Rising Life Expectancy

Between 1800 and 2000 life expectancy at birth rose from about thirty years to a global average of sixty-seven years, and to more than seventy-five years in favored countries. This dramatic change, called the health transition, is characterized by a transition in how long people expected to live and in how they expected to die. The most common age at death jumped from infancy to old age. Most people lived to know their children as adults, and most children became acquainted with their grandparents. Whereas earlier people died chiefly from infectious diseases with a short course, by later decades they died from chronic diseases, often with a protracted course. The ranks of people living in their most economically productive years filled out, and the old became commonplace figures everywhere. *Rising Life Expectancy: A Global History* examines the way humans reduced risks to their survival, both regionally and globally, to promote world population growth and population aging.

James C. Riley is professor of history at Indiana University and the author of books and articles on population and world health, most recently *Sick, Not Dead: The Health of British Workingmen During the Mortality Decline.* He is a recipient of research awards from the National Endowment for the Humanities and the National Institutes of Health.

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A Global History

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Preface and Acknowledgments

People have long imagined that they might individually live to old age. For most of human history, threats to survival overwhelmed this idea. A few people lived to be old, but most of the members of any society died young. Until the early twentieth century more people died in infancy than at any other age. Reaching old age became a commonplace thing only in the twentieth century. This is a history of the retreat of death and the democratization of survival to old age in the period since about 1800.

Survival and health should be distinguished. A person may be alive but not well. The difference matters because disease and injury have not retreated as far as death has. Morbidity, in the sense of sickness prevalence, remains high in all societies, in some because communicable diseases are so common and in some because protracted noncommunicable diseases have taken their place. Moreover, the factors that influence sickness and death seem to overlap only in part, and often to influence these two effects differently. In a future stage of the global health transition, sickness prevalence, too, may be forced back.

Two main arguments are developed in this book. The first main argument is that individual countries, sometimes even regions within coun-

tries, devise their own strategies for reducing mortality. People have always selected from the same six tactical areas: public health, medicine, wealth and income, nutrition, behavior, and education. But different countries have used these means in quite different ways, in different sequences, and at different moments in the development of each tactic. There are many paths to low death rates and generalized survival to old age. The global health transition emerged from a series of particular health transitions.

The central chapters of this book relate the history of these tactical areas, focusing on how each came to be recognized as a means of controlling risks to survival and on the human effort to understand how each tactic works in practice and what its possibilities are. The tactics appear roughly in the sequence in which they were recognized as effective means of controlling disease and injury. This structure owes more to the aim of organizing an otherwise ungainly body of information than it does to any argument that these categories should necessarily be differentiated from one another in this way or arrayed in this order. In truth, they overlap, often to the point that it is difficult to decide where to situate a certain issue. For example, the success of inoculation and, later, vaccination against smallpox might be deemed chiefly a medical remedy or a public health improvement. The capacity of a parent to react effectively to a child's sickness might be assigned to education, medicine, behavior, or social status and income.

The second main argument deals with the implications of having extended survival in this way, rather than in another way. During the last half of the twentieth century all countries and regions made some use of all six tactics, albeit in quite different mixtures and forms. That seems to be a good thing, in that different peoples and societies exhibit strong preferences in the things they are willing to do. The multiplicity of tactics, and the many forms of each tactic, are accommodations to the different characteristics and preferences of people. They allow Costa Rica and the

United States, for example, to achieve approximately the same levels of life expectancy at birth by quite different means.

There is also a cost to this particularistic approach. It leads toward overall strategies in which old schemes are often maintained even as new schemes are being adopted. In the end the strategies that limit risks to survival and foster the good health of a population may be remarkably inefficient. Students of health and health systems need to address the problem of identifying the elements of each country's health strategy. And they need to appraise the effectiveness of the tactical elements in use. Which are more effective, measured by lower cost or less stress on the habits and attitudes of a population? Which of them impede and which assist the next stage of the ongoing effort to elevate survivorship and to reduce morbidity?

I began working on this book in the mid-1980s, and I have accumulated many debts. Some of them are to colleagues at Indiana University, who read drafts, listened to papers, and provided critical advice: George Alter, Ann Carmichael, Elyce Rotella, and George Stolnitz. Ed McClellan in the Indiana University School of Education helped me find my way in the theoretical literature on education. Additionally, I am in debt to scholars elsewhere for assistance, sometimes given verbally but more often as written comments. Those are especially welcome because they require reflection and organization, and show the devotion the person giving criticism has to a project. For such help, I want to thank Jack Caldwell, Pat Caldwell, Steve Kunitz, Massimo Livi Bacci, David Lucas, and Walter Nugent. Anonymous readers for Cambridge University Press put forth much effort and gave good advice, as did my editor, Frank Smith. This book is dedicated to my wife, whom my colleagues describe as a person of extraordinary tolerance and consideration.