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Migration and Occupational Health: Understanding the Risks

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Increasing numbers of men and women in developing nations are responding to a lack of available jobs and economic, social, and political instability in their home countries by seeking work abroad.

Migrants receive enormous benefits from migration and also contribute to the economic development of their home and host countries; however, there are some recognized costs. Largely missing from the current migration policy debate is a discussion of the public health issues arising from migration — specifically the health disparities between migrant and native-born workers.

While migrants can be found in occupations across the skills spectrum and can be found in high- and middle-skilled jobs, many migrants around the world work in unsafe environments with hazardous chemicals or waste, dangerous machinery, sparse training, little protective gear, and few labor rights. The rise in human trafficking and exploitative labor conditions only add to the health and safety risks faced by migrant workers.

The health costs for foreign-born laborers working under such conditions include fatal and nonfatal injuries, chronic illness or disease, and negative impacts on mental health.

This article analyzes data from the United States to illustrate what is known about the occupational health risks facing migrant workers, with particular attention on the disparities in health outcomes among migrant workers in low-skilled jobs compared with native-born workers in the same occupations.

Immigrants in the U.S. Labor Force

The United States is home to a sizable immigrant population: nearly 40 million, according to the 2010 American Community Survey, accounting for 12.9 percent of the U.S. population. Immigrants are more likely to participate in the civilian labor force than are the native born, representing 15.6 percent of the U.S. labor force, or about 24 million workers.

Immigrants in the United States — as in many other destination countries around the world — are overrepresented in low-wage or low-skilled occupations, with many engaged in what's often referred to as "three D" jobs because the work is considered dirty, dangerous, and difficult. These jobs typically involve greater health and safety risks, but draw immigrant workers because they often come here with low skills, little education, and limited English proficiency — and because three D jobs still pay more than the migrants would receive in their countries of origin.

Unauthorized immigrants, who number about 11 million in the United States (and 8 million in the U.S. workforce), are particularly overrepresented in low-skill, low-wage jobs. Occupations with high proportions of foreign-born workers include agriculture, construction, manufacturing, meat processing, and hospitality jobs.

Due to the overrepresentation of the foreign born in dirty, dangerous, and difficult jobs, immigrants, particularly the unauthorized, can be at greater exposure than the native born for workplace accidents, injuries caused by repetitive movement and strain, and even death.

What's more, a number of other factors further expose immigrant workers to occupational health risks, including poverty, nonnative language abilities, the lack of labor rights and opportunities for collective bargaining, the lack of health insurance, and little access to family and other support systems.

Occupational Health of Immigrants

Yet few studies have critically evaluated the occupational health risks facing immigrant populations. A recent review found only 48 articles in English or Spanish on immigrant occupational health between 1990 and 2005. Despite the paucity of research, published studies and various reports indicate a consistent pattern of higher occupational morbidity and mortality among immigrant workers. Few studies have directly examined the association of immigration status and injury or death among immigrant populations.

Occupational Fatalities

Preliminary data for 2010 from the U.S. Census of Fatal Occupational Injuries indicate an overall 27 percent decrease in occupational fatalities since 1997. The number of fatal occupational injuries among Hispanic workers has fluctuated significantly over the years, reaching a high in 2006 with 990 fatalities. In 2010, fatalities among Hispanics (682) accounted for 15 percent of all fatalities (4,547), with fatalities among the foreign-born subset (427) accounting for 9.4 percent of all fatalities.

Analysis of the U.S. National Traumatic Occupational Fatality surveillance system (NTOF) showed an increase in occupational fatalities among Hispanics in the 1990s. At the same time, the rate was decreasing among non-Hispanics and blacks. This study also confirmed marked regional differences in occupational fatality rates, with higher rates of occupational fatalities for all race or ethnic groups observed in Southern states. Among Hispanics and blacks, the occupational fatality rates in Southern states were approximately double the rates in other states. Data were not collected on immigration status in this study.

The disproportionate share of occupational fatalities among immigrants in large measure derives from the distribution of occupations among immigrants. For example, in the United States, the three occupational

groups with the highest rates of occupational fatalities — transportation, construction, and agriculture — are the three groups with the highest proportion of immigrant workers. Only 8.0 percent of recorded occupational fatalities occur among women.

Consideration of occupational fatalities within specific occupations has also shown similar findings. A study of occupational fatalities of Hispanic construction workers in the United States from 1992 to 2000 found that Hispanics constituted 15.0 percent of construction workers in 2000 but suffered 23.5 percent of fatal construction injuries. Overall, the risk of an occupational fatality among Hispanic construction workers was nearly twice the risk among non-Hispanics. Another study of occupational fatalities in New Mexico from 1998 to 2002 analyzed two different datasets and found that non-U.S. citizenship was an independent risk factor for work-related deaths.

Fatalities in agricultural occupations rank among the highest for all workers in the United States, and Hispanic immigrants dominate the agricultural workforce — particularly in the states of California, Texas, and Florida. Thus, the finding of increased occupational fatalities among agricultural workers is consistent with an increased rate of occupational fatalities among immigrant workers, although no data exist on immigrant-specific fatalities in agriculture.

Analysis of occupational fatalities in the retail trade industry from 1992 to 1996 found that workers had an overall lower risk of occupational fatalities but a markedly increased risk of violent deaths compared with workers in other industries. The increased risk was independently associated with being a foreign-born worker.

Nonfatal Occupational Injuries

Nonfatal occupational injuries and illnesses are also higher among immigrant workers, but the findings are less consistent than for fatal injuries. Some studies have begun to explore occupational injuries among specific occupations, but data on immigration status and associated factors such as language abilities and legal documentation remain highly uncommon.

In 2000, Hispanics comprised about 10.2 percent of the U.S. workforce but accounted for 17.1 percent of occupational injuries and illnesses. National data from the Bureau of Labor Statistics also show that Hispanic workers have greater days away from work due to occupational injury or illness than all other race or ethnic groups. Again, consideration of the industries with the highest rates of nonfatal occupational injuries reflects the greater proportion of immigrants exposed to these higher risks; the four U.S. industries with the highest occupational injury rates are construction, agriculture, manufacturing, and transportation, and all of these industries have a large and increasing proportion of immigrant workers in the United States.

A 2002 population-based study of 427 Hispanic immigrant workers in a Washington, DC suburb found an annual occupational injury rate of 12.2/100 full-time equivalent employee (FTE), which is 70 percent above expected rates for U.S. workers. The severity of the injuries was apparent, with median lost time from work being 13 days and 29 percent of the study's population having to change jobs because of the injury. Over one-half the subjects reported not having workers' compensation and only 20 percent had medical insurance.

Day labor is considered a highly viable work option for many immigrants, particularly those who are unauthorized. Day labor employment is comprised of short-term, informal work agreements with employers and can entail a wide range of jobs, from construction and maintenance to landscaping and garment production. Day labor is a form of precarious work for the large immigrant labor pool performing contingent work, a practice that has increased with the downsizing and outsourcing of maintenance and construction work.

Day laborers in the United States are predominantly young, male, Hispanic, unauthorized immigrants. A 2002 ethnographic study of 38 day laborers in San Francisco found that most were homeless, living in shelters or in overcrowded single rooms. Data on injury or illness rates among day laborers are very sparse, but consistent findings indicate increased rates of occupational injuries, lack of health insurance, and limited workers' compensation. Job segregation by sex is common, with men dominating construction and maintenance jobs and women performing cleaning and garment work.

A 2008 survey of day laborers at two worker centers and an unregulated street location in Seattle, WA found immigrant workers were one and a half to two times more likely than nonimmigrant workers to report hazardous work conditions, controlling for type of work. The estimated injury rate was 31/100 FTE, but, as with most studies of this type, it is difficult to interpret this finding because the total size of the day laborer population is unknown.

The U.S. agricultural workforce is also dominated by Hispanic immigrants who are predominantly male, poor, and unauthorized. In some locations, such as California, over 85 percent of hired farm workers are Hispanic immigrants. Agriculture has been recognized for years to have increased fatal and nonfatal injury rates plus a wide range of occupational illnesses, including disorders of multiple organ systems. A population-based study of farm workers in California found increased rates of occupational injuries and a high prevalence of chronic pain among both men and women. A prospective study of injury among farm workers found an injury incidence of 9.3/100 FTE per year.

Female immigrants dominate cleaning occupations, both in commercial and residential settings. Recent research has documented very high prevalence rates of severe neck and back pain among hotel cleaners associated with physical workload, work intensification, and ergonomic stresses. Additionally, barriers to workers' compensation were apparent in this population.

Many investigators have speculated on the causes of increased occupational fatalities among immigrant workers, but there are little or no data investigating specific risk factors. Common explanations include the overrepresentation of immigrants in jobs with increased rates of injury and fatalities overall, the assignment of more hazardous tasks to immigrant workers, the failure of employers to invest in safety training and equipment for immigrant workers, greater risk-taking by immigrant workers, economic pressure to continue working despite chronic pain or illness, and failure to complain about unsafe conditions by workers who may have precarious job or immigration status.

With respect to the precarious employment factor specifically, the previously discussed study of day laborers in San Francisco found that the men worried that they would be replaced if they complained about safety hazards.

A common correlate of precarious work status among immigrant workers is psychological distress, whereby unemployment or irregular employment can result in a greater degree of chronic health problems or lower perception of one's health. The serious emotional toll of precarious work was also noted in the study of day laborers, including the impact of being isolated from family and community support, of inadequate living situations, and the economic effects of injuries.

Methodological Issues in Studying Immigration and Occupational Health

The existing data indicates that immigrants are at increased risk of occupational illness and injury, but there has been very little research on occupational health among foreign-born workers. The reasons for this deficiency are multiple and complex.

One very important barrier to studying occupational health among immigrants is the deficiency of current epidemiological tools and methods. Whereas classic occupational epidemiological studies have most commonly used workplace-sampling frames to identify study populations, researchers are often unable to develop a valid sampling frame because of the large proportion of informal work arrangements, use of labor intermediaries, short-term job placements, and absence of standard identification data (e.g., social security numbers) among immigrant workers. In addition, even standard population-based surveys such as the Hispanic Health and Nutrition Examination Survey, or HHANES, tend to exclude large segments of the population by their urban-focus, language of practice, or residential stability requirements.

Additionally, immigration status is often not recorded on surveys or may not be reported by immigrants. Immigrant populations are justifiably hesitant to provide information related to their immigration status, and recently stepped-up enforcement efforts may raise concerns that the information provided could be used against unauthorized immigrant study participants. Community acceptance is a critically important social requirement that is particularly lacking in studies of unauthorized immigrants, who often fear arrest and deportation.

Language and culture are also barriers to successful research on immigrant populations, as subjects are frequently not fluent in the dominant language and are thus excluded from research studies. Even bilingual studies may exclude subjects fluent in different dialects or languages, especially when considering the increasing number of farm workers from Mexico who speak only indigenous languages such as Mixtec, Zapotec, and Triqui.

Conclusion

Given the fundamental human rights involved in health care and disease prevention, it there is value in giving greater focus to the issue of occupational health among migrant workers. To ignore immigration status or to consider it as an epidemiological confounder is to obstruct understanding and policy development in this area. Similarly, the epidemiological challenges of studying a population with different languages, cultures, and work patterns should not dissuade professionals from conducting the necessary research.

Immigrant workers are not a homogeneous group, and their diversity, poverty, and what often amounts to life on the margins makes research and public health interventions all the more difficult. Nevertheless, it is evident

that immigrants are at greater risk for occupational illness and injury than nonimmigrants, even within similar occupational categories. Efforts should be directed at understanding the nature and causes of these disparities and at developing appropriate policies and public health interventions to mitigate them.

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