Behavioral medicine emerged in the 1970s as the interdisciplinary field concerned with the integration of behavioral, psychosocial, and biomedical science knowledge relevant to the understanding of health and illness, and the application of this knowledge to prevention, diagnosis, treatment, and rehabilitation. The Academy of Behavioral Medicine Research was founded in 1978 as a forum for established behavioral medicine researchers to exchange ideas in an informal atmosphere. The discipline has subsequently grown and evolved substantially. Recent years have witnessed an enormous diversification of behavioral medicine, with new sciences (e.g., genetics, life course epidemiology) and new technologies (e.g., neuroimaging) coming into play. New health problems have emerged, notably obesity and metabolic disorders, that present fresh challenges to the integration of behavioral sciences with public health. Traditional areas of behavioral medicine research such as the influence of psychological factors on physiological responses have been transformed with measures of intracellular processes, cell signaling molecules, cardiac morphology, and gene expression. Cardiovascular behavioral medicine and psychoneuroimmunology, the disciplines which underpin much of the pathophysiological research in behavioral medicine, have converged in the shared exploration of biobehavioral processes across a range of medical conditions. The field of psychological assessment has benefited from new techniques such as ecological momentary assessment and item response theory, while objective methods are being increasingly used in behavioral assessment. Interventional behavioral medicine has had a new lease on life with large clinical trials, the use of the Internet and other information technologies, and the introduction of the public health perspective into the individual-level behavioral change tradition. These developments have obliged practitioners to embrace new statistical and analytic approaches. Theoretical understanding has developed considerably, with concepts such as allostatic load, illness representations, and epigenetics enriching the diverse domains of behavioral medicine. The discipline has also become international, with learned societies in more than 20 countries, and high-quality research laboratories spread throughout the world.

There is a need to bring together these new developments in a compendium of methods and applications. This handbook aims to fill this need by providing an up to date survey of methods and applications drawn from the
broad range of behavioral medicine research and practice. The handbook is divided into 10 sections that address key fields in behavioral medicine, ranging from basic biobehavioral processes, through individual developmental and socioemotional factors, to public health and clinical trials. Each section begins with one or two methodological or conceptual chapters, followed by contributions that address substantive topics within that field. There are very few disease-orientated chapters; rather, major health problems such as cardiovascular disease, cancer, HIV/AIDS, and obesity are explored from multiple perspectives. Our aim is to present behavioral medicine as an integrative discipline, involving diverse methodologies and research paradigms that converge on health and well-being.

As an editor, I should like to express my gratitude to the five associate editors who provided great expertise and support throughout the preparation of this book, to the assistant editor Lydia Poole for her unstinting work, and to the many contributors who have enabled the handbook to be completed in a timely fashion. The editorial team have also greatly benefited from the wisdom of an advisory group of distinguished members of the Academy of Behavioral Medicine Research, namely Ronald Glaser (Ohio State University), Kenneth E. Freedland (Washington University School of Medicine), Kathleen C. Light (University of Utah), Philip M. McCabe (University of Miami), and Andrew Baum (University of Texas, Arlington). Our thanks also go to the editorial and production groups at Springer for their efficiency and helpfulness during the production process.

London, UK

Andrew Steptoe

January 2010
Handbook of Behavioral Medicine
Methods and Applications
Steptoe, A. (Ed.)
2010, XXIV, 1074 p., Hardcover
ISBN: 978-0-387-09487-8