INTRODUCTION

The status of non-transmissible chronic disease in Mexico based on the National Health and Nutrition Survey 2006

Non-transmissible chronic disease is the most pressing health problem in Mexico in recent decades. A clear indication of the magnitude of the problem is the fact that coronary heart disease and diabetes are the two leading causes of death in Mexico, followed by stroke.[1]

Metabolic syndrome (MS), which has been proposed as a risk indicator for type 2 diabetes and cardiovascular diseases,[2] is a cluster of several cardio-metabolic risk factors —including abdominal obesity, hyperglycemia, dyslipidemia and elevated blood pressure—[3] related with lifestyle and genetics.[4] Its prevalence is expected to increase in the same proportion as the reported prevalence of obesity increases.[5] Thus, a fresh assessment of the epidemiology of MS may offer new perspectives for the future evolution of type 2 diabetes and cardiovascular diseases.

Type 2 diabetes is already one of the most frequent causes of demand for medical care, disability and mortality among the adult population in both developing and developed countries.[4] Furthermore, the growing global epidemic of type 2 diabetes mellitus (T2D) is expected to double by 2030,[6] along with its associated morbidities: microvascular damage, ischemic heart diseases and stroke. In Mexico, the mortality rate for T2D increased 30% from 1998 to 2002, and it is the most common cause of hospital discharge; the already staggering costs associated with the care of these pathologies is, therefore, increasing quickly.[7] Thus, type 2 diabetes has a notable social and economic impact in Mexico, and the evidence indicates that diabetes and its chronic complications generate the most significant expenditures for health care as a whole.[8]

Furthermore, in countries such as Mexico, in which diabetes is highly prevalent, the onset of the disease occurs earlier in life;[9] a factor that increases the adverse consequences of diabetes.

Programs to prevent coronary heart disease (CHD) are primarily based on the proper detection of cardiovascular risk factors and effective therapies to achieve and sustain treatment goals. One of the main components of such interventions is the treatment of hypercholesterolemia, which has proved to be cost-effective.[10] In addition, because the Mexican population is aging,[11] periodic assessments of the prevalence of cardiovascular risk factors is required. This information will help to predict cardiovascular mortality trends for the coming years and to design preventive strategies to cope with this health problem.

During the past 22 years, several probabilistic surveys have furnished information on the magnitude and distribution of chronic diseases and obesity in Mexico, including the 1988 and 1999 Mexican National Nutrition Surveys,[12,13] the 1994 Mexican Chronic Diseases Survey,[14] and the 2000 Mexican Health Survey.[15] During 2005-2006, the National Institute of Public Health carried out the latest National Health and Nutrition Survey, a probabilistic survey that is nationally representative and has the power to make distinctions among geo-economic regions, urban and rural locations, and among each of the 32 states.[16] The objectives of this survey were to provide information about the health and nutritional status of the Mexican population and its use of health services.

This issue of *Salud Pública de México* presents a series of articles that analyze data from the 2006 survey, addressing the epidemiology of non-transmissible chronic diseases based on several indicators of risk, including metabolic syndrome, hypertension, dyslipidemias and blood glucose. The reports also critically analyze the degree to which metabolic control of diabetes, dyslipidemias and hypertension is achieved among the overall population, which in some cases reflects the quality of the health

care delivery. Some of the articles, those which include biochemical measurements (DM2, dyslipidemias and metabolic syndrome), are based on a randomly selected sub-sample, while others (such as those dealing with hypertension) are based on the full survey sample.

A methodological paper precedes the core of articles and describes the general design of the national survey, along with the basis for the selection of subsamples, procedures for blood sampling and the laboratory techniques used to measure biochemical variables (Barquera et al.).

The first original article (Rojas R et al.) describes the prevalence of metabolic syndrome, and is followed by a series of three papers analyzing 1) the overall frequency and distribution of type 2 diabetes and the degree of metabolic control of known diabetics measured by HbA1c (Villalpando S et al.), 2) the prevalence of early onset diabetes (Jiménez-Corona et al.) and 3) the status of diabetes care in the Mexican population (González-Villalpando et al.). Two other papers address the prevalence of dyslipidemias in the adult population (Aguilar-Salinas C et al.) and asses the challenge for the health system to prevent cardiovascular diseases, based on the potential to modify low density lipoprotein cholesterol (Gómez-Pérez FJ et al.). A final original article examines the prevalence of hypertension in the Mexican population (Barquera S et al.). The corollary of this issue is an article in which authors analyze critically, the trends in the prevalence of type 2 diabetes, metabolic syndrome, dyslipidemias and hypertension from 1993 through 2006 (Villalpando S et al).

Such an analysis provides a vision of the fastpace at which all these chronic non-transmissible diseases are growing and allows for predicting their magnitude and impact in the forthcoming years. This issue also includes a presentation paper written by the Mexican Vice Minister of Health, which highlights the importance of this type of research to the decision-making process involved in the design and adjustment of public health policies. The guest editors of this issue recognize the unrestricted grants furnished by Sanofi-Aventis laboratory to partially defray the cost of the laboratory determinations and by Unilever to defray the printing cost of this special issue.

The authors of this special issue of *Salud Pública de México* hope to contribute to a better understanding of the overwhelming health problems associated with type 2 diabetes and cardiovascular diseases by disseminating the evidence herein to a wide audience, not only in Mexico but also in other countries that share similar health and social conditions. Above all, our hope is that such information is useful to the design of policies and strategies to control and reduce the disease burden that impinges on the quality of life and survival of millions of women and men.

Conflicts of interest

We declare that we have no conflicts of interest.

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