

Prevention of Cardiovascular Diseases

Jadelson P. Andrade • Fausto J. Pinto
Donna K. Arnett
Editors

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From Current Evidence to Clinical Practice

 Springer

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Preface by Jadelson P. Andrade

According to data released by the World Health Organization (WHO), 56.9 million deaths were reported worldwide in 2008, and of these about 17 million were caused by cardiovascular diseases.

From this alarming reported epidemiological reality, the WHO began to encourage all countries of the world to embrace the banner of cardiovascular prevention, proposing an alliance between the nations, governments, civil society, and private sectors to team up in your face.

The WHO proposal has the primary objective to promote working together to modify these serious epidemiological data and the gloomy future outlook projected for the following 30 years.

In line with the WHO global project, the Brazilian Society of Cardiology proposed an international partnership with the European Society of Cardiology and the American Heart Association to prepare the book “Cardiovascular Prevention – A Global Challenge.” Three editors were invited, Jadelson P. Andrade, Donna K. Arnett, and Fausto J. Pinto, then president and president-elect of the aforementioned institutions.

The work was developed in 28 chapters addressing different themes of cardiovascular prevention with the original version in Portuguese and this edition in English with the title: “Prevention of Cardiovascular Diseases: From Current Evidence to Clinical Practice.” The authors of the chapters were distributed among Brazilian, European, and American experts, all with relevant scientific contributions on the subject.

The ultimate purpose of the editors, in line with the recent proposal from WHO, is to make available to the international medical community a valuable reference tool for proper addressing the alarming epidemiological index.

Salvador, Brazil

Jadelson P. Andrade, MD, FACC, FESC

Preface by Fausto J. Pinto

Cardiovascular diseases represent the main cause of mortality worldwide, accounting for 36 % of all deaths in the European Union in 2010 according to the latest available statistics published in the last OECD report. They cover a range of diseases related to the circulatory system, including ischemic heart disease (IHD) and cerebro-vascular disease, which together comprise 60 % of all cardiovascular deaths, and caused more than one-fifth of all deaths in EU member states.

The occurrence of several risk factors, such as hypertension, diabetes, dyslipidemia, obesity, smoking, and others, accounts for an increase in the prevalence and severity of cardiovascular disease. The uprising of some of these risk factors in some regions more than other may explain partially the differences observed among the different regions in the globe and even within the same continent. There are underlying risk factors, such as diet, which may explain differences in IHD mortality across countries. For instance, on average across EU member states, IHD mortality rates in 2010 were nearly two times greater for men. The disparity was greatest in Cyprus, France, and Luxembourg, with male rates two-to three times higher, and least in Malta, Romania, and the Slovak Republic, at 60 % higher.

The success of different strategies in the treatment of cardiovascular disease has resulted in a decrease in IHD mortality rates in nearly all countries in Europe and the USA. The decline has been most remarkable in Denmark, Ireland, the Netherlands, and the United Kingdom. Estonia and Norway also saw IHD mortality rates cut by one-half or more, although rates in Estonia are still high. Declining tobacco consumption contributed significantly to reducing the incidence of IHD, and consequently to reducing mortality rates.

However, the impact of treatment improvement should not undermine the absolute need to improve healthy lifestyles and reduce the weight of the different risk factors, particularly the ones who can be easily prevented if appropriate steps are taken (e.g., smoking, overweight-obesity, diabetes, hypertension, dyslipidemia).

The relationship of prevention strategies with cardiovascular events and death rates is clearly established through different scientific studies. Therefore, the efficacy of primary prevention programs in patients with recognized, treatable risk factors such as hypercholesterolemia, hypertension, diabetes, and smoking should be a

priority across the different countries. It is also important to recognize the need of a tailored approach considering the differences among different countries, which reinforces the importance of putting in place surveillance systems in place that may be able to monitor properly the need and implementation of preventable measures.

This is of crucial importance for a successful fight against inequalities to access to appropriate health care among the different countries. The role of scientific societies in the dissemination of information as well as in the promotion of different activities towards the populations as well as the decision makers can fill in an important gap in this regard. This Book on Prevention, being a joint enterprise between the Brazilian Society of Cardiology, European Society of Cardiology and American Heart Association, will certainly fit into this common goal of improving Prevention of Cardiovascular Disease worldwide.

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Preface by Donna K. Arnett

For those of us who have devoted our lives to studying and treating cardiovascular disease (CVD), the idea that CVD prevention is critical is so obvious that further exposition on the subject may seem gratuitous. It is decidedly not. The successes that clinicians and public health practitioners have had in the realm of CVD prevention are not only reasons to exult, but also cause for redoubling our efforts with some assurance that prevention is eminently possible and further progress can be made. And although some of the more alarming trends observed in some parts of the world (rising prevalence of obesity, for example) are cause for deep concern, they are also cause for increased and improved preventive action. It is precisely this changing landscape of CVD and its risk factors that makes continued assessment and discussion of CVD-prevention strategies so critically important. Programs in the USA such as the Centers for Disease Control and Prevention's Million Hearts Initiative and the American Heart Association's 2020 Impact Goal (to improve cardiovascular health by 20 % by 2020 while reducing CVD and stroke mortality by 20 %) and analogous efforts in other countries are tangible representations of population evaluation, goal setting, policy making, and program development that drive progress in this realm. Each of the chapters in this book represents a primer in CVD and its prevention. With its calculated mix of CVD and risk factor fundamentals and trenchant foresight, this volume will be welcomed by all those around the globe who aim to rise to the challenge of CVD prevention.

Birmingham, AL, USA

Donna K. Arnett, MSPH, PhD

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