



# Integrating Equity into Occupational Health

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Centers Meeting

National Institute for Occupational Safety and Health

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The findings and conclusions in this report are those of the author and do not necessarily represent the official position of the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention.

# Paradigm Shift

- Largely technical field guided by biomedical model of health
  - Seeks to isolate single, proximate factors that “cause” injury event/illness
- Challenges to current paradigm
  - Broader understanding of link between work and health
  - Restructuring of work
  - Growing awareness of diversity and social inequality
- Expand and complement reductionist view of cause and effect
  - Account for the social, political, and economic context that contributes to health outcomes ([blog post](#))

 

Commentary  
**Health Equity and a Paradigm Shift in Occupational Safety and Health**

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**Abstract:** Despite significant improvements in occupational safety and health (OSH) over the past 50 years, there remain persistent inequities in the burden of injuries and illnesses. In this commentary, the authors assert that addressing these inequities, along with challenges associated with the fundamental reorganization of work, will require a more holistic approach that accounts for the social contexts within which occupational injuries and illnesses occur. A biopsychosocial approach explores the dynamic, multidirectional interactions between biological phenomena, psychological factors, and social contexts, and can be a tool for both deeper understanding of the social determinants of health and advancing health equity. This commentary suggests that reducing inequities will require OSH to adopt the biopsychosocial paradigm. Practices in at least three key areas will need to adopt this shift. Research that explicitly examines occupational health inequities should do more to elucidate the effects of social arrangements and the interaction of work with other social determinants on work-related risks, exposures, and outcomes. OSH studies regardless of focus should incorporate inclusive methods for recruitment, data collection, and analysis to reflect societal diversity and account for differing experiences of social conditions. OSH researchers should work across disciplines to integrate work into the broader health equity research agenda.

**Keywords:** occupational safety and health; health equity; social determinants of health; work; biopsychosocial model; inclusive research methods

**1. Introduction**

Increased levels of disease and poverty among workers during the industrial revolution led Rudolf Virchow and others to establish the field of social medicine, which explores how social and economic conditions affect health, disease, and the practice of medicine [1]. However, the field of occupational safety and health (OSH) has evolved over the past half-century from its historic roots in social medicine into a largely technical field that focuses on identifying and eliminating physical, chemical, biological, and ergonomic hazards found in the workplace [2,3]. Rooted in the biomedical model of health [4], OSH generally utilizes a reductionist approach to isolate and address single, proximate factors that “cause” an injury or illness. This model has led to significant improvements in worker health over the past 50 years [5]. Nevertheless, persistent inequities in the burden of occupational injuries and illnesses, as well as challenges associated with the fundamental reorganization of the world of work [6], highlight the need to expand the current paradigm to account for the social contexts within which occupational injuries and illnesses occur [7–9]. Consideration of the role that social institutions and norms play in the inequitable distribution of work-related risks and benefits across society, and resultant issues of health equity, are central to this shift in OSH from a biomedical to a biopsychosocial approach [4]. A biopsychosocial approach takes a more holistic view by exploring the dynamic, multidirectional interactions between biological phenomena, psychological factors, and social relationships and contexts, which constitute processes of human development over the life course.

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# Occupational Health Equity Program (OHE)

- **Mission:** promote research, outreach, and prevention activities that reduce *avoidable* differences in workplace injury and illness that are closely linked with *social, economic, and/or environmental disadvantage*.
- Accepts that social arrangements contribute to the inequitable distribution of positive and negative work-related health outcomes ([blog](#))

## Occupational Health Equity



Not all workers have the same risk of experiencing a work-related health problem, even when they have the same job. *Occupational health inequities* are avoidable differences in work-related disease incidence, mental illness, or morbidity and mortality that are closely linked with social, economic, and/or environmental disadvantage such as work arrangements (e.g. contingent work), socio-demographic characteristics (e.g. age, sex, race, and class), and organizational factors (e.g. business size). The Occupational Health Equity program promotes research, outreach, and prevention activities that reduce health inequalities for workers who are at higher risk for occupational injury and illness as a result of social and economic structures historically linked to discrimination or exclusion.

### Featured Items

#### [Partnering to Educate English-Language Learners in Alaska on Worker Safety and Health](#)

The Occupational Health Equity program partnered with the Anchorage Health Literacy Collaborative to educate adult English-language learners, many of whom are immigrants, on worker safety and health principles

#### [Workplace Discrimination](#)

NIOSH provides national prevalence estimates of workplace discrimination and mistreatment from a community-based cohort of employed black and white men and women aged ≥48 years.

#### [Low-wage Workers](#)

A new study from the National Institute for Occupational Safety and Health (NIOSH) found that patient care aides, a low-

# Health Equity Science: More than Good Intentions

- Prioritization of health equity
  - Resulted in increased activity
  - Assumes competence
- Health equity is an area of expertise
  - Contains rich theoretical, methodological, and ethical literature
- Encourage responsible research
  - Include collaboration (SME and communities)
  - Develop expertise
  - Commit to long-term engagement

Administration Prior

BRIEFING ROOM

## Executive Order on Ensuring an Equitable Pandemic Response

A STAT INVESTIGATION

### 'Health equity tourists': How white scholars are colonizing research on health disparities

Journal of Medical Systems 2022, 46:17  
https://doi.org/10.1007/s10916-022-01803-5

By Usha Lee McFarling Sept. 23, 2

By the authority vested in me as President of the United States of America, I hereby order the following:

and severe impact of color and other underserved communities.

**Section 1. Purpose.** The severe and pervasive health disparities experienced by people of color in our society and are more severe than lack of complete data, infection, hospitalization, and social vulnerability during the pandemic response. Our nation's health care system disproportionately affects minority groups, those in rural and urban territories, and other geographically underserved areas. A data-driven approach to data

**Abstract**  
As the long-standing and ubiquitous racial inequalities of the United States reached national attention, the public health community has witnessed the rise of "health equity tourism". This phenomenon is the process of previously unengaged investigators pivoting into health equity research without developing the necessary scientific expertise for high-quality work. In this essay, we define the phenomenon and provide an explanation of the antecedent conditions that facilitated its development. We also describe the consequences of health equity tourism – namely, recapitulating systems of inequity within the academy and the dilution of a landscape carefully curated by scholars who have demonstrated sustained commitments to equity research as a primary scientific discipline and praxis. Lastly, we provide a set of principles that can guide novice equity researchers to becoming community members rather than mere tourists of health equity.

**Keywords** Health Equity · Racism · Systemic and Structural Discrimination · Health Justice

**Defining health equity tourism**  
Diversity, Equity, Inclusion, Anti-Racism, Intersectionality. These are words with rich meanings, theoretical traditions, and scholarly legacies that are meant to inform the practice of pursuing cross-disciplinary justice, grassroots organizing, political advocacy, and scientific inquiry. Recently, they have also become buzzwords that have been shuffled into seemingly meaningless acronyms at healthcare institutions and research organizations. These same words are surfacing in requests for applications at major funding agencies and calls for papers from top health journals. The nascent fervor of soliciting equity-influenced work is linked to a magnification of racial injustice that has given a fresh lens for individuals who had not previously engaged in the work. This ideological shift has influenced funding streams, leaving academic researchers clamoring to adapt to these current shifts in the priorities of funding agencies and journals, and creating a predatory co-opting of scholarship that has been rigorously studied by equity scholars and social scientists for decades.

This article is part of the Topical Collection on Health Policy

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## Key Areas of Focus

- Research focused on occupational health inequities
- Inclusive research practices across OSH
- Connection between work and health inequities

# Research Focused on Health Inequities

- Identify which structural arrangements contribute to increased risk
- Explain how structural disadvantages materialize
- Develop and evaluate interventions

**Overlapping Vulnerabilities:**

AMERICAN JOURNAL OF INDUSTRIAL MEDICINE 58:1127-1137 (2015)

## Undocumented Status as a Social Determinant of Occupational Safety and Health: The Workers'

Michael A. Flynn, MA,<sup>1</sup> PhD

**Background** Undocumented workers have a disproportionately large number of work-related injuries and deaths given their share of the workforce. Barriers of language, culture, and mistrust are often cited as factors that complicate efforts to reach these workers with occupational safety and health (OSH) interventions. By partnering with the Mexican government and its consulate network in the United States, researchers from the National Institute for Occupational Safety and Health were able to assess the impact of four different information dissemination approaches (posters, passively distributed brochures, actively distributed brochures, and video kiosks) in Spanish in a five-phase study. Six interviews conducted with Mexicans seeking consular services indicated that while nearly all respondents considered OSH to be of importance, significant differences in impact measures, such as noticing the materials and liking of content, were found when comparing the different approaches. Despite these differences, even the least effective approaches were noticed by large numbers of individuals and significantly increased their stated behavioral intentions regarding OSH. Considering all materials together, significantly more participants reported liking the materials ( $p < 0.001$ ) than did not, learning something new ( $p < 0.01$ ), trusting the information ( $p < 0.05$ ), intending to seek out additional OSH information ( $p < 0.01$ ), and intending to speak to their bosses about OSH ( $p < 0.05$ ). These findings contribute to building an evidence base for moving research knowledge into practice, which is an essential, but often overlooked, element of occupational safety and health research, particularly among workers from underserved communities.

**KEY WORDS:** occupational safety and health; theory of change

**INTRODUCTION**

The World Health Organization (2) defines social determinants of health as "the conditions in which people are born, grow, live, work, and age. These conditions are shaped by the distribution of money, power, and resources at global, national, and community levels." (1) In the United States, the conditions of work and life for many workers are shaped by the distribution of power and resources. In 2015, foreign-born workers—more than a quarter of whom are Mexicans—comprised 17% of the U.S. labor force (Lopez and Radford 2017). Mexican immigrants have one of the highest rates of fatal workplace injuries (Bureau of Labor Statistics 2017). From 2011–2016, two-thirds of the 3,244 work-related deaths among Latinos were among immigrants, and 70% of those immigrants were Mexican (Bureau of Labor Statistics 2017). Immigrants are at higher risk for non-fatal injuries as well (Orrenius and Zavodny 2013). Given the limited capacity of current occupational safety and health surveillance systems to collect data on nativity and the tendency of immigrant workers to underreport workplace injuries, it is likely that published figures of nonfatal occupational injuries are an underestimate (Souza et al. 2010; National Academies of Sciences et al. 2018). Additionally, greater length of stay in the United States contributes to elevated rates of chronic and mental illness among Latino immigrants (Hovey and King 1997; Chakraborty et al. 2003; Cho et al. 2004; Flynn et al. 2014; Lopez and Golden 2014). It has been suggested these declines are linked to lifestyle changes associated with low-wage employment in the United States, such as adoption of less healthy diets (Escobar Latapi et al. 2013). These occupational health inequities highlight the importance of providing Mexican immigrant workers with information and resources to support their safety at work. Factors such as language, cultural differences, mistrust of government institutions, and low literacy among populations of interest are often cited as complicating the ability of occupational health organizations to involve vulnerable workers such as Mexican immigrants in research and prevention programs. As

**ABSTRACT**

Mexican immigrants suffer a disproportionately large number of work-related injuries and deaths given their share of the workforce. Barriers of language, culture, and mistrust are often cited as factors that complicate efforts to reach these workers with occupational safety and health (OSH) interventions. By partnering with the Mexican government and its consulate network in the United States, researchers from the National Institute for Occupational Safety and Health were able to assess the impact of four different information dissemination approaches (posters, passively distributed brochures, actively distributed brochures, and video kiosks) in Spanish in a five-phase study. Six interviews conducted with Mexicans seeking consular services indicated that while nearly all respondents considered OSH to be of importance, significant differences in impact measures, such as noticing the materials and liking of content, were found when comparing the different approaches. Despite these differences, even the least effective approaches were noticed by large numbers of individuals and significantly increased their stated behavioral intentions regarding OSH. Considering all materials together, significantly more participants reported liking the materials ( $p < 0.001$ ) than did not, learning something new ( $p < 0.01$ ), trusting the information ( $p < 0.05$ ), intending to seek out additional OSH information ( $p < 0.01$ ), and intending to speak to their bosses about OSH ( $p < 0.05$ ). These findings contribute to building an evidence base for moving research knowledge into practice, which is an essential, but often overlooked, element of occupational safety and health research, particularly among workers from underserved communities.

**KEYWORDS**

Health equity; intervention effectiveness; Mexican immigrants; occupational safety and health; Spanish-language occupational safety and health education

**INTRODUCTION**

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# Integrate Inclusive Research Practices across OSH

- While not all research needs to focus on health inequities, all research must account for workforce diversity to ensure it benefits everyone.
- Research practices have evolved to better meet the needs of some groups more than others.
  - Structural Invisibility** – approaches to collection, analysis or publication of data which hide the potential contribution of social factors to the distribution of work-related benefits and risks. For example, limited data on race in OSH systems in the United States ([report](#)).
  - Institutionalized Exclusion** - codification of exclusionary social structures in research practices, instruments, and scientific models resulting in an inherent bias in favor of the normative group. For example, 80 kg man in toxicology or gender bias in exoskeleton design for workers ([blog](#)).
  - Unexamined Assumptions** - cultural norms and unconscious bias that can impact the questions we ask, how we ask them and how we interpret the results. For example, the lack of conceptual equivalence across multi-lingual survey instruments ([article](#))



# Connection between Work and Health Inequities

- Work as a SDOH
  - Influence on health goes beyond workplace exposures
  - “Employment and Job Characteristics” as sixth domain of the SDOH by Community Preventive Services TF
- Work as Intervention
  - Individual level - Onsite health promotion
  - Organizational level – How jobs are structured
  - Societal level - Labor policy as public health
- Work as Conceptual Bridge
  - Discussion of job quality and health
  - Connect public health with development initiatives
- Work is a powerful yet underutilized tool to advance public health practice and policy to address health inequities





# Developing Intuitional Capacity

- Three key areas
  - Personnel
    - Diverse perspectives
      - personal backgrounds
      - professional backgrounds
    - Trained to acknowledge social position & perspective
  - Practices
    - Evaluate current practices from data collection to interventions
    - Institutional culture shift
      - From concern of a few to institutionalized practice
      - Core value that permeates the field
  - Partnerships – OHE model
    - ‘Hard to reach’ vs. hardly reached
    - Plug into existing infrastructure/tailor to current activities
    - Build Long-term relationships



# Conclusion

- Health equity is a central element of a larger paradigm shift to a biosocial approach within OSH
- A cultural shift from individual concern for equity to an institutional commitment necessary
- Health equity expertise must be recognized, developed, and incorporated into OSH
  - Increase internal capacity
  - Expand external interest
  - Foreground social/equity perspective
- Change = Opportunity
  - How can we best leverage this moment to institutionalize health equity as a central component of our work and ensure inclusive research practices?

# Thank You

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