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RACE-RELATED HEALTHCARE DISPARITIES AMONG CALIFORNIA WORKERS: PUBLIC HEALTH CONSIDERATIONS FOR IMMIGRATION REFORM

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☐ **Abstract—Background: Healthcare disparities are prevalent in medicine and identifying them will provide healthcare professionals, administrators, and policy makers needed information to address this public health concern. Objective: To evaluate racial and ethnic disparities in the rates of hospital admission and death among California workers. Methods: We performed an analysis of hospital and emergency department (ED) data from the Office of Statewide Health Planning and Development (OSHPD). Data was collected from California licensed acute care hospitals from 2008–2010. Inclusion criteria: patients >15 years of age whose expected source of payment was worker's compensation. Exclusion criteria: patients <15 years; had missing data for age, sex, race, or injury; or were injured by a suicide attempt, poisoning, or complication of medical procedure. Multivariate logistic regression was used to evaluate the relationship of race/ethnicity and admission/death rates. Results: There were 393,298 patients discharged from the ED and 23,343 patients admitted from ED had workers compensation as their expected sources of payment and 150,277 met our inclusion criteria. The annual rate of ED treated injuries was 209/100,000 for Caucasians 343/100,000 for Hispanics, 258/100,000 for blacks and 97/100,000 for Asians. Compared to Caucasians, admission odds ratios (OR) were 1.15 (95% CI 1.07–1.25) for Hispanics, 1.08 (95% CI 0.87–1.33) for blacks, and 0.78 (95% CI 0.63–0.97) for Asians. Conclusion: We observed race and ethnicity related healthcare disparities among the occupationally injured in California, with Hispanics having the highest odds of admission and annual incidence of ED treated injuries. No difference in mortality rates was observed.** © **2016 Elsevier Inc.**

☐ **Keywords—healthcare disparities; public health; race; ethnicity; workers' compensation**

INTRODUCTION

Work injuries are common and account for up to 30% of total injuries sustained in the United States (US) (1). A growing body of evidence suggests that among these work-related injuries, there exist disparities among different racial groups (2). Studies have demonstrated that Hispanic patients nationally are exposed to greater occupational risks and fall victim to a disproportionate amount of these work injuries (3). Greater interest in the psychosocial factors of race, ethnicity, culture, sex, and insurance status continues to shape studies of occupational injuries. As minority workers, Hispanics may be overrepresented in low-skilled, physically demanding jobs, but further studies show that the causes of the disparity in injuries may be more pervasive than simply increased occupational hazard. Dong and Platner demonstrated that Hispanics had elevated rates of mortality when compared to their non-Hispanic counterparts in the same occupation (3).

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Hispanics are among the fastest growing populations of the US workforce. Numerous studies have explored injury trends among this population at both the regional and statewide levels. Anderson et al. utilized emergency department (ED) registration forms to explore trends among Hispanic employees in Washington, DC presenting to a regional ED and found that Hispanic workers had a higher proportion of serious injuries (fractures, head injuries, falls) and missed more days from work than their non-Hispanic counterparts (4). In Illinois, Friedman and Forest utilized the Illinois trauma registry and found that rates of injury among Hispanic workers were more than twofold higher than white workers, and they sustained more machine-related injuries and amputations (5). The current study utilizes data from California's Office of Statewide Health Planning and Development (OSHPD) to look at work-related injuries recorded across California in a 3-year span from January 2008 to December 2010 (6). To our knowledge, there have been no prior studies exploring such injuries in California.

California is a state rich in racial diversity and employs more than 6 million Hispanic, 2 million Asian, and one million black employees, and thus has the potential to unveil disparities that may exist according to race. According to the 2010 US Census, California is 37% Hispanic/Latino, 40% white, 13% Asian, and 6% African American/Black (7). Home to 13.7 million Hispanics, California has the largest population of Hispanics by sheer numbers. Hispanics make up 26% of the California Work Force, Whites 60%, Asians 10%, and Blacks 4% of the work force (8). According to the US Bureau of Labor and Statistics, the Hispanic labor force will grow faster than any other ethnicity due to higher-than-average fertility rates and net immigration, and are anticipated to become the largest ethnic group in the state by 2015 (9). Though work-related injuries and fatalities have decreased over the last 5 years, California's Hispanic employee population remains disproportionately represented among these fatalities. A study performed by the Bureau of Labor and Statistics has demonstrated that Hispanics have the highest rates of occupational fatalities among any racial group (10). In our study, we aim to evaluate racial and ethnic disparities among the California work force with regard to hospital admission and death rates.

STUDY DESIGN AND SETTING

We performed a retrospective analysis of a prospectively collected dataset to evaluate racial and ethnic disparities among work-related injuries in patients presenting to California EDs from 2008–2010. We utilized the ED dataset, comprised of ED visits that did not result in an admission, and the Patient Discharge (PD) dataset, comprised of patients admitted to a hospital (6). Both datasets are collected by the OSHPD, a state agency that aims to analyze California's healthcare structure in terms of outcomes, accessibility, and safety. Both datasets are comprised of individual patient visit encounters submitted each time a patient is treated at a licensed general

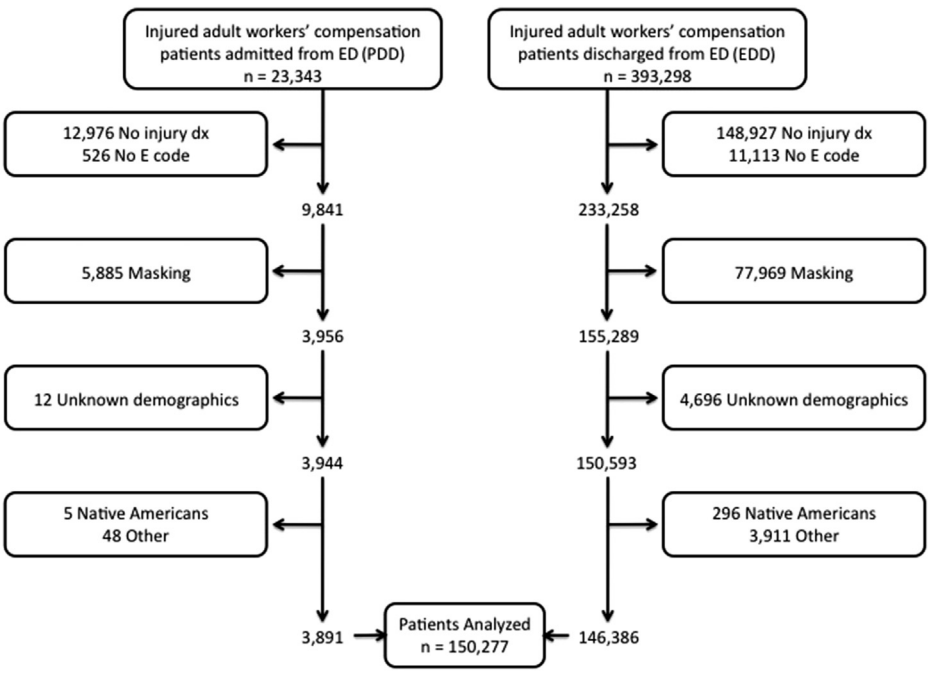

Figure 1. Flow diagram of eligible patients yielding total patients analyzed. ED = Emergency Department; EDD = Emergency Department dataset; PD = patient discharge; PDD = patient discharge dataset; E code = circumstance code; dx = diagnosis.