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Human Demography and Disease offers an interdisciplinary and integrated perspective on the relationship between historical populations and the dynamics of epidemiological processes. It brings the techniques of time-series analysis and computer matrix modelling to historical demography and geography to extract detailed information concerning the oscillations in births, deaths, migrations and epidemics from parish registers and other data series and to build mathematical models of the population cycles. This book presents a new way of studying pre-industrial communities and explores the subtle, and hitherto undetected, effects of fluctuating nutritional levels on mortality patterns and the dynamics of infectious diseases. This fascinating piece of detective work will be of interest to researchers, teachers and students in the fields of demography, anthropology, historical geography, social history, population biology, public health and epidemiology.

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Preface

This book had its origins when we combined our interests in historical demography (S.S.) and in the modelling of biological systems (C.J.D.). We discovered that the parish registers of England from 1550 to 1812 contain very valuable data series which were readily studied by the statistical technique of time-series analysis, providing a fully quantitative and statistical approach to studies in human demography in the past. The results were ideal for the mathematical modelling of population cycles. We hope that this novel approach to the integration of historical demography and the epidemiology of infectious diseases will be of value to readers from a variety of disciplines.

We are grateful to the following for their encouragement and advice: Professor D. J. P. Barker, Dr D. Baxby, Dr Mary Dobson, Dr C. Galley, Professor Sir Robert May, FRS, Mr J. Oeppen, Dr M. J. Power, Dr G. Twigg and Professor R. I. Woods.

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S.S.
C.J.D.

Conversion table for imperial to metric units

Imperial unit	Metric equivalent
1 inch	25.4 millimetres
1 foot	0.3048 metre
1 yard	0.9144 metre
1 mile	1.609 kilometres
1 acre	0.405 hectare
1 square mile	259 hectares