What We Can Learn From Argentina

In July of 1999, my family and I moved from the Indiana University School of Medicine in Indianapolis, where I am a Professor of Internal Medicine and Director of the Diabetes Research and Training Center as well as the Editor in Chief of *Diabetes Care*, to La Plata, Argentina, to spend a sabbatical year. During my professional career, I have designed, implemented, and evaluated diabetes education programs for physicians, other health professionals, and patients. The opportunity to apply this experience in a developing country and to learn from their efforts was compelling. I hoped to apply what I learned in Argentina when I returned to the U.S. in my professional activities at the Medical School, in my role as Chair of the Steering Committee of the National Diabetes Education Program, and as the Editor in Chief of *Diabetes Care* (1,2).

An additional inspiration for this sabbatical was my concern about the imminent diabetes epidemic facing developing countries and our Latino population and my respect for the response of the Americas summarized in their Declaration of the Americas (DOTA) (3–5). The DOTA predicts an increase in the diabetes population of 45% in developed countries by the year 2025 and an increase in diabetes prevalence in developing countries of 200%! (3) Thus, I felt that we need to both support the development of indigenous programs in developing countries and apply what has been learned there to our own increasing Latino population.

I chose Argentina because I knew and respected Professor Juan Jose Gagliardino of the Medical Faculty of the National University of La Plata and the programs in Argentina for the training of diabetes specialists, primary care physicians, allied health professionals, and patients. These programs, sponsored by the Argentine Diabetes Society (Sociedad Argentina de Diabetes [SAD]), could serve as the underpinnings for the program we wished to develop in collaboration with SAD (i.e., to train nonphysician health professionals in the development of health care teams in type 2 diabetes).

During the year before my sabbatical, Dr. Gagliardino, Dr. Isaac Sinay, then President of SAD, and I collaborated on developing a proposal to implement and evaluate such a program. The program, Programa de Capacitación para integrantes no médicos del Equipo de Salud en Diabetes Tipo 2 (CADIEQ for its initials in Spanish), is a joint effort of the Indiana University School of Medicine and SAD. The diabetes educators trained in CADIEQ were to return to their health care settings to set up health care teams in collaboration with their primary care physicians who, as their counterparts in the U.S., care for the vast majority of patients with diabetes in Argentina. CADIEQ was designed as a model for diabetes care in Latin America consistent with DOTA. The Eli Lilly Foundation funded the project for 3 years, with my being on site for the initial year.

Argentina has a mixed medical care system with certain parallels to the U.S. system. Retired workers are covered by a separate state-funded system, PAMI (6). Previously, most union members and their families were covered through Obras Sociales, which are employee benefit associations for union members. Originally, Obras Sociales were complete delivery systems owned and administered by the unions but now, with funding to finance reforms from the World Bank, the Obras Sociales are consolidating and becoming more like conventional insurance companies. Their resources vary widely according to the economic strengths of their individual unions.

In the 1990s, then President Carlos Menem inaugurated reforms of the health financing system in Argentina to enable Obras Sociales to compete for members outside of their unions. Union members are no longer tied to one Obra Social but may select among competing Obras Sociales or conventional insurance plans including HMOs (Prepagas). With this reform, there has been intense interest on the part of U.S. managed care organizations to invest in Argentina.

These are tough economic times for Argentina as they move from a command economy to a market-based one. Until the 1980s, the state sector commanded >50% of the gross nation product, and most of the middle class worked for the state in enterprises that have been rapidly privatized and subsequently downsized. Currently, the country is recovering from a severe recession and the official unemployment rate is ~15%. As a result of these economic transitions, ~40% of the population has no health insurance and receives care from the provincial system of public hospitals, most of which are university affiliated and analogous to our public hospital system before Medicaid.

While there are excellent diabetes programs, particularly in Buenos Aires and the major cities in Argentina, primary care sites provide health care for the vast majority of patients with diabetes. For the past 25 years, SAD has had a program to train primary care physicians to become specialized in diabetes. These programs are didactic and practical, lasting 6 months. Each year they train 12 physicians, four from Buenos Aires, four from the remainder of Argentina, and four from other Latin American countries. Although there are a number of formally trained endocrinologists here, these SAD-trained diabetologists make up the bulk of diabetes specialists.

More recently, SAD has initiated a program to train primary care physicians in diabetes care, PROCAMEG (7). These programs are conducted by specifically trained diabetes specialists and cover most of Argentina. A third program, PROPAT, is being conducted in the Obra Social in the Buenos Aires province that provides care to government workers, the IOMA (8). This is a demonstration project of comprehensive diabetes care and contains a formal evaluation system with the expectation that the results, if positive, would be used to expand the program with institutional support from the IOMA.

CADIEQ fits well into the ongoing programs. The newly formed teams will integrate with the local diabetes specialists and primary care physicians trained in PROCAMEG, providing patient education and follow-up in their local institutions. The data collection instruments are parallel permitting comparative evaluation of patients in the two programs, PROCAMEG and CADIEQ.

The grant we received permits us to train 40 teams of health professionals over a 2-year period with a third year for evaluation. The criteria for the teams include geographic distribution, willingness of the sponsoring clinics to commit to develop and support diabetes health care teams

when they return, and their willingness to participate in a subsequent evaluation plan. Six health specialties were identified as key to the care of people with diabetes in Argentina and are as follows: nurses, diabetes educators, physical therapists, social workers, nutritionists, and podiatrists. The first round of training has been completed. Each course lasts a week with both general diabetes content and specialty-oriented information. The programs are scripted and intimate with 8–12 participants. Each participant is evaluated pre- and postcourse and is required to write a description of his or her future work upon return.

All of the materials developed are being cataloged to make them available as a model for other Spanish-speaking countries. During the final year, we will evaluate both the objective functioning of the teams and patient outcomes in terms of patient satisfaction and metabolic control. We will formally evaluate forty patients from each of eight teams selected by their geographic distribution. At the end of the program, we will have a turn key program for Latin America.

Diabetes Care has become an international journal. The American Diabetes Association has entered into agreements to translate articles that have appeared in the journal into a variety of languages to reach a wider audience. During my year on sabbatical, the first issues of *Diabetes Care* in Spanish and Portuguese came out. The reprinting of selected articles relevant to clinical care are directed toward the health professionals who care for the 450 million people who speak Spanish or Portuguese. These Spanish language articles should also permit us to reach out to those Latino health professionals who care for many of the 29 million Latino Americans.

My fellow North American researchers and I have been humbled, almost to the point of embarrassment, by the quality of the ongoing programs here. We North Americans tend to invent our own solutions and rely on money to solve our problems. We have much to learn from the elegant solutions developed by those who have little or no money available. Argentina has developed a low-cost comprehensive approach to diabetes, surprising in its simplicity and likely to lead to improved diabetes outcomes. Their new approach evaluates results and makes midcourse corrections. (See also the Commentary by Gagliardino, Williams, and Clark [9]).

As the world's economic leading power, we need to take advantage of the excellent strides in health care being made in developing countries. As I had hoped, much of what I did and learned in Argentina will be directly beneficial to our increasingly diverse North American population.

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