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REGIONAL STRATEGY ON AN INTEGRATED APPROACH TO THE PREVENTION AND CONTROL OF CHRONIC DISEASES, INCLUDING DIET, PHYSICAL ACTIVITY, AND HEALTH

In 2002, the 26th Pan American Sanitary Conference recognized the predominance of chronic noncommunicable diseases (NCDs) as the leading cause of morbidity and mortality in Latin America and the Caribbean and adopted a resolution (CSP26.R15) which called for increased and coordinated technical cooperation from PAHO. In 2005, the 46th Directing Council of PAHO requested that PAHO develop a strategic plan to address this growing burden.

In response to this call, the Regional Strategy and Plan of Action for the Integrated Prevention and Control of Chronic Diseases were developed based also on the following WHO and PAHO resolutions: WHO Global Strategy for the Prevention and Control of Chronic Diseases (WHA53.17, 2000), Framework Convention for Tobacco Control (WHA56.1, 2003), Global Strategy on Diet, Physical Activity, and Health (WHA57.17, 2004), Cancer (WHA58.22, 2005), and Cardiovascular Disease, especially Hypertension (CD42.R9, 2000).

The Regional Strategy aims to reduce the burden of chronic noncommunicable diseases in the Americas and ensure that chronic disease prevention and control receive the appropriate priority and resources commensurate with the burden of disease.

The Regional Strategy includes six strategies: advocacy and policy development, community-based actions, strengthened health services, reinforced competencies in the health care work force, multisectoral partnerships and networks, and improved NCD knowledge management. There are also four lines of action, which are health promotion, surveillance, integrated management of chronic diseases and their risk factors, and public policy and advocacy.

The Unit of Noncommunicable Diseases (NCD) has been charged to lead and coordinate the development of the action plan with other units within the Secretariat. The Regional Strategy is intended to guide PAHO's technical cooperation on NCDs and be used by technical units and the country offices of the Organization.

This document is presented for the consideration of the Subcommittee on Planning and Programming with the following objectives: (1) to elicit their comments on the APCD; (2) to propose ways in which PAHO can support and strengthen a unified and integrated strategy; and (3) to advise the Secretariat on how to best undertake initiatives for mobilizing the necessary resources.

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Introduction

1. To address the burden of NCDs in the Region, a long-term, expounded strategy is needed that integrates current practice with new directions and approaches. This Regional Strategy reflects the priority areas and strategic lines of action identified in resolution CSP.R15 adopted by the Pan American Sanitary Conference in 2002. It further builds upon that resolution with an action plan that will include specific goals, subgoals, activities to be accomplished, and performance measures to mark the extent to which the overall goal has been met. The Global Strategy on Diet, Physical Activity, and Health is one such strategy, addressing the burgeoning problem of NCDs by focusing on two of the main risk factors, diet, and physical activity. Comprehensive and integrated action are required to achieve successful changes that are both effective and have the potential to reach all sectors of the population. This approach to chronic disease prevention and control is needed for the following reasons:

- Latin America and the Caribbean in particular are considered to have the most inequitable income distribution in the world, and it is estimated that in recent years the number of poor people has increased to over 224 million.
- The increasing prevalence of a number of risk factors such as obesity requires a multifaceted approach that fosters collaboration outside the health sector.
- New scientific evidence suggests that a whole-of-life approach is needed, which recognizes the interactive and cumulative impact of social and biological factors including early life factors (in utero and early childhood) and all stages of life thereafter.
- A substantial proportion of countries have no policies or plans to combat chronic diseases.

Situation Analysis

2. Chronic NCDs are the leading cause of premature mortality and disability in the vast majority of countries of the Americas. They account for 44.1% of deaths among males and 44.7% among females below the age of 70. They also disproportionately affect the economies and health-care budgets of developing countries, and the quality of life of individuals, their families and communities. The work forces of most countries are affected by easily-preventable illness and risk factors. Clearly, a profound shift in the balance of the major causes of death and disease is underway in the Americas. The noncommunicable diseases and risk factors that are of the greatest public health importance in the Region are: (1) hypertension and other cardiovascular diseases (2) cancer, (3) diabetes mellitus, and (4) the risk factors of overweight and obesity, sedentary lifestyles, tobacco use and low intake of fruit and vegetables.

Hypertension and Other Cardiovascular Disease

3. About 140 million people in the Americas suffer from hypertension. Based on survey data, the prevalence of hypertension in the general population of Latin America and the Caribbean has been estimated at between 8% and 30%. The risk of hypertension increases with age; 43% to 54% of people, over 60 have hypertension, according to a recent PAHO study of seven cities in Latin America and the Caribbean. Other reports indicate that hypertension is indeed a major public health problem across the Americas. Mexico, one of the few countries to have conducted more than one chronic disease risk factor survey, found that the prevalence of hypertension had increased from 26% in 1993 to 30% in 2000. A follow-up of the 2000 study reported that mortality in people with hypertension was 1.8 times that of the general Mexican population. Hypertension is one of the most important risk factors for major cardiovascular diseases such as cerebrovascular disease and ischemic heart disease, which are the leading causes of death in adults in most countries.

4. In the first decade of the 21st century, cardiovascular diseases will claim some 20.7 million lives in the Region. In Latin America and the Caribbean 31% of all deaths are attributable to these diseases. In 2000, 180,000 deaths due to cardiovascular diseases were estimated to occur in women between the ages of 15 and 69, making it the leading cause of death for women in this age group. In men of the same age group, cardiovascular diseases were responsible for 253,000 deaths annually, representing the second leading cause of death after external causes.

Cancer

5. There were an estimated 1,112,000 deaths due to cancer in the Americas in 2002. This represents a 33% increase since1990 in Latin America and the Caribbean, and a 14% increase in the United States and Canada. Lung cancer is the leading cause of cancer death in men throughout the Region, while prostate and stomach cancers are the second leading causes of cancer death. In women, cervical cancer is the leading cause of cancer death in Mexico, Central America and the Caribbean, while breast cancer is the leading cause of cancer death in South America. Mortality from breast cancer is increasing in most countries of the Americas. In South America, the age standardized incidence rate is 46.0 (per 100,000), and the mortality rate is 15.1 (per 100,000). Stomach cancer is the third cause of cancer death for women in many countries, making stomach cancer rates in Latin America and the Caribbean among the highest in the world.

6. Cervical and breast cancer program plans are the most common plans in the Region. Nineteen countries reported having a national cervical cancer plan, including: Costa Rica, Guatemala, Honduras, El Salvador, and Panama. PAHO has been involved in cervical cancer pilot projects in Guatemala and Honduras. In collaboration with the

Ministry of Health of El Salvador, PAHO pilot tested a continuous quality improvement model to increase follow up care for women.

Diabetes Mellitus

7. Over 35 million people in the Region are affected by diabetes and WHO forecasts an increase to 64 million by 2025. It is estimated that diabetes is related to some 300,000 deaths each year in Latin America and the Caribbean, although official statistics link only some 70,000 annual deaths to the disease. Diabetes is most common among the Caribbean's adult population, with documented prevalence of 17% in Barbados and 18% in Jamaica. In Central and South America the prevalence of diabetes is estimated to be between 6% and 8%. In Mexico the prevalence of diabetes increased from 7.2% in 1993 to 10.7% in 2003 in people between the ages of 20 and 69. The SABE study (from the Spanish: *Salud, Bienestar y Envejecimiento*; Health, Wellbeing and Aging) reported that the prevalence of diagnosed diabetes among people over the age of 60 from 7 urban centers varied from 13% in Santiago, Chile to 21.7% in Bridgetown, Barbados. Diabetes represents a high burden for society, as it increases premature mortality and disability due to the high risk of heart disease, nephropathy, lower extremity amputation, and blindness. In 2002, the economic burden of diabetes, including indirect costs due to premature mortality, absenteeism and disability, and direct costs attributed to drugs, consultations and hospitalizations was put at US$65 billion in Latin America and the Caribbean.

Risk Factors

8. For noncommunicable diseases, the most important risk factors include inadequate intake of fruit and vegetables, overweight or obesity, physical inactivity and tobacco use. These risk factors account for much of the morbidity and mortality in the Region, and the loss of 12.5 million disability adjusted life years (DALYs). The disability adjusted life years (DALYs), measures the loss of one healthy year of life.

9. The behavioral changes on diet and physical activity which greatly drive NCDs are to a large extent the result of historical, economic and social changes that interact and mold human behaviors. Globalization is just one example of a dynamic which exerts critical pressure and has helped to homogenize consumption and lifestyle patterns. Urbanization, migration, and the aging of the population are other trends impacting the growing problem of NCDS. The increasing prevalence of inactivity in the last half century is most likely the result of increased urbanization and motorized transportation, urban zoning policies that promote car-dependent suburbs, lack of attention to pedestrians and cyclists in urban planning, the ubiquitous presence of labor-saving devices in domestic life, and the growing use of computers at work and for entertainment.

10. Obesity, due in large part to these diet and physical activity trends, is a growing problem in the Region and several national surveys in Latin America and the Caribbean show that some 50% to 60% of adults and some 7% to 12% of children under 5 are overweight and obese. In Chile and Mexico, recent national surveys show that some 15% of adolescents are obese. In most countries in Latin America, the rise in overweight and obesity is accompanied by a change in dietary patterns that are characterized by a decrease in the consumption of fruit, vegetables, whole grains, cereals and legumes and a parallel increase in the consumption of foods rich in saturated fat, sugars and salt, among them milk, meats, refined cereals and processed foods. These dietary pattern changes occur alongside a disturbing decrease in levels of physical activity, well documented in several countries. Between 30% and 60% of the Region's population does not achieve even the minimum recommended levels.

11. Tobacco consumption is the leading cause of avoidable death in the Americas, as in other parts of the world. It is the cause of over one million deaths in the Region each year, 46% of them women. Half of these deaths are in Latin America; the Southern Cone has the highest mortality attributable to smoking in the Americas (25% of all estimated deaths in that subregion). Tobacco consumption causes approximately one-third of all deaths from heart disease and cancer in the Region. Tobacco addiction usually begins in adolescence, and in the majority of the Region's countries, more than 70% of smokers start smoking before the age of 18. According to data from the Global Youth Tobacco Survey, sponsored by WHO, between 14% and 40% of young people in Latin America were using tobacco at the time of the survey. The numbers in the Caribbean were lower, ranging between 14% and 21%.

The Social and Economic Burden of Chronic Diseases

12. The progression of nutrition-related NCDs is influenced by well-documented risk factors. Among the most important are poverty, the inter-generational effect of poor intrauterine growth, under-nutrition in the first 3 years of life, and inadequate diets and physical inactivity during youth and adulthood. The incidence of ill-health and mortality associated with NCDs is very high and poses an enormous burden for health-care systems, social services, and personal economic and social stability.

13. The economic burden of chronic NCDs can be analyzed on two levels. The first is the effect of macroeconomic policies on opportunities for prevention and control in different population groups, in particular the poor; and the second is the potential cost-effectiveness of interventions. There are high costs to society, families, and individuals when social and human capital is affected by costly diagnosis and care, long periods of disability, and premature mortality. No comprehensive study on the cost of NCDs in Latin America and the Caribbean has been published. It is known, however, that in the United States of America, the cost of cardiovascular diseases is in the order of 2% of the

gross domestic product, while a Canadian study found that 21% of all such costs are attributable to cardiovascular disease, for an annual total of $12 billion. These costs included treatment, consultations, and indirect costs such as loss of income due to disability and death. Cardiovascular disease was also considered responsible for the highest proportion (32%) of lost income due to premature death. In addition, policies associated with prevention and control programs, such as taxation, food labeling, and financing access and continuity of treatment for chronic conditions, may have macroeconomic effects that should be further studied.

14. The cost and overall efficiency of interventions must be evaluated in terms of their effectiveness and health gains for the population at large. Those who bear the cost of such interventions should also be given due consideration: either the system, through different mechanisms, and/or the patient and the family. Potentially effective interventions may not produce adequate results because of high costs. For example, anti-hypertensive treatment can cost up to $100 per month, putting it beyond reach in countries where the average monthly income may only be $50 to $200. The average direct cost of diabetes in Latin America and the Caribbean has been estimated at $730 per patient per year. The question is therefore one of affordability. A study in Jamaica found that 57% of people with cancer and diabetes became medically indigent, given the high proportion of the cost that had to be paid directly by the patient, and that 50% of them had to forego treatment due to inability to pay.

15. Health policies must take account of the combined effect of poverty and NCDs on the health of the poor. The incidence of advanced cervical cancer in Ecuador, for example, is higher among women at the lower end of the socioeconomic scale, 50% of whom are diagnosed only when the disease is no longer curable. By contrast, only 10% of women at the higher end of the socioeconomic scale are diagnosed at that stage. A cost-recovery scheme in Ecuador requires co-payment for screening and treatment. In Chile, mortality from stroke is higher in people with little education. Furthermore, the gap is wider for women than for men. Coverage and access to services also vary according to educational level. On the prevention side, people living in poor, unsafe neighborhoods and working long hours, tend to have little or no opportunity to increase physical activity Moreover, the availability of healthy food, access to health services, and opportunities to benefit from health promotion initiatives can vary widely between neighborhoods and communities.

16. WHO's Commission on Macroeconomics and Health demonstrated the disruptive effect of disease on development, and the importance for economic development of investments in health. The disturbing effect of NCDs in the Americas is clear. Given the complexity of the chronic NCD burden for the developing countries, the problem cannot be analyzed only in epidemiological terms. One-dimensional solutions, dealing with risk factors or diseases independently, are too narrow in scope; a more

concerted, strategic and multisectoral approach is required. As several diseases and risk factor have common underlying elements, a comprehensive systems perspective is needed to address the multilevel processes involved in NCD prevention and control.

National Capacity for Noncommunicable Disease Prevention and Control

17. In 2005, a national capacity NCD prevention and control survey was carried out in the Region as part of the global strategy for the prevention and control of noncommunicable diseases. The survey's main objectives were to assess progress in NCD prevention and control and to identify constraints and needs. The survey was conducted through PAHO/WHO Country Offices and was completed by the government officials responsible for noncommunicable diseases in 22 countries.

18. A preliminary analysis has indicated that 59% of respondent countries reported having legislation on tobacco use, 68% on nutrition and 23% on physical activity. Overall 68% (15 countries) had national NCD-related strategies, but only 41% (9 countries) reported having integrated national programs for chronic NCD prevention and control. National programs to prevent and control hypertension were identified in 50% of countries, for diabetes in 60%, for heart disease 36%, stroke 27%, cancer 46% and chronic respiratory diseases 22%. Overall, 32% had tobacco-control programs, while 54% had nutrition programs and only 18% had programs for physical activity. Only 40% of countries reported a specific budget for NCD prevention and control.

19. These results indicate that:

- a substantial proportion of countries have no policies or plans to combat chronic NCDs;
- lack of concrete action on chronic NCDs appears to be at least partly due to lack of national capacity in policy development;
- a considerable proportion of countries had no tobacco-control or food and nutrition legislation as part of the prevention and control of chronic NCDs;
- few countries have assigned resources to NCD prevention and control.

Framework for Action

20. In recent years international frameworks, in particular the global strategy for prevention and control of noncommunicable diseases (2000), the WHO Framework Convention on Tobacco Control (2003) and the Global Strategy on Diet, Physical Activity and Health (2005) have been established by WHO to tackle the growing burden of chronic, noncommunicable diseases. These frameworks have created an international momentum for chronic disease prevention and provide a basis for action.

21. Incidence of disease and risk factors, and implementation of interventions are affected by the social context, including the physical, social, and cultural environment. The State and social groups play crucial roles in shaping the social context. Behavioral and social sciences have contributed to a better understanding of how these factors can influence health, and it has become clear that prevention efforts need to extend beyond the individual to the environment that affects behavior. The Global Strategy on Diet, Physical Activity and Health is an integral component of the framework for addressing NCDs, providing a concerted, strategic approach, in which prevention plays a crucial part. This strategy identifies sustainable and comprehensive interventions and policies to improve diet and physical activity. They include policies that help translate NCD research into action: recommendations on food and diet, recommendations to promote optimal infant and child growth, and environmental interventions. The overall goal of this strategy is to promote and protect health by guiding the development of an enabling environment for sustainable actions which will lead to improved lives, and reduced disease and death rates.

Standards for Action

22. This Action Plan is based on the following standards:

- Support PAHO's commitment to the Millennium Development Goals, the renewal of primary health care and the extension of health protection;
- Reflect PAHO's efforts to address the unfinished health agenda, sustain its achievements, and confront new challenges;
- Recognize the need to prioritize the poorest populations and disenfranchised groups;
- Base strategies on cost-effectiveness, the best available scientific evidence and the principles of the Ottawa Charter and recent Bangkok Charter for Health Promotion;
- Reflect the spirit of Pan-Americanism through country-focused technical cooperation;

- Base PAHO's technical support on the strategies and goals formulated by Member States, their health priorities, and the unique social, economic and political climate of each country;
- Recognize that new initiatives are developed in consideration of their interface with other existing and developing regional and global initiatives or programs such as the Regional Strategy on Nutrition;
- Consider a truly multisectoral approach that fosters collaboration and mobilizes the energy, expertise, and resources of multidisciplinary partners, and
- Emphasize the key role of governmental functions including regulatory functions in the fight against NCDs.

Strategies

Advocacy for Policy Changes and Development of Effective Public Policy

23. This strategy will encourage and provide technical cooperation for the establishment of sound and explicit public policies that support better health status and a life free of NCD-related disability. The policies will be based on WHO resolutions and recommendations particularly in relation to the Global Strategy on Diet, Physical Activity and Health and the WHO Framework Convention on Tobacco Control. Policies will address the broad social, economic, and political determinants of health and reflect the values of equity, excellence, social justice, respect, gender equality and integrity. Advocacy will be utilized to advance policy and institutional changes that will support NCD programs.

Build Capacity for Community-Based Actions.

24. Behavioral change is not based solely on individual, personal decisions; rather it is influenced largely by environmental factors such as social norms, regulations, institutional policies, and the physical environment. Public health strategies therefore need to include community-based actions that influence changes within communities, promote healthy lifestyles and help prevent obesity. This strategy will focus on community interventions that build supportive environments for risk-factor reduction, mobilize communities to change institutional policies and to become active participants in NCD programs. Interventions will be based on WHO's Global Strategy for Prevention and Control of NCDs and the Global Strategy on Diet, Physical Activity and Health.

Strengthen Health Services for Integrated Prevention and Control of Chronic Diseases

25. This strategy recognizes that prevention and control of NCDs require long-term patient contact with primary health-care services, which are based on high standards of care and best practices. Integrated prevention entails developing interventions aimed at simultaneously preventing and reducing a set of common risk factors. In addition, the management of chronic diseases requires integration of services through strengthened referrals and relationships between primary, secondary and tertiary levels of care. The strategy incorporates chronic disease management, through strengthened referrals and relationships between primary, secondary and tertiary levels of care, and addresses the common risk factors. Appropriate management should also cover prevention, screening and early detection, diagnosis, treatment, rehabilitation and palliative care. Innovative models will be developed and tested for quality of care of chronic diseases, namely, cardiovascular diseases, hypertension, major cancers, and diabetes. The strategy will also include the development, testing and dissemination of effective NCD management approaches, guidelines and tools. Interventions will be based on the recommendations of WHO's global reports, such as Preventing chronic diseases: a vital investment; and Innovative care for chronic conditions: building blocks for action.

Reinforce the Competencies of the Health-Care Workforce for Chronic Disease Prevention and Control.

26. Health-care providers are instrumental in improving health, and preventing and managing chronic diseases in individuals. To provide effective care for chronic conditions, the skills of health professionals must be expanded so that they can tackle the complexities of chronic conditions. This strategy therefore contemplates continuing the educational development of the health workforce to reinforce basic skills and abilities by providing patient-centered care, partnering with patients and with other providers, using continuous high-quality improvement methods, effectively using information and communications technology and adopting a public-health perspective.

Create Multisectoral Partnerships and Networks for NCD

27. The successful implementation of NCD policies and programs requires the concerted efforts of multiple partners and stakeholders from the public and private health sectors, and health-related sectors such as the agricultural, economic, public works and social services sectors. Furthermore, it requires action at the various levels of governmental and nongovernmental agencies, including international and multilateral organizations, and regional, subregional, national and municipal organizations. Professional associations, academic institutions, civil society, patients' groups and people affected by chronic diseases also have key roles to play in influencing NCD policies and programs. This strategy will facilitate dialogue and build partnerships among these key

multisectoral stakeholders in order to advance the NCD agenda and to ensure stakeholders' involvement in establishing policies and programs. The strategy will also include working through existing regional networks such as the CARMEN Initiative for integrated noncommunicable disease prevention in the Americas, and the Physical Activity Network of the Americas.

NCD Knowledge Management

28. Timely and accurate information on risk factors, chronic disease occurrence, distribution and trends is essential for policy-making, program planning and evaluation. Therefore, this strategy will therefore build capacity in countries to incorporate NCD surveillance into the public health system and to utilize surveillance information for program development and policy formulation. The strategy will encourage integration among the multiple data sources in order to access the complete range of information to determine the status of chronic diseases for the situation of chronic diseases. Information will be analyzed, synthesized and disseminated at the regional level. The challenge will be to improve the current mechanisms for ongoing and systematic surveillance of NCDs and to track the trends of chronic diseases and their risk factors at the national and subregional levels. In addition, information on new and emerging knowledge for effective interventions of NCD prevention and control will be gathered and disseminated.

Plan of Action

29. ***Goal*****:** To reduce the burden of chronic noncommunicable diseases in the Americas and ensure that chronic diseases receive the appropriate priority and resources commensurate with the burden of disease.

Lines of Action

30. The Plan of Action for the implementation of the strategy will be tailored to specific subcountry needs.

Health Promotion

31. To foster, support, and promote the conditions that enable people to increase control over their health and to adopt healthy behaviors, especially healthy eating, active living and tobacco control.

Surveillance

32. To support the strengthening of surveillance systems in order to better monitor chronic diseases, their risk factors and the impact of interventions.

Integrated Management of Chronic Diseases and Risk Factors

33. To facilitate and support the strengthening of the capacity and competencies to deliver equitable, good-quality health services for the integrated management of chronic diseases and their risk factors.

Public Policy and Advocacy

34. To provide technical support for the development of efficient and effective public policies related to NCDs and their risk factors.

Parties Involved

35. The Unit of Noncommunicable Diseases is leading the development of the action plan. In the past, the major challenges for PAHO's delivery of technical cooperation in the area of prevention and control of NCDs has been the development of a programmatic approach, the integration of activities carried out by the various technical offices within the Secretariat, and the fostering of collaboration and partnerships so as to use the scarce resources available in the Region more effectively. For this reason, the development of the Plan of Action has been a participatory process, relying on input from a wide range of stakeholders, including: representatives from the health ministries, nongovernmental organizations (NGOs), university systems, the primary and secondary school system, and local governments and municipalities. PAHO/WHO Country Offices and related technical units within the Secretariat are also essential to this plan. The other relevant technical units involved in this process are: Risk Assessment and Management (SDE/RA), Healthy Settings (SDE/HS), Essential Medicines, Vaccines, and Health Technology (THS/EV), Health Services Organization (THS/OS), Health Analysis and Information Systems (DPC/AIS) and Country Support (CSU).

36. The process began in May 2005 with a consultation comprised of experts from WHO, the Centers for Disease Control and Prevention, Brazil, Canada, Chile, Jamaica, Mexico and the United States who renewed PAHO's technical cooperation delivery and their proposal for the development of this plan. The Secretariat convened a planning meeting with technical units and focal points on 24-25 January, 2006. A consultation meeting with a wide range of experts and stakeholders from health ministries, NGOs and other organizations is planned for 23-24 February, 2006. Throughout March and April 2006 a broader consultation is planned with a wider range of stakeholders within

countries, each subregion and at PAHO/WHO Country Offices and Pan American Centers. The strategy will be finalized upon completion of the broader consultations.

Action by the Subcommittee on Planning and Programming

37. This document is presented for the consideration of the Subcommittee on Planning and Programming with the following objectives: (1) to elicit their comments on the APCD; (2) to propose ways in which PAHO can support and strengthen a unified and integrated strategy; and (3) to advise the Secretariat on how to best undertake initiatives for mobilizing the necessary resources.

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