .	..	..		Under 5	..	15	4	..	..	3	..	..	..	2	..	3	..	..	..	13	3	..	..	2	..	..	..	..	..	..	..	..
All Saints' Convalescent Hospital .. .. .	..	..		5 upwards	..	1	1	..	..	..	..	..	..	..	..	3	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..
Totals.. .. .	34,969	47,000	936	Under 5	..	13	16	..	..	..	..	..	2	..	1	..	..	..	13	13	..	..	..	..	..	..	..	..	..	..	..
				5 upwards	..	55	31	..	..	22	..	..	2	..	17	..	..	..	52	27	..	..	17	..	..	..	..	..	..	..	..

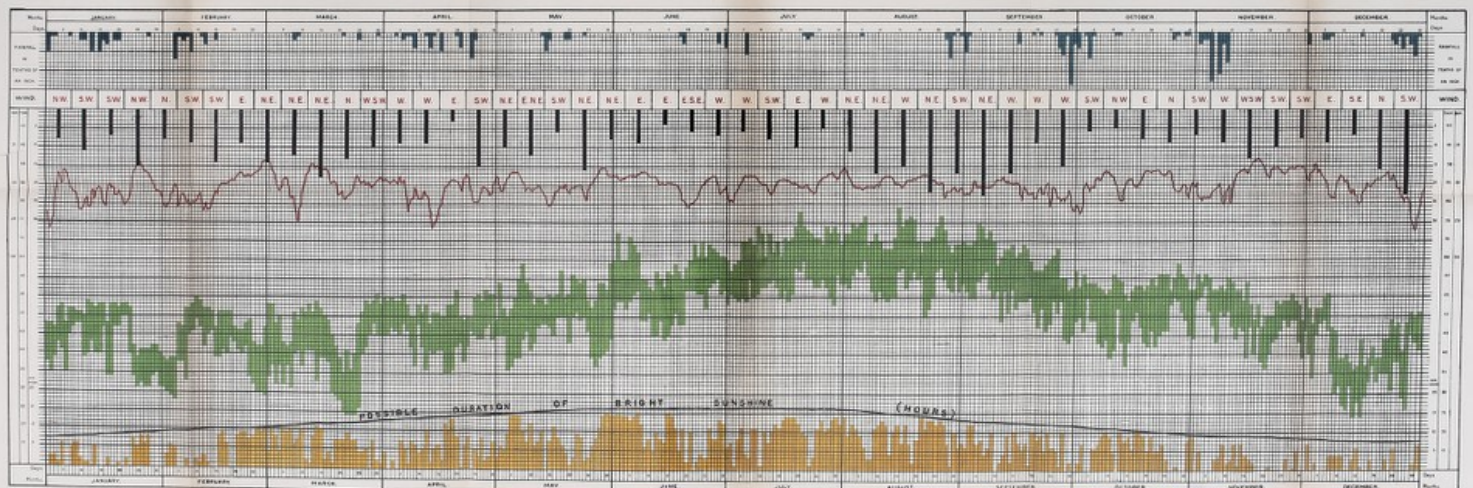
Notification of Infectious Disease has been compulsory in the District since January, 1890.





Borough of Eastbourne.

Chart showing the principal Meteorological Conditions during each day of the year 1899.
(from weekly returns)



DEATHS ——— RAINFALL ——— BAROMETRIC PRESSURE (adjusted to 32° F. and Sea Level) ——— TEMPERATURE (Maximum and Minimum) ——— SUNSHINE ———

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