



Photos: © David L. Parker, MD. Used with permission.

# Health Disparities in Manufacturing

*Reduce the incidence of injuries, illnesses and fatalities among vulnerable workers*

## NORA

The National Occupational Research Agenda (NORA) is a partnership program to stimulate innovative research and improve workplace practices. Unveiled in 1996, NORA has become a framework for guiding Occupational Safety and Health research in the nation. Diverse parties collaborate to identify the most critical issues in the workplace. Partners then work together to develop goals, objectives, and an implementation plan for addressing these issues.

## Manufacturing

The Manufacturing Sector consists of industries that have been assigned a North American Industry Classification System (NAICS) number between 31 and 33 ([www.census.gov/epcd/naics02/naicod02.htm#N31](http://www.census.gov/epcd/naics02/naicod02.htm#N31)), as defined by the U.S. Census Bureau. This sector represents one of the largest workforces and includes a diverse group of manufacturing industries such as Beverage and Tobacco, Food, Wood Products, Primary Metals, Fabricated Metal Products, Transportation Equipment, Furniture, and Chemical Manufacturers.

## Understudied and Vulnerable Populations in the Manufacturing Sector

One of the central features of the contemporary U.S. workforce is that it is increasingly diverse, reflecting the changing demographic characteristics of our nation. In 2008, 15.6% of the U.S. employed labor force identified themselves as foreign-born:<sup>1</sup> 19.2% were white non-Hispanic or Latino, 49.4% were of Hispanic ethnicity,<sup>1</sup> and an estimated 12.8% were employed in the Manufacturing Sector.<sup>2</sup> In 2008, 3.8% of all employed workers were age 16-19 (1.4% in Manufacturing) and 18.4% were over 55 (18.1% in Manufacturing).<sup>3</sup> Approximately 4% of workers in the U.S. labor force identify themselves as disabled.<sup>4</sup>

Differences in work-related injuries and illnesses, mortality and exposures to occupational hazards between specific working populations, such as racial and ethnic minorities, older and younger workers, workers with developmental disabilities and immigrant workers are defined as Health Disparities. Health Disparities, including those resulting from work exposures, exist across racial and ethnic populations. Disparities arise from overrepresentation of racial and ethnic minorities in hazardous industries. Barriers created by social, cultural and economic issues including language, literacy, marginal economic status, lack of information about different types of work-related hazards, and the incomplete dissemination of occupational health and safety interventions to certain worker populations result in Health Disparities.



NIOSH is the federal agency responsible for conducting research and making recommendations to prevent work-related injury, illness, and death. Its mission is to generate new occupational safety and health knowledge and to transfer that knowledge into practice.

## Strategic Goal: Reduce the Incidence of Injuries, Illnesses and Fatalities Among Understudied and Vulnerable Populations

The NORA Manufacturing Sector Council has developed goals to guide the reduction of injuries, illnesses and fatalities among understudied and vulnerable populations, such as contract workers, older and younger workers, immigrants, women of child bearing age, etc. These goals can be found on the NORA Web site ([www.cdc.gov/niosh/nora](http://www.cdc.gov/niosh/nora)) under the Strategic Goal 7 of the National Manufacturing Agenda. Public comments on this document are accepted at any time.

### How You Can Help

#### *Partner with Researchers:*

- Conduct research to improve the understanding of exposure and susceptibility on younger and older workers
- Investigate approaches to improve training and risk communications for non-English speaking workers and workers with developmental disabilities
- Develop culturally-appropriate interventions to protect the safety and health of immigrant workers
- Conduct research to evaluate the effect of workplace exposures on reproductive health

#### *Apply research findings:*

- Disseminate information on barriers to studying health disparities
- Develop a business case for adopting culturally-appropriate interventions for immigrant workers
- Publicize best practices, including alternative duty considerations, to prevent injury and illnesses among women of childbearing age
- Disseminate information on effective training materials for disabled workers

#### *Share data:*

- Use existing databases to identify sub-sectors within manufacturing that employ immigrant workers, older and younger workers, disabled workers and other worker groups who may experience health disparities in injuries, illness and fatalities
- Gather and organize data on best practices for training and communication among non-English-speaking and disabled workers

The NORA Manufacturing Sector Council includes individuals from industry, academia, labor, and government. The Council meets face-to-face twice a year. Additional communication occurs through email, conference calls, and web-based meetings. The National Institute for Occupational Safety and Health (NIOSH) facilitates the work of the Council. The Council's Understudied and Vulnerable Populations workgroup relies on Corresponding Members for additional expert input and feedback on the goals. Members and Corresponding Members primarily meet via conference calls and web-based meetings.

**For further information or to discuss opportunities for involvement, please contact:**

#### **Program Manager:**

Greg Lotz, PhD  
NIOSH  
(513) 533-8462  
[WLotz@cdc.gov](mailto:WLotz@cdc.gov)

#### **Program Coordinator:**

Michael Baskett, MPA  
NIOSH  
(513) 533-8153  
[MBaskett@cdc.gov](mailto:MBaskett@cdc.gov)

#### **Program Assistant Coordinator**

Alberto Garcia, MS  
NIOSH  
(513) 841-4596  
[AGarcia1@cdc.gov](mailto:AGarcia1@cdc.gov)

#### **NORA Manufacturing Sector Council Member:**

David L. Parker, MD  
[parke065@umn.edu](mailto:parke065@umn.edu)

**For more information about NORA or the NORA Manufacturing Sector, please visit:**

NORA Website: [www.cdc.gov/niosh/nora](http://www.cdc.gov/niosh/nora)

NIOSH Manufacturing Program Portfolio:  
[www.cdc.gov/niosh/programs/manuf/](http://www.cdc.gov/niosh/programs/manuf/)

### References

*Bureau of Labor Statistics and Census Bureau estimates, latest available (accessed April 25, 2010)*

- (1) [www.bls.gov/news.release/archives/forbrn\\_03262009.pdf](http://www.bls.gov/news.release/archives/forbrn_03262009.pdf) including Table 1
- (2) [www.census.gov/population/www/socdemo/foreign/cps2008.html](http://www.census.gov/population/www/socdemo/foreign/cps2008.html)—see Table 2.8
- (3) [www.bls.gov/cps/cpsa2008.pdf](http://www.bls.gov/cps/cpsa2008.pdf)—see Tables 3 and 14
- (4) [www.bls.gov/cps/demographics.htm#disability](http://www.bls.gov/cps/demographics.htm#disability)