Preface

This book is compiled by the findings of in-depth longitudinal studies of the elderly in a specific region of Japan. The data was obtained by tracking the subjects longitudinally for every three years and six years, three times in all including baseline research. We evaluated causal and structural relationships with diverse factors contributing to healthy life expectancy.

Socioeconomic status (SES) has a powerful influence on human health and longevity: social determinants of health (SDH). The book titled “Social Determinants of Health, second edition” (Marmot and Wilkinson 2006) has noted SDH as solid facts. Yet the previous book did not specifically address the causal and structural relationships in terms of how its underlying mechanisms affect human health. Referring to the previous important book and studies, we set up SES for all theoretical models based on this book. This book which elucidated the cause and effect structural relationships between SES and healthy life might be a continuation on the development of the former book.

The novel point, we hope our readers will pay special attention to, is that we gathered many factors from a wide range and could succeed to construct a single structural model of cause and effect of healthy longevity. It is easily accessible to those who do not know much about these statistics because we examined the cause and effect of elderly people’s healthy longevity providing models which were easy to understand visually.

The readers might realize that our models show both methods of healthy strategy in order of priority and statistical aspects. Our work might be adhered to the public health’s definition, i.e., *public health is defined as “the art and science of preventing disease”* (Winslow 1920).

Our final hypothesis model in Chap. 11, made by Hoshi T., was constructed by “healthy life,” “SES,” three health-related dimensions (“physical health,” “psychological health,” and “social health”), and “environmental condition” (in and out of housing factors). This hypothesis model is shown in Fig. 1. This causal and structural relationships’ model shows that healthy survival days and bedridden status might be determined not only by direct effect of SES, but also by indirect effect of the three health-related dimensions and healthy environmental condition.
The selling points of this book are mainly three points. First is arranging chapters in the order of causal and structural relationships’ model creation to help readers understand step-by-step. Second is providing evidence-based contents making a careful choice among many studies published in various science journals. In the final point, standardizing the studies only models evaluation reports to help readers easily understand the causal and structural relationships visually shown as a hypothesis model.

Since this book was made by studies based on scientific evidence, we can recommend it to a wide range of readers, healthy policy makers of various nations, academics, or just interested readers who are not connected to the health field. Healthy policy makers will be able to use this book as scientific evidence when making healthy area programs for which health longevity is the central issue. For academics, we recommend our book to undergraduate, postgraduate, and professors, whose special fields are mainly public health, area-environment science, health care, health-nutrition education, public health nutrition.

Fig. 1 Hypothesis model of healthy life
Finally, for the longitudinal studies in this book, this was not possible without obtaining continuous cooperation of Tama City, one of the representative population aging cities of Japan, and its elderly for which we are deeply grateful.

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