

A comparative Study of the
Seasonal Incidence of
Mortality in
England etc.
by
E. Lewis-Fanning.

Privy Council

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COUNCIL

A Comparative Study of the Seasonal
Incidence of Mortality in England
and Wales and in the United
States of America

by

E. LEWIS FANT



LONDON
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1940

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PREFACE

Seasonal variation of mortality has for long been a fact of common remark and a subject of speculation. When official medical statistics made it possible to measure the phenomenon, attention was mainly devoted to such questions as the influence on the death rate of abnormal cold in winter or abnormal heat in summer. Only of recent years and in a few countries have detailed data become available which relate to many diseases, cover wide areas and extend over adequate periods of time.

The present report contains a statistical analysis of data available with respect to England and Wales and to the United States of America. Consideration is also given to the figures for Germany, but this has necessarily been limited in scope owing to the fact that few of the data are published in comparable form. The broad result is that in England and Wales mortality in the winter is relatively higher and in the summer relatively lower than in the United States; but, on balance, what is lost in the winter is greater than what is gained in the summer. Indeed, when England and Wales is compared with New England alone, the summer advantage of England and Wales is reduced to about 4 per cent.

The largest contributors to the unfavourable winter balance are respiratory tuberculosis, influenza, pneumonia and bronchitis; the total excess mortality from these, in England and Wales, comes to more than 10 per cent. of the whole standardised death rate in February. In July the seasonal advantage of England and Wales depends on lower death rates attributed to diseases of the heart and to deaths from violence.

The net debit balance cannot well be due to climatic factors, considering the advantage which the insular climate of Great Britain has in its comparative freedom from the great extremes of temperature commonly experienced in continental areas such as those of Europe and North America. The explanation may more reasonably be sought in hygienic conditions. In this respect, it is to be noted that the causes of mortality which determine the unfavourable relative position in the winter are, with the possible exception of influenza, those diseases which by common consent are amenable to environmental influences and—conspicuously pneumonia and bronchitis—have long displayed great regional contrasts in mortality rates within the country.

Twenty-eight years ago, for example, in the Annual Report of the Registrar-General for 1912, the late Dr. T. H. C. Stevenson commented upon the range of mortality from pneumonia (all forms). In the county boroughs of the north of England males died at almost twice the rate experienced by males in the county boroughs of the south, and at nearly three times the rate for males in southern rural districts. "Evidently," Dr. Stevenson wrote, "pneumonia is to a

large extent a preventable disease, and the North of England has still much to learn with regard to its prevention." Again, in the Annual Report for 1925 of the Chief Medical Officer of the Ministry of Health, it is remarked that the lapse of eleven years had done little to change these relative positions. More recently there has been some slight improvement, but the mortality of the north still compares very unfavourably with that of the south. In 1937, the gross mortality from pneumonia and bronchitis in the aggregate of the northern counties (with associated county boroughs) was 29 per cent. higher than in the south-eastern division (inclusive of Greater London), and the mortality of Cheshire and Lancashire was 39.5 per cent. higher. As the Chief Medical Officer of the Ministry of Health pointed out, climate cannot be the whole explanation, for the mortality in Cumberland was much less than in Lancashire.

Hence it may be concluded that the present study contributes, from another angle, a further argument in support of the general conclusion that there is much preventable mortality in England and Wales which is not in fact prevented.

MEDICAL RESEARCH COUNCIL,
38 Old Queen Street,
Westminster. S.W.1.

18th March, 1940.

A COMPARATIVE STUDY OF THE SEASONAL INCIDENCE OF MORTALITY IN ENGLAND AND WALES AND IN THE UNITED STATES OF AMERICA

With a note on the data available for Germany

by

E. LEWIS-FANING, B.Sc. (Econ.), Ph.D.
(of the Statistical Staff of the Medical Research Council)

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