

Improving Occupational Safety and Health Among Mexican Immigrant Workers: A Binational Collaboration

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ABSTRACT

Latino immigrants are 50% more likely than all workers in the United States to experience a fatal injury at work. Occupational safety and health (OSH) organizations often find that the approaches and networks they successfully use to promote OSH among U.S.-born workers are ineffective at reaching Latino immigrants. This article describes the collaboration between the National Institute for Occupational Safety and Health (NIOSH) and the Mexican Ministry of Foreign Affairs (*Secretaría de Relaciones Exteriores*) to promote OSH among Mexican immigrant workers. The Ministry of Foreign Affairs operates 50 consulates throughout the U.S. that provide four million discrete service contacts with Mexican citizens annually. The focus of this ongoing collaboration is to develop the internal capacity of Mexican institutions to promote OSH among Mexican immigrants while simultaneously developing NIOSH's internal capacity to create effective and sustainable initiatives to better document and reduce occupational health disparities for Mexican immigrants in the U.S.

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Mexican immigration to the United States has increased dramatically during the past 40 years. In 2008, 12.7 million Mexican immigrants were living in the U.S., accounting for 32% of the foreign-born population, up from just 8% (760,000) in 1970.¹ Mexican immigrants have also started settling in nontraditional areas, such as the Midwestern and Southeastern U.S., giving the Latino population a truly national presence. This unanticipated growth and geographic expansion presents unique challenges for immigrants and society as a whole because many communities and institutions do not have the bilingual infrastructure or cultural competence to work effectively with this population.^{2,3}

For Latino immigrants, as for all workers, work itself is an important social determinant of health (SDH). Workplace conditions, including occupational risks and exposures, as well as social and economic factors, such as hours, wages, benefits, and work-related stress, influence and are influenced by other aspects of workers' lives.⁴ In combination with their experiences as immigrants, these factors can raise barriers to attaining optimal overall health for workers and their families. Latino immigrants are 50% more likely than all workers in the U.S. to experience a fatal injury at work. From 1992 to 2006, work-related fatality rates declined among all workers in the U.S. However, Latino workers, particularly immigrants, consistently experienced higher fatality rates than workers in general. Indeed, the proportion of Latino workplace fatalities experienced by immigrant workers increased from 52% in 1992 to 67% in 2003–2006.⁵ Lack of access to health care,^{6,7} discrimination,⁸ language barriers,^{7,9} lack of knowledge about workplace safety procedures and regulatory protections,^{7,10} fear of retaliation,⁸ and, for some, lack of authorization to work^{11,12} are among the factors that can make it difficult for immigrant workers to access the information, resources, and services they need to improve their occupational safety and health (OSH) status.⁷

OSH agencies, like other public health institutions, often lack the infrastructure, experience, and cultural competence to effectively serve Latino immigrant workers' needs.⁹ Consequently, partnerships between OSH professionals and immigrant-serving organizations, which have cultural and linguistic competence and the trust of immigrant communities, are essential to reducing the occupational health disparities experienced by Latino immigrants. Because Mexicans comprise a large majority of the Latino immigrants to the U.S., developing approaches to reach them effectively with OSH resources will maximize the impact of intervention efforts. In addition, other Latin American countries are adopting programs developed by the

Mexican government for use with their own citizens living in the U.S.¹³ The mission of the National Institute for Occupational Safety and Health (NIOSH) is to generate new knowledge in the field of OSH and to transfer that knowledge into practice for the betterment of workers. This article describes a collaboration between NIOSH and the Mexican Ministry of Foreign Affairs (*Secretaría de Relaciones Exteriores*). The focus of this ongoing collaboration is to develop the internal capacity of institutions within the Ministry of Foreign Affairs to promote OSH among Mexican immigrant workers in the U.S., while simultaneously developing NIOSH's internal capacity to work with Latino immigrants. This collaboration can serve as a replicable model with consular networks from other Latin American countries whose immigrant workers experience occupational health disparities in the U.S.

BACKGROUND

OSH disparities among Mexican immigrant workers

The search for employment is central to Mexican migration to the U.S.^{1,14} Immigrants typically work in “3D jobs” (i.e., jobs that are dirty, dangerous, and demanding).¹⁵ Latino workers experience fatal work-related injuries at a rate of 4.9 per 100,000 population, compared with 4.0 per 100,000 population for all workers in the U.S. Upon closer examination, this disparity is driven by elevated mortality rates among foreign-born Latino workers. Latino immigrant workers are fatally injured at a rate of 5.9 per 100,000 population, while the rate for their U.S.-born counterparts is below that of all workers (3.5 vs. 4.0 per 100,000 population).⁵ Recent studies have also found that immigrants are more likely to hold more dangerous jobs than their U.S.-born counterparts¹⁶ and that citizenship may be more important than race and gender in channeling workers into less desirable, more dangerous jobs.¹⁷ From 2003 to 2006, two-thirds of work-related deaths among Latinos were among immigrants, and 70% of those immigrants were Mexican.⁵

Obstacles to OSH

Mexican immigrant workers face many barriers to addressing unsafe working conditions.^{7,18} Many immigrant workers fear that speaking up will jeopardize their jobs and, therefore, their economic security.⁸ Racial discrimination and linguistic and cultural barriers can deter Mexican immigrants from accessing health care and other services.^{7,8} Some immigrant workers do not have authorization to work in the U.S., which creates additional barriers to safety.^{1,11} Legal restrictions disqualify unauthorized workers from some services and

benefits (e.g., unemployment benefits), which can discourage them from accessing worker protections and resources to which they are entitled (e.g., Occupational Safety and Health Administration [OSHA] protections and workers' compensation in most states).^{12,19}

Lack of access to information is also a barrier for many Mexican immigrant workers.⁷ The U.S. labor law differs from Mexico's, and many immigrants may be unaware of the rights and responsibilities of employees and employers for maintaining a safe workplace. Work-site risks and the safety procedures to avoid them are often unfamiliar to these workers either because the technologies, products, or procedures in the U.S. are different from those in their home country or because immigrants often work in different industries than they did back home.²⁰ Language barriers and illiteracy can also make it difficult for workers to understand safety information and make employers less likely to spend time giving information beyond basic job task instructions.²¹

Although many of the fundamental barriers Latino immigrant workers face to achieve good OSH will ultimately need to be addressed through changes in law, policies, and/or regulatory enforcement, it is possible to greatly improve their circumstances through outreach, education, and improved access to existing resources. Essential to this process is partnering with organizations already serving the immigrant community. OSH agencies often find that the approaches and networks used to promote OSH among U.S.-born workers are ineffective for reaching Latino immigrants.²² For example, immigrant workers are overrepresented in the contingent workforce and, therefore, are often not exposed to traditional workplace-based safety trainings.²² Collaborations with organizations that have both expertise in serving Latino immigrants and the trust of these communities are needed to provide workers with the practical tools and institutional support that can help them minimize, if not overcome, barriers to OSH.⁹ In addition, partnering with community organizations can help lay the foundation for the long-term elimination of fundamental structural obstacles to health.

Improving the OSH of Mexican immigrants improves their overall health and that of their families and communities. Efforts are needed in at least four key areas: (1) surveillance and research to better understand the factors contributing to OSH disparities and the policies and practices that could mitigate them, (2) improved working conditions, (3) long-term changes to reduce immigrant worker vulnerability, and (4) improving immigrant workers' access to current workplace protections. The infrastructure and social programs of the Mexican Ministry of Foreign Affairs are well-suited to

address the first and last of these issues. The remainder of this article describes current collaborations between NIOSH and the Ministry of Foreign Affairs, a trusted resource for health, legal, and other information in the Mexican immigrant community.

NIOSH-MEXICO PARTNERSHIP

Increased emigration has led to significant demographic changes for Mexico. In 1970, only 1.7% of Mexican citizens lived in the U.S.; however, in 2008, 11% of the total Mexican population, and an even larger portion of the working-aged population, lived in the U.S.²³ Currently, there are 50 Mexican consulates in the U.S. providing more than four million discrete service contacts to Mexican citizens annually.²⁴ These consulates offer a variety of economic and social programs in addition to traditional consular functions. Created in 2003, the Institute for Mexicans Abroad (*Instituto de Mexicanos en el Exterior*) is an independent department within the Ministry of Foreign Affairs that works through the consulates to implement social programming aimed at empowering the Mexican diaspora.²⁵ This programming represents a significant expansion of the function that consular offices have traditionally filled and offers a relatively new and unprecedented opportunity for partnerships with U.S. agencies.¹³

During the past decade, the Mexican government has begun to promote the health and well-being of its citizens working in the U.S. as part of this expanded focus on social programming. Although these programs tend to focus on communicable and chronic diseases, OSH has recently been included in events sponsored by the Mexican government such as Binational Health Week and the XII Binational Policy Forum on Migration and Global Health. The centrality of work to the Mexican immigrant experience, the significant OSH disparities, and the consulates' efforts to promote the general welfare of Mexicans living in the U.S. make the Ministry of Foreign Affairs and, in particular, the Institute for Mexicans Abroad, natural partners for NIOSH's efforts to address occupational health disparities.

In 2008, NIOSH approached the Mexican government to collaborate on the development, dissemination, and evaluation of OSH information products tailored for distribution through Mexican consulates. The relationship created during the initial materials development project has allowed for expansion of the collaboration to address OSH issues in three key areas: research and surveillance, information dissemination, and improving access to resources. While most of this work is ongoing, the related projects have already yielded important results and suggest areas for further collaboration.

Research and surveillance

Underrepresentation of immigrants in traditional sampling techniques and the lack of data fields specific to immigrants (e.g., primary language and immigration status) have led to a dearth of information about immigrants on most public health-related issues. Occupational epidemiology is no exception.^{14,26} The collaboration with the Ministry of Foreign Affairs facilitates two types of data-collection opportunities for improving occupational epidemiology with immigrant workers. The first opportunity is providing access to a large number of potential respondents in a central location for original studies. The second opportunity is including OSH-related fields in current data-collection efforts conducted by the consulates or other institutions within the Mexican government. Two initial efforts, one of each type, are described hereafter.

After hearing about the collaboration between NIOSH and the consulates, researchers at New York University's Center for Immigrant Health consulted with NIOSH to develop a survey regarding the OSH concerns of immigrant workers in that city. The survey was administered in March 2009 to 185 clients at the Mexican consulate in New York City. The survey found that respondents were at high risk for occupational illness and injury, were not receiving adequate safety training, and were underreporting occupational injuries.²⁷

In a second project, NIOSH consulted with Mexico's National Population Council (*Consejo Nacional de Población*) to help develop OSH items for a pilot module on health for the Migration Survey on the Northern Mexican Border. This survey is an annual effort to collect data on the flow of immigrants migrating to, and returning from, the U.S. The OSH items were administered from January to March 2010 to more than 2,000 individuals returning to Mexico and focused on their experience of occupational injury, utilization of services, and the impact any injury had on their decision to return to Mexico. These data are currently being analyzed. It is expected that they will provide a better understanding of injury rates, patterns of service use, and how occupational injuries and illnesses affect migration patterns.

Information dissemination

Increasing awareness of workplace hazards, exposures, and basic protection measures is a first step to improving Mexican immigrants' abilities to protect themselves on the job. Information on basic OSH concepts, such as hazard recognition and proper use of personal protective equipment, as well as information on the rights and responsibilities of both workers and employers in

the U.S., can be useful. However, the format, content, and distribution channels of OSH information must be tailored specifically for immigrant workers—not just translated into Spanish.^{9,28,29} Coupling information about hazards, rights, and prevention with guidance for acting on the information and accessing organizations that can provide workers with legal, medical, and social support goes beyond knowledge to begin to reduce the fundamental barriers mentioned previously. Partnering with trusted organizations in the immigrant community allows OSH organizations to benefit from the existing infrastructure and cultural competence that would take years to develop independently. These partnerships have the potential to increase not only the reach of an information intervention within a community, but also its effectiveness by providing immigrants with unprecedented access to resources as OSH is successfully integrated into the existing social service infrastructure.

A cornerstone of the Institute for Mexicans Abroad's health promotion activities in the consulates is the Health Windows (*Ventanillas de Salud*) program, which began as a pilot project in California in 2003. The Health Windows program currently operates in all 50 consulates and provided approximately one million discrete service contacts, such as health information, screenings, and referrals, in 2011. NIOSH has worked closely with the Institute for Mexicans Abroad, immigrant-serving organizations, and immigrant workers to guide the messages and format of OSH materials to be disseminated through the Health Windows program. These materials are currently being tested as part of a field study in two consulates (Los Angeles and Atlanta). The study will also provide training to consulate staff on basic OSH principles, creating OSH networks, and providing OSH referrals. The study will help refine this model for building OSH infrastructure within a trusted community organization and taking an information intervention beyond increasing knowledge to providing support and referrals. The results of this study will enable the Health Windows program to disseminate OSH information in a more comprehensive and coordinated manner across sites.

The lay community health promoter (*promotora de salud*) model is well-known and promising for enhancing Latino immigrant workers' access to OSH information and services.²⁸ NIOSH developed an OSH training curriculum in collaboration with the Mexican consulate in El Paso, Texas, and its local partners. The curriculum is designed to train *promotoras de salud* and others who work closely with Spanish-speaking immigrants to integrate OSH into their work and create networks of OSH service providers for referrals,

as they do with chronic and other health issues. The curriculum is interactive and modular and can be easily adapted to address local needs. It is currently being piloted and finalized. This curriculum will be used to train consulate workers in the aforementioned pilot study, and NIOSH is working with its partners to determine a pathway to disseminate and evaluate this training curriculum once it is available.

Access to resources

Information alone is not enough to improve the OSH of Mexican immigrant workers. Interventions typically aim to increase knowledge about particular hazards and teach proper methods for worker protection. Some interventions also inform workers about their rights. These interventions are important and should be continued. However, recommendations and resources that help immigrants navigate the labor and health systems, negotiate with managers, effectively act on their labor rights, and access services from organizations that advocate for and support immigrants and workers may better facilitate change in workplaces.

The Mexican Foreign Ministry's Protection Department (*Departamento de Protección a Mexicanos*), which operates in each of the 50 consulates, provides individual assistance on topics related to immigration, human rights, and legal issues. Given the implicit legal aspects of OSH, this infrastructure is an invaluable resource for workers who have OSH concerns. They can couple the health information and referrals they receive from the Health Windows program with services from the Protection Department, such as legal orientation, case management, and referrals to community groups or individual attorneys who can help them interact with the U.S. labor system. This type of support has the potential to increase the reporting of unsafe working conditions and would allow the consulates to track cases and identify systemic barriers that could be addressed with the relevant U.S. agencies. For example, OSHA, the principal OSH regulatory agency in the U.S., has signed a collaborative agreement with the Ministry of Foreign Affairs and individual consulates to work together to promote workers' safety and develop a process for Embassy and consulate officials to share feedback with OSHA regarding concerns received from Mexican workers who are employed in the U.S.³⁰

Coordination among Protection Departments, Health Windows, OSHA, and NIOSH bridges the health and legal facets of OSH. In 2011, the Protection Department and the Institute for Mexicans Abroad held a joint seminar on OSH for consular representatives. Representatives of NIOSH and OSHA, as well as nongovernmental OSH organizations, presented at the

event. This first-of-its-kind meeting shows the increasing institutionalization of OSH as a central concern of the Mexican government in its work with its citizens abroad. NIOSH has since presented two webinars on OSH and immigrants to consulate staff. Future plans include similar webinars and onsite trainings on other aspects of worker safety and health.

CONCLUSION

Mexican immigrant workers suffer significant OSH disparities. To minimize the impact and eventually overcome the fundamental causes of these inequities, it is suggested that OSH institutions, such as NIOSH, develop relationships with organizations that already have the trust of immigrants and work with these organizations to develop relevant and appropriate interventions. Such activities need to go beyond information dissemination to include access to support networks and services that can help workers effectively change workplace conditions. The NIOSH partnership with the Mexican government offers access to 50 consulates across the U.S. serving more than one million people each year. It also provides opportunities to collaborate with the network of organizations the consulates have developed themselves. The Mexican government has a wealth of cultural knowledge and an understanding of the realities of its citizens in the U.S. that would not otherwise be available to NIOSH. In turn, NIOSH provides expertise on OSH, a topic of immediate relevance to Mexican nationals working in the U.S., and access to its own network of academic and institutional partners. The Mexican government operates the largest consulate network in the U.S., and its programs and initiatives are often adopted by consulates from other Latin American countries. This leadership can provide a natural avenue for expansion of a proven model to other venues.

The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the Institute for Mexicans Abroad.

REFERENCES

1. Passel J, Cohn D, Gonzalez-Barrera A. Net migration from Mexico falls to zero—and perhaps less. Washington: Pew Hispanic Center; 2012. Also available from: URL: http://www.pewhispanic.org/files/2012/04/Mexican-migrants-report_final.pdf [cited 2013 Jan 30].
2. Capps R, Fix ME, Passel JS. The dispersal of immigrants in the 1990s. Washington: Urban Institute; 2002. Also available from: URL: <http://www.urban.org/url.cfm?ID=410589> [cited 2013 Jan 30].
3. Striffler S. Neither here nor there: Mexican immigrant workers and the search for home. *Am Ethnol* 2007;34:674-88.
4. World Health Organization, Commission on Social Determinants

- of Health. Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health. Geneva: WHO; 2008.
5. Work-related injury deaths among Hispanics—United States, 1992–2006. *MMWR Morb Mortal Wkly Rep* 2008;57(22):597-600.
 6. Ku L, Matani S. Left out: immigrants' access to health care and insurance. *Health Aff (Millwood)* 2001;20:247-56.
 7. Lashuay N, Harrison R. Barriers to occupational health services for low-wage workers in California. Oakland (CA): California Department of Industrial Relations; 2006.
 8. Smith-Nonini S. Back to "the jungle": processing migrants in North Carolina meatpacking plants. *Anthropol Work Rev* 2003;24:14-20.
 9. National Research Council. Safety is seguridad: a workshop summary. Washington: National Academies Press; 2003.
 10. Pransky G, Moshenberg D, Benjamin K, Portillo S, Thackrey JL, Hill-Fotouhi C. Occupational risks and injuries in non-agricultural immigrant Latino workers. *Am J Ind Med* 2002;42:117-23.
 11. Walter N, Bourgois P, Loinaz LH, Schillinger D. Social context of work injury among undocumented day laborers in San Francisco. *J Gen Intern Med* 2002;17:221-9.
 12. Flynn MA. Undocumented status and the occupational lifeworlds of Latino immigrants in a time of political backlash: the workers' perspective (master's thesis). Cincinnati: University of Cincinnati; 2010. Also available from: URL: http://etd.ohiolink.edu/view.cgi?acc_num=ucin1280776817 [cited 2013 Jun 27].
 13. Laglagaron L. Protection through integration: the Mexican government's efforts to aid migrants in the United States. Washington: Migration Policy Institute; 2010.
 14. Schenker MB. A global perspective of migration and occupational health. *Am J Ind Med* 2010;53:329-37.
 15. Connell J. Kitanai, kitsui and kiken: the rise of labour migration to Japan. Sidney: University of Sydney, Economic & Regional Restructuring Research Unit; 1993.
 16. Orrenius PM, Zavodny M. Do immigrants work in riskier jobs? *Demography* 2009;46:535-51.
 17. Hudson K. The new labor market segmentation: labor market dualism in the new economy. *Soc Sci Res* 2007;36:286-312.
 18. McCauley LA. Immigrant workers in the United States: recent trends, vulnerable populations, and challenges for occupational health. *AAOHN J* 2005;53:313-9.
 19. Smith R, Avendaño AA, Ortega JM. Iced out: how immigration enforcement has interfered with workers' rights. Washington: AFL-CIO; 2009.
 20. Eggerth DE, DeLaney SC, Flynn MA, Jacobson CJ. Work experiences of Latina immigrants: a qualitative study. *J Career Dev* 2012;39:13-30.
 21. O'Connor T, Loomis D, Runyan C, Abboud dal Santo J, Schulman M. Adequacy of health and safety training among young Latino construction workers. *J Occup Environ Med* 2005;47:272-7.
 22. O'Connor T, Flynn M, Weinstock D, Zanon J. Education and training for underserved populations. Paper presented at the Eliminating Health Disparities at Work Conference; 2011 Sep 14–15; Chicago.
 23. Pew Hispanic Center. Mexican immigrants in the United States, 2008. Washington: Pew Hispanic Center; 2009. Also available from: URL: <http://pewhispanic.org/files/factsheets/47.pdf> [cited 2012 Apr 10].
 24. Secretaria de Relaciones Exteriores. Informe de rendición de cuentas de la administración pública federal 2006–2012. Mexico City (Mexico): Secretaria de Relaciones Exteriores (Mexico); 2012. Also available from: URL: <http://www.sre.gob.mx/images/stories/docctransparencia/rdc/irc-sre.pdf> [cited 2012 Oct 1].
 25. Gutiérrez CG. The Institute of Mexicans Abroad: an effort to empower the diaspora. In: Agunias DR, editor. Closing the distance: how governments strengthen ties with their diasporas. Washington: Migration Policy Institute; 2009. p. 87-98.
 26. Souza K, Steege AL, Baron SL. Surveillance of occupational health disparities: challenges and opportunities. *Am J Ind Med* 2010;53:84-94.
 27. Gany F, Dobslaw R, Ramirez J, Tonda J, Lobach I, Leng J. Mexican urban occupational health in the US: a population at risk. *J Community Health* 2011;36:175-9.
 28. Quandt SA, Arcury TA, Austin CK, Cabrera LF. Preventing occupational exposure to pesticides: using participatory research with Latino farmworkers to develop an intervention. *J Immigr Health* 2001;3:85-96.
 29. Grzywacz JG, Arcury TA, Marín A, Carrillo L, Coates ML, Quandt SA. Using lay health advisors in occupational health: outcome evaluation in a sample of Latino poultry processing workers. *New Solut* 2009;19:449-66.
 30. Occupational Safety and Health Administration (US). OSHA International: Mexico [cited 2012 Apr 10]. Available from: URL: <http://www.osha.gov/international/index.html>