

WORKSHOP ECONOMICS OF PREVENTION OF NONCOMMUNICABLE DISEASES AND RISK FACTORS

TECHNICAL NOTE

Economic Dimensions of the Impact of Chronic Diseases in the Region of the Americas: A Research Agenda

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A. BACKGROUND

Demographic transition and population aging are no strangers to the Region of the Americas. These phenomena, coupled with other factors such as urban growth, greater trade integration related to globalization, and lifestyle changes, have produced an increase in the prevalence of chronic noncommunicable diseases (NCDs) and their associated risk factors. The World Health Organization estimates that the four principal NCDs (cardiovascular disease, cancer, diabetes and chronic respiratory diseases) together account for the highest number of deaths and disability at the global level. According to 2007 estimates, deaths in the Region totaled 5.1 million, 3.9 million (76%) of which were related to noncommunicable diseases and 60% to the principal NCDs. PAHO estimates that some 250 million people are living with a NCD. There is a high prevalence of associated risk factors (smoking, obesity, alcoholism, sedentary lifestyle, and poor diet), particularly among lower-income, less educated population strata. This situation can be expected to worsen in the coming years unless comprehensive public-policy or multisectoral measures are adopted to correct this trend.

In this context, the political declaration of the September 2011 United Nations General Assembly High-level Meeting addressed the prevention and control of NCDs at the global level, and put the issue on the development agenda of the countries of the Region. In order to develop a comprehensive strategy to address NCDs, evidence must be generated on the socio-economic impact of NCDs, their impact on the health systems, and on cost-effectiveness of different interventions to aid priority setting and justify public policy interventions.²

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² The interventions are justified by the presence of “market deficiencies” resulting from the existence of public health goods in the health area, information asymmetries, externalities (positive or negative), nonrational decisions, or inconsistent consumer preferences over time, which lead to suboptimal decisions by consumers. See: Musgrove, P. “*Public and Private Roles in Health. Theory and Financing Patterns*,” World Bank HNP Discussion Paper, July 1996; Suhrcke, M. et al., “*Chronic disease: an economic perspective*,” London. The Oxford Health Alliance, 2006.

In the Ministerial Declaration, signed in Mexico City on 25 February 2011, the Region's ministers of health agreed to promote recognition of the rising incidence and socioeconomic impact of the high prevalence of NCDs in the Americas and to reaffirm their commitment to strengthen and/or reorient the policies and programs for prevention and control of NCDs by giving high priority to cost-effective interventions that scientific evidence has shown to have the greatest impact.

B. DEFINITION OF THE PROBLEM

In November 2009, the Pan American Health Organization (PAHO), in coordination with the Public Health Agency of Canada (PHAC), held a regional workshop attended by researchers and policy advisors to present and discuss analysis frameworks and empirical studies on the economic and fiscal consequences, and effects on well-being, of population aging, from the standpoint of the growing prevalence and increased burden of chronic diseases.

One of the most significant results of this workshop was the recognition that there is a lack of systematized evidence, databases, and indicators to serve as elements of analysis in the formulation of public policy aimed at controlling NCDs and their associated risk factors in the Region.³ Research on the economic impact of NCDs accounts overall for less than 5% of the literature on diseases, with a much larger proportion devoted to other groups of diseases.⁴

The proposed research agenda for Latin America and the Caribbean includes:

- Systematizing current knowledge, gauging the extent of existing evidence, and determining the most important strategic gaps to be addressed;
- Systematically producing evidence of the economic and fiscal impact, and the effects on development and well-being, of NCDs and their associated risk factors;
- Conducting studies to analyze the economic impact of NCDs, based on studies of the associated costs – both microeconomic (individuals and households) and macroeconomic (growth) – and of the cost-effectiveness of potential interventions from a multisectoral perspective, considering economic, epidemiological, public health and demographic factors;
- Conducting analytic studies comparing the return on investment in NCD prevention and control with that of other priority public-spending initiatives;
- Analyzing the potential impact of NCDs on the efficiency and financial sustainability of national health systems.

³ Available online in English at:
http://new.paho.org/hq/index.php?option=com_content&task=view&id=2048&Itemid=259 .

⁴ Jere R. Behrman *, Julia A. Behrman *, and Nykia M. Perez. *On what diseases and health conditions should new economic research on health and development focus?* Health Economics, April 2009; 18 (Supplement 1): S109–S128. DOI: 10.1002/hec.1464.

Questions related to this issue include the following:⁵

- i) How does the catastrophic cost of dealing with NCDs affect households and poverty? How are household decisions on saving and consumption affected by NCD-related expenses?
- ii) How do these expenses affect the sustainability of the results achieved with poverty-reduction programs?
- iii) How the disease burden is distributed across different income quintiles? How are NCDs related to health-care inequities?
- iv) Is there a association between mortality from NCDs and GDP growth rates?
- v) What are the obstacles, in terms of methodology and availability of information, to estimating the net impact of NCDs on economic variables? What characteristics (variables, conditions) do surveys need to consider in order to capture these effects? What statistical methods are most appropriate for the purpose?
- vi) What are the most cost-effective public-policy interventions for preventing and controlling NCDs in the Region?
- vii) What is the impact on households and what are the gender implications of chronic diseases related to providing unremunerated long-term health care?
- viii) What are the direct and indirect costs incurred by national health systems as a result of NCDs? Is there an association between the magnitude of the impact and the structure of the care model?
- ix) What are the implications of potential cost increases from the rising prevalence of NCDs in the Region for the financing and structure of health systems?
- x) What are the links between NCDs on the one hand, and development, economic growth rates and human capital accumulation (e.g., lost productivity due to disability, decline in labor supply, premature mortality, etc.) on the other?
- xi) What are the long-term advantages of investment to expand prevention measures to achieve overall improvements in health?

C. PLANNED ACTIVITIES

A preliminary proposal for consideration would include:

1. Organizing a regional technical consultation, attended by researches (both economists and public health and nutrition specialists), as well as public policy experts, in order to:

⁵ An additional line of research would be to analyze how the impact of NCDs on health systems relates to the organization of such systems and to strategies for financing both health systems and health services.

- Analyze the importance of the questions raised to assist in formulating arguments for establishing public policy on the prevention and treatment of NCDs in the Region, using a life-cycle approach;
 - Identify existing sources of information and the nature of the information, the advances in research achieved at the country and subregional levels, and existing information gaps in order to address these issues, define analytic frameworks, and identify the most appropriate methodological instruments;
 - Finally, jointly and comprehensively determine what action needs to be taken to systematize and harmonize the existing information and make it a useful tool for public policy-making.
2. Form a multidisciplinary technical team of experts from the Region, including economists, experts in surveys and epidemiological data, researchers from academia and the CARMEN Network, and public policy experts, in close collaboration with PAHO, the Economic Commission for Latin America and the Caribbean (ECLAC), the Organization for Economic Cooperation and Development (OECD), the Public Health Agency of Canada (PHAC), and other specialized United Nations agencies working in the Region.
 3. Develop a work plan for the next two years based on these inputs and on the agreements reached at the United Nations Summit in September 2011.

D. EXPECTED RESULTS

The work of the technical team should attempt to:

- i) Identify methodologies and instruments for conducting multisectoral studies on the economic impact of preventing and treating noncommunicable diseases, to be used in promoting public policies;
- ii) Identify optimal, cost-effective options for public policy intervention that can be implemented in keeping with the situation in each country;
- iii) Create/expand country capacity to provide continuity for future work in this area.

The expected results of the work of the technical team work include:

1. An up-to-date compilation, along with recommendations for/design of innovative methodologies and tools to estimate the economic impact (direct and indirect) of NCDs and their associated risk factors in the Region;
2. Inventory of available and needed information from different sources (for example: private household spending on NCDs; consumption of fast food, sugary drinks, foods with a high concentration of salt, etc.).

3. Develop pilot studies in countries of the Region (TBD) on the comprehensive economic impact (economic burden of the disease, macroeconomic and microeconomic consequences) using a multisectoral approach.
4. Analyze the applicability of studies of cost-effectiveness of a package of interventions of public policy in the countries of the Region.
5. Based on the evidence produced, propose a set of public policy interventions deemed to be optimal, effective, and cost-efficient, that can be used in accordance with the particular needs of each country.