## CARDIOVASCULAR DISEASES IN THE UNITED STATES

IWAO MORIYAMA, DEAN E. KRUEGER AND JEREMIAH STAMLER Cambridge, Harvard University Press, 1971 496 pp. \$10.00.

This is the most comprehensive and useful compilation of cardiovascular diseases mortality statistics for the United States ever put together in a single volume. It is one of a series of monographs sponsored by the American Public Health Association based largely on population data collected in the 1960 census and death statistics for the years 1959 to 1961. The overall purpose of this series is an evaluation of the nation's health status through an evaluation of both morbidity and mortality data.

The major focus of this monograph is on mortality rates for the years 1959 to 1961 with tabulations by age, color, sex, place of residence (state or region), marital status, race, nativity and country of birth of the foreign born. Mortality trends in the United States are also presented through 1966 and international comparisons made for the year 1960. Age-adjusted rates are presented and, in addition, much data on morbidity for the cardiovascular diseases are included.

The first three chapters constitute essentially an introduction and a review of the sources of both morbidity and mortality data, along with a general evaluation of these sources. One of these chapters is devoted solely to an evaluation of the accuracy and comparability of mortality data. In the next six chapters the following groupings of diseases are dealt with: coronary heart disease, hypertensive disease, cerebrovascular disease, rheumatic fever and chronic rheumatic heart disease, congenital malformations of the circulatory system, and major cardiovascularrenal diseases. For each of these groupings the discussion generally covers the nature and features of the disease or diseases along with what is known about etiologies; the current magnitude of the problem, including both mortality and morbidity data; special problems in interpreting mortality statistics; mortality rates for the United States for the years 1959 to 1961, in most instances by many variables and in much detail, a presentation of prevalence and incidence data; and, finally, trends and international comparisons.

In the chapters dealing with coronary heart disease, the cerebrovascular diseases and major cardiovascular-renal diseases an additional section is included on associated causes of death based on a special study of multiple diagnoses undertaken in 1955. Also, some chapters include a section on "risk factors." An appendix describes the historical development of knowledge regarding the various cardiovascular diseases.

Cardiovascular Diseases in the United States should prove to be a useful reference for researchers and other workers in the field of health. Of particular value are the extensive tables presented, many of which contain data not published elsewhere. There is also a fairly complete bibliography and a subject index. To assist the reader in interpreting time and age trends and to clarify the geographic distribution of the various disease entities, 35 excellent graphs and charts are included. Altogether, the tables, graphs and charts constitute over half of the volume. The chapter on accuracy and comparability of mortality statistics is particularly well written, providing the reader with appropriate background for interpretation of the results that follow. The University of Chicago study, involving a matching of 1960census schedules with cardiovascular disease deaths that occurred during May through August, 1960, is heavily drawn upon here.

The organization of the monograph creates some repetition. For example, the separate chapter on the accuracy and comparability of mortality statistics overlaps somewhat with a section on special problems of interpretation of mortality statistics, which appears in each of the six chapters on groupings of diseases and with a section on associated causes of death in some of these chapters. Risk factors are mentioned throughout the monograph and repeated under a variety of headings.

The last chapter, on major cardiovascular-renal disease, might have served well as an introductory chapter defining for the reader the relative magnitude of the problem for each of the major cardiovascular disease categories. Also, some topics are dealt with unevenly. For example, as noted above a section entitled "risk factors" appears in some chapters. For coronary heart disease, this is dealt with in a single paragraph in which the reader is referred elsewhere for information. For cerebrovascular diseases, on the other hand, six pages of textual material are presented along with two tables.

Estimates are given on the economic effects and the average years of life due to CVR which depend on the assumption of independence of cardiovascular and other diseases. These should have been so qualified in the text (as they were in the tabular footnotes). To state unequivocally that "If cardiovascular-renal disease had been eliminated as a cause of death in 1960, the average expectation of life at birth would be increased eleven years" involves several unstated assumptions not necessarily familiar to readers.

A general criticism of this, as well as many other publications of vital statistics, is that much of the data presented is badly out of date, reflecting experience in the United States over a decade ago. Appendix tables dealing with trends go through 1966, whereas most graphic presentations end with 1960.

Despite these criticisms, this monograph is comprehensive, generally well organized, well written and is an excellent addition to the library of anyone interested in the social, economic or epidemiologic aspects of cardiovascular diseases.

> PHILIP E. ENTERLINE CAROL K. REDMOND