Contours of death and disease in early modern England

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CAMBRIDGE UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK
40 West 20th Street, New York NY 10011–4211, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa

http://www.cambridge.org

First published 1997
First paperback edition 2002

A catalogue record for this book is available from the British Library

Library of Congress Cataloguing in Publication data
Dobson, Mary J.
Contours of death and disease in early modern England / Mary J. Dobson.
p. cm. – (Cambridge studies in population, economy, and society in past time: 29)
Includes bibliographical references and index.
ISBN 0 521 40464 9 (hc)
1. Diseases – England, South East – History – 17th century.
2. Diseases – England, South East – History – 18th century.
3. Mortality – England, South East – History – 17th century.
4. Mortality – England, South East – History – 18th century.
5. Diseases – England, South East – Statistics. 6. Mortality – England, South East – Statistics. 7. Medical geography – England, South East. I. Title. II. Series.
RA650.6.G6D63 1996
614.4'2422'09032–dc20 95-43276 CIP

ISBN 0 521 40464 9 hardback
ISBN 0 521 89288 0 paperback

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Introduction

Man is not born, does not live, suffer, die in the same way in all parts of the world. Birth, life, sickness and death, all change with the climate and the soil . . . with race and nationality. These varied manifestations of life and death, of health and sickness, these incessant changes in space and according to the origin of man, constitute the special object of medical geography. Its domain embraces meteorology and physical geography, statistical population laws, comparative pathology of different races, the geographical distribution and migration of diseases.

(Boudin, 1848, vol. 1, p. xxxv)

'I'M FEELING UNDER THE WEATHER!' – THE SEARCH FOR ENVIRONMENTAL ASSOCIATIONS IN TIMES AND PLACES OF DISEASE AND DEATH

The search for associations between disease, death and atmospheric, environmental and geographical influences has fascinated and perplexed physicians and their patients for many thousands of years. For at least five millennia, men and women have observed and recognised that patterns of sickness vary according to locality and season, and that certain attributes of the weather or the environment might be related to fluctuations and variations in ill-health and well-being. Over the centuries, people have expressed these beliefs using such aphorisms as 'I'm feeling under the weather' or 'You'll catch your death of cold', while the sick might be recommended to try 'a change of air' or a trip to the spas and seaside to 'take the waters' and 'breathe in the ozone'. The airs and waters of the earth have been viewed both as a source of disease and as a therapy for the sick.

At the heart of this book lies my own fascination with the role of the natural environment and meteorological events on patterns of human disease and health. That fascination has led me in two directions. The first is an exploration of the Hippocratic heritage of 'Airs, waters and places' – the ideas and writings about health and environment that constitute 'the special object of geographical medicine'. The second is a quest to measure and understand the varied manifestations of life and death, of health and sickness – these 'incessant changes' in space and time.

These two directions have crystallised during the course of my research on the historical epidemiology of seventeenth- and eighteenth-century England.

It was during this early modern period that a number of physicians began to revive the Hippocratic heritage of airs, waters and places – to look at the health of populations, nations and places, to ask why epidemic diseases varied according to locality or season, why certain environments seemed more conducive to ill-health than others and, in turn, whether such knowledge could be used to intervene, ameliorate, manage or avoid unhealthy sites and epidemic visitations. Their images and ideas about 'good' and 'bad' airs, foul and pure waters have formed a vivid impression on my work as a medical historian. At the same time, while engaged in research on the historical demography of early modern England, I began to detect very striking variations in death rates and disease patterns across the topographical divides of England and to pursue many of the same themes and questions previously posed by physicians and topographers in the seventeenth and eighteenth centuries. To what extent did levels of mortality vary by 'place'? Why did patterns of disease change according to locality and season? What was the significance of 'airs', 'waters', 'weather' and other features of the natural environment in explaining variations and fluctuations in disease and death? The notions that we might, indeed, 'feel under the weather' or be revived by a 'change of air' have led me to search for a clearer understanding and explanation of the local and environmental associations of disease and death in early modern England.

'CONTOURS OF DEATH; CONTOURS OF HEALTH' – AN OUTLINE OF THE BOOK

Contours of death and disease in early modern England is the outcome of this research. Its theme reflects the striking geographical gradients of disease and mortality that were vividly portrayed in the writings of seventeenth- and eighteenth-century physicians and topographers and are now captured and described in this book, using a regional case study of early modern south-east England. 'Contours of death' bounded the stagnant marshes of south-east England (Figure I.1). These low-lying environments formed the sinks of disease, the depths of death. Levels of infant mortality and life expectancy are difficult to estimate for this period but a baby born into these 'contours of death' in the seventeenth or eighteenth centuries might expect to live little more than twenty or thirty years. One in every three or four of all babies would die before its first birthday. Beyond the marshes, lay less mortal environments and this book is also a reminder that not all landscapes of the early modern world were 'foul' and 'fatal'. 'Contours of health' encircled the elevated reaches of the Downs and the High Weald of south-east England. These upland areas offered the hope of health, the chance of longevity. Here, a new-born baby might expect perhaps another forty or even fifty years of life and nine out of ten of all new-borns in the early modern era might survive beyond their first birthday. The

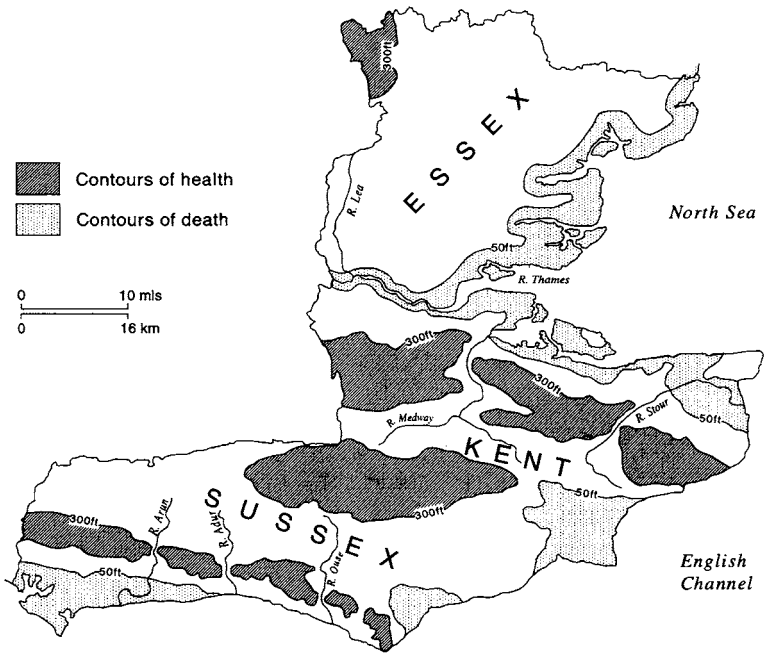

Fig. I.1 Contours of death; contours of health
Source: OS half-inch, 1908.

contours of death and the contours of health were separated by an elevation of little more than 400 or 500 feet, a distance of little over ten miles in parts. Their geographical proximity was close. Their epidemiological histories were worlds apart.

To the topographer who traversed the terrains of south-east England, there was 'something in the air', or maybe in the waters, the soils, the climate, that sharply differentiated one place from another. To the historical epidemiologist who tries to recreate these landscapes of health and disease, there may, indeed, have been 'something in the air', in the natural environment, in the form of certain pathogens or disease vectors, that gave rise to these contrasting gradients. Can we now find such evidence in the ecological settings of south-east England or do we need to move beyond the influence of airs, waters and places to understand the contours of death and the contours of health?

This book finds no simple answers but it does try to provide a balance between the importance of environmental features on patterns of health and disease in the past and a whole range of other, often subtle, influences that were affecting the places and peoples of contrasting communities. The book adopts as its theme 'airs, waters and places' but it forms as its conclusion a complex picture of the epidemiological landscapes of the past.

'WORLDS APART' – A SUMMARY OF CHAPTERS

To explore, describe and explain the contours of death and contours of health of south-east England several different research strategies have been pursued and integrated. The domain of this book – like Boudin reminded his readers – embraces many dimensions – meteorology and physical geography, statistical population laws, the comparative pathology of the different 'peoples' of south-east England, the distribution and migration of these peoples and their diseases. Each Part and each Chapter of this book takes a different focus. I hope that those readers who do traverse *Contours of death* in its entirety will recognise the channels and boundaries that integrate and separate each chapter and, in turn, appreciate the links, divisions and, above all, the complexities that made up the many different little worlds of south-east England.

Part I of the book, 'Landscapes of the past', combines research in the fields of medical history, environmental history and historical geography. It takes as its starting point the contrasting 'airs' and 'waters' of 'places' geographically close but in many ways worlds apart. It draws on some of the images presented in the writings of topographers and physicians from the sixteenth to the early nineteenth centuries and, in turn, links the sensory and olfactory environments of the early modern world. Chapter 2 describes the topographical and domestic settings of south-east England. We are reminded of the extraordinary diversity of places and peoples across the 'contours' of the early modern world – variations which, in the end, are seen both as causes and effects of the gradients of death and disease.

Part II, 'Contours of mortality', is full of statistics, numbers and maps, and adapts the discipline of historical demography to measure geographical variations in mortality. Chapter 3 quantifies the surface contours of mortality. Chapter 4 charts the geographical rhythms of mortality by age, year, season and decade. The demographic contrasts in the contours of death and contours of health across the landscapes of south-east England and across the decades of time are clearly revealed.

Part III, 'Environments and movements of disease', links the quantitative study of mortality to the qualitative evidence on causes of death and disease and is based on research in historical epidemiology with all its many permutations and limitations. Its main aim is to interpret the demographic findings of Part II and to discover which causes of death and ill-health gave rise to some of the outstanding gradients of mortality both across the region and over two centuries of time. Chapter 5 penetrates the individual world of sickness and death. A disease spectrum is presented which is made up, at its base, of all the many conditions which defy measurement in a statistical sense – the daily, seasonal and yearly occurrence of morbid illnesses, fatal accidents, and chronic diseases, the repeated onslaught of a host of troublesome conditions, the ever-present range of numerous irritating complaints – all of which were of overwhelming importance in the day-to-day lives and deaths of early modern parishioners and their families. The evidence contained

in this chapter provides the basis for understanding the other layers in the epidemiological contours of death. In Chapter 6 one of the most outstanding environmental disease links of this study – the association of 'bad airs', stagnant waters and marsh fevers – is explored leading to a reconstruction of the epidemiological geography of malaria and its impact on marshland populations in south-east England. This chapter on marshland malaria stands as the cornerstone of my study. It reminds us of the importance of looking at variations by 'place'. It conjures up all the worst images of high infant mortality rates, premature ageing and early death in a local setting and explains the significance of the title 'contours of death'. The marshland focus also reminds us of the complexities of the epidemiological landscapes of the early modern world, the need to move beyond 'airs' and 'waters', beneath the ecological boundaries and environmental parameters, and to understand the role of malaria in a wider medical and social context. Chapter 7 turns to the tip of the disease spectrum and provides a chronology of the local, monthly and annual visitations of some of the major fatal and terrifying epidemics of the period, including plague, smallpox, typhus and typhoid. This chapter emphasises, by contrast to the chapter on malaria, the difficulties of linking the movements of many epidemics to environmental or atmospheric influences. Some of the wonderful hot summers of the past and some of the abundant harvests coincided with months of sickness and crises of mortality. Some of the bitterly cold winters, when the Thames froze and provisions were scarce, were healthy for some communities while threatening to others. Ironically, it was often during the worst type of British weather, when prolonged periods of cloud and rain dampened spirits and flattened crops and folk might reasonably have felt 'under the weather', that infants and adults in south-east England experienced some of their best times of health and survival. The vagaries of the English weather and the erratic movements of peoples and diseases across the landscapes of south-east England and across the oceans of the world are considered as important dimensions in this epidemiological history.

Part IV, 'Contours of death; contours of health', draws together the varied and changing patterns of mortality and disease for each of the contrasting localities of south-east England and summarises some of the key questions and findings of the study. It moves towards understanding why the epidemiological histories of the communities of south-east England were 'worlds apart', why their mortality rates and disease spectrums were so diverse and why the various attempts to improve levels of public and personal health across two centuries of time had such a different impact on the local settings of this corner of England.

'WORLDS UNITED' – THE DANCE OF DEATH

Death overshadows the world. Death awaits each of us. This book is based on the records of countless individuals long since dead and, probably, long forgotten. The infants, the children, the men and women who etched out their lives along the

shores and hills of south-east England in the seventeenth and eighteenth centuries had very different life chances. Some lived no more than a few seconds, hours or days, others survived to live a life span exceeding fourscore years and ten. The airs they breathed, the waters they drank, the places, peoples and pathogens they encountered, the genes they inherited all contributed, in some way, to their uneven paths through life. Their life spans varied; their final fate remained the same.

The lives and eventual deaths of the people who form the basis of this book took place within one tiny speck of the globe, within one small flicker of time. *Contours of death* is a demographic and epidemiological history of one little corner of the world. It is set in an age when malaria, plague and smallpox were fatal diseases in England. It describes a region where death rates of neighbouring communities were so different as to appear worlds apart. But south-east England in this period was not a world apart. Global travel and explorations were already beginning to unite and diversify the epidemiological settings of temperate and tropical lands, continental and island populations. Many of the diseases that entered the shores of south-east England probably had their origins overseas. The story of English malaria, which forms a central part of this book, is linked, at this time, to wider global horizons – to the movements of engineers, sailors, pathogens and parasites between continental Europe and Britain, between Africa and the New World. Disease exchanges touched the lives of south-east Englanders and, in turn, affected their mortality outcomes – they lived and died in a corner of the world which was already united by global influences.

This snapshot of early modern south-east England, this window of epidemiological history, is one part of a common world history. *The English Dance of Death* by the eighteenth-century artist Thomas Rowlandson, depicted on the frontispiece and on the front cover of this book, reminds us of the unity of death across the globe – that great leveller – so that, in the end, no matter who we are or where we live our final hour must arrive. The peoples and places of seventeenth- and eighteenth-century Essex, Kent and Sussex shared with others across the world and across the generations of time the uncertainties of life and the certainty of death. How these communities fared, why and with what consequences is now explored in the chapters of *Contours of death and disease in early modern England.*