The Challenge of Chronic Diseases on the U.S.-Mexico Border

A Report of the CSIS Americas Program and the CSIS Global Health Policy Center

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CONTENTS

THE CHALLENGE OF CHRONIC DISEASES ON THE U.S.-MEXICO BORDER

Katherine Bliss

Introduction

On March 17, 2010, the CSIS Americas Program, in partnership with the CSIS Global Health Policy Center, the Pan American Health and Education Foundation (PAHEF), and the U.S.-Mexico Chamber of Commerce, hosted a half-day conference entitled "The Challenge of Chronic Diseases on the U.S.-Mexico Border."

The U.S.-Mexico border region, roughly 60 miles on either side of the international boundary, features unique demographic and health challenges. Although they may be citizens of different countries, the 11.8 million people living on both sides of the border share striking similarities in the health challenges they face.

In recent decades, considerable migration from rural to urban environments, combined with changing occupational patterns and poor urban planning, has dramatically changed the lifestyle of these border populations. Chronic diseases, such as cardiovascular disease, diabetes, cancer, stroke, and liver disease, are now the leading cause of death in the region.

The economic costs incurred by a sharp rise in chronic disease are placing an increasing burden on family savings and public health care systems on both sides of the border, as they are throughout all countries of the Americas. The increasing prevalence of chronic disease is also elevating health insurance premiums for the region's employers and increasing the frequency of employee turnover, threatening the economic competitiveness and social fabric of the entire border region.

Through their respective national health agencies, and in cooperation with state and local agencies, private-sector entities, nongovernmental organizations, and binational associations, such as the U.S.-Mexico Border Health Commission, the United States and Mexico have begun to work together to address the emerging economic, social, and political implications of chronic diseases for the border zone.

The half-day conference included presentations by experts and representatives of public agencies, research institutions, nongovernmental organizations, and private-sector entities, all of whom have been carrying out investigations, undertaking advocacy, and implementing cooperative programs focused on preventing and controlling chronic diseases in the border area. The program featured a keynote address by Dr. Agustin Lara of Mexico's Ministry of Health, followed by two roundtable

discussions. The conference audio recording and the presentations are posted to the CSIS Web site at http://csis.org/event/challenge-chronic-diseases-along-us-mexico-border.

The overarching goals of the session were to raise awareness of the problem of skyrocketing rates of chronic disease in the U.S.-Mexico border region; facilitate the provision of policy recommendations to both national and regional governments to enhance investment in prevention efforts; share best practices and strategies for encouraging healthy lifestyles throughout the region; discuss innovative and effective models of health care and prevention for countering chronic disease; address barriers to cross-border cooperation and opportunities for collaboration; evaluate health concerns within the context of other regional factors; and encourage participants to advocate for a broad spectrum of policy changes to counter chronic disease along the border.

CSIS, PAHEF, and the U.S.-Mexico Chamber of Commerce anticipate that the March 2010 discussions, along with this report and the conference recommendations, will serve as the basis for a series of binational dialogues among key experts, advocates, and decisionmakers to focus attention on the political, economic, and social challenges of chronic diseases in the border region and to catalyze action at the policy and program levels.

Keynote Address

Agustín Lara Esqueda, Secretaría de Salud, Mexico

Dr. Agustín Lara Esqueda, at the time of the conference, was the director of the Adult and Elderly Health Program at the National Center for Epidemiological Surveillance and Disease Control within the Secretaría de Salud (Ministry of Health) in Mexico. He is now secretary of health for the State of Colima in Mexico. He began his keynote address by noting that the U.S.-Mexico border experiences a high number of legal as well as illegal crossings. According to Lara Esqueda, the common social, cultural, and economic practices of populations living in and working in the border area can make it difficult to distinguish between the Mexican and U.S. sides of the border. In many ways, the region is almost like a third country with unique characteristics, he observed. Unfortunately, the border region is also distinguished by having exceptionally high rates of chronic diseases. Elevated levels of unemployment, migration, and security-related challenges are factors that complicate efforts to prevent and control chronic diseases in the area.

During his keynote presentation, Lara Esqueda pointed to type 2 diabetes (diabetes mellitus) as a particular cause of concern because of its links to mortality and disability and because it is costly to treat. Increasing rates of obesity among the population, declining rates of physical activity, and poor nutrition choices account for the increasing prevalence of diabetes among the border-region population, he said. In Mexico in 2000, less than 10 percent of the population had been diagnosed with diabetes mellitus, but the results of the most recent Encuesta Nacional de Salud y Nutrición (National Health and Nutrition Survey) showed that, in 2006, 14 percent of the Mexican population had been diagnosed with the disease.

Lara Esqueda observed that a 2002 binational study conducted by Mexican and U.S.-based health experts revealed that within the border zone at least 15.6 percent of the population lives with diabetes. Each year, approximately 4,000 people living in the border area die from diabetes, with 2,500 per year dying in Mexico and 1,500 in the United States. Even more alarming is the fact that the estimated percentage of people who do not know they have diabetes is quite high: 40 percent in Mexico and 11.6 percent in the United States. Challenges to effective diagnosis and preventive care include the facts that many people living on the border do not possess the skills or health literacy to effectively manage their illness themselves; many communities cannot count on adequate access to health services; and many patients and families do not have the economic resources to meet the challenges posed by living with diabetes. When patients are not properly diagnosed and do not receive appropriate medical attention, they can suffer compounding difficulties, including blindness, renal failure, circulatory problems, and other disabilities. Thus, in Mexico and in the border region, there are strong links between poverty, chronic disease, and mortality.

Lara Esqueda suggested three changes that can help authorities and implementers create and promote a "culture of health" in which public officials, health practitioners, and citizens alike work together to prevent and manage diabetes, as well as other chronic diseases along the U.S.-Mexico border.

The first recommendation is to reform national and community health systems so that they are better equipped to deal with the challenges presented by chronic, noncommunicable diseases. In Mexico, as elsewhere, the health system is dedicated to the prevention and control of communicable diseases; however, according to Lara Esqueda, the rising rates of diabetes, cardiovascular disease, cancer, and other chronic conditions underscore the importance of training health professionals to address chronic, noncommunicable diseases and align public health program priorities and budgets with the emerging chronic disease paradigm.

A second recommendation is to ensure that public programs focus attention on promoting behavior change at the individual level and within the family. Patients, themselves, need to be empowered to take charge of their health and reduce their risk of suffering from chronic disease. At the same time, the health system also needs to support and offer incentives to patients to help them assume responsibility for changing their risk profiles, according to Lara Esqueda.

Families also have an important role to play in preventing and managing noncommunicable, chronic diseases. Women, in their roles as wives and mothers, have traditionally assumed responsibility for meal planning and cooking within the household. But as women enter the labor force in greater numbers, there is often less focus on health and nutrition within the household, and in many cases household members turn to less nutritious fast food as a convenient alternative to traditional diet and home-cooked meals. It is important for the health system, the educational system, and other sectors to reinforce the importance of eating balanced meals involving whole grains, as well as fresh fruits and vegetables, Lara Esqueda emphasized. Also, when one family member is diagnosed with diabetes, he said, it is essential that the entire family embrace diet modification, exercise, and behavior change, both to support their loved ones and to reduce their

own risk of being diagnosed with diabetes. For some families, not doing exercise has become a sign of social status and reflects pride in having achieved enough social mobility to leave behind a life of work focused on agricultural labor, construction, or domestic service. The stigma associated with physical exercise must be addressed, said Lara Esqueda. And with high levels of crime and insecurity in many border cities making it difficult for some people to prioritize physical fitness, it is necessary to involve urban planners and security personnel in developing and protecting public spaces in which people can walk, jog, or exercise safely.

Third, Lara Esqueda emphasized the important role played by the education sector in the fight against chronic disease. In Mexico, he said, snack food and sweetened soft drinks are sold in many public schools (often by teachers to supplement their income), and many schools do not count on potable water or water fountains, making high-calorie drinks the only beverage option for children. In recent months, Mexico's public health agencies have worked with schools to develop guidelines to limit the sale of sugared soda pop in educational institutions and to ban advertising of unhealthy foods within school buildings. The schools are also working to educate border-region students and their parents regarding how to best meet the challenges of chronic, noncommunicable diseases. Lara Esqueda recommended a multisectoral approach to disease prevention and awareness—involving health specialists, educators, planners, and the public—to strengthen the effort to reduce the negative economic and social implications of the chronic disease challenge along the U.S.-Mexico border.

Panel I: The Challenge of Chronic Diseases on the U.S.-Mexico Border

Beatriz Díaz Apodaca, Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, Chihuahua, Mexico

Beatriz Díaz Apodaca is the director of research and graduate studies at the Instituto de Ciencias Biomédicas at the Universidad Autónoma de Ciudad Juárez, where she also serves as a research professor. She prefaced her remarks by noting that chronic diseases are now responsible for 58 percent of all deaths worldwide. She observed that 80 percent of those deaths occur in low- and middle-income countries, explaining that the increase in rates of chronic diseases has been very dramatic and is part of a broader process of economic growth, demographic transition, urbanization, and globalization. The factors that account for their emergence as a major cause of mortality, she said, include environmental change, the failure of individuals to take responsibility for their health, and inadequate public policies. If left unaddressed, Díaz Apodaca warned, chronic diseases threaten to undermine recent economic gains and widen gaps in health between developed and developing countries.

Like Lara Esqueda, Díaz Apodaca signaled the importance of reforming health systems to incorporate an emphasis on behavior change and disease prevention into a broader recognition of noncommunicable, chronic diseases within public health settings. In Mexico, the rate at which the

population is becoming overweight or obese is among the highest in the world. Among children between the ages of 5 and 11, the rates of obesity rose 40 percent between 1996 and 2006, she said. The population's weight gain translates into higher rates of diabetes, with diabetes leading to ever greater rates of blindness, renal failure, and amputations.

One reason for the increase in chronic diseases related to weight gain, such as diabetes, is that people are not preparing and eating nutritious foods, according to Díaz Apodaca. She pointed to a recent study that showed that in Mexico people are drinking a half liter of sugared soft drinks per person per day. Families in indigenous communities, which are among the poorest in Mexico, spend more money on high-calorie soft drinks than they do on milk; the amount of money families spend on fast food each day could easily cover the cost of all their fruit and vegetable needs. Díaz Apodaca highlighted the ways in which changes in agricultural policy and practice are influencing food culture, as well. Beans, combined with rice or corn, provide a complete protein, but bean cultivation and consumption are on the decline, with many families rejecting traditional foods, viewing them as associated with poverty and indigenous lifestyles. The increasing occupation of women outside the home leaves them less time to cook traditional, nutritious meals for the family, as well. For example, in Mexico instant and canned soups, which are high in fat and salt, are very popular, and Mexico consumes 15 percent of the world's instant soup at a rate of 4.5 million servings per day. The mass media fuel the demand for less nutritious, "fast food" through advertising policies, according to Díaz Apodaca. With many children watching television for two hours a day, the exposure of Mexico's youngest citizens to images of "empty" calorie snacks and meals can be quite high—12,400 ads for fast food within a year's time.

Díaz Apodaca emphasized that any successful policies and programs to address chronic diseases must take into account the fact that the border is a highly integrated region, with people regularly moving from one side to another for work, to shop, or to spend time with family. Thus, communities on each side of the border should have common programs focused on nutrition, health, and physical activity, with the health sector emphasizing the reduction of inequalities in health and ensuring the improvement of population health, in general.

Díaz Apodaca presented several recommendations for policymakers to take into consideration in confronting the emerging challenge of chronic diseases on the U.S.-Mexico border: create healthy environments for work, education, and recreation; involve organizations and leaders who can prioritize improved health through a variety of initiatives; identify and support organizations and individuals who can take the lead in advocating for improved health through the reduction of risk factors that contribute to chronic disease; investigate and analyze community needs and goals; empower families and individuals to address chronic diseases through multiple sectors, including the education sector; and strengthen the research agenda, gathering information at the community level and ensuring that it can be shared across regions. Díaz Apodaca emphasized that citizens must be empowered to take an active role in protecting their health, stressing that they must be convinced that they are not necessarily fated to die from a chronic disease just because their parents or other relatives did.

David McQueen, U.S. Centers for Disease Control and Prevention (CDC), Atlanta, Georgia

Rather than focus on chronic diseases themselves, Dr. David McQueen, who is a senior biomedical research scientist and associate director for global health promotion at the National Center for Chronic Disease Prevention and Health Promotion of the U.S. Centers for Disease Control and Prevention, focused his remarks on eight political and social challenges that shape work on the border with respect to chronic diseases. He noted that CDC has been working for at least 15 years with partners in the border area. McQueen agreed that it is important to think of the region as its own entity, with its own characteristics, rather than as merely part of the United States or part of Mexico.

The first challenge McQueen identified was that the governments in each country have different priorities. The border area is the poorest in the United States but one of the more prosperous areas on the Mexican side. Despite these differences, programs should emphasize commonalities and links that tie the residents of each country.

The second challenge is that most health systems are focused on infectious diseases and have not yet been reformed to address chronic diseases. Health personnel must be trained to prevent and manage chronic diseases within health care settings. It is important to focus on data collection, risk assessment, and understanding what works and what doesn't in terms of outreach and prevention efforts at the community level.

McQueen's third point emphasized the necessity of partnerships with institutions of higher education. He noted that there are many potential academic institution partners on both sides of the border that are not currently being utilized. Universities, he noted, have vital links to communities, and public agencies and nongovernmental organizations focused on chronic diseases should pursue partnerships with the higher education sector to strengthen research, policy development, and program implementation.

A fourth challenge is that there are actually too many people working to address chronic disease on the border, according to McQueen. "Everyone wants to do everything," he said. However, groups hoping to address the challenge of chronic diseases in the border area should instead identify their strengths, whether technical, educational, or in the realm of advocacy, and work to complement each other rather than compete and get in each others' way.

The problem of silos, or stand-alone approaches, also characterizes work on chronic diseases in the border region, leading to the lack of an integrated effort with respect to chronic disease prevention. For example, those who work on diabetes prevention don't always talk with those doing environmental health, and neither group talks enough with education specialists or urban planners to ensure outreach programs reach the right groups or incorporate healthy environmental design approaches. Similarly, resources for program implementation must be integrated to facilitate intersectoral action, according to McQueen.

According to McQueen, there is too much focus on mortality data and not enough on risk factors that lead to chronic disease in the first place. Describing "mountains of data" that have been

"untouched by human thought," he stressed the importance of analyzing the data that is collected in order to understand what to collect and what is not worth the effort.

Finally, McQueen observed, there is a lack of sustainable focus on prevention and what works in the area of prevention. Program implementers and policymakers must prioritize efforts to understand the links between poverty and chronic disease.

María Teresa Cerqueira, Pan American Health Organization (PAHO) U.S.-Mexico Border Office, El Paso, Texas

Maria Cerqueira, who is head of the PAHO U.S.-Mexico Border Office, began her remarks by noting that the U.S.-Mexico border is one of the busiest in the world, with 24 official ports of entry and significant trade and immigration processes fueling movement across it in both directions. While there are important differences with respect to economic performance, political organization, and social indicators that distinguish the two sides, there are many common features, as well. These include urbanization, population growth, violence/insecurity, and similarly increasing rates of chronic disease. These features reinforce the importance of binational dialogue and alignment of regional health priorities.

Cerqueira noted that the population living within the border region itself is young, with 23 to 25 percent of the population under 15 years of age. It is also a largely urban population, with 95 percent of residents living in so-called sister cities, including San Diego–Tijuana, El Paso–Ciudad Juárez, Laredo and Nuevo Laredo, and McAllen-Reynosa. In addition to the growing challenge of chronic, noncommunicable diseases, the border faces other health challenges, including tuberculosis and HIV/AIDS, as well as mental health concerns related to the stress of drug-related violence and insecurity. Health issues linked to environmental quality, such as waterborne illness and vector-borne diseases, also undermine the quality of life that border-region residents enjoy. And the rapid urbanization of the region has given rise to a built environment that does not encourage physical activity or healthy living.

There are a number of organizations and binational associations that carry out health-related work in the border region. These include the PAHO/WHO U.S.-Mexico Border Health Office, the U.S.-Mexico Border Health Association, the U.S.-Mexico Border Health Commission, and the Border Governors' Conferences "health tables."

Cerqueira affirmed that obesity and diabetes are special problems along the border, with the United States and Mexico leading the world in terms of rates of overweight and obesity. Coordinated, binational action to address chronic diseases such as diabetes is often hampered by the fact that the countries do not use the same case definitions and methodologies to report diseases, so it can be difficult for the health agencies in each country to share and compare information. Also, there are important gender differences: women experience higher diabetes rates in the United States, but men in the border region of Mexico lead with respect to diabetes diagnosis. There are common features, as well: at least 50 percent of the population on both sides fails to exercise for at least 30 minutes a day at least two to three times a week, contributing to high rates of hypertension.

Cerqueira observed that the PAHO U.S.-Mexico Border Health Office has been engaged in the U.S.-Mexico Border Diabetes Prevention and Control Project, which studies the prevalence of a variety of diabetes-related conditions, measures access to health care, and investigates the domestic and occupational environments of people living in the region. The project revealed that there are over 1 million people in the border area over the age of 18 living with type 2 diabetes and 138,329 women in the border region who have developed gestational diabetes.

Cerqueira noted that it is important to incorporate community health workers into research efforts and to advocate for changes at the municipal and state levels. Working with PAHEF, PAHO has created centers for excellence within local universities in order to strengthen training to prevent chronic diseases, improve information management, and incorporate private-sector expertise. Like the other panelists, Cerqueira emphasized the importance of working with schools, the mass media, and urban planners to ensure a multisectoral approach to preventing and controlling chronic diseases in the region.

Agustín Lara Esqueda, Secretaría de Salud, Mexico City, Mexico

Obesity and being overweight are now recognized as major contributors to levels of chronic disease worldwide, and 90 percent of cases of type 2 diabetes are related to being overweight, according to Agustín Lara Esqueda. Obesity and being overweight also contribute to high rates of hypertension, coronary heart disease, stroke, arthritis, and cancers, such as breast, esophagus, colon, and kidney cancer.

The 2006 Encuesta Nacional de Salud showed that Mexico is facing significant challenges with respect to chronic diseases, particularly in the area of weight-related diseases, such as diabetes. Over 70 percent of the country's population is overweight, with 30.8 percent being categorized as obese. Within 10 years, experts project that 90 percent of the population will be overweight. Mexico's population is the second most obese within the Organization of Economic Cooperation and Development (OECD), and obesity is responsible for an estimated 8 to 10 percent of premature deaths in Mexico. In 2008, nearly 75,000 deaths, or 14.6 percent, were related to diabetes mellitus. People who develop chronic diseases because of being overweight live with illness and disability for nearly 20 years before death. Indeed, Lara Esqueda warned that Mexico could soon see a generation in which children die before their parents because they have higher risk factors.

Lara Esqueda noted that under current Secretary of Health José Angel Córdova, Mexico has developed a 10-point plan to prevent and treat chronic diseases, including obesity, cardiovascular disease, and diabetes. The plan includes the following points: encourage the food industry to produce and market more nutritious food; offer fiscal stimuli to families and employers to encourage people to adopt healthy lifestyles; adapt educational programs for health professionals to include an emphasis on chronic diseases; incorporate into primary and secondary schools the program "*Educación Saludable*," which includes a focus on chronic disease prevention and healthy living; create incentives within health care settings to promote chronic disease detection and opportune treatment; increase the number of patients who seek help to prevent chronic disease

related problems; change the way health services are rendered to augment coverage by the health system for patients; develop and implement an epidemiologic vigilance system for chronic diseases; and strengthen policies to reduce failures within the health system.

Among recent actions the government of Mexico has taken to address the growing problem of chronic diseases is the construction of 59 clinics dedicated to chronic disease prevention and treatment. One goal is to develop multidisciplinary centers, staffed by doctors, nurses, social workers, and health educators, with kitchens to teach people how to cook and space for employees and staff to walk at least 20 minutes a day to set an example for all patients. The "*Modelo Mexicano*" is also working to promote five universal, science-based interventions: physical exercise; drinking water; eating fruits and vegetables; regular weight measurement; and sharing experiences with others. Also, there is an effort to disseminate information about diabetes through popular print media, such as *historietas*, or popular comic books. For example, Mexico's health agencies have prepared a comic book about diabetes, one about physical exercise, and one about HIV/AIDS, as well as physical activity. Lara Esqueda also noted that the government has bolstered its hiring of health *promotores*, who will focus on improving rates of physical exercise within communities.

Overall, Lara Esqueda observed, Mexico's goals are to reverse the trend toward obesity by 2018; to raise life expectancy by 1.5 years; to reduce by 20 percent the rate of growth of mortality due to diabetes mellitus; and to reduce by 15 percent deaths due to heart disease in people under 65 years of age.

Panel II: Solutions to the Challenge of Chronic Diseases on the U.S.-Mexico Border

Jennifer Cabe, Canyon Ranch Institute, Tucson, Arizona

Jennifer Cabe is executive director of the Canyon Ranch Institute in Tucson, Arizona. She began her remarks by noting that 70 percent of avoidable mortality in the United States is caused by environmental and behavioral factors, yet the country invests only 1 to 3 percent of resources in disease prevention. She observed that Canyon Ranch Institute in Tucson approaches the challenge of chronic diseases from the perspective of health literacy. The work is informed by the experience of Canyon Ranch Institute president Richard Carmona, former surgeon general of the United States, and incorporates the idea that health should be considered in all aspects of policy formulation. According to Cabe, Canyon Ranch Institute's work is also informed by the idea that any emphasis on healthy living must be backed up by efforts to strengthen social and community support for behavior change.

Working in partnership, building multifunctional teams, and incorporating the perspectives of multiple sectors to carry out the work of prevention are key elements of program success at Canyon Ranch Institute, according to Cabe. In addressing chronic diseases, Canyon Ranch Institute has joined with partners such as the Mel and Enid Zuckerman College of Public Health at the University of Arizona, the Lance Armstrong Foundation, the STOP Obesity Alliance, and with

Time to Talk CARDIO (Creating a Real Dialogue in the Office) to resolve chronic disease challenges in the border region. Canyon Ranch Institute has also joined in the National Call to Action on Cancer Prevention and Survivorship to empower healthy lifestyles to prevent cancer; apply what is known about cancer screening and early detection to all people; ensure that all people can navigate through the health care system; and provide survivorship care plans and a system of support for all cancer survivors.

Cabe stressed that Canyon Ranch Institute believes that it is important to understand that different people have different kinds of health literacy and people must be empowered to develop the skills they need to find, understand, use, and communicate health-related information. One program Canyon Ranch Institute has supported is "Healthy Steps for Families," based on the U.S. Centers for Disease Control and Prevention's "*Pasos Adelante*" program focused on helping adults and older women to get physically fit and lose weight. Canyon Ranch Institute has worked with the University of Arizona to adapt the program for mothers of young children to disseminate health and wellness messages for families. These programs involve a holistic approach of diet, nutrition, physical activity, stress management, integrative medicine, and eating/cooking.

Cabe also described a second activity Canyon Ranch Institute has developed: the bilingual Life Enhancement Program, in which experts work at the community level to raise awareness among the population regarding the importance of good nutrition and exercise in the prevention of chronic diseases. They have carried out demonstration projects in New York, Missouri, and Ohio, training a core team of 10 to 15 health professionals to build a curriculum around the needs of families and community members. In the South Bronx, for example, the health professionals listened to people's concerns regarding their ability to eat well and exercise and developed a world-class health and wellness center that is now regularly used by residents of all ages. Canyon Ranch Institute also worked with local shop owners to bring fruits and vegetables to markets in the area, ensuring that local residents can use their WIC (women, infants, and children) cards to purchase fresh food and eat healthier meals.

Josephine Garza, National Latino Children's Institute (NLCI), San Antonio, Texas

Josephine Garza, executive director of the NLCI, noted that the organization was founded 13 years ago to focus on improving the health and welfare of Latino children in the United States. Latino children are among the most overweight and have the lowest fitness rates of any group of children in the United States, she said, and NLCI focuses on helping Hispanic families with children under the age of 12 increase their level of physical activity and adopt healthy diets. To ensure the success of its programs, NCLI works with partners from a variety of sectors, including the private sector, the mass media, and community groups; recent partners include Kraft Foods, Latino Health Communications, and the National Recreation and Park Association.

One successful activity has been the development of the program "*Salsa, Sabores y Salud*," a Spanish-language program designed to improve the health of children ages 8 to 12. Program staff began by asking people living in predominantly Latino communities what keeps them from

practicing good nutrition and getting more exercise. NLCI and its partners learned that traditions are hard to change. People do not want to abandon their favorite traditional foods; for example, they asked how to make tamales, which are typically prepared with lard, more healthy. But NLCI also discovered that many Latino families do not engage in health-promoting behaviors because relevant information is not available to them in Spanish. Beyond the challenges of language and culture, NLCI learned that additional obstacles to physical fitness and healthy eating among Latino families included the sense that parks and streets in the urban neighborhoods where they live are unsafe and that markets in many urban neighborhoods do not carry fresh fruits and vegetables. Many interviewees reported that they felt as though nutrition and wellness programs focused on dieting and exercise are designed to punish them, making it unlikely they will voluntarily continue.

Based on the information gleaned through interviews and surveys, NLCI developed an eight-week interactive program to teach parents and children about healthy lifestyles within their communities. According to Garza, the results so far have been impressive. In one case, the families felt empowered to "take back" the public parks from local gangs or delinquents. In another, street vendors were motivated to sell nutritious snacks when families enrolled in the outreach program began demanding more nutritious food. But Garza observed that many Latinos live in urban communities where it is not always safe or comfortable for them to exercise outdoors, and thus the program staff have developed and disseminated exercises that may be carried out in the privacy of the home. By the end of 2009, the program had trained 377 staff in more than 100 community organizations, reaching more than 26,000 participants.

Garza emphasized that factors that contribute to program success include adopting materials that emphasize respect and value for Latino culture and traditions in order to ensure the sustainability of lessons learned and positive practices. Working with the corporate sector and in partnership with communities to engage schools, park districts, and other local resources in the effort to promote children's health is also important. Finally, it is essential that the curriculum be flexible enough to adapt to local conditions and emerging health challenges.

Dan Reyna, U.S.-Mexico Border Health Commission (BHC), El Paso, Texas

Dan Reyna is general manager of the U.S. Section of the U.S.-Mexico Border Health Commission. He opened his remarks by affirming that the border area, defined as the 100-kilometer area on either side of the international boundary between Mexico and the United States, is in many ways its own unique region. Formalized by the La Paz agreement of 1983 and by P.L 103-400 (1994), it involves 44 counties on the U.S. side and 80 municipalities on the Mexican side, with 15 sister cities. The commission serves as a platform for helping the countries do business horizontally.

The BHC was formed in 2000 and includes five vertical regions to facilitate cross-border work. It is led by the secretaries of health of the United States and of Mexico and includes 12 commissioners, 6 from each country. In the United States, the representatives include 2 from each of the 4 border states, plus 4 representatives appointed by the president. Mexico's 12 commissioners represent the 6 states on the border. All 10 border states have offices of border health or outreach offices, as well.

The goals of the BHC are to provide international leadership and to serve as a venue for binational action to optimize health and the quality of life along the U.S.-Mexico border. Strategic roles include facilitating research, catalyzing partnerships, promoting sustainable partnerships for action, and serving as an information portal. To raise awareness regarding border health matters, the BHC supports a border binational health week each October.

One program Reyna described was "Healthy Border 2010." He noted that it builds on the "Healthy People Program" developed in the United States and cover 11 focus areas, including diabetes, cancer, and HIV/AIDS. Reyna noted that the BHC plans to launch a new program, "Healthy Border 2020," to refocus attention on issues of obesity, diabetes, and childhood obesity, which are posing increasing risks for economic advancement in the region. The BHC has also carried out research and outreach focused on chronic diseases. Recent efforts have included a June 2009 white paper on childhood obesity and a forum on child and adolescent health. The BHC is planning to sponsor a binational multimedia campaign on obesity and diabetes, while publishing a report on border obesity and diabetes and developing model programs regarding childhood weight gain and disease challenges.

Conclusions and Recommendations

CSIS, PAHEF, and the U.S.-Mexico Chamber of Commerce anticipate that the March 17, 2010, meeting on the challenge of chronic diseases on the U.S.-Mexico border will help stimulate dialogue and coordinated action among health policymakers and program implementers at the national, state, and community levels in both the United States and Mexico. The organizations intend to share the outcomes of the conference and the recommendations in this report with representatives of executive agencies, members of legislative bodies, officials within state governments, residents of border communities, and representatives of the private sector in both Mexico and the United States. CSIS, PAHEF, and the U.S.-Mexico Chamber of Commerce also plan to organize smaller, follow-on events in Mexico City and in cities on both sides of the border in order to build on the momentum generated at the workshop and through other recent activities in order to contribute to a broader process of policy discussion and reform. The organizations anticipate that the following conclusions and recommendations will help decisionmakers within multiple sectors and at all levels address the emerging economic, social, and political challenges posed by chronic diseases through enhanced research; the implementation of culturally relevant, multisectoral partnerships; and improved evaluation of promising solutions in order to improve health conditions for residents of the U.S.-Mexico border zone.

- The areas on either side of the U.S.-Mexico border share many common social, economic, and political challenges. The rates of chronic diseases are increasing rapidly among populations on both sides of the border, thanks in large part to urbanization, globalization, and changing lifestyles. Policymakers and health providers in Mexico and the United States must recognize the integrated nature of social life and health patterns along the border and develop chronic disease prevention and management programs that are binational in scope.

- National and community health systems, which have traditionally focused on preventing and treating infectious diseases, should be restructured so that institutions and personnel are better able to confront the emerging challenges presented by chronic, noncommunicable diseases.
- Public health interventions related to chronic disease should focus on prevention and on promoting behavior change at the community level and within the family. Successful interventions will take community goals and needs into account and will be culturally and linguistically relevant. Programs must empower participants to recognize their own risk factors for chronic disease and to take action to reduce their disease risk.
- Interventions to prevent and control chronic diseases in the U.S.-Mexico border area must involve multiple sectors, including the health, education, transportation, and urban planning sectors, and diverse partners, including those from the private sector, public agencies, and nonprofit organizations.
- Schools and workplaces have an important role to play in educating children and their families about health and well-being, while city officials and law enforcement personnel must ensure that institutions and public spaces are safe and can facilitate healthy behaviors, such as exercise and healthy consumption patterns. In collaborating, partners should work to complement each other rather than compete and get in each others' way.
- Universities have vital links to communities; public agencies and nongovernmental organizations focused on chronic diseases should pursue partnerships with the higher institution sector in both the United States and in Mexico.
- Intersectoral research focused on better understanding risk factors for chronic disease and what strategies successfully prevent or mitigate chronic diseases should be supported. It is also important that research agencies in the United States and in Mexico focus attention on the social, economic, and political conditions that lead to poverty and the health disparities that are associated with increased risk for chronic disease.
- The mass media have a clear role to play in raising awareness about the emerging challenge of chronic diseases in the border area. Health agencies and nongovernmental organizations in both countries should work with the mainstream media to make information about chronic diseases available to the public and to portray images of healthy living and prevention activities, including physical exercise, abstention from smoking, moderate alcohol consumption, and healthy eating patterns.

Appendix. Conference Agenda

8:00–8:30 Registration and Breakfast

8:30–8:35 Welcome

Peter DeShazo, *Director, Americas Program, CSIS, Washington, D.C.*

8:35–9:15 Keynote Address

Agustín Lara Esqueda, *Director, Adults and Elderly Health Program, National Center for Epidemiological Surveillance and Disease Control, Secretaría de Salud, Mexico City, Mexico*

Moderator: Edward Kadunc, *President, Pan American Health and Education Foundation, Washington, D.C.*

9:15–10:30 Panel I: The Emerging Challenge of Chronic Diseases in the Border Region

María Teresa Cerqueira, *Chief, U.S.-Mexico Border Health Office, Pan American Health Organization, El Paso, Texas*

David McQueen, *Associate Director for Global Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, U.S. Centers for Disease Control and Prevention (CDC), Atlanta, Georgia*

Beatriz Díaz Apodaca, *Director of Research and Graduate Studies, Instituto de Ciencias Biomédicas, Universidad Autónoma de Ciudad Juárez, Ciudad Júarez, Mexico*

Agustín Lara Esqueda, *Director, Adults and Elderly Health Program, National Center for Epidemiological Surveillance and Disease Control, Secretaría de Salud, Mexico City, Mexico*

Moderator: Katherine Bliss, *Deputy Director and Senior Fellow, Global Health Policy Center and Senior Fellow, Americas Program, CSIS, Washington, D.C.*

10:30–10:45 Break

10:45–12:00 Panel II: Innovative Solutions in Addressing the Challenge of Chronic Diseases along the U.S.-Mexico Border

Jennifer Cabe, *Executive Director, Canyon Ranch Institute, Tucson, Arizona*

Josephine Garza, *Executive Director, National Latino Children's Institute, San Antonio, Texas*

Dan Reyna, *General Manager of the U.S. Section of the U.S.-Mexico Border Health Commission, Office of Global Health Affairs, Office of the Secretary, U.S. Department of Health and Human Services, El Paso, Texas*

Moderator: Al Zapanta, *President and CEO, U.S.-Mexico Chamber of Commerce, Irving, Texas*

About the Author

Katherine E. Bliss is a senior fellow in the Americas Program at the Center for Strategic and International Studies (CSIS) in Washington, D.C. She is also a senior fellow and deputy director in the CSIS Global Health Policy Center, where she directs the Global Water Futures Project. Before joining CSIS, she was a foreign affairs officer at the U.S. Department of State, where she served in the Bureau of Oceans, Environment, and Science and received the Superior Honor Award for her work on environmental health in 2006. As a 2003–2004 Council on Foreign Relations International Affairs fellow she served as a member of the State Department's Policy Planning Staff, covering issues related to global health, women, Mexico, and the Summit of the Americas. Previously, she served on the faculty at the University of Massachusetts at Amherst, where she was associate professor; she is currently an adjunct associate professor at Georgetown University and teaches courses in the School of Foreign Service's Center for Latin American Studies. Bliss is the author or coeditor of books, reviews, and articles on criminality, public health, gender issues, and reform politics in Latin America, including *Compromised Positions: Prostitution, Public Health, and Gender Politics in Revolutionary Mexico City* (Penn State University Press, 2001).

Bliss received her Ph.D. from the University of Chicago and was a David E. Bell fellow at the Harvard School of Public Health's Center for Population and Development Studies in 2000–2001. She received her A.B. magna cum laude and her A.M. from Harvard University and studied at the Colegio de México in Mexico City.