

Report on the mortality of Edinburgh, Leith and Newhaven, for the months of January, and February, 1846 / by James Stark.

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Dr Stark's best respects. 9

REPORT

ON THE

MORTALITY

OF

EDINBURGH, LEITH AND NEWHAVEN,

FOR THE MONTHS OF

JANUARY AND FEBRUARY 1846.

BY

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FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

EDINBURGH:

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REPORT, &c.

THE TOWN Council of Edinburgh having at their last meeting in January had the subject of mortality tables for the city and suburbs brought before them by a letter from Mr Balleny, resolved to get such tables prepared, as the want of them had been much felt and complained of. Having paid much attention to this subject I offered to act gratuitously as registrar, provided they would consent to bear the necessary expenses. This having been agreed to, the managers of the different burying grounds were forthwith applied to for their consent to get extracts from the record books of their grounds; and the recorders were waited on to explain what was wanted from them, and in cases where all the necessary particulars were not entered in their registers to get such done in future. Much time was necessarily consumed in getting all matters satisfactorily arranged, but such having been done, I have much pleasure in laying before the medical profession the mortality returns of Edinburgh, Leith, and Newhaven, for January and February.

It is not a little strange that in the matter of mortality bills we have fallen greatly behind our predecessors of the last century. I have not had leisure to enquire at what period mortality bills for Edinburgh were first published, but they were in full operation in the year 1739, and in the Scots Magazine monthly tables of the mortality of this city and suburbs were regularly published from that date down to the year 1794. The last table which appeared was for the month of May 1794, at which period they seem to have been brought to a sudden close.

No mortality tables for this city seem to have been published from that period till 1842, when Dr Watt, in drawing up a report on the mortality of the principal towns of Scotland, published the mortality returns of Edinburgh from 1836 to 1840. In so far as the annual number of deaths is concerned this great lacuna is supplied by the table which I published last year in the Edinburgh Medical and Surgical Journal, in my paper "on the probable cause of the prevalence and fatality of small-pox." In that table the annual mortality from all causes, and that from small-pox, compiled from the registers of the different burying-grounds, is given from 1780 to 1844 inclusive.

The mortality tables published during the last century were drawn up on the same principles, and adopted the same classification of diseases as the London mortality bills before the passing of the late act for the registration of births, deaths, and marriages; and as the Scots Magazine published along with those of Edinburgh the mortality returns of London, Glasgow, Vienna, Paris, Amsterdam, the Hague, and kingdom of Prussia, a mass of statistical information was given, which may be consulted with advantage even at the present day.

In preparing mortality tables for Edinburgh and Leith the leading features of the plan now so successfully carried out in practice over England and Wales, under the registration act, have been adopted. This was done the more willingly, because it is only by employing a similar classification of diseases that our tables can be rendered available for comparison with theirs; and because this classification of diseases must be adopted whenever the registration act shall be extended to Scotland—the only country of Europe in which tables of the births, deaths, and marriages of its population are not published.

In order to procure as correct returns as possible every medical practitioner in Edinburgh and Leith has been furnished with a book of forms of medical certificate of the cause of death. In my circular to these gentlemen they are requested to fill up the several particulars therein mentioned, and leave the certificate with the relations or inmates of the house in which the death has occurred, with directions that it be transmitted to the recorder of the burying ground in which the body is to be interred. The recorders copy the several particulars in the schedule headed "Return of Interments in the———Burying-Ground" and transmit the same to me weekly or monthly, when the whole deaths are classified according to the diseases and ages.

It is necessary to mention that the numbers in the following tables are the absolute amount of deaths which have happened in Edinburgh and Leith for the months of January and February. This is insured by having the returns made of every interment in every burying ground in and around Edinburgh and Leith. The medical certificates are chiefly of use in procuring correct returns of the *names* of the diseases, but are not essential to the working of the plan.

Arrangements have been made by which abstracts of the mortality tables will be published monthly, or weekly should occasion require, in the Edinburgh newspapers and other periodicals, and along with it the state of the barometer, thermometer, and rain-gauge, extracted from the register kept by Mr Adie, the celebrated optician.

As it appears to be an error in the English tables to class premature births under the head of debility, where those who have been born *alive* are classed with those who have never breathed, they have been placed by themselves in the Edinburgh tables. The whole deaths are thus classed under thirteen heads. 1. Epidemic, endemic, or contagious diseases; 2. Diseases of uncertain seat; 3. Diseases of brain and nervous system; 4. Diseases of respiratory organs; 5. Diseases of heart and blood-vessels; 6. Diseases of stomach, liver, and organs of digestion; 7. Diseases of kidneys; 8. Childbirth and diseases of uterus, &c.; 9. Rheumatism and diseases of bones and joints; 10. Diseases of skin and cellular tissue; 11. Old age; 12. Violence, privation, cold, and intemperance; 13. Still-born.

The following is an abstract of the mortality tables of Edinburgh and Leith for the months of January and February of the current year:—

EDINBURGH.

January 1846.		} Total, 409.
Males,	198	
Females,	211	

The mortality this month exhibits an increase of 55 above that of January 1845.

February 1846.		} Total, 354.
Males,	180	
Females,	174	

The mortality this month shows an increase of 2 above that of February 1845.

Ages.	Jan.	Feb.	Ages.	Jan.	Feb.
	No.	No.		No.	No.
Still-born,	27	27	2 years,	41	31
1 year and under,	82	67	5,	26	29

	Ages.	Jan. No.	Feb. No.		Ages.	Jan. No.	Feb. No.
10,	.	13	8	80,	.	27	24
15,	.	5	1	90,	.	13	7
20,	.	11	14	100,	.	1	5
30,	.	34	26	102,	.	0	1
40,	.	35	27	Not stated,	.	6	7
50,	.	32	22				
60,	.	24	24				
70,	.	32	34				
				Total,		409	354

Classified Table of Diseases.

Class.	Diseases.	Jan. No.	Feb. No.	Class.	Diseases.	Jan. No.	Feb. No.
I.	Small-pox, (not vaccinated,)	4	7		Pleurisy,	1	1
	Measles,	40	25		Pneumonia,	23	13
	Scarlet fever,	2	2		Laryngitis,	0	1
	Hooping cough	5	15		Hydrothorax,	3	4
	Croup,	4	10		Asthma,	1	6
	Thrush,	6	5		Consumption,	51	42
	Diarrhœa,	10	7		Lung disease,	0	1
	Dysentery,	0	1	V.	Heart disease,	13	5
	Remittent fever,	2	2	VI.	Teething,	10	6
	Typhus fever,	25	12		Enteritis,	3	3
	Influenza,	1	0		Peritonitis,	2	1
	Erysipelas,	6	1		Tabes mesenterica,	9	8
	Syphilis,	2	0		Worms,	2	0
II.	Hæmorrhage	1	3		Ulcer. of intestines,	1	1
	Dropsy,	3	14		Colic or ileus,	1	1
	Abscess,	1	0		Stomach disease,	0	2
	Mortification,	1	1		Jaundice,	0	1
	Scrofula,	0	1		Liver disease,	2	3
	Cancer,	3	2	VII.	Diabetes,	1	0
	Tumour,	0	1		Kidney disease,	1	0
	Debility,	16	9	VIII.	Child-birth,	3	2
	Sudden deaths,	0	1		Paramenia,	0	1
III.	Cephalitis,	0	1	IX.	Rheumatism,	0	1
	Hydrocephalus,	16	7		Joint and spine disease,	0	2
	Apoplexy,	9	10	XI.	Old age,	44	36
	Paralysis,	5	2	XII.	Privation,	1	0
	Convulsions,	0	1		Violent deaths,	7	5
	Epilepsy,	0	1	XIII.	Still-born,	27	27
	Insanity,	2	1		Cause not stated,	37	35
	Delirium tremens,	1	1				
IV.	Bronchitis,	1	3	Total,		409	354

REMARKS — *January.* It will be seen from the above tables that during the month of January measles, hooping cough, croup, and small-pox were the epidemic, endemic, or contagious diseases prevalent among children. Measles was in especial very fatal during the month, no fewer than 40 cases of death having occurred, 20 males and 20 females; of these only five were above five years of age, one male and four females. As croup is commonly reckoned one of the endemic diseases, it may be stated that the places where the deaths occurred were Bonnington Road, Cowgate, Blackfriars' Wynd, and Jamaica Street. The fact of none of the fatal cases of small-pox having been vaccinated is quite in conformity with the opinion which I expressed in my paper, "on the probable cause of the prevalence and fatality of small-pox, published in this Journal in July of last year." The

cases of remittent fever were confined to Stockbridge—a locality in which croup and remittent fever are far from uncommon, probably produced by its low-lying damp situation, and its vicinity to the stagnant pools of the Water of Leith.

Among adults, typhus fever and erysipelas were the most prevalent and fatal of the zymotic diseases. Neither of these were confined to the lower classes, several individuals of the upper ranks having fallen victims to their severity. Of the 25 typhus fever cases 13 were males and 12 females; the fatal period of life from that disease being from the 20th to the 60th year.

Of the six cases of erysipelas four were males and two females.

The cases of cancer were all in widows, respectively aged 56, 67, and 71.

Pneumonia and consumption were the two most fatal diseases of the respiratory organs, during January, 10 males and 13 females having died of pneumonia; 21 males and 30 females having died of consumption. The mode in which females expose the chest may serve somewhat to account for the greater mortality among them from diseases of the lungs, without attributing it to any other cause.

The most remarkable fact which the table for January seems to establish, is that consumption and other diseases of the respiratory organs are much less common in Edinburgh than in London, or even over the whole of England and Wales. Thus in London, during the month of January of the present year, diseases of the respiratory organs, including hooping-cough and croup, exceeded a third of the mortality; and over England and Wales they amount to a third of the deaths. The average of London for the last five years gives a proportion of 349 for these diseases out of every 1000 deaths. In Edinburgh, however, during the month of January, the deaths from diseases of the respiratory organs, including hooping-cough and croup, were only between a fourth and a fifth of the total mortality, or in the proportion of 215 out of every 1000 deaths.

The enormous proportion of still-births must strike every one as something remarkable. In the English tables these are included under the head of Debility. Under the same head in these tables are only placed those who are born alive but die within a few hours, days, weeks, or months, from debility or feebleness of organization. In London then, such cases amount on an average of five years to only 22 per 1000 deaths; but in Edinburgh the still-births and cases of debility amount to the enormous proportion of 100 in every 1000 deaths. The still-births of January this year exceeded by two those of January 1845. The large proportion of males in the still-born has been long noticed; during this month 21 were males and only six females; but of the cases of debility nine were males and seven females.

The violent deaths during January were, 1. a carter, 63 years, suicide by drowning; 2. a soldier, 21 years, killed by a fall from the castle rocks, in endeavouring to escape from the castle; 3. a boy, aged 7, killed on Leith Walk by wheel of cart going over him; 4. a tailor, aged 26, suicide, by what means not stated; 5. a girl, 8½ years, by accident, particulars not given; 6. a shoemaker, 61 years, bled to death from an accidental cut with his knife while at work; 7. a female, 47 years, accident, cause not stated.

The case of privation was a clerk, 61 years, who died from want of food.

February.—The zymotic diseases prevalent among children during the month of February, were measles, hooping cough, croup, and small-pox. Measles was greatly on the decline, only 25 cases having proved fatal, 10 being males and 15 females. Hooping cough, croup, and small-pox, were, however, greatly on the increase. The cases of small-pox were all among the non-vaccinated, a fact proving but too clearly the reasons why this disease still prevails among the lower classes. Were all efficiently vaccinated

it cannot be doubted that small-pox would be almost quite extirpated from among us.

Of the cases of croup five were males and five females. Almost all the cases have occurred in low-lying, confined, or damp situations, yet not so strikingly so as to lead to the conclusion that this disease solely originated from endemic causes. A few cases of croup which I myself attended during the month, but which recovered, were produced by exposure of the child to cold when it was under the irritation of teething. The places where the cases of croup proved fatal were Allison Square, Simon Square, Blair Street, Anchor Close, South Gray's Close, Calton Street, Grassmarket, Causewayside, William Street, and Hillhousefield.

Stockbridge and the neighbourhood of the canal furnished the cases of intermittent fever.

Among adults typhus fever and erysipelas have been on the decline, but the former still numbered among its victims one or two from the higher classes.

During this month 7 males and 6 females died from pneumonia; 19 males and 23 females from consumption. Diseases of the respiratory organs, including the cases of hooping cough and croup, were somewhat more than a fourth, but much less than a third of the mortality—being in the proportion of 271 out of every 1000 deaths.

The still-births maintained their high proportion this month, the actual number being exactly the same as in the month of January, the males being also as in it 21, and the females 6. The still births during this month exceeded by 3 those of the corresponding month of the previous year.

The violent deaths during February were, 1. A cabinetmaker, 31 years, killed by accidental fall while at work. 2. A seaman, 31 years, killed by fall into the sea from yard of mast. 3. A groom, 40 years, suicide by cutting his throat. 4. A carver, 17 years, killed by fall from waggon. 5. A cowfeeder, 69 years, accidental fall; particulars not stated

In order to show the influence of atmospheric agencies, especially that of temperature, on mortality in Edinburgh, the following table is subjoined, exhibiting the weekly number of deaths, and the weekly state of the barometer and thermometer, extracted from Mr Adie's registers.

Week ending	No. of deaths.			Barom. In inches.	Thermometer.			
	Males.	Fem.	Tot.		Max	Min.	Mean.	Range of Temp.
January 3*	14	16	30	29.78	47°	25°	37°00	22°
10	56	66	122	29.42	52	28	43.36	24
17	41	43	84	29.48	48	28	39.21	20
24	42	47	89	28.84	50	35	41.78	15
31	44	40	84	28.93	59	37	52.00	22
February 7	45	39	84	29.31	53	32	41.28	21
14	50	45	95	29.66	59	28	35.14	31
21	40	48	88	29.77	59	30	43.07	29
28	44	43	87	29.01	64	40	49.78	24

Qu. of rain,
1.84 inches.

LEITH AND NEWHAVEN.

January 1846.			February 1846.		
Males,	38	} Total 72.	Males,	25	} Total 49.
Females,	34		Females,	24	
Being an increase of 5 above that of January 1845.			Being an increase of 12 above that of February of the preceding year.		

* From the 1st of January. As few deaths, however, were registered for the 1st, it may be reckoned for two days only.

Ages.	Jan. No.	Feb. No.	Ages.	Jan. No.	Feb. No.
Still born,	10	3	40 years,	7	1
1 year and under,	8	9	50,	5	5
2 years,	3	3	60,	5	10
5,	0	1	70,	12	3
10,	5	0	80,	5	7
15,	0	1	90,	2	3
20,	4	2		—	—
30,	6	1	Total,	72	49

Classified Table of Diseases.

Diseases.	Jan. No.	Feb. No.	Diseases.	Jan. No.	Feb. No.
I. Hooping-cough,	1	4	IV. Respiratory organs,	8	9
Croup,	0	1	V. Heart disease,	1	3
Diarrhœa,	2	0	VI. Organs of digestion,	3	1
Typhus fever,	4	1	VIII. Child-birth,	3	0
Erysipelas,	0	1	IX. Disease of joints,	1	0
II. Dropsy,	4	2	XI. Old age,	8	8
Abscess,	1	1	XII. Intemperance,	1	0
Mortification,	2	0	Violent deaths,	1	4
Scrofula,	1	0	XIII. Still-born,	10	3
Cancer,	1	1	Cause not ascertain.	5	6
Debility,	2	1		—	—
Sudden deaths,	3	1	Total,	72	49
III. Brain disease,	10	2		—	—

Remarks.—Four of the cases whose cause was not specified in January were believed to be cases of fever making the very large proportion of eight out of 72 cases. The diseases of the respiratory organs, including hooping-cough, amounted during January to an exact ninth of the total mortality, and to less than a fifth during February, proportions very inferior to that of London or England for the same classes of disease. It is not a little strange that two of three cases of death from childbirth occurred in the fisherwomen of Newhaven, a class formerly believed to be peculiarly exempt from the ordinary dangers attending childbirth. The number of still-births is quite enormous when considered with reference to the total mortality. During January, the still-births, including the cases of debility, amounted to an exact sixth of the mortality, or were in the proportion of 165 out of every 1000 deaths. During February, the proportion fell below that of Edinburgh for the same period, being only a twelfth of the total mortality, or in the proportion of 80 out of every 1000 deaths. One circumstance relative to the still-births is too remarkable to be passed over in silence, and that is the exceeding liability to miscarriage among the wives of soldiers. As an instance of this it may be mentioned that in one burying-ground no less than an *exact third* of the interments during last year were still-born fœtuses, and all were furnished by the horse regiments at Piershill Barracks.

The violent death for the month of January was a girl, 8 years, whose spinal column was fractured by a fall down a cellar. The death from intemperance was a spirit dealer, 39 years, who died from the effects of a fall when intoxicated.

During February the violent deaths were, 1. a carter, 13 years, killed by accident; particulars not given. 2. A labourer, 45 years, died from effects of bruise. 3. A female, 57 years, leg broken by an accident, particulars of accident not given, and otherwise injured. 4. A porter, 56 years, died from effects of amputation of leg.