

**Statistical examination of the Margate death-rate, for the five years, 1863-1867 : by order of the Council of the Borough of Margate / by Edward Mottley.**

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STATISTICAL EXAMINATION

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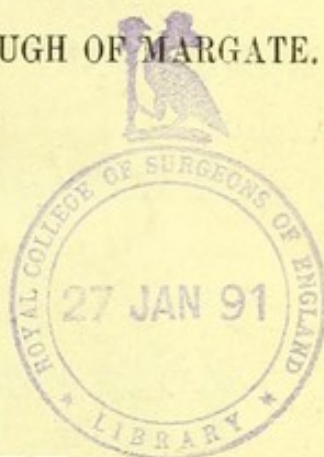
OF THE

# MARGATE DEATH-RATE,

FOR THE

FIVE YEARS, 1863-1867.

BY ORDER OF THE COUNCIL OF THE BOROUGH OF MARGATE.



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BY

EDWARD MOTTLEY.

AUTHOR OF "THE VITAL STATISTICS OF THE TOWN OF MARGATE, FOR THE  
TWELVE YEARS ENDING JUNE, 1849," ALSO "A REPORT ON THE  
SANITARY CONDITION OF MARGATE, FROM 1837 TO 1862."

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MARGATE: PUBLISHED BY THOS. H. KEBLE.

—  
1868.

STATISTICAL EXAMINATION

MARGATE DEATH-RATE.

FIVE YEARS, 1882-1886.

BY ORDER OF THE CHIEF OF THE BUREAU OF VITALITY.

EDWARD MORTIMER.

Printed by the Government Printer, at the Office of the Chief of the Bureau of Vitality, New York, 1887.

RECEIVED AT THE OFFICE OF THE CHIEF OF THE BUREAU OF VITALITY, NEW YORK, 1887.

TO THE  
MAYOR, ALDERMEN, AND BURGESSES,


OF THE  
Borough of Margate,

THIS  
STATISTICAL EXAMINATION

IS DEDICATED

BY  
THEIR OBEDIENT HUMBLE SERVANT,

EDWARD MOTTLEY.



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## REPORT.

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MR. MAYOR AND GENTLEMEN,

THE heavy and continual increasing death-rate of the Isle of Thanet having caused the REGISTRAR-GENERAL to ask,\* "Why is the mortality of the Isle of Thanet, including Ramsgate and Margate, still 23?" It is the object of this report to answer the question so prominently advanced by the eminent authority at the head of the registration of the kingdom, so far as it relates to the town of Margate, and at the same time to rectify the reports so industriously circulated that the death-rate of Margate is the heaviest of all the health resorts in the kingdom.

Having given my attention since the year 1864 to statistical inquiry, and examined by careful analysis the reports of the Registrar-General from 1838 to 1867, and the registration of Margate for 20 years, I felt confident the question of the Registrar-General could be satisfactorily answered, and the apparent heavy death-rate of Margate fully accounted for and explained. With this view I requested an interview with the chief magistrate, as the public health of the town is one within the immediate jurisdiction of the town council, acting as a board of health. The result was the appointment of a committee for the purpose of obtaining the necessary information, and being entrusted with the inquiry, I caused the records of the mortality of the sub-district Margate to be copied with great exactitude. I have submitted the same to a careful analysis, the results of which I have now the honour to lay before you.

The growth of the vast metropolis, London, the facility of transit, the improvement and increasing reputation of the town, adding annually to the number of visitors, the deaths of invalids and patients in the hospital increase in a similar ratio. In the year 1864, the names of 58 visitors and 44 patients in the hospitals were inscribed in the registrar, increasing the death-rate of 168 to 10,000 residents to 270 mixed population. During the five years, 1863-1867, 88 strangers have died annually on the average at Margate. Within the last half century the deaths from this source have increased threefold. The names of strangers now occupy one-third of the registration list, a fact certainly never before recorded, and one that has no parallel at any place of

\* Quarterly Report, p. li. 1864.



popular resort on the continent, and certainly not in any of the 623 districts of England and Wales. Should the increase continue in the same proportion, in a short space of time the deaths of strangers and inhabitants will be equal. Margate in this respect stands quite alone.

The necessity of classifying the registration lists of districts situated similar to Margate has become so prominent that Dr. FARR in his appendix to the 24th report of the Registrar-General says—"In large hospitals and lunatic asylums the mortality is so much higher than the rest of the population, that the mortality of the district deduced from the living and dying, including hospital patients, does not correctly express the mortality of the inhabitants of the place. Local inquirers are alone in a condition to correct effectively local derangements."

The two previous publications of 1850 and 1862, relating to the public health of the town, were based upon a classified population. Continental statistical writers invariably classify the population, and with a greater degree of minuteness than is possible in English statistics.

The mortality of the town and sub-district Margate for the 5 years 1863-1867, stands thus:—

—	Residents.	Visitors.	Hospitals.	Total.
	873	265	177	1,313
Annual Average ... ..	174	53	35	262

or, 17 to 1,000 resident. Dr. Farr's standard of normal health.

#### MORTALITY FROM EPIDEMIC, ENDEMIC-CONTAGIOUS (ZYMOTIC) DISEASES.

—	Residents.	Visitors.	Hospitals.	Total.
	163	48	19	228
Annual Average ... ..	32	9	3	47

#### DEATHS OF INFANTS UNDER ONE YEAR OF AGE.

—	Births.	Residents.	Visitors.	Total.
	1,485	176	43	219
Annual Average ... ..	—	35	8	43

Annual infant mortality, 10 per cent.



## MORTALITY FROM CONSUMPTION.

—	Residents.	Visitors.	Hospitals.	Total.
	85	21	7	113
Annual Average .. ...	17	4	1	—

Annual mortality from consumption, 17 to 10,000 living.

## MORTALITY FROM INFLAMMATORY DISEASES OF THE LUNGS.

—	Residents.	Visitors.	Hospitals.	Total.
	88	17	3	108
Annual Average ... ..	17	3	—	—

Annual mortality from inflammatory diseases of the lungs, 17 to 10,000 living.

Compared with the general mortality of England and Wales, the numbers range as follows:—

—	England.	Margate.
General Mortality ... ..	22	17
Infant Mortality ... ..	20	10
Zymotic Diseases ... ..	50	32
Consumption ... ..	16	17
Respiratory Organs ... ..	31	17
Bronchitis ... ..	13	7

When it is considered that the previous calculations are founded upon the census of 1861 (presumed incorrect), and no allowance made for the increase of the population, it will be evident how highly favourable the public health has been during a period eminently insalubrious.

The Registrar-General made the following observations in the Quarterly Report, page li.:—"It is doubtful whether the world will continue to resort to places which have often no natural advantages over others, and are selected like some of the insalubrious German watering places by mere accident." I



may here be permitted to remark that Margate seems to have been and to be selected for its health-giving qualities, and for that alone; but medical experience and public observation have alike failed to remark how eminently favourable the locality is for persons liable to pulmonary diseases during the winter months.

It is evident from this, and the preceding publications, that the great number of patients and invalids domiciled amongst the resident inhabitants has not affected the public health of the community. If it be asked what are the objective conditions that produce so favourable a result, the answer must be found in the aphorism of the Great Father of Medicine—"that where the air, the water, and the soil are good, the inhabitants are healthy." The experience and teaching of 3000 years have added nothing to this truth.

At Margate, the north-east portion of the Isle of Thanet, the soil is dry, antiseptic, percolations and absorbent. No amount of rain lodges more than a few hours on the surface, hence the proverb—

"When England wrings,  
The Island sings."

Absorption carries down the minute microscopic particles of decaying offensive matter. Evaporation carries them abroad, and contaminates the atmosphere.

The commission issued a few years back by the Bavarian government to inquire into the condition of certain localities severely visited by the cholera, found the course of that terrible epidemic determined by the character of the soil upon which the towns and villages were built.

Where the soil was spongy, wet, and saturated with moisture, the disease was most severe, and this observation is supposed to be of equal value with that of Dr. Farr, who found that the cholera in London diminished in severity as the streets, lanes, and houses were elevated above the level of the Thames.

The vast substratum of chalk in the Isle of Thanet affords an inexhaustible supply of excellent water.

The whole town is exposed to the influence of the prevailing winds. The sea breeze passing over a great expanse of ocean, arrives at the island in a state of almost chemical purity; owing to this quality, and the cold being modified by great Atlantic waves, it is seldom very low in temperature. These qualities are conspicuous in the eminently favourable column containing the mortality of pulmonary diseases, which are invariably mild where the air is pure, clear, and temperate.

It is to the presence of these great powers of nature that Margate is indebted for its public health, and comparative immunity from the spread of the most dangerous and fatal classes of disease.



The system of registration introduced in the year 1834, has removed the reputation of Margate from the misty region of conjecture, and to use an expressive phrase of the Registrar-General—"Here we stand upon the actual."

"And great truly is the actual; it is the thing that has rescued itself from the bottomless depths of theory and possibility, and stands there, as a definite indisputable fact whereby men do work and live." \*

The Register lists were classified into residents and visitors by Mr. Pilcher, the Registrar.

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## THE PUBLIC HEALTH OF THE FIVE YEARS, 1863-1867, CONSIDERED EACH YEAR SEPARATELY.

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### MORTALITY OF THE YEAR 1863.

Speaking of this year, Dr. Farr says the deaths were more numerous in this than in any previous year. The increase of mortality is chiefly due to the zymotic class of diseases. In Margate the mortality this year was comparatively extremely favourable, being 171 to 10,000 living. The number of deaths from contagious, epidemic, and endemic diseases (zymotic diseases, class 1, order 1, of Dr. Farr's classification), being 37 to 10,000 residents, a number corresponding with the exceptionably general healthy character of the town.

Compared with the mortality of England the figures stand thus:—

Diseases.			—			General Mortality.	
Zymotic	...	...	{	All England ... 58 In Margate ... 32	}	All England and in Margate to 10,000 living.	
Bronchitis	...	...	{	All England ... 15 In Margate ... 9	}		
Consumption	...	...	{	All England ... 25 In Margate ... 20	}		

\* Carlyle.



## MORTALITY OF THE YEAR 1864.

In the annual report of the Registrar-General for the year 1864, Dr. Farr says—"It has been shown that more people of all ages died this year than in any previous year. The rate of mortality was higher in infancy, higher in middle life, and much higher in old age, than the average."

The death-rate in Margate during this insalubrious year was highly favourable, being 168 to the resident inhabitants, placing Margate on an equality with the exceptionably healthy districts. The number of deaths this year from visitors and patients were 102. The unhealthy character of the year and the heavy mortality of the visitors do not appear to have had the slightest influence on the public health of Margate.

The numbers compared with the general mortality of the country are as follows :—

Diseases.			—			General Mortality.	
Zymotic	...	...	{	All England	...	57	All England. In Margate.
				In Margate	...	33	
Bronchitis	...	...	{	All England	...	18	
				In Margate	...	8	
Consumption	...	...	{	All England	...	25	
				In Margate	...	12	

## MORTALITY OF THE YEAR 1865.

The Registrar-General reports of this year—"The mortality was above the average in every quarter of the year, both in town and country." Dr. Farr adds—"The mortality was higher this year than the average, and that males, who at all times die faster than females, suffered this year to an unusual extent."

The death-rate at Margate this year was much below the average standard of public health, being only 15 to 1,000 living. This highly favourable number corresponds with the year 1858.

The comparative mortality was—

Diseases.			—			General Mortality.	
Zymotic	...	..	{	All England	...	50	All England ... 233 In Margate ... 156
				In Margate	...	30	
Bronchitis	...	...	{	All England	...	17	
				In Margate	...	11	
Consumption	...	...	{	All England	...	25	
				In Margate	...	16	



## MORTALITY OF THE YEAR 1866.

The death-rate of this year in Margate rises somewhat above the usual favourable rate of mortality, being 19 per 1,000. But as the number dying of zymotic diseases was only 33 of the entire population, and as this favourable number can hardly be co-existent with the increased general mortality, it is highly probable that the increase of population, occupying the large number of important new houses, accounts for the apparent anomaly—this view is also confirmed by the unusual low rate of mortality from pulmonary diseases.\*

At Margate the mortality is as follows:—

Zymotic Diseases	...	...	...	...	33	} to 10,000.
Bronchitis	...	...	...	...	6	
Consumption	...	...	...	...	11	

These numbers are among the lowest ever recorded, and Margate appears this year to have assumed its equilibrium—the mortality being 17 per 1,000.

Zymotic	...	...	...	...	...	...	37
Bronchitis	...	...	...	...	...	...	—
Consumption	...	...	...	...	...	...	—

The present examination of the public health of Margate having extended over the whole period of registration, one fact stands out prominently, and that is the exceeding low mortality of lung diseases; this opens a most important field for future inquiries—viz., the value of Margate as a winter residence for persons liable to pulmonary diseases; a comparison of Margate in this special branch of medical geography with some of the most celebrated places of resort in the south of Europe affords a valuable lesson on this most important subject.

\* The comparison with the mortality of the country cannot be continued, as at the time of going to press the report of the Registrar-General for 1866-67 was not published.

# TABULAR VIEW

## OF THE

### MORTALITY OF MARGATE,

*For the 5 Years, 1863-67.*

Year.	Total.	Visitors.	Hospitals.	Inhabitants.
1863	262	54	37	171
1864	270	58	44	168
1865	234	50	28	156
1866	286	55	32	199
1867	261	48	36	179
5 )	1,313	265	177	873
Average	262	53	35	174

### AVERAGE ANNUAL MORTALITY

*For the 5 Years, 1863-67.*

Residents	...	...	...	...	...	174	} 262
Visitors	...	...	...	...	...	88	
Hospitals	...	...	...	...	...		

Or 17 per 1,000 living of the residents. Dr. Farr's standard of a normal sanitary condition of public health.



## INFANT MORTALITY IN MARGATE

Under 1 Year of Age,

*For the 5 Years, 1863-67.*

Year.	Total.	Visitors.	Residents.	Births.	Average.
1863	30	9	21	261	8
1864	49	10	39	299	13
1865	47	6	41	298	13
1866	46	5	41	314	10
1867	47	13	34	313	10
5 )	219	43	176	1,485	54
	43	8	35	297	10

Or 10 per cent. of annual mortality of infants. A highly favourable proportion.

## MORTALITY IN MARGATE,

From Zymotic Diseases,

*For the 5 Years, 1863 - 67.*

Year.	Residents.	Visitors.	Hospitals.	Total.
1863	37	13	5	55
1864	33	9	6	48
1865	29	9	2	39
1866	36	7	3	46
1867	28	10	3	41
5 )	163	48	19	228
Average	32	9	3	47



## DEATHS IN MARGATE

From Consumption,

*For the 5 Years, 1863-67.*

Year.	Males.	Females.	Total.
1863	9	12	21
1864	7	5	12
1865	8	8	16
1866	7	6	13
1867	10	13	23
	41	44	5) 85
Total for 5 Years.			
Average	—	—	17

## DEATHS IN MARGATE

From Inflammatory Lung Diseases.

Diseases.	1863.	1864.	1865.	1866.	1867.	Total.
Laryngitis ...	1	1	—	—	—	2
Bronchitis ...	9	8	11	6	3	37
Pleurisy ...	—	—	1	2	—	3
Pneumonia ...	1	1	1	4	5	12
Asthma ...	—	—	1	—	—	1
Lungs ...	4	9	3	7	10	33
	15	19	17	19	18	5) 88
Average	—	—	—	—	—	17

## DEATHS OF AGED PERSONS

in Margate,

*For the 5 Years, 1863-67.*

—	1863.		1864.		1865.		1866.		1867.		—
Age.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
70	4	6	2	5	5	3	8	12	2	4	51
75	5	4	4	5	5	7	1	11	5	2	49
80	4	4	1	5	8	5	8	1	2	3	41
85	2	4	3	6	—	1	3	4	2	5	30
90	—	2	1	2	—	1	4	2	—	1	13
95	1	2	—	—	—	—	—	—	—	2	5
	16	22	11	23	18	17	24	30	11	17	189

## INQUESTS HELD IN MARGATE,

*For the 5 Years, 1863-67.*

Year.	Number.
1863	8
1864	6
1865	5
1866	16
1867	9
	44 Total for the 5 Years.



A REPORT  
ON  
THE SANITARY CONDITION  
OF THE  
TOWN OF MARGATE,  
FROM THE YEAR 1837 TO 1862,  
BY EDWARD MOTTLEY,

MAY BE HAD ON APPLICATION TO MR. KEBLE, BOOKSELLER, MARGATE.