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Documenting and Understanding Workplace Injuries Among Latino Day Laborers

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Abstract

Background—Latino day laborers face substantial injuries at work. We present a comprehensive assessment of their injury experience and explore the predictors of self-reported injuries.

Methods—Worker and injury characteristics were collected from 331 day laborers using an innnovative injury assessment tool. The odds of injury were estimated using a logistic regression.

Results—Participants were foreign-born, Spanish monolingual, and employed in construction. Sixty-seven individuals reported 88 past-year injuries, mostly involving the upper or lower extremities. Injuries were caused by moving heavy objects, falling, or being struck an object. Of the documented injuries, 24% were not reported at work due to fear of being fired; 64.4% resulted in missed workdays, 54.0% in temporary incapacitation, and 34.5% in permanent incapacitation. Being married significantly reduced the odds of reporting an injury.

Discussion—Better documentation can inform the development of better policy protections that ameliorate injuries experienced by Latino day laborers at the workplace.

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Keywords

Day laborers; Latino workers; occupational injury; injury disparities; immigrants

Introduction

Although earlier evidence suggests that occupational injury among Latino day laborers constitutes a public health crisis, the work-related injury experiences of this vulnerable population are not fully understood. Most Latino day laborers are immigrant male workers from Mexico or Central America who solicit daily or short-term employment from contractors and individual home owners at public locations, such as street corners, bus stops, gas stations, and home improvement stores, collectively referred to as "the corner." Latino day laborers experience the highest occupational mortality rate in the United States (U.S.) due to preventable, on-the-job injuries. Injury among Latino day laborers is particularly problematic in Texas, which has the highest injury rate among Latino workers in the U.S. Injury among day laborers is related to regularly performing dangerous work under hazardous conditions, typically in the construction sector (e.g., roofing, framing), often without adequate safety equipment or training. These conditions result in disproportionate rates of occupational injuries and job-related deaths. 12–14

Documenting workplace injury

Despite the growing literature on the occupational hazards faced by Latino day laborers, 5,15,16 important gaps remain regarding the documentation and reporting of injury data. A full understanding of workplace injury is missing because precise, comprehensive information has not been reported in the literature and because there is no agreed-upon methodology to collect Latino workers' injury data. 1,12,15,16 In particular, lack of consistent reporting and documentation has influenced the measurement of injury incidence and severity. Reported injury incidents are typically defined according to the U.S. Bureau of Labor Statistics (BLS) recordable criteria, ¹⁷ but the reported time frame can range from three months to three years, ^{16,18} preventing reliable comparisons across studies. Although longer time frames may be necessary to capture more severe injuries, they may favor the reporting of salient or more serious incidents at the expense of more mundane or minor injuries that may require a more elaborate elicitation methodology. ¹⁹ In addition, the severity of workplace injury is usually not assessed in terms of the injury experience itself, but, rather, it is measured in terms of whether the injury required the worker to miss at least one day of work. Further, in some cases, injury severity is difficult to establish, as the reports collapse minor (e.g., scrapes) and major injuries (e.g., head injuries) into a single measure. 15,16,20-23

Another challenge of documentation is capturing the task or job performed when injured. Studies reporting on workplace injury among Latino day laborers tend to focus on construction work. 1,13,21,24 Although construction represents the job sector in which most day laborers are employed, many workers also rotate across service jobs (e.g., cleaning, moving), for which their risk of injury is not clearly understood. Other relevant details of injury (i.e., task and location) also are not reported routinely, limiting analysts'

understanding of the worker's experience. ^{10,18} When the specific job performed is taken into consideration, greater insight can be gained about precipitating conditions. For example, Latino roofers are the group of workers most likely to suffer a fatal injury. ^{16,25,26}

Conceptualizing injury

Latino day laborers' workplace injuries may be broadly understood as the result of multiple factors embedded in a socioecological framework with three levels of influence. At the broadest level (macro), injury may be understood as the result of socioeconomic and regulatory social forces prevalent in a community.^{27–30} At the middle (meso) level, injury is influenced by social relationships and the ties and bonds that day laborers have with the local community as well as by discrimination and mistreatment.^{31,32} At the micro level, injury is the result of psychosocial characteristics and specific work and safety practices enacted by the individual worker on the job.^{33–35}

While our previous work provides support for this conceptual framework, ³⁶ in this report we focus primarily on the micro level and on describing person-environment interactions in the workplace, more proximally associated with injury. We present the details of workplace injury incidence, experiences, and consequences, as reported by Latino day laborers, with the goal of providing a systematic and comprehensive view of this experience. To accomplish this goal, we document workplace injury using a data collection method that combines previously reported measures with an innovative injury-reporting tool.

Injury-related factors

To understand further the injury experience reported by Latino day laborers, we identify, as a second objective of this paper, the demographic backgrounds and job characteristics associated with workers who reported (or did not report) injury in the last year. Previous research indicates that the association of occupational injuries with demographic and work-related characteristics has been inconsistent at best. For example, greater injury risk has been associated with age, ^{6,23} education, ³ time in the U.S. (or in current city), ^{6,15,23} inability to speak English, ^{14–15,18} and being married or partnered, ²³ although the evidence tends to be equivocal for the first three variables. ^{1,15} While foreign-born Latino workers have been found to be at greater injury risk, ¹⁵ country of origin has not been associated with injury, perhaps because this information is coded inconsistently, ^{16,23} even when country or region of origin may represent different trajectories of adaptation to life in the U.S. and may play a role in injury risk. As expected, occupation influences injury and individuals engaged in construction are at greater injury risk than others. ^{15,18} Given our interest in the day laborer injury experience, we wanted to shed light on the importance of these factors in our local sample.

Methods

Injury data were collected as part of a project to develop a pilot community-based program to reduce risk for workplace injury among Latino day laborers, funded by the National Institute of Minority Health and Health Disparities. The study was approved by the Committee for the Protection of Human Subjects at the University of Texas Health Science

Center at Houston. The survey and injury booklet described below were originally developed in English by members of the research team. They were then translated into Spanish by those members of the team who were bilingual. Interviewers and field supervisors were also bilingual, but recruitment and interview activities were primarily conducted in Spanish.

Study location and selection

Latino men who seek work on day-labor corners were approached and invited to participate in the study. The selection of study locations was based on observations conducted between November 2013 and July 2014, during which time a total of 44 day-labor corners were identified in the Houston metropolitan area. Corner size was determined by the average number of day laborers observed who were seeking work at each location and were classified as small (20), medium (21–44), and large (45). A stratified random sampling procedure was used, with *corner* as the selection unit and *worker* as the unit of recruitment. A total of 21 corners were included in the survey. To ensure representation of corner size and type, we recruited 103 (90 expected) participants from large corners, 152 (150 expected) from medium corners, and 76 (60 expected) from small corners. Thus, the initial corner quotas set for each type of corner were achieved or exceeded for the three types or corners.

Participant selection

Study participants were Latino day laborers who were recruited from Houston corners where they routinely look for work from contractors and private homeowners. Recruitment and interviewing were conducted concurrently throughout the morning, with most participants (86%) completing the interview between 8 a.m. and noon. Participant eligibility criteria included (a) being 21 years of age or older, (b) self-identifying as Hispanic or Latino, and (c) presently looking for work on corners. All eligible individuals who agreed to participate were included in the study until the sample quota for each corner was met. The corner survey was completed over the course of 10 weeks.

Survey content and measures

The content of the needs assessment survey was guided by the pilot program's formative work and by measures previously found to be associated with injury in studies with day laborers. Initial identification of survey topics was also based on discussions with local Latino day laborers and field observations of the Houston corners. As our study was guided by a community-based participatory approach, the community advisory board approved the final selection of survey constructs. Sociodemographic and background as well as injury and work-related variables are described below.

Sociodemographic and background characteristics.—Age at interview, years of school, country of origin, language(s) spoken, marital status, and time in the United States were collected (see Table 1 for response categories).

Work-related variables.—The measures related to work history captured patterns of work activity over the last month or last year and included job type ("In the last year, what job have you done most as a day laborer?") (Table 1). Frequency of work was measured with the questions, "In the past month, how many days did you work in a typical week?" and,

"In the past month, how many hours per week have you worked?" Earnings were measured by asking, "In the past month, how much did you (more or less) get paid per work day (in dollars)?"

Work-related injury booklet

Participants' injury history in the preceding year was assessed with an injury booklet developed for this study. The injury booklet was developed during the formative phase of the study and was the result of elicitation strategies tested in focus groups. We used spoken and visual prompts during the focus groups to facilitate incident recall and to generate group discussion. We found that presenting the silhouette of a male body generated more details and more discussion about injuries suffered at work than did giving a simple spoken request to describe workplace injuries. As the silhouette was well-received, and the strategy was positively evaluated by the focus group participants, we incorporated it into the injury booklet, as described below.

The injury booklet consists of three sections that contain items that probe in increasing depth for details about the proximal causes, injury characteristics, and short-term consequences of work-related injuries in the last year (Figure 1). Part 1 was used to collect information regarding the incidence of past-year injury, Part 2 contained items that probed the characteristics of reported injuries, and Part 3 consisted of a request for details about how the participant dealt with the experience and the effects of each reported injury. This increasingly detailed process of recording injury-event information allowed for a more comprehensive understanding of each reported injury incident. To our knowledge, this method of documenting work-related injury data in the Latino day laborer population has not been reported previously.

Work-related injury incidence—Part 1.—The first section of the booklet captured injury incidence and severity. Participants were handed a card with a definition of severity based on the U.S. Bureau of Labor Statistics criteria for "work-related recordable cases." 37 "By severe, I mean an injury or illness for which you missed work because of it; you felt you should not have gone to work but you did, anyway; or you had to receive medical attention from a doctor or a clinic." They were then asked, "In the past year, have you had a serious injury or illness related to your job as a day laborer?" If the participant reported no injuries, the interviewer ended the injury booklet data collection and progressed to the next section of the iPad-based Qualtrics survey (see Interview Procedures). If an injury was reported, the interviewer proceeded to gather details of the injury incident, using Parts 2 and 3 of the booklet. The participant was then asked whether he had experienced another severe injury or illness incident in the previous year. Participants were prompted to think back one year from the current month. The process of completing Parts 1 through 3 of the injury booklet was repeated for each incident until all past-year injuries had been documented.

Work-related injury experience—Part 2.—The second section of the booklet captured the details of the injury itself. We use the term *injury experience* to refer to the nature of reported injury and its associated events and exposures. For each reported injury, participants were asked to "Please tell me a little about what happened." A brief description of the

injury incident, as told by the respondent, was recorded in the booklet. Participants were then shown forward and lateral images of a male body silhouette as well as an image of a male face (Figure 1). For each injury, the participant was asked to look at the figure and point to the body part(s) injured. The interviewer marked the body part(s) on the silhouette and then asked the respondent to indicate the type of job that he was doing when he was injured. Using participants' descriptions of their injuries, a member of the research team developed a classification of injury types based on the BLS classification of nature of injury, events, and exposures¹⁷ and subsequently coded data regarding individual injuries, including falls, slips, and trips, as well as overexertion and contact with objects and equipment (Table 2). A second member of the research team independently assigned codes to the individual injuries. Interrater reliability of both coders was then established (ICC = .83, Kappa = .75). The classification of injured body parts was conducted in a similar manner, based on the silhouette described above, and reflects major divisions used by the BLS, ¹⁷ namely, head, neck (including throat), trunk, upper extremities, and lower extremities (Table 2).

Work-related injury consequences—Part 3.—The last section of the booklet contained text that probed for actions or events that followed the injury incident. Upon completing Parts 1 and 2 of the injury booklet, the interviewer proceeded to obtain additional information about the injury incident that included: (a) whether the participant had reported the injury to anyone and, if so, to whom, and, if not, why not; (b) whether the participant had sought treatment for the injury and, if so, where, and, if not, why not. For these items, multiple responses were admissible. An injured participant also was asked who had paid for the treatment, whether the injury had caused him to stop working, and, if so, the number of days he had been unable to work and whether there were activities he had not been able to do *for some time* or activities that he could *no longer* do due to the injury or illness.

Interview procedures

Four Latino day laborers and two bilingual Latinas familiar with the Latino day laborer community participated in a two-day interviewer training session, guided by a manual of procedures. Interviewers were trained to deliver the corner survey in Spanish, using the Qualtrics Surveys offline application³⁸ on a portable tablet (iPad mini) and the Injury Booklet, using paper-and-pencil procedures, as previously described. To maintain high quality control, the project coordinator supervised all training and field data-collection activities and used a manual of procedures to provide feedback during the interviewing process and to ascertain fidelity of interview procedures. The survey was administered on site and lasted between 45 and 60 minutes, depending on the number of reported injury incidents. All participants provided spoken consent prior to the interview and were given the option to discontinue the interview or complete it at a later time if they needed to participate in daily hiring activities. Interviewers and participants separated themselves from others at the corner in order to establish auditory privacy during the survey. Upon survey completion, participants were compensated with a \$20 supermarket gift card and received a copy of their informed consent and a list of community resources that included our program's contact information.

Data analysis

We first examined Latino day laborers' sociodemographic, background, and work history characteristics, prior to developing a description of the participants' self-reported injury incidence, experiences, and consequences. Frequencies were computed for categorical variables, such as country of origin and marital status. Ranges, means, and standard deviations were computed for continuous items, such as age and time in the United States.

Following the initial descriptive analysis, we conducted bivariate analyses to assess differences in personal and work-related characteristics by injury/illness status. Pearson chisquare tests were used to compare the distribution of categorical variables by injury status, and independent-samples t tests were used to compare means for continuous variables. In order to assess the simultaneous association of these variables with injury/illness status, we next conducted a multivariate logistic regression. For these analyses, country of origin was recoded as Mexico; Central America (Honduras, El Salvador, Nicaragua, or Guatemala); Other Latin Country; United States (including Puerto Rico). Spoken language was recoded as primarily Spanish/other non-English language or as English equally with or better than Spanish. Marital status was recoded as married/living with a partner, separated/divorced/widowed, or single. Most frequent job was recoded as construction, yard work, moving, or other.

Analyses were conducted with SPSS, v. 24 (IBM Corp. Released 2016. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.), and a significance level of p < .05 (two-tailed) was used.

Results

A total of 890 Latino day laborers were approached by members of the research team for the corner survey, completed between November 2013 and July 2014. Of this total, 386 (43.4%) agreed to participate in the study. Of the 504 who declined to participate, a specific reason for refusal was available from 286 (56.7%). Individuals who provided a reason for not participating indicated that they were waiting to be hired for the day (44.1%), did not have time and/or were interested in taking the survey later (25.9%), did not like surveys (3.8%), or were waiting for an employer to pick them up for work (11.8%). A review of the study's recruitment logs showed six LDL who had previously completed the survey were identified. A review of the data found four pairs of participants who had the same birthday. Participants within each pair had differences in country of origin and time in the U.S. and were assumed to be unique cases. A total of 331/386 Latino day laborers who agreed to participate completed the survey and injury booklet, according to the sampling frame described in the study location and selection section. The remaining 55 LDL were not surveyed since sampling quotas had been met or exceeded.

Sociodemographic and background characteristics

On average, participants were in their mid-40s and had completed almost eight years of education. On average, participants had been in the United States nearly 13 years. Most were born in Mexico, Honduras, or El Salvador. Nearly 4% (3.9%) were born in the United States.

The majority of participants (56.5%) stated that they spoke only Spanish. One-half of the participants (50.2%) reported being married or living with a partner (Table 1).

Work-related measures

As shown in Table 1, the average participant had worked 3.4 days in a typical week in the previous month. Though not directly asked, this would give an upper bound of 2.6 days per work week (typically six days) in which work was sought but not found. The average daily pay in the previous month was \$84.34. Participants had worked an average of 27.8 hours per week. Two-thirds of participants (67.7%) reported construction as the job that they had done most frequently in the last year.

Injury incidence.—Initially, a total of 73 participants (22.1%) stated that they had suffered a serious work-related injury or illness in the previous year. One hundred (100) separate incidents were described. A review of these incidents indicated 12 that were deemed to not be a severe incident (e.g., itchy eyes), could not be associated with a specific job (e.g., low blood pressure), or had an undetermined date of occurrence. For six participants, this was the only incident reported. Excluding these cases resulted in 88 incidents reported by 67 participants. Of these, 52 (77.6%) reported one injury, 10 (14.9%) reported two, four (6.0%) reported three, and one participant (1.5%) reported four injuries (mean = 1.3, SD = 0.66). All but three of these remaining incidents were deemed to have involved a physical injury. These three incidents involved eye and nose irritation and severe headache resulting from environmental exposure.

Injury experience.—As shown in Table 2, the most common types of injury were those from personally falling (23.9%), moving heavy objects (21.6%), and falling or flying objects (20.5%). Injuries involved the lower extremities (34.1%), upper extremities (26.1%), or trunk (25.0%). Nearly two-thirds (65.5%) of the injuries occurred while the participant was engaged in construction work. Moving was reported in 16.1% of injuries and yard work, in 11.5%.

Injury consequences.—Of the 88 recorded injuries, 67 (76.1%) had been discussed with someone. As shown in Table 3, two-thirds (67.2%) of these injuries were told of to a boss, and one-quarter (25.4%) to a coworker. Of the unreported injuries, two-fifths (38.1%) were unreported because the participant was afraid of being fired, and one-quarter (23.8%) for fear of not getting paid.

In 60 out of 87 injuries, (69.0%), medical treatment was not sought. In one-half (53.3%) of these cases, treatment was not sought because the participant did not have the money or insurance to pay, did not need to seek care or took care of the injury himself (33.3%), or did not want to miss work (23.3%). When treatment was sought (27 injuries), it was most frequently at an emergency room or hospital (44.4%) or clinic (33.3%). Payment information was available for 25 of the 27 treated injuries. The employer paid for treatment for 28.0% of the treated injuries, the participant paid his own bill in 18.5% of cases, and used his or his spouse's insurance in 11.1% of cases. In an additional 28.0% of treated injuries, no one paid.

Information related to incapacitation due to injury was available for 87 of 88 reported injuries. One-half (54.0%) of injuries resulted in the participant's being temporarily not able to engage in an activity, and one-third (34.5%) resulted in the participant's not being able to engage in an activity permanently. Fifty-six of 87 (64.4%) injuries resulted in the participant's missing work. The total number of days missed was 813.

Predictors of self-reported workplace injury.—Results for the bivariate analyses are shown in Table 4. As seen, injury status was not independent of marital status ($X^2 = 6.15$; df = 2; p = .046).

In the logistic regression model, marital status remained the only significant predictor of injury status. As shown in Table 5, compared with being married or living with a partner, having never married or being formerly married significantly increased the odds of reporting a past-year severe injury. However, the fit of the model was low. The Nagelkerke R^2 was .08. Chi-square for the Hosmer and Lemeshow test was 16.21, with df = 8 (p = .039). Significant values are indicative of less adequate fit. The model predicted all cases would report no injuries.

Discussion

Detailed documentation is a critical first step in reducing high rates of injury among Latino day laborers. The use of the injury booklet, an innovative tool to collect information from day laborers, captured injury details not comprehensively or consistently collected and reported in previous studies with this population. Using this data collection approach was successful, despite the fact that data were gathered in a field setting and in the context of the unpredictable and transient nature of Latino day laborers' work. Future research can build on these methodological innovations, furthering the science of injury assessment.

Profile of day laborers

Overall, the picture of Latino day laborers that emerges from our results is consistent with previous studies conducted in Texas¹⁰ and nationally.⁴ Most study participants were immigrant men from Mexico and Central America, with many years of residence in the United States and typically in their mid-40s. The majority of participants were monolingual Spanish speakers and had completed approximately eight years of schooling. Construction work was the job performed most frequently in the past year and the job most frequently being performed when injured. One area where our results may differ from previous studies is injuries by type of work activity. While 6.0% of participants reported moving as their most frequent job, moving accounted for 16.1% of injuries.

Injury and treatment

Our observed injury rate of 20.2% appears to be numerically consistent with results reported for Latino day laborers nationally and for the state of Texas, 10 but it may actually reflect a more serious problem. We probed for serious injury, that is, an injury that incapacitated the worker at least temporarily (or made them feel they should have missed work) and suspect that the rate would have been higher had we probed for any injury, regardless of severity, in

the last year. Furthermore, it is also possible that recently injured workers were not present at the corners, further attenuating the actual injury rate.

While it is encouraging to note that many day laborers discussed their injuries with someone else, sharing information did not parallel an increase in needed treatment. Three-quarters (76.1%) of injuries were reported to someone else, often a boss. Still, almost a quarter of incidents (23.9%) were not discussed, often due to fear of being fired or not being paid for completed work. Our findings are similar to Riley and Morier's, in the rate of reported injury incidents (89%) and in the reasons for failing to report injuries, including fear of losing the job, not wanting to miss work, or expecting that management would not do anything. ¹⁸

Over *one-half* of injuries in our study were not treated. Workers failed to seek treatment not because of their personal preferences (day laborers in our formative study indicated they would seek treatment if available at low or no-cost), but due to limited access to treatment options and because injuries resulted in out-of-pocket expenses that they could ill afford. Our results are consistent with previous findings indicating that immigrant workers are more seriously affected by injuries compared with native-born Latino workers engaged in similar jobs. ¹⁸ The inability to qualify for state-provided health care and the limited access to health care alternatives are likely to lead to worse health outcomes.

Predictors of injury

Logistic regression results indicated that the only variable that differentiated injured from non-injured cases was marital status. Being married significantly reduced the odds of reporting an injury, compared with being single, a finding that must be explored further, as it differs from previous findings indicating that married men report more injuries.²³ Future studies should explore whether married Latino men are more risk prone or averse and whether this tendency is related to their perceived family obligations.¹⁴

Although not significant in the logistic regression, the bivariate analysis showed a trend for injured workers to be younger, on average, than injured ones, supporting the need to increase efforts to enroll younger day laborers in studies that ascertain their injury risk. The lack of predictive ability of demographic, work history, and background variables appears to indicate that incidence, experience, and consequences of injury may be less related to proximal individual level variables and more strongly related to meso and macro level stressors not addressed in the current data analysis. The results of our previous study³⁶ support this assertion.

Limitations and future considerations

Although the results of this study are based on a rigorous and systematic methodological approach to the documentation of injury, there are potential limitations to the interpretation of our findings. First, our recruitment efforts may have missed younger workers. The recruitment team typically started at 7 a.m. and made an effort to approach most workers present at that time. As younger workers are typically preferred by employers, ¹⁴ they may have been hired before the team's arrival on any given day. Future studies may require a greater effort to reach these individuals. Second, it is possible that recently injured workers were not present at the corners and thus not surveyed, reducing the observed rate of injury.

Third, since we could not collect data from workers who declined to participate in the study, we do not know how these cases differed from the study sample. Fourth, the use of the term "report" in the survey may have had unintended connotations, beyond the intended "telling someone." We asked if injury incidents had been reported to the boss and to family members in the same question, perhaps confusing respondents, as reporting may imply telling an authority figure. In the future, different probes may be necessary. Finally, for the sake of keeping the interview brief, our survey limited the set of questions about job practices. We probed about jobs obtained at the corner but did not ask about employment solicited elsewhere. In the future, we will address these employment practices, as well as other facets of day laborers' lifestyle (e.g., average number of children, substance use, depression, stress) that are beyond the scope of this paper.

Conclusion

The use of the injury booklet captured injury details not previously collected using a data collection approach that was successful, despite the fact that it took place in a field setting and in the context of the unpredictable and transient nature of Latino day laborers' work. We believe this methodology may be appropriate not only for day laborers in other cities, but also for other workers in public settings (e.g., food trucks), and for other immigrant Latino workers in service occupations with similarly high rates of injury.

We have offered a comprehensive assessment of workplace injuries as a means to describe the challenges, dangers, and physical harm experienced by Latino day laborers already disadvantaged by other social inequalities. Our results present the success of an innovative methodology and confirm the persistently high levels of injury experienced by vulnerable Latino immigrant workers who have limited access to treatment when they get injured. Our results also have important implications for workplace and workers' health policy experts who must address the health and social costs incurred when the burden of injuries among Latino day laborers is not addressed.

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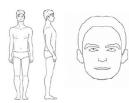
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INJURY BOOKLET

Please take a look at this picture. Let's say this picture is you. In the last year, have you been ill, felt pain, had an accident, or been severely injured in any part of your body?

Yes [INTERVIEWER, IN THE PICTURE BELOW, MARK THE BODY PART AND THE TYPE OF INJURY OR ILLNESS REPORTED BY THE PARTICIPANT. THEN, READ THE TEXT BELOW THE PICTURE.]

No



Question 1

In the past year, have you had a serious injury or illness related to your job as a day laborer?

○ No (1) ———— ○ Yes (2) ○ Refused (3) [DO NOT READ]

If the respondent answers NO or refuses to answer Question 1, close the booklet and continue with the survey on the iPad

Question 2

- (a) Please tell me a little bit about what happened.
- (b) In what month did it happen?

Question 3

OK, we will come back to this injury in a minute or two; but, first, are there any other SEVERE injuries or illnesses you remember experiencing since _____ of last year [INTERVIEWER, SAY THE CURRENT MONTH}?

Injury or Illness # 1

If the respondent answers NO or refuses to answer, proceed to page $\boldsymbol{4}$

- No (1) [INTERVIEWER, IF NO, MOVE ON TO PAGE 3] Yes (2) Refused (3) [DO NOT READ]

[INTERVIEWER, IF REFUSED, MOVE ON TO PAGE 4]

Now I am going to ask you more about this.

I would like to know more about SEVERE injuries or illnesses related to your work.

[INTERVIEWER, TAKE OUT THE SEVERE INJURY DEFINITION CARD AND SHOW IT TO PARTICIPANT WHILE YOU READ THE FOLLOWING:1

By SEVERE I mean an injury or illness for which:

- you missed work because of it; you felt you should not have gone to work but you did anyway; or you had to receive medical attention from a doctor or a clinic

Figure 1.

Injury booklet.^a

Note: a Injury booklet consists of 15 pages; pages 1 and 2 are presented for content illustration purposes.

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Table 1. SOCIODEMOGRAPHIC/BACKGROUND CHARACTERISTICS AND WORK-RELATED HISTORY

Characteristic	n	Range	Mean	SD
Sociodemographic				
Age in years	324	21.7-73.8	43.6	10.2
Years of school	330	0-18	7.6	3.8
Time in the United States in years	327	.08-53.0	12.8	9.9
Work experience				
Days worked in a typical week	331	0-7.0	3.4	1.5
Typical daily pay	330	0-200.00	84.34	28.32
Hours worked per week	330	0-120.00	27.8	16.8
Background	n	Percentage		
Country of origin			1	
Mexico	135	40.8%		
Honduras	68	20.5%		
El Salvador	48	14.5%		
Guatemala	33	10.0%		
Cuba	22	6.6%		
Nicaragua	4	1.2%		
United States (including Puerto Rico)	15	3.9%		
Other Latin American country	6	1.8%		
Language spoken				
Only Spanish	187	57.9%		
Spanish better than English	97	29.3%		
Both languages equally	37	11.2%		
English better than Spanish	2	.6%		
Other primary language	5	1.5%		
Spanish and another primary language	3	.9%		
Marital status				
Married	132	39.9%		
Single	106	32.0%		
Separated/divorced/widowed	52	15.7%		
Living with partner	41	12.4%		
Work-related history	n	Percentage		
Most frequent job in past year				
Construction	224	67.7%		
Yard work	62	18.7%		
Moving	20	6.0%		
Cleaning	14	4.2%		
Restaurant work	2	.6%		
Hotel work	1	.3%		
Other job	8	2.4%		

Table 2.

CHARACTERISTICS OF WORK-RELATED INJURY EXPERIENCE (N = 67)

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Characteristic		Percentage		
Reported injuries and their type in the last year ^a	67	20.2%		
Injury type (n = 88 injuries) b				
Injury mechanism				
Injury from personally falling	21	23.9%		
Injury from moving heavy objects	19	21.6%		
Injury from falling or flying objects	18	20.5%		
Injury from environmental exposure	3	3.4%		
Other injury mechanisms	3	3.4%		
Nature of injury				
Injury from sprains or pulling muscles	9	10.2%		
Injury from serious cuts	8	9.1%		
Other injuries	1	1.1%		
Combined injuries	6	6.8%		
Body part injured (n = 88 injuries) b				
Lower extremity	30	34.1%		
Upper extremity	23	26.1%		
Trunk	22	25.0%		
Head	3	3.4%		
Other body part	1	1.1%		
Multiple	9	10.2%		
Job doing when injured (n = 87 injuries)				
Construction	57	65.5%		
Yard work	10	11.5%		
Moving	14	16.1%		
Cleaning	3	3.4%		
Other	3	3.4%		

Note:

^aA total of 88 injuries were reported by the 67 individuals

b Injury reports that involve a description of the nature and mechanism of injury were classified as "combined." This classification was treated as a unique category, and each combined incident was counted only once.

 $\label{eq:table 3.}$ Consequences of Work-related injuries (N = 88)

	n	Percer	ıtage
Whom did you tell about the injury? $(n = 67 \text{ reported injuries})^a$			
Boss	45	67.2%	
Coworker	17	25.4%	
Family	10	14.9%	
Friend	7	10.4%	
Other (for example, "The homeowner's brother-in-law.")	5	7.5%	
Reason did not tell someone about the injury ($n = 21$ unreported injuries)			
Fear of getting fired	8	38.1	.%
Fear of not getting paid	5	23.8	8%
Fear family would be upset	3	14.3	3%
Fear of angering the boss	2	9.5	%
Other (for example, "I thought it was nothing serious at the moment.")	9	42.9%	
Reason did not seek treatment for the injury $(n = 60 \text{ untreated injuries})^a$			
Did not have the money or insurance	32	53.3	8%
Did not need to/took care of it myself	20	33.3	8%
Did not want to miss work	14	23.3	8%
Employer did not want to pay	5	8.3%	
Other (for example, "Because I did not know where to go.")	7	11.7%	
Where treated for the injury $(n = 27 \text{ treated injuries})^a$			
Emergency room/hospital	12	44.4	1%
Clinic	9	33.3	3%
Took care of it myself	2	7.4%	
Other (for example, "Traditional healers.")	5	18.5%	
Who paid for the treatment ($N = 25$ treated injuries)			
Employer	7	28.0%	
No one	7	28.0%	
Paid own bill	5	18.5%	
Own or wife's insurance	3	11.1%	
Someone else	3	11.1%	
Incapacitation (n = 87 injuries)			
Activities could not do temporarily	47	54.0%	
Activities could not do permanently	30	34.5%	
	Range	Mean	SD
Days of work missed (n = 87 injuries)	0-120	9.3	19.0

Note:

 $^{^{}a}$ More than one response could be specified. Total percentages may exceed 100.0%.

 Table 4.

 BIVARIATE ASSOCIATIONS OF LDL CHARACTERISTICS WITH INJURY STATUS

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	Not Injured		Injured		
	N	Mean	N	Mean	- p
Sociodemographic					
Age	258	44.0	66	41.6	.089
Years of school	263	7.7	67	7.5	.790
Time in the United States	261	12.8	66	12.9	.907
	N	Percent	N	Percent	p
Background					
Country of Origin					.508
Mexico	105	77.8%	30	22.2%	
Central America	123	80.4%	30	19.6%	
US (Puerto Rico)	11	73.3%	4	26.7%	
Other Latin American country	25	89.3%	3	10.7%	
Language Spoken					.639
Primary language Spanish/Other non-English language	234	80.1%	58	19.9%	
English equally with or better than Spanish	30	76.9%	9	23.1%	
Marital Status					.046
Single	79	74.5%	27	25.5%	
Married/Living with a partner	147	85.0%	26	15.0%	
Separated/Divorced/Widowed	38	73.1%	14	26.9%	
Work-related History					
Most frequent job					.360
Construction	175	78.1%	49	21.9%	
Yard work	51	82.3%	11	17.7%	
Moving	15	75.0%	5	25.0%	
Other	23	92.0%	2	8.0%	
	N	Mean	N	Mean	p
Work Experience				1	
Days worked in a typical week in last month	264	3.3	67	3.6	.310
Pay per day	263	83.58	67	87.34	.333
Hours worked per week	264	27.7	66	28.0	.891

Table 5. $\label{eq:toballing} \textbf{LOGISTIC REGRESSION MODEL PREDICTING THE ODDS OF REPORTED INJURY}^a$

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Characteristic	В	SE	OR	95% CI	
Constant	833	1.274	.435		.513
Sociodemographic	.033	1.27 T	.155		.515
Age	014	.016	.986	.955–1.018	.392
Years of school	001	.044	.999	.917–1.088	.983
Time in United States	013	.019	.987	.951–1.024	.490
Background	.015	.017	.507	.931 1.024	.470
Country of origin					
Mexico	265	.770	.768	.170–3.474	.731
Central America	491	.776	.612	.129–2.912	.537
Other Latin American Country	-1.320	1.029	.267	.036–2.006	.199
United States (Puerto Rico) (referent)	-1.320	1.029	.207	.030-2.000	.199
Language spoken					
	.033	.475	1.033	.407–2.623	.945
Primary language Spanish or other non-English language	.033	.473	1.055	.407-2.023	.943
English equally with or better than Spanish (referent)					
Marital status					
Married/living with partner (referent)					
Separated/divorced/widowed	.899	.397	2.456	1.127–5.352	.024
Single	.768	.328	2.156	1.133–4.105	.019
Work-related history					
Most frequent job					
Construction (referent)	395	.406	.673	.304–1.493	.330
Yard Work	.233	.586	1.262	.400-3.982	.691
Moving	-1.118	.778	.327	.071 - 1.502	.151
Other					
Work experience					
Days worked	.059	.123	1.061	.833-1.351	.633
Pay per day	.003	.006	1.003	.991-1.014	.626
Hours worked per week	004	.011	.996	.974-1.019	.733

Note:

^aModel $X^2 = 16.15$, df = 15, p = .372, $R^2 = .08$