

Health care quality improvement in Mexico: challenges, opportunities, and progress

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The health care quality improvement effort is international: all nations seek to apply new knowledge and new technology for the health of their populations. However, the environment within which this effort takes place differs remarkably. In Mexico, for example, total expenditure on health care is only 5.6% of the gross national product—compared with about 15% in the USA, 11% or 12% in Canada, and an average of 6.1% in the Latin American countries. Further, 52% of Mexican health care expenditures are out of pocket in a country where poverty is prevalent and many people postpone care.

Structurally, the health care system in Mexico is public and private. Mexico has 4000 hospitals. The 1000 public hospitals have 75% of the beds; 90% of the 3000 private hospitals have ≤ 20 beds, often as few as ≤ 5 beds. In fact, some “private hospitals” can hardly be considered hospitals at all, since they have no laboratories, radiography equipment, or even nurses. The system also includes 20,000 primary care facilities.

As soon as President Vicente Fox began his administration in December 2000, government leaders began working on a national strategy for improving health care. In this article, I discuss the health care challenges, the objectives of this particular strategy, and the progress made to date.

HEALTH CARE CHALLENGES

Equity is one of the 3 main challenges faced in the Mexican health care system. In Mexico, 40 million people have incomes below the poverty line, and most of them are very, very poor. In contrast, maybe 2% of the population is rich, so the gap is enormous. If one child is born in the native Indian part of the state of Chihuahua and another is born the same day in Monterey, those children immediately face inequities: the child born in Monterey has a 17-year longer life expectancy.

Based on high out-of-pocket expenditures and the prevalence of poverty, financial protection is another major challenge. Each year, around 3 million people in Mexico face catastrophic expenses due to major illnesses or injuries.

Finally, quality is a challenge. According to several surveys, the population perceives the quality of health care as being very low in both the public and private sectors. In 1994, 44% of sur-

vey respondents rated quality as the major health care problem, followed by insufficient resources (30%), limited access (11%), and high costs (9%) (1). Interestingly, when the survey was redone in 2000, cost exceeded quality as the major problem cited due to the economic problems the country faced in 1995. Nevertheless, with cost related to access, quality remains the number one issue when it comes to provision of health care services. Further, when 1304 citizens were asked if various public services were good or excellent, only 37% gave these ratings to health services. Health services received ratings higher than only one other department, police; ratings were lower than those of pub-

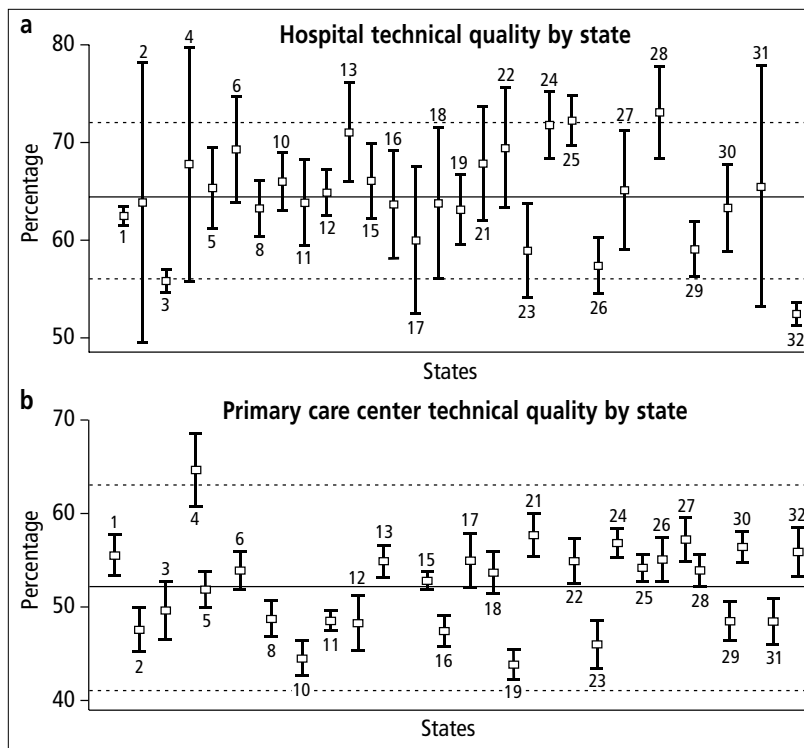


Figure 1. Level of technical quality measured in facilities of the Mexican Secretary of Health in 32 states, 1997 to 2000. (a) Hospitals: $n = 288$, mean = 64, standard deviation = 8. (b) Primary care centers: $n = 3047$, mean = 52, standard deviation = 11. Data not shown for states 7, 9, 14, and 20. Source: Ministry of Health. Continuous Quality Improvement Program in Health Care.

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lic schools, water and sewage services, telephone services, and public transportation (2).

When technical quality is measured as an index based on several structure and process indicators, variations exist not only between states but also within states (Figure 1). Such variation implies that it is a matter of luck whether Mexicans receive good quality care. It depends on which state they live in, which hospital they go to, and even what time they arrive. In addition, the average level of quality is very low. Such results apply to more than just facilities of the Secretary of Health. From 1999 to 2001, 492 hospitals of different types were assessed for accreditation, and the trend of variation continued.

THE NATIONAL HEALTH PROGRAM

To address the three challenges, the National Health Program was developed. This program has the following objectives:

- To diminish inequalities in health (3 corresponding strategies)
- To ensure fair financing (1 corresponding strategy)
- To strengthen the health care system (5 corresponding strategies)
- To improve the health status and to improve responsiveness (1 corresponding strategy: the National Crusade for Quality in Health Care)

The governmental division that I lead, called the Undersecretary for Innovation and Quality, is responsible for all the objectives. This undersecretary division is one of 4; the other 3 deal with finance and administration; relationships with other public health care providers, congress, and state governments; and health promotion and disease control. Within the Undersecretary for Quality and Innovation, there are 3 branches: Quality and Education, Equity and Development, and Financial Protection. The undersecretary employs 1000 workers at the central level in Mexico City, 7000 workers in the states, and 14,000 interns and residents.

I now wish to focus on the quality crusade. The term “crusade” was chosen because its meaning incorporates the elements of vigor and a concerted action. Joint action is critical: the problem concerns not only the Secretary of Health or the private sector, but the entire country. To date, 4 public entities and about 20 private entities (including national academies, associations, and educational organizations) have joined the crusade. The idea is to get the ownership of all involved so that the crusade charges forward regardless of government support.

The crusade’s general objectives are to improve the quality of care, to substantially decrease variations throughout the system, and to improve perceptions; these objectives are focused on the users, the health care organizations, the health care system as a whole, and the general population. Social endorsement of efforts is key.

A smile was chosen as a visual image of the crusade for a number of reasons. First, the “RIA” of its Spanish term, *sonría* (smile), becomes an acronym for the objectives of responsiveness and improving health status: respect (*respeto*), information (*información*), and kindness (*amabilidad*) for improving responsiveness, and outcomes (*resultados*), indicators (*indicadores*), and effective care (*atención médica efectiva*) for improving health status. Dimensions are called the “3 Es”: effective, efficient, ethi-

cal, and safe. Second, the smile image itself is significant. We want to see smiles from consumers and from providers. Achieving actual smiles will be tough, because resources and cultural changes are needed. The crusade is a long-term effort, but it must be started right away. What was done in the past lacked coordination and continuity.

The crusade has a long-term vision (for 2025) and a short-term vision (for 2006). By 2006, the crusade hopes to achieve explicit recognition of quality within the culture of health care organizations and evidence of improvement throughout the country that is clearly perceived by users, providers, and the entire population. In addition, the crusade has 3 strategies. The first is a thrust to change. New paradigms need to be developed and new work environments created. Continuous learning is a part of this, so it is another strategy. All efforts must be sustained over time, so sustainability is the third strategy. Seventy lines of action are associated with these strategies. They can be summarized in the following 10 overarching efforts:

- Codes of ethics
- Education for and of quality
- Information towards and from the users, on and for improvement
- Continuous quality improvement processes
- Incentives
- Process standardization and monitoring
- Outcome monitoring
- Accreditation of institutions and certification of providers
- Regulation
- Social participation

All participating institutions have identified 50 outcome measures that they would like to see assessed. Some of these were chosen for immediate testing, as discussed in the next section.

PROGRESS

Progress has already been made on several of the lines of action. For example, a nursing code of ethics has been developed and incorporated into hospitals and nursing schools. The patients’ rights element of a physician code of ethics has been prepared. An agreement has been made with the Mexican Association of Schools of Medicine: the Secretary of Health hospitals will no longer accept students from schools that are not accredited; neither will students be allowed to have internships in hospitals that are not accredited. Similar arrangements will be made with nursing schools and dental schools. Accreditation in Mexico is relatively new; hospitals have been accredited for 4 years and medical schools for 8 years.

Beyond this, several indicators have been measured. Results tabulated from 2750 primary care units and 250 hospitals (about 25% of public-sector entities) in 29 of 31 states showed that waiting times in primary care and emergency services declined an average of 8 minutes, with patient satisfaction with waiting improved to an average of 85%; and better information was provided to patients on diagnosis, prognosis, and treatment, with 90% reporting satisfaction with the information provided (Figure 2). However, another indicator—satisfaction with the drugs provided and percentage of drugs provided according to prescription—did not show much improvement. These indicators were chosen because they were specifically listed as concerns of the

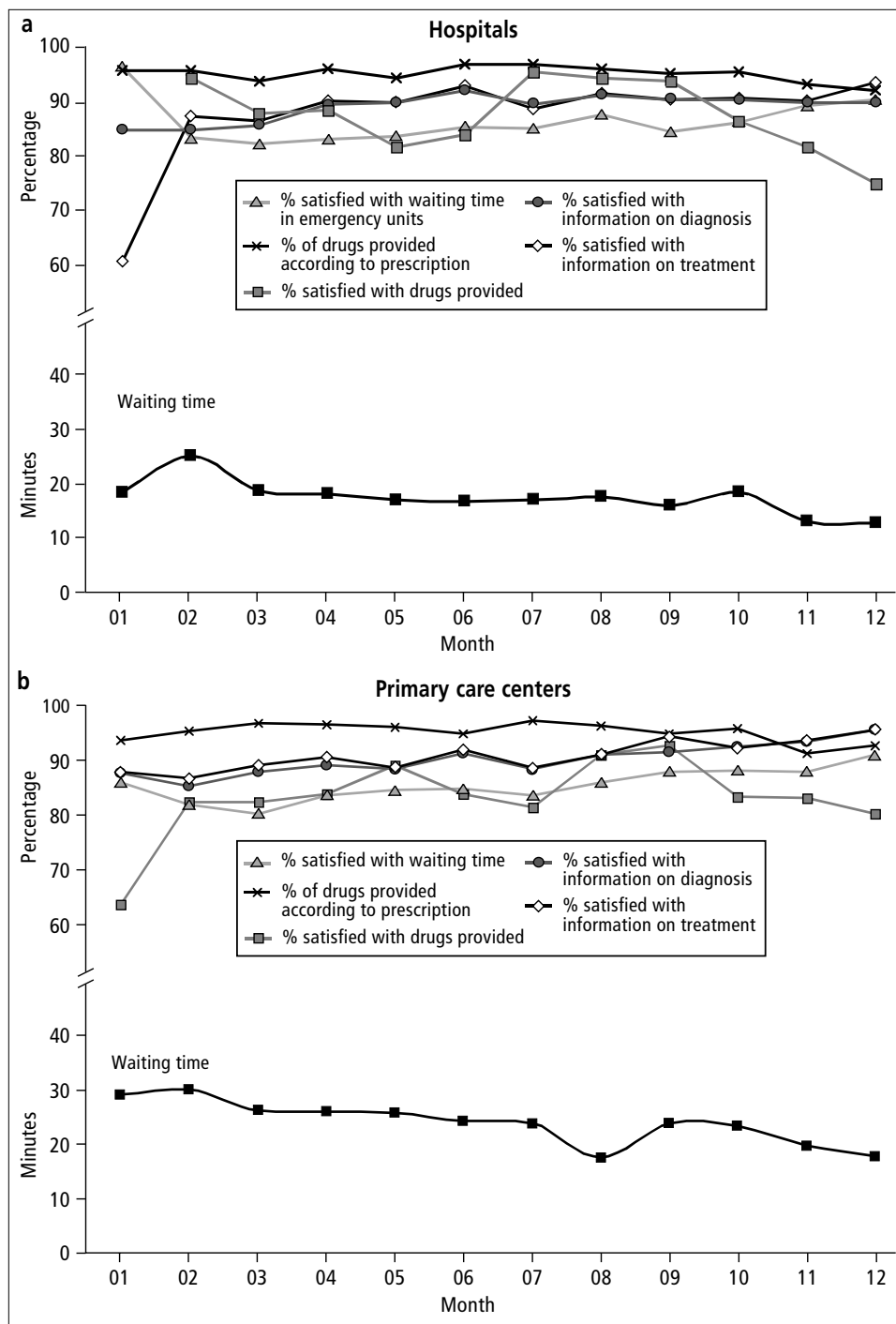


Figure 2. Results in (a) hospitals and (b) primary care centers on quality indicators measured in the first phase of the crusade.

population. They were also considered relatively easy to measure at a time when providers needed to learn how to measure.

There have been some doubts about the reliability of data collected. The data on waiting times agree with data on satisfaction with waiting times, offering a type of internal verification. On the other hand, it is surprising that satisfaction with information provided to patients should be as high as it appears.

Progress is also shown in results of a patient survey and provider survey conducted in May 2001. A total of 81% of patients and 78% of providers indicated that they thought the crusade would lead to much better or better quality of care. Thus, expect-

tations are very high. Another survey asked patients in what aspects they have noted change: 48% cited kinder health care personnel, 15%, better organization; 12%, better schedules for appointments; 11%, better facility maintenance; and 7%, a cleaner facility. Interestingly, respondents mentioned areas that weren't even being addressed in the crusade, such as appointment schedules and facility maintenance. Perhaps when patients are treated better, they begin to view other aspects of health care more favorably as well. A final survey conducted on behalf of the Office of the President of Mexico asked citizens if the quality of care was better compared with the previous trimester. Between

16% and 31% of respondents had indicated some improvements in the 3 trimesters of 2001 with regard to waiting time, kindness from physicians and nurses, kindness from administrative personnel, supply of drugs, conditions of facilities, and availability of medical equipment.

The undersecretary plans to address additional indicators related to prenatal care, management of diabetes in primary care, management of diarrhea in children under 5 years of age in primary care, management of respiratory infections in children under 5 years of age in primary care, delivery care, and hospital infection rate.

Although quality and satisfaction are low in some instances, they are improving. A long period of time will be needed to make the necessary improvements and restore the confidence of the population. The crusade is an important step in this direction.

1. Fundación Mexicana para la Salud. Population Satisfaction National Survey, 1994.
2. FUNSALUD. Public opinion about health care services in Mexico, August 2000.

Invited commentaries

Shared border, shared challenges

Enrrique Ruelas, MD, Undersecretary for Innovation and Quality for Mexico, describes Mexico's efforts to address challenges in quality of care. Noting at the outset that Mexico spends a significantly lower percentage of its gross domestic product on health care, he presents an overview of the crusade for quality. The crusade, a partnership between the public and private sectors, is systematically taking steps to identify and address problems in quality identified by patients and providers. As Mexico's northern neighbor, the USA also confronts comparable challenges, despite spending a substantially higher proportion of its gross domestic product on the health care sector. This commentary reviews current efforts to address strikingly similar problems to the north.

US HEALTH CARE

Health care delivery is provided by a mix of public and private financing, although the delivery of services is largely, but not exclusively, private. Approximately 16% of Americans have no insurance, and equity also represents a critical challenge: a recent report from the Institute of Medicine confirms the existence and extent of disparities in health care associated with race and ethnicity (1). These findings are particularly disturbing in the face of an increasingly diverse population. Dissatisfied with pressures to limit time with patients, some physicians and health care systems have established special programs for individuals willing and able to pay more for more attention. "Boutique" or "conciierge" medicine has inspired extensive debates within the profession and may further exacerbate current inequities (2).

THE QUALITY CHALLENGE: CURRENT RESPONSES

Joint efforts between the public and private sectors to assess and improve health care quality, such as assessment of clinical performance by states and through accreditation of health plans (3), have resulted in steady, albeit incremental, improvements. However, results of numerous surveys indicate that Americans perceive ample opportunities for improving health care quality. These beliefs have been corroborated by a stunning Institute of

Medicine report published in 2001 that describes not a gap but a "chasm" between the quality of care that could be provided to Americans and that which is provided (4).

The Agency for Healthcare Research and Quality (AHRQ), a division of the US Department of Health and Human Services, is charged with leading federal efforts to assess and improve quality of care. In late 1999, AHRQ received a congressional mandate to produce annual reports to the nation on health care quality and prevailing disparities in health care delivery. The National Healthcare Quality Report (NHQR) will include a broad set of performance measures that will be used to monitor the nation's progress toward improved health care quality. The National Healthcare Disparities Report (NHDR) will describe disparities in health care associated with race, ethnicity, gender, age, income, geography, and the existence of disability and chronic illness. Both reports are intended to serve a number of purposes, such as 1) demonstrating the validity of concerns regarding quality and disparities in health care; 2) documenting whether quality and disparities in care are stable, improving, or declining over time; and 3) providing national benchmarks against which specific states, health plans, and providers can compare their performance. The first reports are due to congress in fiscal year 2003 and annually thereafter.

AHRQ commissioned studies by the Institute of Medicine to work on a conceptual framework for the NHQR and NHDR. Comprised of national leaders in the fields, both committees have heard testimony from a wide variety of groups, including the National Forum for Healthcare Quality Measurement and Reporting, Foundation for Accountability, National Committee for Quality Assurance, Joint Commission on Accreditation of Healthcare Organizations, leading academic researchers, international experts, and the public. The NHRQ committee has completed its work and recommended a conceptual framework that includes both dimensions of care (e.g., safety, effectiveness, patient centeredness, timeliness, equity) and patient needs (e.g., staying healthy, getting better, living with illness or disability, coping with the end of life) (5). The NHDR committee is ex-

pected to present its report shortly. Since disparities in health care represent a critical opportunity for quality improvement, the 2 reports will be closely linked, particularly since equity has been explicitly recognized as a key dimension of the NHQR. The need for reliable and valid data has prompted enhancements to AHRQ's data development that will provide unprecedented overviews of health care quality and disparities.

FROM MEASUREMENT TO IMPROVEMENT

The opportunity to provide a comprehensive and clear annual overview of health care quality and disparities is only an initial step in attaining requisite improvements in health care delivery. The results of AHRQ's research investments that examine strategies for translating evidence-based care into practice to improve quality and reduce disparities will provide an essential link to these annual reports. Over time, we anticipate that the reports will stimulate local and regional improvement efforts that will add to the evidence base for defining "best practices" that can be broadly replicated. In short, the reports must provide a springboard for action.

Such initiatives will add to the recognition that quality challenges are not delimited by geopolitical boundaries and that expanding the science of improvement represents a shared challenge and opportunity. The USA and Mexico thus share more than a common geographic border.

In the fall of 2003, AHRQ and the Academy for Health Services Research and Health Policy will jointly host the fifth biannual conference, the Internal Conference on the Scientific Basis of Health Services. (For information on this conference, see www.ahsrhp.org) Through this conference and other cross-national activities, we look forward to multiple opportunities for shared learning. In particular, we look forward to working closely with our southern neighbors to improve health care on both sides of our common border.

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1. Smedley BD, Stith AY, Nelson AR, eds. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: National Academy Press, 2002.
2. Brennan TA. Luxury primary care—market innovation or threat to access? *N Engl J Med* 2002;346:1165–1168.
3. Iglehart JK. The National Committee for Quality Assurance. *N Engl J Med* 1996;335:995–999.
4. Committee on Quality of Health Care in America, Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press, 2001.
5. Hurtado MP, Swift EK, Corrigan JM, eds. *Envisioning the National Health Care Quality Report. Committee on the National Quality Report on Health Care Delivery, Board on Health Care Services*. Washington, DC: National Academy Press, 2000.

Health care quality improvement through social participation

Dr. Enrique Ruelas' article, "Health care quality improvement in Mexico," reviews the Mexican government's National Health Program, which was developed to address the leading challenges facing their health care system, namely, equity between the rich and poor, financial protection for consumers from catastrophic care expenses, and quality in health care delivery. Although the National Health Program has 4 objectives, with corresponding strategies, the centerpiece of the effort is the National Crusade for Quality in Health Care. The crusade's general objectives are to improve the quality of health care, decrease variations throughout the system, and improve perceptions of the health care system. This aggressive campaign relies on collaboration between private and public entities and promotes the concept of joint ownership so that the crusade will develop momentum regardless of government support.

The National Health Program described by Dr. Ruelas is a welcome addition to discussions related to quality improvement that are currently occurring in the USA. The challenges facing the US health care system are surprisingly similar to those found in Mexico and are described in a report from the Committee on Quality of Health Care in America, Institute of Medicine (1). The report documents the need for the US health care delivery system to be more attentive to equity, in addition to improving safety, timeliness, patient centeredness, efficiency, and effectiveness. Similar to the situation in Mexico described by Dr. Ruelas, the quality of care delivered in the USA varies, depending on a patient's personal characteristics such as race, ethnicity, and so-

cioeconomic status (SES). Generally speaking, members of racial and ethnic minorities and those of lower SES are more likely to experience poorer health outcomes compared with those of members of other demographic groups.

Studies from as far back as the Black report, published in 1982, demonstrate that health outcomes are related to SES, with lower levels of SES (e.g., low educational attainment and lower income) being associated with relatively poorer outcomes (2). Although access to care is a necessary component of improving health outcomes, it alone is not sufficient. Rather, health is dependent on multiple determinants and relies on an individual's unique biology, family history, social and physical environment, and behavior and lifestyle (3). Given the multidimensional character of health, solutions for improving the health of specific groups tend to transcend the more narrow focus of health care delivery, and cross over into political discussions of how to actually increase the SES or improve the quality of life of those who are at the greatest risk of poor health outcomes. Consequently, the outcomes of discussions about improving the health status of vulnerable populations frequently depend more on political philosophy than they do on what may be reasonable from a medical or public health perspective.

One of the most pressing issues related to equity in health outcomes in the USA concerns the challenge of how to best provide care to the country's estimated 40 million uninsured adults. A project being pilot tested in Dallas, Texas, is evaluating the effectiveness of a community collaborative of volunteer

physicians, hospitals, businesses, and the faith community in meeting the needs of the uninsured through providing access to health care and related services. Although he does not define the term, Dr. Ruelas anticipates an important role for “social participation” in health care improvement. “Social participation” is similarly important in the USA and in our view centers on the possible role and contribution of faith-based organizations (FBOs). Increasingly, scientific research suggests that health-related activities of churches, mosques, temples, and other FBOs can contribute to health improvement in the inner city, especially among minority populations (4). However, despite the apparent efficacy of faith-based health partnerships in improving health, the use of FBOs as an adjunct to government-sponsored programs is currently mired in a political debate related to the separation of church and state and related concerns.

Although inevitable, the introduction of political concerns into the debate over the uninsured is regrettable. As Dr. Ruelas notes, the Mexican National Health Plan will rely on the collaboration and active participation of multiple social actors to encourage joint ownership of the program, a reasonable strategy that makes sense from the perspective of promoting acceptance of the plan. However, this strategy also makes sense from the perspective of what is called subsidiarity. Subsidiarity is the principle of providing only “necessary help” and emanates from Catholic social theory, first articulated by Pope Pius XI in the 1931 encyclical *Quadragesimo anno*. This principle suggests that individuals should act as autonomous human beings to address their own problems until they are no longer capable of doing so. When individuals require help, they should appeal to the family, community, and/or government to receive the “necessary help” that will allow them to resolve their particular dilemma and thereby regain autonomy over their lives. In short, subsidiarity means that the individual interacts with his or her community and/or government through a process of empowerment.

The principle of subsidiarity is directly applied to the lives of individuals through the participation of “mediating structures.” In their 1977 text, Berger and Neuhaus describe 4 types of “mediating structures,” including the neighborhood, the family, the church, and voluntary associations (5). These institutions empower individuals by creating and instilling life values such as honest labor, property ownership, commitment to family and community, and commitment to religious values. Applying this principle in the setting of health care quality improvement, one can see where mediating structures might play a strategic role. When these entities reach their limits in the process of empowerment, then there would be allowance for the more direct participation of government to provide only “necessary help.” In this example, the principle of subsidiarity and its incorporation of mediating structures would engage social participation to influence individual behavior and improve health outcomes as an adjunct to increasing health care access.

The application of subsidiarity to mediating structures or “social participation” may provide a good framework for the development of sound social policy. In the case of the USA, as mediating institutions, FBOs themselves are not capable of addressing all of our social problems, especially ones as large as improving the equity of health care access and outcomes. Nationwide studies reveal that only 10% of congregations surveyed

actually address social issues that extend beyond basic “corporal works of mercy” such as providing food, clothing, and housing (6). Indeed, these institutions would require strategic support from other social service providers in order to serve the poor in the health care arena. Additionally, we must trust that FBOs are not engaged in social welfare issues to simply proselytize their specific religious point of view. However, as a mediating structure, FBOs (i.e., congregations) can express compassion for the needy in ways that a bureaucracy cannot. Thus, the provision of “necessary help” to those in need would seem to clearly require collaboration between all of the relevant governmental and nongovernmental community resources, including FBOs.

In both Mexico and the USA, it may be who we engage and how we engage those individuals or groups in social participation that will determine the success of our attempt to increase equity and improve the quality of health care. As long as FBOs continue to represent an important “mediating structure,” we will need to sustain past successes and explore new, creative partnerships with faith communities. Although political concerns are relevant to the debate over how to improve the health of vulnerable populations, they must not be the only or even the dominant concern. Rather, the dominant concern must be to determine the best way to eliminate the disparities in health outcomes associated with SES, race, and ethnicity characteristics. A system designed to provide equitable care can only be developed through the active participation of the relevant individuals, families, organizations, communities, and other stakeholders—including FBOs. Creation of the system can be facilitated by government, but cannot be controlled by government. As Dr. Ruelas wisely points out, a system that is designed to improve equity and quality must be able to sustain itself regardless of government support. Such a system must be embedded in the cultural and spiritual values of the community, not in the principles and practices of variable governmental funding requirements.

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1. Committee on Quality of Health Care in America, Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press, 2001.
2. Black D, Morris JN, Smith C, Townsend P. In Townsend P, Davidson N, eds. *Inequalities in Health: The Black Report*. Middlesex: Penguin, 1982.
3. Adler NE, Newman K. Socioeconomic disparities in health: pathways and policies. Inequality in education, income, and occupation exacerbates the gaps between the health “haves” and “have-nots.” *Health Aff (Millwood)* 2002;21:60–76.
4. DeHaven MJ, Hunter IB, Wilder L, Walton JW, Berry JD. Health partnerships in congregations: are they a remedy for the underserved? Presented at the 129th American Public Health Association Annual Meeting and Exposition, October 21–25, 2001, Atlanta, Ga.
5. Berger PL, Neuhaus RJ. In Novak M, ed. *To Empower People: From State to Civil Society*. Washington, DC: AEI Press, 1996.
6. Chaves M, Tsitsos W. Congregations and social services: what they do, how they do it, and with whom. *Nonprofit and Voluntary Sector Quarterly* 2001; 30:660–683.