Health Communication in the Latino Community: Issues and Approaches

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Abstract
With reference to the Communication-Persuasion model, we describe various research issues and challenges when considering the health of Latinos, and implications for designing and evaluating health communication and behavior change efforts in this population. Latinos, collectively the nation’s largest minority group, vary substantially in terms of socioeconomic and legal status, their country of origin and the extent of ongoing contact with that country, their region of residence within the United States, their generation status and levels of acculturation, and psychosocial factors. Health communication efforts with Latinos need to focus on family, cultural traditions, and collectivism while attending to acculturation, language, generation and national origin. The most extensive intervention topic in Latino health promotion has been the application of the lay health advisor model. This and other fundamental communication approaches, as well as audience and population characteristics, need to be considered within the context of dynamic and complex societal changes.
**PART I: LATINOS IN THE UNITED STATES**

Many national health and social science studies, including the National Health Interview Survey (NHIS) and other surveys, treat Latinos as though they were a homogenous group. However, as Modiano and colleagues (75) stated,

> The aggregation of culturally distinct subgroups, which have resided in the United States for different periods of time, into a more inclusive Latino category assumes that all persons of Mexican, Cuban and Puerto Rican origin have similar needs and experience similar barriers in using health services. There is, however, no clear evidence for this assumption. On the contrary, there is evidence that each group has specific characteristics that make it different and independent from one another.

Clearly, extraordinary diversity exists among subgroups of Latinos. The immigration and acculturation experiences of Mexican or Central American–descended Americans, South Americans, Puerto Ricans, and Cuban Americans vary substantially from one another. The distinction among Latino subgroups can be traced back to highly varied experiences not only with respect to encounters with the dominant American culture but also extending back to Spanish colonization, which began to redefine the western hemisphere 500 years ago. Indigenous groups in the Caribbean Islands and coastal areas largely succumbed to Iberian diseases and aggression and were replaced by Europeans and African slaves. Although forced to adopt much of the culture and religion of the conquistadores, indigenous groups in central and highland areas of Mexico and further south survived to a great extent. Thus, the blends of European, African, and indigenous cultures find different expressions in the many regions and communities of Latin America.

The historical and political interface of the various Latin American countries and regions with the United States also manifests distinctive paths. The long, shared border between the United States and Mexico among populations in the southwestern states presents more opportunity for Mexican immigrants to travel back and forth to their Mexican homeland. A large proportion of Mexican-derived inhabitants of Texas and New Mexico can still trace their roots to this region following its annexation by the United States, which led to the war between the United States and Mexico (1846–1848). Puerto Rico has been part of the United States since the defeat of Spain in the Spanish–American War in 1898, and present-day inhabitants of this island are American citizens. Many Cuban Americans trace their migration to the United States to the more recent conflict between the American government and Cuba under Fidel Castro, a major element of the Cold War and one of its last vestiges. Cuban migration peaked in 1994. The history of Latino migration into the United States is diverse and, in many ways, brief. More importantly, the population is growing. Heightened immigration from Mexico and Central and South America along with positive birth outcomes among native-born Latinos is transforming the demographic and economic landscape of the United States dramatically. Over the past 30 years, the Latino population has grown more rapidly (337%) than the total U.S. population (41.9%) and accounted for 39% of the net population growth in the United States (108). In general, Latino households are larger and younger than non-Latino households in the United States, which suggests that the population growth is likely to continue (108).

**Socioeconomic Realities**

Upon arrival in this country, Latino immigrants encounter vastly different socioeconomic
realities, some realizing middle-class status fairly quickly, others finding themselves indefinitely at the lowest rung. These experiences may be a function of the structure of their home countries’ educational system, as well as whether the immigrant is of European, African, or indigenous native ancestry. From a U.S. educational system perspective, Mexicans are disadvantaged before they arrive because fewer individuals have access to a secondary education compared with the opportunities to complete high school in the United States. Access to education, in turn, affects literacy levels. Along with Puerto Ricans and Central Americans, most Mexican immigrants to the United States end up as unskilled laborers (109). However, the premigration middle- or upper-class status of the first and largest wave of 1960-era Cuban immigrants contributed in part to their relatively strong economic status as Cubans living in the United States. Seventy-four percent of Cuban Americans have graduated from high school, whereas 50% of Mexican Americans and 67% of Puerto Ricans have graduated from high school (90). Moreover, nearly one-fourth of Cuban Americans have graduated from college, which is identical to the college graduation rate of the general U.S. population. In contrast, Mexican- and Puerto Rican-origin adults have lower college graduation rates (7% and 11%, respectively). Despite educational disadvantages, recent unemployment figures for Latinos are relatively favorable, although this appears to vary by generation status. First- and third-generation Latinos have approximately the same employment-to-population ratio, both substantially higher than that of second-generation Latinos. According to the Pew Hispanic Research Center (87), age, geographic mobility, and family networks as sources of employment information all contribute to the relatively better employment picture for foreign-born Latinos, even though wages lag behind those of white or African American workers. The variation observed among Latino subgroups is arguably as great as that which has existed among other American subgroups, well before Latinos became the largest American “minority.” The economic gains recently enjoyed by Latinos are threatened by low Latino educational achievement levels.

Regional Issues
Economic, societal, and psychosocial factors are in dynamic flux in Latino communities and, singly or in combination, may have an important impact on Latino health. Johnson et al. (49) proposed a classification system for understanding the diverse Latino communities in the United States that is based on the region’s migration history and which seems to have implications for health-promotion efforts. Mature markets include traditional immigrant gateway states, the largest markets being California, Arizona, Texas, Illinois, New York, and Florida. Emerging markets are states with little to no Latino migration prior to 1990 such as Georgia, Nevada, North Carolina, and Washington. Incipient markets are growing rapidly and needs are changing (Iowa, Mississippi, Rhode Island, South Dakota). The long history of immigration into mature markets has created established communities that share a common language (Spanish) and culture (Mexican in California and Cuban in Florida), thereby reducing language and cultural barriers when accessing health care services, for example. Mature markets are also multigenerational, as reflected in the proportion of households with extended family members as compared with the non-Latino population (14% versus 7.5%) (108). Thus, diverse sources of support and influence exist in these social environments. However, emerging and incipient markets are dominated by young adult males, many with wives and children in their home countries. These immigrant males demonstrate strong participation in the work force, with the construction industry accounting for more than half of new Latino jobs (56). However, community and organizational needs change as the families of these men join them in the United States and begin to access health and
education-related services, thus increasing the demand for culturally competent services in environments with limited resources and capacity to provide them. Most public health research emerges from Latino populations in mature markets. A small but growing body of research is available on public health interventions in emerging and incipient markets. Given these differences, programs developed for Latino populations in mature markets may not be directly transferable to Latino populations in other markets. These market characteristics have implications for our approach to intervention research. One area in which we have explored this issue is in the use of the promotor model (see Communities and Promotores, below).

Generation Status, Identity, and Language

First- and second-generation Latinos vary substantially on their national identity. A small percentage of first-generation Latinos use the self-descriptor “American,” whereas more than one-third of second-generation Latinos do so. One-fourth of both first- and second-generation Latinos use “Latino” or “Hispanic” as their primary term of self-identification. Twice as many third-generation as second-generation Latinos use “American” as at least part of their self-identity. The Pew Hispanic Center has studied important generational differences in demographics, identity, attitudes, and experiences. For example, first-generation Latinos are more socially conservative, as evidenced by their attitudes toward divorce, abortion, and other social issues, which affects both the context and the content of health messages. The Pew Hispanic Center employs the term Generation 1.5 to identify a phenomenon typical of many Latino immigrants. These immigrants may be categorized as having arrived in the United States by age 10. Therefore, although they are foreign born and may plan to return to their country of origin eventually, they may be more similar to second-generation than to first-generation immigrant Latinos because most of their formative experiences are likely to have taken place in the United States (87).

The Pew Hispanic Center (87) also presented findings on bilingualism among Latinos in the United States. The 2000 census showed that the number of Latinos speaking Spanish at home rose from ~10.2 million in 1980 to 24.7 million in 2000. Spanish is thus becoming an increasingly common language among U.S. Latino households. Despite the large proportion of immigrant and native-born Latinos in the United States, language evolution among the Latino generations is largely similar to that reported for other ethnic groups who have immigrated to the United States. A small percentage of second-generation Latinos speak mostly Spanish. By the third generation, knowledge of Spanish effectively becomes extinct. In addition, English remains the dominant language of the United States in terms of commerce and trade and dominates U.S. workplaces.

Language use drives the degree to which individuals are acculturated to American society, which may influence not only how well they respond to our behavior change initiatives but also their selection and use of media, in general. Acculturation may be defined as a process through which an individual’s attitudes and behaviors shift from those of his or her culture of origin toward those of the dominant culture. Changes that occur in attitudes, norms, and values of individuals exposed to a new culture are an important part of this process (14) and may provide insight into the relationship between acculturation and health-related behaviors (60).

Addressing Health Disparities

The Healthy People 2010 objectives call for the elimination of health disparities among racial, ethnic, and other subgroups of the American population (55, 110). Latino communities evidence some of the worst of these disparities (54), being challenged not only by chronic diseases, sexually transmitted diseases, tuberculosis, cirrhosis, and exposure to particulate matter but also by an even wider range of health risks and illnesses.
Health disparities are the product of complex and only partly understood genetic, biological, psychosocial, and economic factors, compounded by discrimination and inequality (17, 58, 96, 118). Perceptions of stigmatization and discrimination from the community at large and from the health care system are frequently reported by Latinos (17, 95). The impact of discrimination against Latino immigrants may be compounded by language, legal status, and other bases for bias, further exacerbating their impact and resulting in considerably higher levels of stress among minorities than among whites (58). Even for second-generation Latinos, the process of marginalization, disempowerment, and social exclusion known as “othering” (43, 114) may perpetuate the negative impact of discrimination beyond the immigration experience.

Language use appears to have an impact on the degree of disadvantage. Bilingual Latinos have high-school graduation rates that are more than twice that of Spanish-speaking Latino adults. Given that English speakers are prized more greatly in the workplace, they also enjoy higher household incomes than do Spanish speakers. Bilingual adults have incomes roughly equal to their English-only counterparts in terms of economic advancement (87).

In spite of socioeconomic challenges and a variety of disparities, Latinos, individuals and communities, evidence several positive health outcomes, a phenomenon that continues to interest and challenge epidemiologists and social scientists. Relative to non-Hispanic whites, Latinos have a worse socioeconomic profile and less access to health care, but they have lower mortality and morbidity rates in crucial areas e.g., low birth weight (40). In terms of specific chronic disease-related risk factors, for example, Latinos have been reported to have higher rates of obesity, elevated blood pressure, and serum lipids (62). Yet even with these risk factors, studies have demonstrated lower rates of both coronary heart disease (CHD) and total cardiovascular disease (CVD) (74). This epidemiological phenomenon has been labeled the Hispanic Health Paradox (39, 69, 84). Census undercounts, the healthy migrant hypothesis (healthier individuals self-select to migrate to the United States), and the salmon hypothesis (elderly immigrants or those with severe illnesses return to their native country to spend their last days) can partially (25) but not fully (2, 77) explain this paradox. Other studies have not found Latino ethnicity to serve as a protective factor (47), in part because of socioeconomic differences between whites and Latinos of Mexican origin (25) and the weaker relationship between educational level and health among Latino subgroups other than Puerto Ricans (42, 107).

A Framework for Latino Health Promotion through Communication

The primary themes and findings of sociodemographic, cultural, and psychological influences on Latino health are summarized in Table 1. The individuals and subgroups in the United States collectively labeled “Hispanics” or “Latinos” comprise the largest minority in the country. Nevertheless, the variations within this group are nearly as great as those between them and whites/Anglos or other subgroups. Latinos vary greatly with respect to national background and experience with immigration, their past and current socioeconomic status, the nature of the community in which they live and their status within it, and acculturation and other cultural factors. In complex and sometimes indirect ways, these factors protect or adversely impact health and contribute to narrowing or widening the Latino health disparities gap.

The growth of the Latino population in the United States, with the social and economic inequities they experience, demands continued attention to their health care needs. Given the complexities identified, a framework for targeting improvements in Latino health is needed. Using a theoretically based model of communication, the second part of this article presents a framework for promoting Latino health through families and communities.
Table 1  Sociocultural health related issues by type of Latino community

<table>
<thead>
<tr>
<th>Sociocultural health-related issues</th>
<th>Diverse or white/Anglo communities</th>
<th>Dominant Latino communities</th>
<th>Marginalized, minority Latino communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic status of Latino residents</td>
<td>Entire range</td>
<td>Middle to high socioeconomic status</td>
<td>Low to middle socioeconomic status</td>
</tr>
<tr>
<td>Accessing resources</td>
<td>May still require culturally sensitive care</td>
<td>Need to reduce both cultural and financial barriers</td>
<td>Need a bridge</td>
</tr>
<tr>
<td>Acculturation and language</td>
<td>Assimilated, English speaking</td>
<td>Bicultural or oriented toward Latino subculture of region; Spanish-dominant or bilingual</td>
<td>Less acculturated to larger society; Spanish-dominant</td>
</tr>
<tr>
<td>Gender and family norms</td>
<td>Shifting; egalitarianism</td>
<td>Changing; conflict</td>
<td>Traditional</td>
</tr>
<tr>
<td>Community characteristics</td>
<td>Communities accustomed to or unaware of diversity; Latinos may sense little discrimination but may have sense of othering</td>
<td>Busy communities; juggling cultural transitions within family; share stressors of dominant U.S. community but may experience othering</td>
<td>Reluctant communities; concerned about what they have to invest for return; potential experiences of racism or discrimination</td>
</tr>
<tr>
<td>Country of origin or background</td>
<td>Some but limited influence</td>
<td>More frequent contact with and ability to travel to native country</td>
<td>More frequent contact with but limited ability to travel to native country</td>
</tr>
</tbody>
</table>

**PART 2: COMMUNICATION AND HEALTH BEHAVIOR CHANGE**

Although the broader sociodemographic, cultural, and economic variables described above are causally related to or at least correlated with Latino health, many are not easily amenable to change. Immigrants are not sent back to their native countries or enrolled in American community colleges until they receive more education, nor are they told which U.S. city or neighborhood would be best for them to reside in. Second-generation adolescents and young adults can be forced neither to reject nor to maintain their parents’ language and culture. There are few shortcuts to upward social mobility and sometimes few means to make any progress at all. Community leaders, public health officials, and researchers must consider both the challenges and the richness represented in the extensive body of relevant social science research as they develop community health-promotion programs.

Much of the task of developing successful community programs can be pared down to the use of clear and effective communication with entire communities, their organizations, and the families and individuals who reside in them. Our conceptual model (see Figure 1) depicts the role and interaction of various theoretically driven communication intervention approaches...
Figure 1
A framework for promoting Latino health through communication.

to achieve health and environmental change in Latino communities. Our model is informed by Bronfenbrenner’s socioecological framework, which illustrates the importance of interactions among various levels of influence from the microsystem to the macrosystem (18). We focus specifically on the interaction of places and people. Finally, our model reflects our collective experience working primarily with Mexicans/Mexican American populations along the U.S.-Mexico border (8, 10, 11, 13, 28–33, 64) and also in the U.S. Southeast region (12, 22, 36, 53, 70, 100, 105), as well as our leadership and participation in national Latino research efforts (see http://www.redesenaccion.org/ and http://www.cscc.unc.edu/hchs/).

Health Behavior Theories
In most cases, theories of behavior change grow out of stable, middle-class societies, in turn driving the development of psychologically oriented interventions based on white/Anglo norms (59). These theories, to a large degree, emphasize the role of the individual and his/her thought processes in the development and the maintenance of adaptive or high-risk health-related behaviors. However, the applicability of these theories to especially first-generation Latinos outside the dominant mainstream American culture can be questioned (28). First, the model of individuals as relatively autonomous beings, who weigh potential personal outcomes, their own self-efficacy, and their personal readiness to change, while choosing whether to listen to or ignore pressure from peers, may have limited relevance to more traditional cultures. Instead, Latinos demonstrate a strong sense of identification with and attachment to family members, both nuclear and extended. The typical Latino with traditional social values is someone who prioritizes the needs of the group or family over his or her own (68) and may not be influenced by messages that target only the individual. For example, in a study of Latino immigrants (1), perceived family approval and support more than autonomous decision making influenced
an individual’s decision to participate in a heart-health-promotion program. This collective identity must be calculated into the development of health communication targeting Latinos. Even when mainstream theories are used (e.g., 97), the design of health messages must acknowledge this attachment, which promotes loyalty, unity, reciprocity, and solidarity within the Latino community (93). Second, in traditional societies, the individual’s approach to health and illness is often fatalistic (98). Disease may be seen as an unavoidable crucible or even as punishment for past sins and health as a gift from God (79, 98). Because of this fatalistic orientation, Western-style modification of unhealthy lifestyle behaviors through an appeal to personal autonomy is less likely to be successful, as is Western medicine in general (61, 86).

Recent attempts in model development have included application of the PEN3 model, which emphasizes the importance of culture along three interrelated, interdependent dimensions of health beliefs and behaviors: health education (person, extended family, neighborhood), educational diagnosis of health behavior (perceptions, enablers, and nurturers), and cultural appropriateness of health behavior (positive, exotic, and negative) (3–6, 48). PEN-3 incorporates socioeconomic factors (e.g., income, education, access to care), cultural beliefs, values, and attitudes concerning lifestyle behavior and preventive health practices. Although PEN3 was originally developed for use with African Americans, investigators have recently applied it to research with Latinos that explored cultural factors impacting health behaviors (41) and to the development of culturally appropriate interventions for cervical cancer (35). However, until models such as PEN3 and more universally applicable theories can be developed, established functional models prescriptive of how to change behavior (rather than how to explain it) may be more useful to reduce health disparities.

McGuire’s (72) communication-persuasion model comprises one such functional approach.

The Communication-Persuasion Model

The communication-persuasion model (72) considers how various forms of public communication change attitudes and behaviors. The effectiveness of a given communication effort will depend on various inputs and their characteristics, as well as on the outputs of interest. Communication input variables applicable to Latino communities may vary substantially from those that appeal to the majority population. Input variables include the channel by which the message is sent, the source of the message, the message itself, and the characteristics of the audience to whom it is sent. Channel factors were initially thought to vary primarily between print (e.g., newspaper, pamphlets) and interpersonal electronic (radio and television) media. Source variables focus on characteristics of the individual perceived as sending the message. Sources vary in terms of the numbers of people sending the message, their credibility, their physical attractiveness, and characteristics they have in common with the receiver. Messages themselves vary in their specific appeal (e.g., negative versus positive appeal), the information they present, what is included and what is omitted in the message, how the messages are organized, and how frequently they are repeated. Audience factors include the demographic, behavioral, and sociocultural characteristics of the people to whom the messages are aimed, as well as their capacity to understand and assimilate the information. Finally, destination factors refer specifically to the target behaviors the communication is expected to impact.

How do these variables interact with the complex social, cultural, and economic factors that impact the health of Latinos and contribute to the diversity among them? Oetzel et al. (81) studied the influence of independence and interdependence, ethnic identity (bicultural, assimilation, traditional, and marginal), and cultural health attributions (equity and behavioral-environmental attributions) on source, message, and channel preferences for
receiving breast health information by middle-aged or older Latinas. The researchers found that these three subjective cultural factors were significantly related to a variety of audience preferences in terms of source of communication, channels, and fear messages. For example, interdependence was positively associated with preferences for significant other or family as a source of communication. This and related studies strongly imply the need for tailoring health communication and community interventions for Latinos (67, 119).

The next section presents an articulation of McGuire’s input variables with special characteristics of Latino communities. Specific attention will be given to (a) the channel through which the message is communicated; (b) sources within settings; (c) the message itself; and (d) audience factors.

Channels of Communication

Optimal exposure and attention to health-promotion messages require selection of an appropriate and popular channel for delivering messages at an appropriate time and place for the target audience to attend to the message. Achieving this goal requires a very careful process because mistakes can be costly. The target audience must not only be exposed to the message, but also attend to it, as well. Health behavior communication is clearly at a disadvantage in competition with commercial marketing because health messages by nature tend to be less glamorous and the behavior more complicated than the simple purchase of a consumer product. When Latinos comprise the target audience, exposing them and getting them to attend to the communication is complicated even further.

Telephone interventions. Telephone counseling is convenient; inexpensive relative to in-person interventions; reduces the required time commitment; overcomes geographic isolation; requires no travel, childcare, or parking; and can easily be offered in Spanish. Nevertheless, telephone information services using either call-in information lines or proactive outreach approaches are largely unexplored for Latino communities, but seem to demonstrate some promise. Findings from the Health Information National Trends Survey (HINTS) indicated that Latinos had the highest level of awareness of the Cancer Information Service (CIS) language line among all racial and ethnic subgroups studied (99). Furthermore, Latino patients who called the CIS language line between 2002 and 2003 were more likely to seek information about support services, referrals to medical services, and psychosocial issues and less likely to request specific treatment information when compared with non-Latinos (99).

Adios al Fumar (Goodbye to Smoking) was designed to increase the reach of the Spanish-language smoking cessation counseling service provided by the National Cancer Institute’s CIS and to evaluate the efficacy of a telephone-based culturally adapted, proactive, behavioral treatment program for Spanish-speaking smokers (116). Participants were of very low socioeconomic status (SES), and more than 90% were immigrants. After targeted promotion, calls to the CIS requesting smoking cessation help in Spanish increased from 0.39 to 17.8 per month, with a significant impact on smoking prevalence among those who received the culturally adapted counseling compared with callers receiving standard counseling. This program demonstrated that it is possible to reach, retain, and deliver an adequate dose of treatment to a very-low-SES population that has traditionally been viewed as difficult to reach and hard to follow.

Print and mail interventions. The Secretos de la Buena Vida project was a randomized controlled trial targeting the diets of 357 Latinas using a tailored communication approach. Randomly sampled and randomly assigned, the women participated in one of three conditions: 12 weekly visits with a promotora (lay health advisor) and 12 weekly tailored, mailed information pieces; 12 weekly tailored, mailed information pieces only; or (the control group) 12 generic, mailed information pieces. The
content of the tailored print pieces included culturally relevant behavioral strategies, tips on how to eat healthier at a restaurant and select healthy snacks, a lifestyle column addressing common concerns among Latinas (e.g., time management, finances), and a novela (story) depicting a family dealing with nutrition-related changes, as well as inspirational quotes, colorful pictures, and other personalized information. Results at immediate postintervention indicated that the promotora condition achieved significantly lower levels of total fat grams and lower levels of energy intake, total saturated fat, total carbohydrates, glucose, and fructose (30). At the one-year follow-up, however, immediate changes observed in the promotora condition did not persist and additional changes were observed in the tailored mailed condition (29).

In a similar fashion, Sauaia et al. (94) compared tailored print and promotora interventions in the Tepeyac Project, a church-based project to increase breast cancer screening rates among Latinas in Colorado. Culturally tailored print education packages were mailed to 209 Colorado Catholic churches and contrasted to promotoras delivering the information to four Catholic churches personally. The investigators compared biennial mammogram claims from five insurance plans covering these communities over three years and found that, after adjusting for a variety of variables, women exposed to the promotora intervention had a significantly higher increase in biennial mammograms than did women exposed to the print alone. However, the overall differences were modest, especially given the far greater potential reach of a print intervention.

Fox and colleagues (38) examined the effects of a targeted low-cost mailed intervention on mammography rates among older women. Older, diverse, and disadvantaged women have especially low mammography and other cancer screening rates, often because of financial constraints. The intervention helped increase screening rates among all elderly minority women, and Latinas were more than twice as likely to undergo screening relative to women in a control condition. Thus, a mailed print intervention can effectively change behavior.

Mass media interventions: special case of the telenovela. Video interventions, in general, have proven effective at changing Latino populations’ knowledge, attitudes, and behaviors on poison control (51), cancer screening (120), and condom use (80). The telenovela, a Spanish language version of a TV soap opera, is a popular form of mass entertainment for many Spanish-speaking households. Wilkin and colleagues (117) examined whether this channel would be effective for providing health information to Spanish-speaking viewers in the United States if presented in a dramatic, narrative format. A breast cancer storyline was developed for the telenovela Ladrón de Corazones, and its effects on viewers’ knowledge and behavioral intentions were assessed. The approach appeared effective. Calls placed to 1-800-4-CANCER increased significantly; viewers demonstrated significant knowledge increments as measured through a national survey, and men who watched the show were significantly more likely to recommend that women have a mammogram.

The Tú No Me Conoces (You Don’t Know Me) social marketing campaign (82) promoted awareness of HIV risk and testing in Latinos living on the California-Mexico border. The eight-week campaign included Spanish-language radio, print media, a Web site, and a toll-free HIV-testing referral hotline. Twenty-eight percent of individuals who were subsequently tested at partner clinics specifically identified the Tú No Me Conoces campaign, indicating the potential for the effectiveness of multiple mass media channels for even relatively high-risk groups.

Given the size and diversity of Latino groups throughout society, there has been an increasing need to exploit both typical print and broadcast channels, while shrinking the digital divide and expanding the use of computer-based mass media (65) for addressing Latino health needs. This review suggests that interventions that do
not involve face-to-face contact can be efficacious to achieve change.

Sources of Communication by Setting
Communities and promotores. Health care providers may be ignored as message sources if they are perceived to be unaware of the importance of the patient's culture or even perceived as siding with hostile law enforcement. This barrier can be surmounted by the involvement of promotores, who come from the communities they serve and yet are sufficiently acculturated to the host culture to be able to understand and appreciate certain health-promotion and health care messages that need to be communicated to recent immigrants.

The promotor model is based on the assumption that every community has formal and informal social networks through which health information is exchanged, and predisposing interpersonal environments are created. Promotores are lay health advisors who generally have attributes of leadership, compassion, and familiarity with the community. Interpersonal communication via promotores addresses the weaknesses of impersonal mass media, which by itself may not result in sufficient exposure, attention, or comprehension. Promotores are often asked to communicate on a face-to-face basis with Latino patients, reducing the likelihood of misunderstanding of treatment or health-promotion communication while increasing the acceptability of the communication. These promotores in turn are accessible should patients need further follow-up regarding a specific issue or should they need to be referred for additional treatment. Through the promotor channel, information is provided about the importance of a medical intervention, how the medical care system operates, eligibility requirements for various health programs, and even how to fill out forms for participation. Promotores may be adept at translating the need to alter health practices that are culturally bound, such as eating habits.

A recent literature review identified three primary roles for promotores: health education, case management, and community outreach (101). Promotor roles range from information dissemination and health education to policy and community advocacy and negotiating agency services to providing preventive and curative services (34, 50). In a 1994 report, the U.S. Centers for Disease Control and Prevention defined promotores as trusted community members whose role was to provide informal, community-based, health-related services and to establish vital links between health providers and persons in the community (109). Within these roles, promotores have improved access to care, various health behaviors and health outcomes, health status, and knowledge; they have also improved cost-effectiveness. However, important differences between established and new immigrant–receiving communities seem to warrant attention in the design of promotor interventions. A systematic review currently underway (111) identified a uniform difference in the design of promotor-based interventions in the United States based on where the study is taking place. Promotor-based interventions in the Southwest were more likely to train promotores in traditional health education roles, whereas those in other regions of the country were more likely to train them to help bridge health services and other organizational systems (see Figure 2). In these emerging and incipient markets, promotores are needed to serve as cultural brokers or intermediaries between these larger predominantly English-speaking service organizations and clients.

Unfortunately, as alluded to previously, this interpersonal channel suffers by comparison with mass media in terms of the scale or reach of the intervention effort. Promotores may be very effective but require a lot of professional time for recruitment, training, and sustainability. High dropout rates, occasional errors in health messages, or eventual decay of acquired skills may all characterize a promotor-led program. Such risks are prevalent especially if the program is long term, which might require extensive new recruiting and retraining efforts. An interesting partial solution to the public health challenge of using promotores has been provided
Figure 2
Geographic distribution of 47 lay health advisor (promotores) studies with darker map zones depicting greater concentrations of Latinos (E = educator versus B = bridge).

by the *A Su Salud* program in southwestern Texas (7). *Promotores* working with *A Su Salud* are trained primarily to expose participants to a health-promotion effort (e.g., smoking cessation, lowering dietary fat) and to gain initial attention or cue patients to action by disseminating minimal information along with print material and referring community members to tune in to mass media messages. The more technical details of the program are then offered via mass media channels. In this scenario, the *promotores* recruit participants to join them in listening to a particular radio show or television program that will convey the information needed. After the program is finished, the promotor conducts a discussion group with the participants and follows up with each of them on their own homework assignments. Using this approach, *promotores* can spend more of their time recruiting an audience and less time training to become risk factor experts.

**Clinics and health professionals.** A variety of barriers exist to providing effective medical and preventive care to Latinos, including a lack of health insurance or a regular source of health care and a lack of culturally and linguistically proficient clinicians. Limited English proficiency, low education, and low literacy levels can interfere with communications between Latino patients and the health care system. Improved provider/patient communication remains one of the biggest potentials for promoting health among Latinos, particularly immigrants (26).

Improvements in communication, however, may require an extensive reorientation of primary care providers and the health care delivery
system. Cooper et al. (24) proposed a modification of the Institute of Medicine framework to make it relevant to Latinos and other disadvantaged groups. Health disparities could be reduced with changes in primary care provision, including increased cultural and linguistic competency and more use of community health workers and/or certified health interpreters, improved access to care (including location, hours of operation, diversity of staff), better marketing of services provided, and the inclusion of the family in care.

Brown et al. (19) put this proposal into action in a study examining the effects of a culturally competent diabetes self-management intervention. Two hundred and fifty-six randomly selected persons with type 2 diabetes participated in an intervention that consisted of 52 contact hours over 12 months delivered by bilingual Mexican American nurses, dietitians, and community health workers. The intervention was composed of weekly community-based instructional sessions on nutrition, self-monitoring of blood glucose, exercise, and other self-care topics, as well as biweekly support group sessions. The cultural competence of the program was evidenced by its language, type of diet, social emphasis, family participation, and incorporation of cultural health beliefs. As a result, individuals receiving the program showed significantly lower levels of HbA1c and fasting blood glucose at 6 months and at 12 months. At 6 months, the mean HbA1c of the experimental subjects was 1.4% below the mean of the control group, which indicated a modest yet important effect.

One example of a comprehensive clinic-centered approach to health promotion is *Viva la Vida* (Live Life). *Viva la Vida* was developed to improve diabetes care among Latino Medicare beneficiaries in four Southern California counties. After researching barriers to good diabetes care among Latino seniors, Olson (83) designed a multifaceted program targeting health care providers and Medicare beneficiaries through bilingual, low-literacy, and well-illustrated health education materials and tools, community and provider partnerships, and the mass media. Program staff participated in live interviews on Spanish radio and television stations and placed ads and articles in Spanish and bilingual community newspapers. Media messages emphasized the importance of proactive diabetes control and encouraged Latinos to discuss HbA1c testing with their physicians. Complementary messages were placed in physician trade magazines. The project succeeded in helping to reduce the disparity in glycosylated hemoglobin testing between white and Latino Medicare beneficiaries in the targeted region (83).

**Schools and families.** *Sembrando Salud* (Sowing the Seeds of Health) entailed the evaluation of an eight-week tobacco/alcohol use prevention program compared with a first aid/home safety attention-control condition delivered to youth and their parents in schools (33, 64). Six hundred and sixty adolescents and one adult caregiver per youth were recruited through the federal Migrant Education Program in Southern California. Random assignment to a condition occurred at the school level in 22 schools. Seventy 8-week intervention groups (37 tobacco/alcohol, and 33 first aid/home safety) were conducted by bilingual/bicultural college undergraduates who served as older-to-younger peer educators. No between-group differences in smoking or drinking following the intervention were significant: Thirty-day smoking started and remained at very low levels, and the highest group prevalence at any measurement period was 4.7% and the lowest was 2.5%. However, those considered susceptible to smoking dropped by 50% in the intervention condition versus nearly 40% in the attention control, from baseline to the final follow-up, with a statistically significant reduction at final follow-up. Of interest was the attention-control participants, who demonstrated significantly higher first aid skills and home safety practices at posttest: One adolescent apparently responded effectively to an emergency that threatened the life of a toddler sibling (21).

Treviño et al. (106) studied a school-based diabetes mellitus prevention program on low
income, Mexican American fourth-grade children in San Antonio. The Bienestar Health Program entailed health and physical education curricula, a family program, a school cafeteria program, and an after-school health club, all emphasizing a decrease in dietary saturated fat intake, an increase in dietary fiber intake, and an increase in physical activity to favorably impact fasting capillary glucose level, percentage of body fat, physical fitness level, dietary fiber intake, and dietary saturated fat intake. Although body fat and dietary saturated fat intake did not differ significantly between intervention and control children, fasting capillary glucose levels decreased in intervention schools and increased in control schools, whereas fitness scores and dietary fiber intake significantly increased in intervention children and decreased in control children.

The Message

Literacy issues. The U.S. Bureau of Census has determined that more than 10% of adult Americans are functionally illiterate in English (meaning they read at the fourth grade or lower level), and another 70 million are marginally illiterate (reading levels between the fifth and eighth grade) (108). More than half of the minority population in the United States is classified as functionally or marginally illiterate. A major aspect of the problem of low literacy in the United States is the fact that most recent immigrants, especially from Latin America, know little or no English upon arrival in the United States. Their level of the English language is limited to what is required to function in job training programs, the community, and the workplace.

Although Guerra & Shea (44) point out that functional health literacy may not be independently associated with perceived physical health status or mental health status in ethnic minorities, economic and other vulnerabilities stemming from low literacy may in turn lead to health problems. For instance, current health instructional approaches and materials are typically designed for relatively educated individuals who are highly literate in English. Materials available in Spanish or other non-English languages are largely direct translations from English and are often not culturally or even linguistically appropriate. Further, they tend to be written at a high Spanish (or other language) readability level, making them inappropriate for low-level readers in the native languages (16, 115). Such barriers apply not only to health education materials (73) but also to instructions that go along with medication prescriptions (115) and even condom use (92). Illiteracy may negatively affect health through incorrect use of medication and inability to comply with medical directions or advice, high rates of accidents, and a lack of access to health information and services.

Health messages that concurrently promote literacy may comprise the ideal approach to health communication for immigrants. In “Language for Health,” Elder and colleagues (33) wove heart health and stress management information into English as a second language (ESL) courses for recent immigrants. While these immigrants were learning English, they were also successful in reducing dietary fat and, at least for a short time period, improving HDL (total cholesterol levels). Alumni left these classes with not only improved English but improved health practices as well. Parra-Medina and colleagues (85) used a similar approach to improve the ability of Latinos with limited English proficiency to navigate the U.S. health care system in appropriate, cost-effective ways while improving their English language skills. The Language for Health Care Access educational intervention was delivered by trained interventionists in 16 ESL classes; 11 ESL classes served as controls. The intervention was effective in improving levels of knowledge about health care access, appropriate use, and the availability of language resources. In comparison to the control group, the intervention also improved levels of self-efficacy related to both health care access and language (e.g., using English to access and utilize services).
Language preference. A manifest tenet of health communication is that messages must be presented in the language of the audience. Yet a Pew Hispanic Center survey (87) showed that 50% of all Latinos in the United States consider themselves to be bilingual, whereas 75% read in both Spanish and English. Thus, appropriate message language cannot be directly inferred by the literacy or ethnicity of the target audience or its overall acculturation level. Kelly et al. (52) studied 249 Mexican American middle-school youth from a U.S.-Mexico border community to examine the effectiveness of language and theme with respect to print tobacco counter advertisements. Although a large proportion of the students identified with the Mexican American culture and spoke Spanish in selected contexts, readability was greater for ads in English, which were rated as more effective.

Collectivistic versus individualistic fear messages. Murray-Johnson and colleagues (78) studied what they term “individualistic” and “collectivistic” cultural orientations by ascribing these to African Americans and Mexican Americans, respectively. Their results suggest that Mexican American adolescent offspring of immigrant parents were more heavily influenced by AIDS fear messages that emphasized harm that could come to the family of an infected person, especially through the loss of family honor and the shame that would come to them. African American teens, whom they characterized as relatively individualistic in orientation, were in contrast more susceptible to messages depicting individual harm (e.g., personal shame and fear of death). Although these results are not directly attributable to cultural orientation nor to specific behavioral outcomes, they do suggest that at a minimum the target audience’s family orientation needs to be considered in designing messages for Latino communities.

Multimedia vicarious learning. Ramirez and her colleagues (71, 89) designed a unique communication strategy to promote Pap screening and other cancer control behaviors, using “diffusion acceleration” approaches in the Texas-Mexico border region. The campaign included 82 television segments, 67 newspaper stories, and 48 radio programs featuring local role models. Salud en Accion was conducted primarily in Spanish; many of the television, radio, and newspaper messages included stories about how and why women obtained Pap smears and other cancer screening services. Role models’ stories were written to highlight how they came to obtain a Pap smear. Some stories also showed how husbands and children can help women make decisions and how to obtain free services. The campaign also included the participation of 175 volunteer peer educators, female homemakers who distributed educational leaflets on a monthly basis. The communication effort met its goal of increasing cancer control, with a trend toward slightly more recent adherence in the experimental community. The proportion of women in the highest level of Pap smear adherence showed a relative increase of ∼10%, whereas the proportion at the lowest level was reduced by nearly 50%.

The Audience: A Family Focus
Effective health communication leads the target audience through behavior change once prerequisite perceptual and cognitive factors are addressed. For most Latino groups, that behavior change will occur in the context of the family. Families (and more globally, other household members) are often the primary sources of social support. This is true particularly among new Latino immigrants who may or may not engage in other social networks within the community, given its immigrant receiving status as described above. With longer residences in the United States, however, the structure and nature of this social support may change. An example of changes in nature is seen in the treatment of aging family members; they may be respected and obeyed in their home country but are paid less heed over time and as generations progress in the United States. Aging family members may even spend their final years in a nursing facility rather than with offspring. Nevertheless, targeting interventions to the
entire family acknowledges this longstanding tradition of family connectedness.

From both ecological and sociological research on families, two themes have emerged consistently as uniquely important among U.S. Latinos: respeto and familismo (20, 45, 112). Respeto, or respect, refers to the importance of teaching younger generations their obligations for proper levels of courtesy and decorum required in various social contexts with people of a particular social status, sex, or age (especially respeto a los padres, or respecting one’s parents). Familismo, or familism, refers to “feelings of loyalty, reciprocity, and solidarity towards members of the family, as well as the notion of the family as an extension of self” (88, p. 249). This strong sense of family orientation, obligation, and cohesion appears to protect Latinos against risk behaviors and improve their physical and educational outcomes (15, 23, 27).

Family-based researchers need to consider the cultural orientation of both the parent and child and the impact of acculturation on their relationship. Among immigrant families, clashes occur between parents and their children because children identify with the host culture and parents are committed to the ways of their countries of origin. This divide exacerbates the intergenerational gap in acculturation (23, 37, 102). Potential effects of this intergenerational gap include a family role reversal (because children have better English language capacity and are often placed in positions of authority over parents in family business matters such as translating at the doctor, reading materials sent home from school, or business correspondence) and increasing disengagement and rigidity in parent-child relationships that previously had been flexible and cohesive (103, 113).

Health-promotion specialists must also determine the specific roles of each family member and help youth and parents understand one another as part of any health program or treatment regimen. Adherence to the regimen is unlikely to occur unless the family trusts the provider and thinks that his or her recommendations are valuable and important. Such recommendations in the area of health behavior change may especially call for the involvement of the family, given that resistance to change will occur if the targeted health behaviors are widely accepted in the traditional culture (46).

Finally, despite the importance of involving all family members, recent research highlights the importance of the wife-mother, who often serves as the primary target of health-promotion interventions given traditional gender norms and roles. This is normative within a largely patriarchal society and continues despite an increase in the proportion of women employed in the labor force. The primary female often carries the brunt of change within the family, taking the lead in bringing about behavior change among its members (76).

In one survey on food habits and attitudes, mothers served as the primary influence on matters of nutrition and health (63). Research also indicates that parents’ eating behaviors directly influence the child’s diet (i.e., modeling the appropriate behavior), whereas parent knowledge and parent self-efficacy indirectly influence dietary behavior among children (57). Similarly, targeting the adult woman and addressing how her decisions on diet and physical activity influence the behaviors of the rest of her family are consistent with the familial orientation of the Latino culture.

A family-based diabetes program on the U.S.-Mexico border helps illustrate the integration of these points. In this study, family members were trained to collectively set health-behavior goals, to overcome obstacles hindering healthy behaviors, and to develop a plan to sustain behavior changes (104). The Familias Unidas intervention targeted increases in protective factors (e.g., familism, parental investment, family cohesion, parent-adolescent communication, parental monitoring, and positive parenting) and reductions in risk factors (e.g., family conflict resulting from differential acculturation, and lack of parental monitoring of adolescents, school, and peers). The intervention was delivered in family-centered, multiparent groups that involved parents as agents of change by strengthening their sense of
responsibility and perceived control over their lives and the lives of their children. Intervention messages for the parents emphasized building cultural strengths to fortify culturally relevant protective factors that exist within the individual, family, and community, the importance of the family, cultural adaptation to American society, the marketing strategies of the alcohol and tobacco industries, and life issues experienced within an economically disadvantaged environment. The Familias Unidas approach focused on the impact of deeply held values and beliefs on health (23). For example, respeto may engender family harmony. At the same time respeto may lead parents to view schools and teachers as the authority over their child’s education and perceive and view parental interventions on their child’s behalf at school as inappropriate and overstepping their bounds. This conflicts with the mainstream American value that parents are important members of the educational team and with the expectation that they communicate with schools. Thus, part of the intervention approach was in essence to redefine respeto within the new and less familiar cultural context.

**PART 3: DISCUSSION**

We have described a framework for designing and evaluating health communication and behavior change efforts in this large and diverse population. Latinos vary substantially on a variety of overlapping and interactive dimensions. These include their socioeconomic and legal status, their country of origin or background and the extent of ongoing contact with that country, the nature of their receiving community or region of residence, their generation status and levels of acculturation, and psychosocial and demographic factors such as their experiences of racism or discrimination, familismo, collectivism, gender, and age-related issues.

In this article we have sought to bridge the gap between this extensive and rich social and behavioral science research tradition with health communication and related behavior-change efforts among Latinos residing in the United States. With reference to the communication-persuasion model, Table 2 summarizes how these broader social and cultural forces translate into the selection of health communication channels, sources and settings, messages and their design, and delimitations of target audiences. Programs presented in recently published literature are described in terms of these communication-persuasion inputs.

Much of the published literature on health behavior change in Latino communities represents descriptions, program evaluations, or (in some cases) empirical studies of multicomponent communication efforts. In general, multiple communication channels are employed, for example, with print materials accompanied by face-to-face communication or mass media. Often, more than one source or setting is involved, such as when messages are presented by both promotoras and providers in homes and also in clinics. Messages themselves may be multifaceted, combining fear appeals with exhortations to put personal health behavior in the context of family and culture. These combinations of disparate elements are understandable, given that many studies describe earnest attempts to ensure that community programs include all potentially effective components. Nevertheless, in tandem they prevent adequate definition of independent variables.

Without well-specified independent variables, the practice of community health promotion among Latinos cannot be refined, nor can the empirical heritage be well established. For example, decade-old calls to close the digital divide (6) assume that Latinos and other disadvantaged populations continue to have limited access to the Internet. However, a recent Pew Hispanic Center report (87) showed that 78% of Latinos who are English dominant as well as 76% of bilingual Latinos use the Internet. Although only 32% of Spanish-dominant Latino adults do so as well, this proportion is certain to increase given the penetration of Internet communication into society and the proliferation of Spanish-language Web sites. We need to be prepared for Internet delivery of written,
Table 2  Culture of origin issues and implications for communication interventions

<table>
<thead>
<tr>
<th>Country/culture of origin</th>
<th>Channel or medium</th>
<th>Setting</th>
<th>Source</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mainstream versus</td>
<td>Dominant U.S.</td>
<td>Idiomatic phrasing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Latin American TV/radio programming</td>
<td>ethnic or cultural festivals (Dia del Niño, Fiestas Patrias)</td>
<td>tailored to each sending country's culture</td>
<td></td>
</tr>
</tbody>
</table>

| Socioeconomic and legal status | WIC and community clinics or emergency rooms versus regular providers | Larger community settings versus apartment complexes and trailer parks (which are more private social spheres) | Avoidance of use of government or the word American (e.g., in "ACS") as source for communication to first-generation or undocumented immigrants | Where to find health care; adjusting health behavior messages to economic reality |

| History of migration in community (mature, emerging, incipient) and acculturation | Mainstream versus face-face, sotto voce TV/print versus Internet and other new media | Major malls, mobile consulates, churches and clinics versus labor camps, tiendas, etc. | Community political leadership versus religious or welfare workers (or better yet promotores) | Messages placed in context of how one fits in the broader community |

| Discrimination, perceived racism, and othering | Culturally competent care versus institutional racism | Lawyers, activists, politicians | Health equals function of empowerment, rights |

| Familismo, collectivism | Developmental or family specialist versus an abuela figure | Emphasis on impact on self versus larger social group |

| Gender and age issues | Equal rights |

audio, and video formats, which have typically been limited to traditional media channels in this group. Additionally, 59% of Latinos have cell phones and half of these use text messaging, indicating further potential for this and other new media.

Further limitations will then be placed on linking existing intervention research back to the Hispanic Health Paradox, acculturation and generational status, and other broader social science-based themes. Ultimately, modifications in or substitutions for Western health behavior theories cannot be achieved, leaving researchers to choose between conceptual systems predicated on research in other populations or no theoretical base at all.

Target audiences are also not well defined at times. Some studies report only that “Latinos” or “Hispanics” were included without reference to country of origin, and at times they are among other non-Latino participants. Generational status and length of time in the United States and the individual’s relationship to his/her family and the broader community are specified even less frequently (9). This inadequate description may be accompanied by the use of convenience samples and/or nonrandom assignment in a comparison group design or even a single-group pretest/posttest. A lack of specification of audience/population factors and a reliance on nonexperimental evaluations limit the generalizability of existing findings.

These challenges face us even as the ground shifts rapidly beneath. America’s current demographic changes are the most pronounced in more than a century. Latinos both define and are defined by these changes, as is their health. For example, as the debate continues...
regarding the validity of the concept of the Hispanic Health Paradox, the once-apparent health advantage of Latino ethnicity in the United States may be diminishing, even as risks for chronic diseases accelerate rapidly in Mexico and other sending countries. Although many Latin American immigrants may live in isolated communities, most are increasingly exposed to diversity. Latinos of different generations and national backgrounds intermarry, and youth of mixed Latino and other backgrounds can be expected to join many in their age cohorts in self-identifying as multiracial. At the same time, language, mass media, entertainment, religion, food preference, and other fundamental cultural characteristics have an increasingly Latin American look to them in the United States, altering the very nature of the acculturative impetus.

Almost accepted as truisms for health communication with Latinos is the need to focus on family, cultural traditions, and collectivism while attending to acculturation, language, and generation status and national origin. The most extensive intervention research topic in Latino community health has been the application of the promotor model. Yet even this area needs far more empirical treatment, as Rhodes and colleagues (91) note in their extensive review of the use of promotoras [which they label lay health advisors (LHAs)],

Given the long history of using LHAs as an approach to health promotion ... and the current emphasis of LHA approaches as a potential solution to health disparities ... Latinos/Hispanics in particular, few rigorous studies have been published that document the effectiveness of LHAs on a variety of public health concerns. A stronger empirical evidence base is clearly needed. (p. 418)

This lack of empirical documentation of effective community health-promotion efforts will continue to challenge researchers and policy makers alike in the coming years and decades. Such research, however, must be situated in the context of broader social change efforts to promote education and reduce discrimination, which can also promote individual health. Although these broader forces do not require experimental evaluation, they inform relevant communication both to the Latino community and to society as a whole.

**IMPLICATIONS FOR PRACTICE**

Community health-promotion practitioners working with Latino communities must start with a thorough knowledge of their audience, e.g., the sociocultural, economic, linguistic, and other characteristics of the members of that community. Specific variables to which practitioners should attend include country of origin, generation and acculturation, socioeconomic and legal status, and the interaction between the broader community or region and the Latino population. Whether programs are borrowed from elsewhere or developed from the ground up, this information will guide the selection of channels, messages, sources, and settings as well as the implementation of such programs and will help circumvent the one-size-fits-all pitfall.

**DISCLOSURE STATEMENT**

The authors are not aware of any biases that might be perceived as affecting the objectivity of this review.

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