Language and Indigenous Health in Latin America: Case study of Mexico

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Health disparities among indigenous and non-indigenous peoples serve as a poignant indication of pervasive social injustices that have yet to be adequately addressed. With the potential to produce broad economic and social benefits, the development of quality indigenous health systems warrants further analysis and practical strategies to improve current policies. Using the case of Mexico, home to the second-largest population of indigenous language speakers in the Americas, this paper examines the important—and often misunderstood—role of language in health care. From a historical perspective, Mexico's policies and indigenous health initiatives indicate a movement toward progress, yet they seemingly fail to take into account the critical role of language—not only as a means of receiving health information—but as a means of communicating complex feelings and emotions and connecting with cultural conceptions of health. By understanding the important relationship between health and language, as well as the potential for language to serve as a resource and a protective factor for health, greater attention may be given to the development of participatory, culturally relevant, holistic care. To this end, this paper suggests that the field of language planning, with a long history of examining the multifaceted goals, approaches, and strategies to language policy and planning, could provide a significant contribution and help reduce existing disparities in indigenous health systems.

Introduction

istorically the subjects of linguistic, political and social marginalization, indigenous groups around the world have repeatedly voiced their Concerns, anger and outrage in response to the injustices that they have experienced. Persistent disparities between indigenous and non-indigenous groups have had broad implications for the economic and cultural life of indigenous people, and are acutely apparent in the treatment of indigenous people within the Westernized health care system. Focusing on Mexico, home to the second-largest population of indigenous language speakers in the Americas, this paper will examine the important—and often misunderstood—role of language in health care, taking into account indigenous conceptions of health along with the history of language planning and policy for indigenous groups in Mexico, in light of recent initiatives that have aimed to incorporate indigenous medicine within the Westernized medical model. The analysis of the language policies embedded in Mexico's indigenous health initiatives presented here reveals a language-as-problem approach that fails to address the comprehensive health needs of indigenous language speakers. Yet, moving away from a language-as-problem

orientation towards a *language-as-resource* perspective (Ruiz, 1984), language and mother-tongue health communication may be seen as a critical component of holistic health care, and may even serve as a protective factor (McIvor, Napoleon & Kickie, 2009). Employing Hornberger's Integrated Framework for Language Planning (Hornberger, 1994, 2002), this paper will analyze the ways in which progress has been made towards improving linguistic disparities in health care for indigenous groups in Mexico, and areas where progress is still needed. In this sense, Mexico serves as an instructive case for other places in the world that are aiming to improve health care for diverse language populations.

Defining Health: Non-Indigenous and Indigenous Perspectives

As defined by representatives of 61 countries at the International Health Conference in 1946, "health is a complete state of physical, mental and social well-being, and not merely the absence of disease or infirmity" (World Health Organization, 1948, no. 2, p. 100). In stressing that health is "not merely the absence of disease or infirmity," the 1946 definition represents a departure from previous conceptions of health, which tended to be more narrowly defined as the opposite of sick. At the same time, this supposedly global definition was constructed primarily by Western, non-indigenous representatives during the 1946 conference held in New York City, and persists as one of the most commonly used definitions for health internationally. While not explicitly stated in the excerpt quoted above, the focus of the WHO perspective is on individual health, and this is echoed throughout other definitions of health in industrialized countries. For example, the American Heritage Stedman's Medical Dictionary states that health is: "1. The overall condition of an organism at a given time. 2. Soundness, especially of body or mind; freedom from disease or abnormality" (Health, 2002). Here, the use of the words "organism" and "body" denotes a singular, individual-level understanding of health, which exemplifies the ideology of Western medicine.

Recognizing the unique conceptualizations of health within indigenous communities and the historical lack of integration of indigenous perspectives into health care policies and planning, the Pan American Health Organization (PAHO) convened the First Hemispheric Working Meeting on the Health of Indigenous Peoples in April 1993 in Winnipeg, Canada (PAHO and WHO, 1993). Representatives from indigenous groups throughout the Americas shared their insights and concerns and helped shape a common indigenous definition of health. As a starting point, several key considerations were highlighted in the discussion, including: (a) the association between poor health and poverty in indigenous communities resulting from a history of colonization and injustice; (b) the loss of indigenous identity and discrimination, and their detrimental effects on health; (c) limited or rationed access to health services and health information for indigenous people, often resulting from lack of political will; (d) the need for indigenous control of health services; (e) the importance of indigenous knowledge and cultural values, and the need for indigenous people to be involved in the design and implementation of health and development initiatives; and (f) the acknowledgement that traditional medicine should not be subordinated by Western medicine (PAHO and WHO, 1993). While a comprehensive list of recommendations emerged from the meeting, the five most salient points were

formulated into principles that were accepted in Resolution V of the XXXVII Meeting of the Directing Council of PAHO in September 1993 (PAHO, 1993), and later ratified in subregional workshops in 1994. These include:

- 1. **Promotion of a holistic approach** to health, acknowledging the indigenous understanding of four aspects of health: spiritual, physical, emotional and mental.
- **2. Self-determination** to define and implement health policies and initiatives.
- **3. Systematic participation** not only within their own communities but across organizations or institutions that work with indigenous populations.
- **4. Cultural revitalization** to retain indigenous language, traditions, customs and religions.
- 5. Reciprocity, recognizing that "we are all dependent on one another to achieve our health and well-being" and thus all people of the Americas should work together to ensure the health of indigenous peoples.

As these principles underscore, in contrast to the micro-level view of Western health articulated by the American Heritage Medical Dictionary, the indigenous conception of health stresses the interdependence of culture, including language, traditions, customs and religion as critical dimensions of human health. Additionally, the concept of *reciprocity* highlights the profound appreciation for the interconnectedness between people that is distinct from the individual focus of Western medicine. Later definitions of indigenous health go even further to emphasize the connection with the natural world and the well-being of the community (Rojas & Shuqair, 1998).

Because of the distinct conceptualization of health in indigenous terms, the dissemination of health statistics based on Western perspectives often fails to accurately depict the state of indigenous health. While alarming reports of high rates of infant and maternal mortality, infectious and chronic disease, and high fertility rates in indigenous communities indicate clear health disparities (Montenegro & Stephens, 2006), it is often difficult to disentangle potential confounding factors such as marginalization, poverty, and geographic isolation. Furthermore, the individual-level health outcomes fail to acknowledge the holistic, community based perspective of indigenous health. Although few studies have focused on analyzing indigenous health from a more holistic perspective, a study examining the legal context of indigenous health, Orientación de los Marcos Jurídicos hacia la Abogacía en Salud de los Pueblos Indígenas, conducted by Rojas and Shuqair in 1998, provides useful insight into the spectrum of indicators that could be included in the analysis of indigenous health. The six key components used in their analysis of indigenous health systems in five Latin American countries include: general principles and rights; land rights and environmental policies; education; religion; language; and health policies focusing on access and participation, traditional medicine and intellectual ownership (Rojas and Shuqair, 1998). Importantly, this framework recognizes the holistic nature of indigenous health and examines not only health policies, but also policies relevant to indigenous identity, land, education, religion and language. This ecological perspective of health speaks

directly to the work of Urie Bronfenbrenner (Bronfenbrenner, 1979, 1986). As a dimension of human development, health can be seen as existing within a set of nested systems that interact and influence development. Integrating the indigenous definition of health and the framework posited by Rojas and Shuqair, an adaptation of Bronfenbrenner's Ecological Systems Theory is presented in Figure 1.

In contrast to the traditional model, Figure 1 depicts the indigenous community at the core, rather than the individual situated at the center. While a community may be comprised of individuals that vary in age, genetic features, personal characteristics, etc., by acknowledging the internal connection and interdependence between and among indigenous peoples, this model aims to depict a representation of indigenous health that is more closely aligned with the principles articulated in the 1993 Winnipeg Workshop. Additionally, the critical dimensions of indigenous health such as culture, religion, land, environment, language and traditional practices in health and education are represented as the most proximal influences on indigenous community. As a more distant influence, the services that are external to the indigenous community but may have a direct influence on health, education or welfare, are depicted in the sphere of the exosystem along with surrounding communities and cities. Finally, the macrosystem includes national, regional and international laws and policies as well as the attitudes and ideologies of the non-indigenous culture.

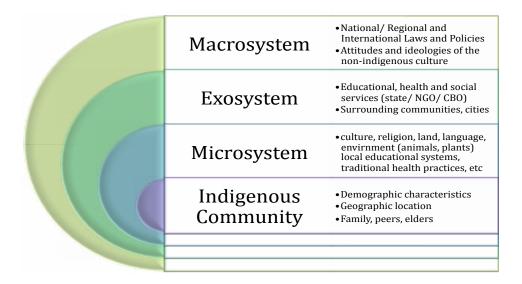


Figure 1. Ecological Model of Indigenous Health (author's adaptation based on Bronfenbrenner's Ecological Systems Theory, 1979)

Since the community's development and health are influenced by the interactions between these nested systems, the semicircles in Figure 1 aim to represent these interactions. For the case of indigenous communities, it is important to consider how these interactions occur, the power dynamics involved, and the language of communication used. In this sense, language serves as a critical factor

for indigenous health, not only as a dimension of the microsystem, but also as a central means of interaction between the community and nested systems.

Language and Health

While language has been identified as an essential component of indigenous health (PAHO and WHO, 1993; Rojas & Shuqair, 1998), the relationship between language and health for indigenous people has not been well understood. Among the multiple functions of language, in the context of health, language could serve as a means of accessing health services, expressing symptoms or feelings, communicating with care givers or health practitioners, understanding health information such as preventative education and understanding medical advice. Yet these functional descriptions fail to provide a complete picture of the complex relationship between language and health. To further explore this relationship, the following section highlights the themes of language and meaning in the context of health, language diversity and health, and attitudes about language or language orientations (Ruiz, 1984) and health.

Language and Meaning in the Context of Health

The mapping of words and linguistic expressions to intangible meanings, feelings, emotions and sensations has been acknowledged as an awe-inspiring activity for humans across cultures and historical eras. As a subject of long-standing interest and intrigue, the relationship between experience, meaning and language has been explained by cognitive neuroscientists as inextricably linked and in a constant state of mutual interaction (Gazzaniga, 2000). French philosopher Ricoeur posits that the language, signs and symbols of our natural environment may serve as the foundation of meaning-making for the individual (Ricoeur, 1995). Furthermore, native language may strongly influence the way in which humans experience the world. As Anna Wierzbicka asserts, "the way people interpret their emotions depends, to some extent at least, on the lexical grid provided by their own language" (Wierzbicka, 1999, p. 338). Thus, language may serve not only as a communication tool, but also as an essential facilitator in the process of human development, expression and identity formation.

If languages are understood to play a critical role in a person's ability to make sense of the human experience, for people interacting with others through the use of a non-native language, the challenge of engaging in these mental acrobatics intensifies. In this case, the disconnect between an individual's natural language and the language of use may have serious implications for social relationships, intellectual pursuits and artistic expression. The stakes become even higher if linguistic interaction is directly related to human health and well-being. This raises important questions about the associations between native language and conceptions of health, sickness or pain, and the importance of native or nearnative language abilities for communication with health care providers. While existing research may not provide definitive answers to these questions, the interrelationship between language and health and the particular implications for indigenous language minority groups warrant closer analysis.

Language Diversity and Health

While the creation of a universally agreed upon system for defining, counting and categorizing unique languages remains an unresolved challenge, an estimated 6,909 living languages are spoken throughout the world (Lewis & Summer Institute of Linguistics, 2009). This great diversity in languages represents not only distinct sounds, grammars and vocabularies, but also vast variations in meaning across languages (Haspelmath, 2007). Furthermore, some scholars argue against the presence of any conception of universal grammar, stressing the variation of linguistic forms, the diverse meanings described by each language and the profound implications for cognitive science research (Evans & Levinson, 2009). This reoccurring emphasis on the diversity of *meanings* across languages alludes to the challenge of understanding the variations in human experience and in the translation of feelings, thoughts and ideas from one language to another, as precise correlates may not exist across distinct languages.

Considering the role of language in articulating and understanding human health requires an appreciation of the complex association between languages and meanings. As one example, Segalowitz and Kehayia (2011) review a wide body of research that focuses on the variations in the articulation of pain. As described by the International Association for the Study of Pain (IASP), "pain is always subjective. Each individual learns the application of the word through experiences related to injury in early life" (Merskey & Bogduk, 1994, p. 209). Yet, as highlighted by the elaboration of the McGill Pain Questionnaire (MPQ), which identified 70 words in the English language used to describe pain (Melzack, 1975), the expression of pain does not merely refer to an individual's application of a word, but rather an individual's selection from a broad menu of words within the lexicon of a particular language. Halliday provides an additional dimension to the understanding of the language of pain by describing the Systemic-Functional framework of the grammatical variations of pain, describing pain as either a quality (adjective), thing (noun) or process (verb) (Halliday, 1998). Applying Halliday's famework, Lascaratou (2007) analyzed a corpus of 131 conversations between doctors and patients in Greece and found that 60% of language expressions employed the verb form of pain, indicating a preference among Greek language speakers for a process conceptualization of pain (see also Sussex, 2009). In contrast, the majority of words used in the MPQ can be described as qualities (adjectives), raising questions about the variations in the experience and understanding of pain across cultures and languages (Sussex, 2009).

An analysis of the languages of pain provides just one example of the complexity of understanding the interconnection between language and health. In analyzing language differences in health care encounters, Gregg and Saha (2007) employ Saussure's typology to point to the need for a more holistic understanding of language, not just of differences in words and grammatical structures (*langue*), but in the delivery, use, and context of language communication (*parole*). The authors assert that "understanding the role language differences play in medical encounters and their impact on clinical outcomes must necessarily include an understanding of the larger context in which language takes place" (Gregg & Saha, 2007, p. 369).

Language Orientations and Health

An interest in language diversity and in understanding the implications of language variation within the health care context may stem from distinct perspectives. As defined by Ruiz, language planning "orientations" include: language-as-a-problem, language-as-a-right, or language-as-a-resource (Ruiz, 1984). Although Ruiz's orientations were not designed to examine language planning for health care services, they provide a useful framework for understanding the current perspectives on language diversity and health.

Perhaps the most common theme in the current discourse on language and health is aligned closely with the "language as problem" orientation. For example, in the context of a health care setting (clinic, doctor's office, hospital, etc.), language differences between the patient and provider are often conceptualized as a significant barrier to the provision of care. A search of the literature of *language* problems in health care will yield thousands of results, and a systematic review of articles specifically related to language barriers in health care conducted by Jacobs and colleagues (2006) in 2003 and 2004 yielded 151 results. The reoccurring themes that emerged from the review included the effects of language barriers on access to health care, adherence to medical advice or treatment, as well as patient outcomes and patient reported satisfaction with the encounter (Jacobs, Chen, Karliner, Agger-Gupta, & Mutha, 2006). While this language-as-problem perspective in the health context may be grounded in a practical concern for improving the health outcomes for language minority groups, the orientation fails to consider the deeper association between language and experience, and tends to stress the importance of improved services for translation.

The second language orientation described by Ruiz focuses on the rights-based perspective. In the language and education policy discourse, this perspective has often led to the enactment of laws and policies that protect language groups or ensure that their language is represented within schools or government programs. Similarly, there has been an insurgence of laws and policies that aim to protect linguistic minorities within the health care setting and ensure that they have the right to speak and be understood in their native language (e.g., U.S. Executive Order 13166 established in Clinton, 2000). While this may be viewed as a step towards acknowledging the important role that language plays in health and wellbeing, as Ruiz highlights, the language of the rights-based perspective is wrought with terms like "compliance" and "entitlement" (Ruiz, 1984, p. 24), terms that are particularly charged in the health care context, and that tend to invite resistance among health care professionals. Even if the legal inclusion of language rights in health care does not create this type of tension, there is no guarantee that such policies are appropriately or effectively implemented. In this sense, the languageas-right perspective may provide an important contribution to the language and health discourse, but it may not be sufficient for ensuring that speakers receive linguistically and culturally appropriate care.

As an alternative to the previously described orientations, Ruiz highlights a third typology used in language planning, which he calls "language-as-resource." Seen through this lens, language in the context of health care would be viewed as a valuable commodity that should be appreciated and conserved, as a resource that is depleted only through lack of use rather than overuse (Ruiz, 1984). Such a

perspective would recognize the unique expertise and contributions that various language groups may be able to contribute to health care, and potentially even the curative role that language may play in health care treatment.

While the perspectives that present indigenous language use as a resource seem to be largely absent from the discussion of language and health, there is a growing awareness that the problem perspective may not represent the whole picture. In a recent systematic review conducted by McIvor and colleagues, the authors analyzed a wide body of literature that points to the ways in which culture and language may serve as a buffer from sickness, disease or mental illness. Seen through this perspective, language may serve not only as a resource, but as a protective factor (McIvor et al., 2009).

Language Policies in Mexico

Examining the interrelationship between language and health, the importance of mother tongue and culturally congruent health care seems to be a logical approach to health system design for indigenous communities. However, since language planning and language policies exist within a broader sociopolitical context, an extensive array of political, economical, or practical concerns tend to dominate the language policy and planning discourse. As a country with over 60 unique languages and cultures, 15.7 million people identifying as indigenous and nearly 6.7 million indigenous language speakers (Schmal, 2012), Mexico exemplifies a complex multicultural, pluriethnic context for language planning initiatives. While more substantial attention has been given to language policies in the educational context, there has been little focus, thus far, on the implications of language policies for health.

As defined by Cooper, language planning can be understood as: "deliberate efforts to influence the behavior of others with respect to the acquisition, structure, or functional allocations of their language codes" (Cooper, 1989, p. 45), which leads into framing questions related to who plans? for whom? and for what purpose? In examining the language planning and policy initiatives in Latin America, particularly in the context of health, these questions are critical as the outcomes may produce significant effects on a person's health and well-being. As highlighted in the Winnipeg Workshops of 1993, self-determination, systematic participation and cultural relevance are key principles required to protect and promote community wellbeing. Nonetheless, indigenous participation, indigenous expertise, and indigenous languages and cultures have largely been excluded from planning and policy initiatives. Focusing on the case of Mexico, the following section will provide a brief historical background on language planning and policies, and some of the implications for indigenous health systems.

Historical Context

Long before the national boundary lines were drawn between *Los Estados Unidos Mexicanos* and the United States (to the north) and Guatemala and Belize (to the south), the current area of Mexico was home to a multitude of peoples each with its own languages, traditions and religions. At the time of the Spanish conquest of the Americas following the arrival of by Christopher Columbus in 1492, the two most dominant cultures in Mexico were the Aztecs or Mexicas in

central Mexico and the Mayan in the south. The Aztec Empire, however, had achieved stronger political unity than the Mayans, and had imposed relocation and fragmentation policies to distinct peoples such as the Mextecs, Zapotecs, and the Totonacs (Terborg, Landa, & Moore, 2006). The result was the spread of Nahautl, a lingua franca, as a means of extending the imperial empire of the Aztecs, as it had become the common language for commerce and trade among indigenous communities before the arrival of the Spanish (Montenegro & Stephens, 2006).

Recognizing the opportunity for language planning to play a strong role in missionary and colonization campaigns, the Council of Trent (1545-1563), passed the *Leyes de Los Indios* to promote indigenous language acquisition for Spanish missionaries, despite the 1550 Spanish ordinance that declared Spanish the only official language of the colonies. Operating largely within the Aztec Empire, the Spanish missionaries initiated policies that included Nahuatl standardization, graphization, and modernization, leading to structural changes in the linguistic form and function of Nahuatl and promoting the diffusion of a standardized form of Nahuatl. As DeVarennes (2012) notes in his draft submission to the UN Expert Mechanism on the Rights of Indigenous Peoples:

For a period, the use of this indigenous language by colonial authorities and clergy, including in the area of "public" education, resulted not only in an extension of its use but also of what could be best described as educational, intellectual and even economic success for speakers of [these] indigenous languages. (DeVarennes, 2012, p. 4)

As DeVarennes suggests, the early colonial period seemed to be associated with deliberate efforts on the part of the colonial authorities to influence the behavior of both indigenous peoples and European settlers to promote Nahuatl, and the remaining artifacts from this era such as Nahuatl bibles and texts further support this claim.

The period of colonial support for Nahautl in Mexico was short-lived. By 1696, Charles II had officially banned the use of any language other than Spanish in the colonies, which was followed by even more stringent policies to eliminate indigenous languages, culminating with the 1770 Cedula Real, which successfully quelled formal teaching and writing of indigenous languages (DeVarennes, 2012). Despite gaining independence from Spain in 1821, the ideological footprint of the colonial era remained, and within the first 50 years after independence, Spanish grew to become the first language of 70% of the population from approximately 10% at the time of independence (Cienfuegos Salgado, 2004; Terborg et al., 2006). As these figures suggest, the conceptualization of indigenous peoples, the respect for their culture and traditions, and the value placed on their languages had greatly shifted. Since that time, Terborg and colleagues acknowledge, indigenous people in Mexico have been "diversely cast as victims or troublemakers, downtrodden and ignorant or Machiavellian and manipulative" (Terborg et al., 2006, p. 438). Thus, indigenous cultural practices, including traditional medical practices and religions, had been recast as antiquated and ridiculous, often resulting in a forced immersion of indigenous people into Western systems of education and health, or else facing the consequences of exclusion, oppression and isolation (de la Peña, 2011).

Indigenous Health in Mexico

Progress toward reversing the trend of indigenous marginalization and oppression can be seen in the first half of the 20th century, during the early years of the presidency of Lázaro Cárdenas, with the creation of the Autonomous Department for Indigenous Affairs in 1934 (Overmyer-Velázquez, 2010). First established to promote research and democratic governance, the department was rebranded in 1948 during the presidency of Váldez as the Instituto Nacional Indígena (INI), with close ties to the Ministry of Education. As noted by Overmyer-Velazquez: "Chronically underfunded from the start, the INI was nevertheless the only national agency that maintained contact with Indian people as Indian people and that attempted to understand Indian culture on its own terms, despite continuing policies of integration" (Overmyer-Velázquez, 2010, p. 42). In the years that followed, the INI conducted research in indigenous communities and established regional coordination centers with the aim of supporting integrated development strategies to initiate water and sanitation systems, health services, bilingual education and agricultural projects. At the same time, as noted by Overmyer-Velázquez, the INI's lack of adequate funding often impeded its ability to fully implement these programs.

During the 1950s, after the establishment of the INI, the government supported a renewed attention to indigenous culture, largely due to an interest in rural development and increased industrialization. At this time, the government began training non-indigenous staff in local languages to prepare them to work in indigenous areas. Government health officials and staff would develop plans to work in indigenous communities, but without providing the opportunity for community members to participate in the planning process, and without understanding indigenous health practices (Tibaduiza Roa, Sánchez Ramírez, & Eroza Solana, 2012).

Interest in community health and primary health care received a significant boost during the late 1970s and 1980s after the international Alma Ata Declaration of 1978 (International Conference on Primary Health Care, 1978). With a focus on addressing health disparities between developed and developing nations, the Alma Ata Declaration promoted coordination across multiple sectors (agriculture, education, community development, sanitation, housing, etc.) to improve primary heath, prevention and health education. Importantly, the declaration also acknowledged the potential benefit of including community health workers and traditional practitioners within the health care system.

Mexico's response to the Alma Ata Declaration, through INI and the Social Security services, was to begin linking local doctors to local healers (Tibaduiza Roa et al., 2012), and by the 1980s traditional medicine had begun to receive some level of official recognition (Ayora-Diaz, 2000). Despite the implementation of new policies and initiatives, it does not appear that the indigenous communities had achieved meaningful participation in health planning and the development of indigenous health care systems. Thus, such policies did little to influence the low-levels of respect for indigenous medicine by Western practitioners or the inability to understand the languages or cultures of indigenous groups by Western practitioners (Tibaduiza Roa et al., 2012).

The early 1990s marked a resurgence of indigenous issues in Mexico and throughout Latin America. In 1991, Mexico ratified Convention 169 of the

International Labour Organization (ILO), which articulated a broad range of rights for indigenous peoples including: (a) the right for indigenous people to design and control their own health care systems; (b) the establishment of community-based health systems that take into account cultural context and traditional practices; and (c) preference for the inclusion of local people to be trained as community health workers (ILO, 1989). While echoing many of the ideas articulated in the Alma Ata Declaration, the ratification of Convention 169 signified a political commitment to improve policies for indigenous people, which spurred reforms in labor laws, land rights, and education, health and social service policies. In fact, because of its multi-sectoral focus on indigenous issues, the adoption of Convention 169 was seen as a key indicator of determining the state of indigenous health laws in the framework proposed by Rojas and Shuqair (1998). In the same year as the ratification of Convention 169, Mexico's National Congress approved changes in the constitution to declare Mexico a pluriethnic nation, making explicit mention of Mexico's indigenous roots and the indigenous peoples for the first time in the history of the Mexican constitution (de la Peña, 2011).

The quincentennial celebration of Columbus' arrival in the Americas in 1992 spurred new levels of indigenous mobilization, activism, and outcry, which led to regional efforts to unite indigenous communities, as exemplified in the 1993 Winnipeg Workshops. In Mexico, the celebration also prompted indigenous groups to examine their current status and the failed policies and promises of the national and regional governments, fueling the anger and disillusionment of indigenous groups throughout the country, and throughout Latin America as a whole. Emerging from this tumultuous political climate, the Ejército Zapatista de Liberación Nacional (EZLN) declared war on the Mexican state in 1994 in the southeastern state of Chiapas although this war has been primarily nonviolent and defensive. After a long process of negotiations, the Mexican government and the EZLN signed the San Andrés Accords in 1996, which articulated the rights of indigenous people for their communal lands, culture, political autonomy and economic viability (de la Peña, 2011). Nonetheless, the San Andrés Accords were only incorporated into the Mexican constitution after five more years of political pressure, demonstrations, and episodes of violence. Still, the incorporation of the San Andres Accords included considerable modifications to the original agreement, to the extent that the EZLN and other indigenous groups have refused to accept the changes. By January 2002, the International League for the Rights and Liberation of Peoples (LIDLIP) documented nearly 300 constitutional complaints against the law, claiming violations of Convention 169 and the rights of indigenous people to autonomy, association with other indigenous groups, and use of natural resources, among other issues (LIDLIP, 2002).

Indigenous Health and Language

As seen in the example of the constitutional adoption (with modification) of the San Andrés Accords, the inclusion of seemingly pro-indigenous legislation has not occurred without contention, and is not necessarily associated with a transformation in indigenous people's political participation and improved quality of life. Similarly, progressive reforms to language laws, indigenous laws, and health laws have been instituted by the national government, yet the evidence regarding their impact on addressing the needs and demands of the indigenous communities remains limited.

For example, the *Ley General de Derechos Lingüísticos de los Pueblos Indígenas* (2003) acknowledges indigenous languages as national and legally recognized languages within their territory of origin. While the law promotes the use of indigenous languages for national media and the dissemination of legal communications, educational resources, and the contents of programs and services, the explicit mention of *salud* (health) or language in the context of health care settings does not appear in the written text (Gobierno Federal, Estados Unidos Mexicanos, 2003).

Nonetheless, in terms of the establishment of policies and programs for indigenous health, Mexico has made significant progress in the past decades. The Ministry of Health includes an office for the coordination of indigenous health, which has expressed explicit goals for the provision of care in local languages, participation of indigenous people in planning and service delivery, understanding of cultural context, and incorporation of traditional medicine (Secretaría de Salud, 2007). In this sense, the government's policies recognize the need to include indigenous language and cultural conceptions of health within mainstream health systems in order to provide effective and appropriate care for indigenous populations. As one example, the Hospital de las Culturas, established in May 2010 in San Cristobal, Chiapas, offers a promising example of an intercultural health system that incorporates traditional medicine and indigenous birth attendants as medical staff (Madujano, 2010). Still, religious and traditional healers maintain a dominant status as medical practitioners within many indigenous communities but often have limited interaction with mainstream medical systems, where they continually struggle to establish indigenous language, culture and medicinal practices as respected components of the official health care system (Tibaduiza Rao et al., 2012)

At the same time, religious and traditional healers maintain a dominant status as medical practitioners within many indigenous communities, but often have limited interaction with mainstream medical systems (Tibaduiza Roa et al., 2012). Thus, meaningful participation of indigenous people and traditional healers in the Western health care system remains limited. Even with the expansion of medical clinics in rural areas through the *Progresa/Oportunidades* program,¹ use of local expertise has been limited (Gonzalez Montes, 2002), yet the inclusion of indigenous people in an intercultural health care system offers great potential for improving the overall health of Mexico.

The Health Law (*Ley de Salud*) has been revised from its original 1984 version, which first included no mention of indigenous groups or languages. The 2006 version added participation of indigenous groups in health planning initiatives, followed by the 2008 version, which includes the acknowledgement of traditional birth attendants. Finally, the 2011 version includes the rights of indigenous participation and the special attention needed for indigenous communities. The current version of the Health Law includes four distinct references to indigenous languages within the 210-page document. Each reference to language refers to the transmission of information (from the health care practitioners to the indigenous people), and does not acknowledge the complex relationship between mother tongue communication and health care. Even if the goal of language planning for

¹ Progresa was launched in 1997 during the presidency of Ernesto Zedillo as a government-sponsored social assistance program to provide cash transfers to low-income mothers, under the condition of their children's attendance in school, regular visits to the health clinic, and participation in nutritional programs. Oportunidades, based on Progresa, was established in 2002 and continues to provide conditional assistance to low-income mothers in Mexico.

health is merely access to language-appropriate resources, government allocation of funding to actually produce those resources is limited—as highlighted in the recent story of Maricela Zurita Cruz, who recognized the urgent need of Chatino language resources to improve women's health in Chiapas (Loewenberg, 2010).

Applying the Integrated Framework of Language Planning to Indigenous Health

The analysis of language policies and indigenous health initiatives in Mexico indicates a movement toward progress, yet persistent disparities in the indigenous health system remain. An important perspective that seems to be missing from the health care planning process is the critical role of language not only as a means of receiving health information but also as a means of communicating complex feelings and emotions and connecting with cultural conceptions of health. To this end, the field of language planning, with a long history of examining multifaceted communicative goals, approaches, and strategies, could provide a significant contribution.

Incorporating over 20 years of scholarship in the field of language planning, Hornberger (1994) offers an Integrated Framework for Language Planning. The six key dimensions of the framework are divided into two columns that outline distinct approaches: policy planning, conceived at the macroscopic level (national, regional, state, etc.), and cultivation planning at the microscopic level (ways of speaking and writing and their distribution). While these approaches are more typically applied to the context of language and literacy policy, the framework can also be applied to health language, where policy planning is associated with the goals articulated in health laws (for example) and cultivation planning is aimed at the local-level distribution and use of languages in the context of health care. The three rows of the framework differentiate between status planning (about the uses of language), acquisition planning (about the users of language) and corpus planning (about the language itself). Applying the Integrated Framework to the context of language planning for health care in Mexico, Figure 2 presents a schematic picture of the six dimensions of language planning goals.

An examination of the six dimensions of Figure 2 highlights some of the strengths and weaknesses of the current approach to language planning for health care. For example, at the macro-policy level, the Mexican government has made clear progress in addressing the goals related to status policy (i.e., official recognition of indigenous languages and their use in the health system) and acquisition policy (i.e., policies that promote the acquisition of language for certain health care providers). There seems to be an absence of corpus planning (i.e., graphization and standardization of indigenous languages for health communication). There is also little cultivation of functional language to incorporate goals of modernization and renovation in the context of health care. As the story of Maricela Zurita Cruz highlights (Loewenberg, 2010), there is a lack of language-appropriate health materials, and a need for more concerted efforts to develop a corpus of indigenous language resources.

Similarly, the cultivation goals of status and acquisition planning seem to have received less emphasis, and in practice, indigenous languages do not function as working languages within the Western medical practice in general. That is, the government has taken a strong stance on developing policies to promote an

improved status of indigenous languages in health care settings as well as the acquisition of indigenous languages for health care workers, but efforts to promote practical cultivation and usage of indigenous languages have been lacking. These apparent weaknesses in the current approach to language in the context of health care may provide insight into the reasons why the strategies have not been successful. As suggested by Hornberger, "development proceeds best if goals are pursued along several dimensions at once" (Hornberger, 1994, p. 82). Thus, a closer attention to culturally and linguistically appropriate cultivation planning and corpus planning may provide an opportunity to greatly improve the current discordance between language and health in Mexico.

Approaches	Policy Planning Approach (on form) Goals	Cultivation Planning Approach (on function) Goals
Types	Goals	Guais
Status Planning (about uses of language)	Officialization, standardization of status	Revival/ Maintenance
Acquisition Planning (about users of language)	Health Care Providers (doctors, nurses, community health workers, parteras, etc)	Reaquisition/ Maintenance Language training for HCPs
Corpus Planning (about language)	Standardization of indigenous languages (Health Communication)	Modernization Renovation

Figure 2. Integrated Framework for Language Planning Goals for Health Care in Mexico. (Adapted from Hornberger, 1994)

Conclusion

Without ignoring the influence of contextual factors such as poverty, geographic isolation and education on health, it seems clear that the demand for culturally and linguistically relevant health care services has not been appropriately addressed through existing policies and programs. The case of health care in Mexico serves as a vivid example of the fact that a comprehensive understanding of the complex role of language in health care remains largely absent from the current discourse of language barriers in health care globally. Even in the context of the United States, conversations about language and health typically revolve around the need for translation. In Spolsky's 2009 book *Language Management*, he stresses the need for health care professionals to have relevant linguistic and cultural knowledge, but he tends to fall back on the language-as-a-problem perspective, underscoring the

need for improved interpretation services (Spolsky, 2009, p. 127). At the same time, the reality of migration, increased urbanization, climate change, and other factors has made addressing the unique health and language needs of diverse populations a formidable challenge. Nonetheless, by understanding the complex relationship between health and language, as well as the potential for language to serve as a resource and a protective factor for health, greater attention may be given to the development of participatory, culturally relevant, holistic care for indigenous populations.

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