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*On the Increased Mortality amongst  
Males, at certain ages, in England  
and Wales*

BY

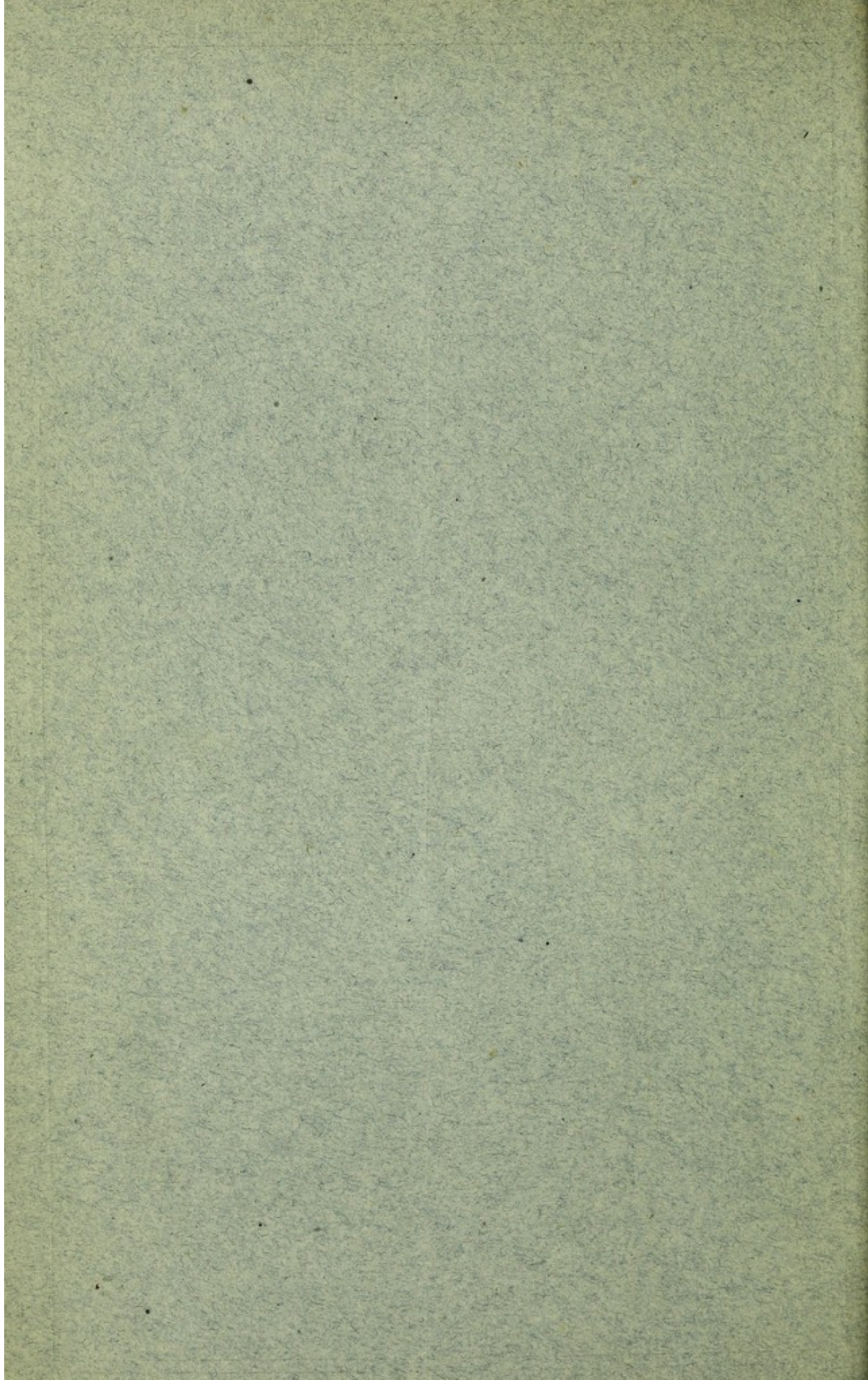
THOMAS A. WELTON, F.S.S.

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*A Paper read at the Social Science Congress, Cheltenham, October, 1878*

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LONDON : 1879



## MORTALITY AMONGST MALES.

I DESIRE to call attention to the fact that whilst recent death-rates amongst males, up to age twenty, compare favourably with the like ratios for any quinquennial period since the registration of deaths under the present system was commenced, and whilst the mortality from zymotic or filth-bred diseases really appears to have been checked, there has been an adverse alteration in the ratio of male deaths at ages 35-65, ascribable in a great measure to increased losses by diseases of the lungs, heart, brain, and kidneys, and by cancer.

The annexed table shows the proportions out of every 100 male deaths, at certain ages, in 1851-60, 1861-70, and 1875, which were due to the above and to other causes:—

	Ages 35-45			Ages 45-55			Ages 55-65		
	1851-1860	1861-1870	1875	1851-1860	1861-1870	1875	1851-1860	1861-1870	1875
Disease of lungs . . . . .	12·2	12·8	16·7	17·2	18·3	22·8	21·5	23·0	27·4
Heart disease and dropsy . . . . .	8·0	9·2	10·5	10·6	11·4	12·4	13·4	13·9	14·3
Disease of brain . . . . .	9·5	10·0	10·3	11·1	11·7	11·7	13·3	14·1	14·8
„ kidneys . . . . .	2·3	3·0	3·4	2·6	3·4	4·1	3·0	3·9	4·7
Cancer . . . . .	1·4	1·5	1·7	2·4	2·8	3·3	3·0	3·7	4·3
Totals . . . . .	33·4	36·5	42·6	43·9	47·6	54·3	54·2	58·6	65·5
Zymotic diseases . . . . .	12·8	10·3	9·3	11·5	8·8	7·2	10·1	7·7	6·1
Phthisis . . . . .	32·1	31·0	29·2	21·3	20·2	18·3	10·8	10·0	8·8
Violent deaths . . . . .	9·2	9·7	9·2	7·6	8·1	7·8	5·2	5·7	5·5
Other causes . . . . .	12·5	12·6	9·7	15·7	15·3	12·3	19·7	18·0	14·0
All causes . . . . .	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

The apparent changes indicated in this table may have arisen in some measure from increased accuracy in the medical certificates showing the cause of death. But as the total losses by death at the ages stated have materially increased, in comparison with population, and as the number of deaths from ill-defined causes bore only a small proportion to the whole, no great weight can be attached to this consideration.

Of the years 1851-60, that in which the general death-rate

amongst males was lowest was 1856. In the decennium 1866-75, the lowest point was touched in 1873. The following figures relate to those selected years of low mortality:—

Age	Death-rate per 1,000 males		Increase	or as 100 to
	1856	1873		
25-35	9.0	9.5	.5	106
35-45	11.9	13.6	1.7	114
45-55	16.4	19.5	3.1	119
55-65	28.8	34.0	5.2	118
65-75	61.6	70.4	8.8	114
75-85	131.0	149.2	18.2	114
85-95	280.9	313.2	32.3	112
all ages	21.4	22.4	1.0	105

At the ages under 25, the mortality was lower in 1873 than in 1856. The deaths by those classes of diseases to which attention has been directed were—

Age 35-45	Male deaths registered		Proportion to every 100 deaths by all causes		Deaths per 1,000 living	
	1856	1873	1856	1873	1856	1873
Disease of lungs . . .	1,472	2,565	11.6	14.8	1.38	2.03
Heart disease and dropsy	1,008	1,926	7.9	11.1	.94	1.52
Disease of brain . . .	1,239	1,859	9.7	10.8	1.17	1.47
„ kidneys . . .	310	605	2.4	3.5	.29	.48
Cancer . . . . .	172	274	1.4	1.6	.16	.22
Totals . . . . .	4,201	7,229	33.0	41.8	3.94	5.72
Deaths by all causes . . .	12,721	17,267			11.90	13.66

Age 45-55	Male deaths registered		Proportion to every 100 deaths by all causes		Deaths per 1,000 living	
	1856	1873	1856	1873	1856	1873
Disease of lungs . . .	2,164	3,896	16.4	20.2	2.68	3.94
Heart disease and dropsy	1,381	2,305	10.4	11.9	1.72	2.33
Disease of brain . . .	1,524	2,369	11.5	12.3	1.89	2.39
„ kidneys . . .	393	855	3.0	4.4	.49	.86
Cancer . . . . .	352	678	2.7	3.5	.43	.68
Totals . . . . .	5,814	10,103	44.0	52.3	7.21	10.20
Deaths by all causes . . .	13,223	19,328			16.40	19.53

Age 55-65	Male deaths registered		Proportion to every 100 deaths by all causes		Deaths per 1,000 living	
	1856	1873	1856	1873	1856	1873
Causes of Death						
Disease of lungs . . . . .	3,147	5,502	20·6	24·5	5·94	8·34
Heart disease and dropsy	1,990	3,339	13·0	14·9	3·76	5·06
Disease of brain . . . . .	2,108	3,415	13·8	15·2	3·98	5·18
„ kidneys . . . . .	486	1,016	3·2	4·5	·92	1·53
Cancer . . . . .	499	898	3·3	4·0	·94	1·36
Totals . . . . .	8,230	14,170	53·9	63·1	15·54	21·47
Deaths by all causes . . . . .	15,258	22,419			28·80	34·00

These tables show that, if the registers can be believed, the entire increase in mortality, which is considerable, is occasioned by the specified diseases.

A comparison of the mortality year by year, from 1851, when the deaths by various causes at each age were first shown in the Registrar-General's annual reports, down to 1875, does but lend confirmation to the figures already given.

I think I have now made out a case for the consideration of the medical profession, who can best say how these deaths in excess of previous experience are to be accounted for. The preservation of a greater proportion of sickly persons from death at ages under 35, would lead to a greater proportional mortality later on, when the strain of life begins to tell seriously upon those who are not 'up to the mark'; but I fear that a general deterioration in the health of our male population after 35 years of age can be discerned. It requires to be explained why the particular classes of disease mentioned have become more fatal; neither phthisis, nor those diseases which affect the stomach and liver, having increased their destructiveness in a similar manner.

I estimate that, according to the experience of the years 1856-60, and 1871-75, respectively, the numbers of a male population kept in a stationary condition by 511,745 annual births would be as follows, at the ages stated, viz. :—

*Mortality amongst Males.*

Age	Population, according to experience of	
	1856-60	1871-75
0-5	2,026,254	2,030,349
15-20	1,724,129	1,760,946
25-30	1,586,128	1,623,863
30-35	1,515,387	1,543,807
35-40	1,437,345	1,453,341
55-60	1,025,893	984,550
65-70	709,768	644,954
75-80	309,728	264,475

The second of these two sets of figures shows, it will be seen, a loss at the higher ages more than outweighing the improvement in early life.

This last table would mislead, if it were supposed that the years 1856-60 represented anything like an average of the experience of the first twenty years of registration. In fact, they were exceptionally favourable. I do not think the expectation of attaining old age was quite so high for males in 1846-55 as in 1871-75; but I consider it bad enough to be obliged to say that the results for the more recent period are nearly as unfavourable as those for the earlier one. The two cholera epidemics of 1849 and 1854 had no parallel in 1871-75, and yet, upon the whole, the chance for males of reaching the proverbial three-score years and ten seems to have but slightly increased.

