



**THE INTERSECTION OF ECONOMIC DEVELOPMENT AND PUBLIC HEALTH:
WHAT POOR HEALTH OUTCOMES ARE COSTING BUSINESS ---
*WHAT CAN INDUSTRY DO?***

Dawn Castillo, MPH

Director, Division of Safety Research

National Institute for Occupational Safety and Health

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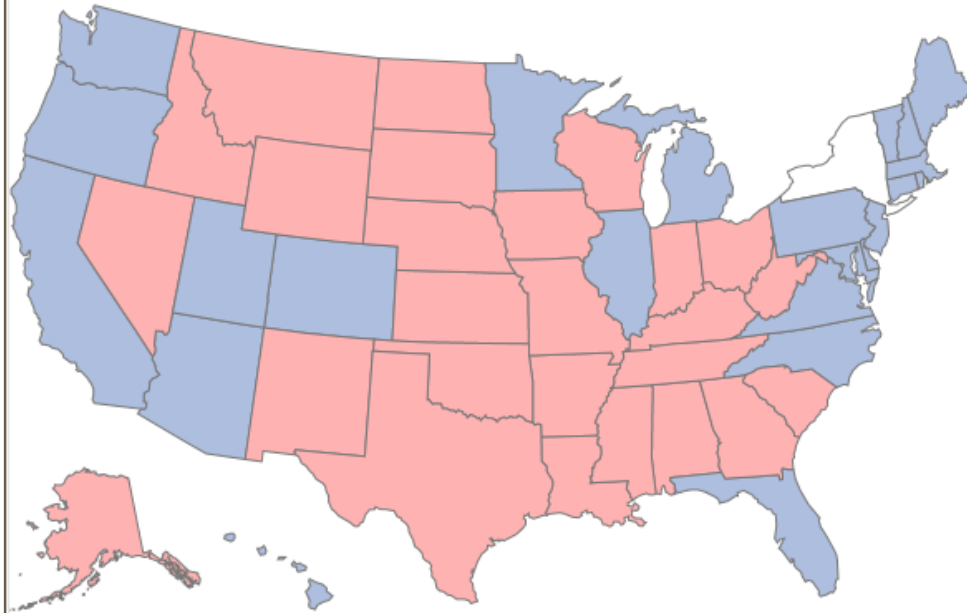
OUTLINE

- Statistics on worker health outcomes
- How work influences health outcomes and vice versa, with opioids as an example
- What industry can do? --- Total Worker Health[®] Approach



Statistics on Worker Health Outcomes

Fatal Injury Rate of Fatal Injuries by State, 2015



Red: Above or equal to the national rate of 3.4

Blue: Below the national rate of 3.4

White: Rate not available

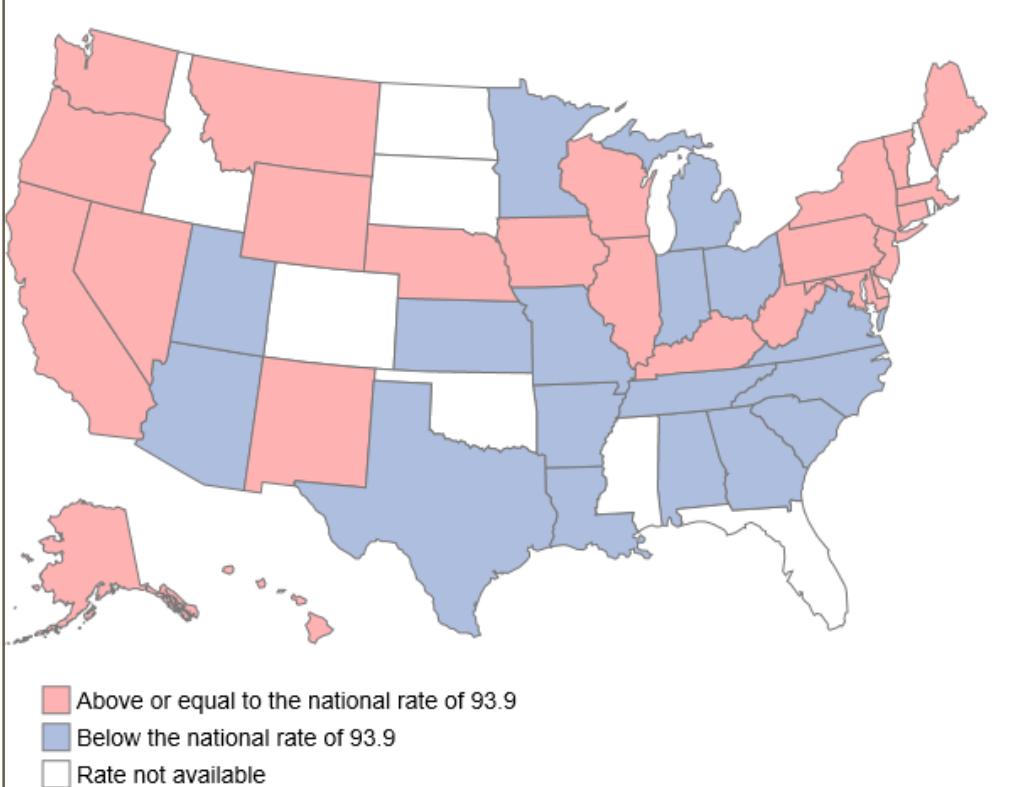
Source: Census of Fatal Occupational Injuries (CFOI), Bureau of Labor Statistics (BLS)

Nationally- 13 to 14 deaths/day

West Virginia

- 11th highest rate
- Common events:
 - Transportation incidents
 - Contact with objects and equipment
 - Falls, slips, and trips
 - Exposure to harmful substances or environments

Incidence Rate of Severe Injuries & Illnesses by State, 2015



Source: Survey of Occupational Injuries and Illnesses (SOII), Bureau of Labor Statistics (BLS)

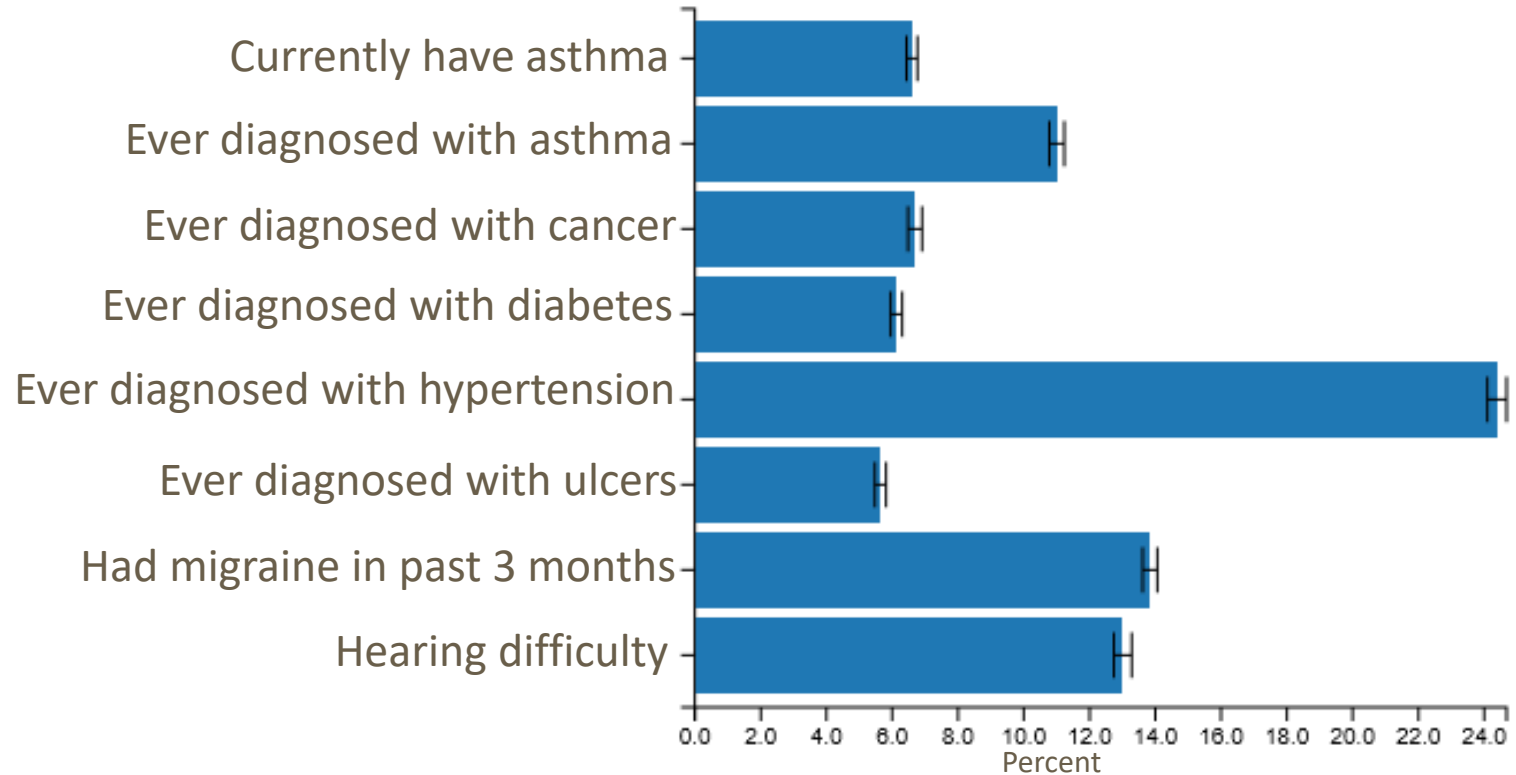
West Virginia

- Rate of 119.5/10,000 workers
- 12th highest rate

Common events nationally

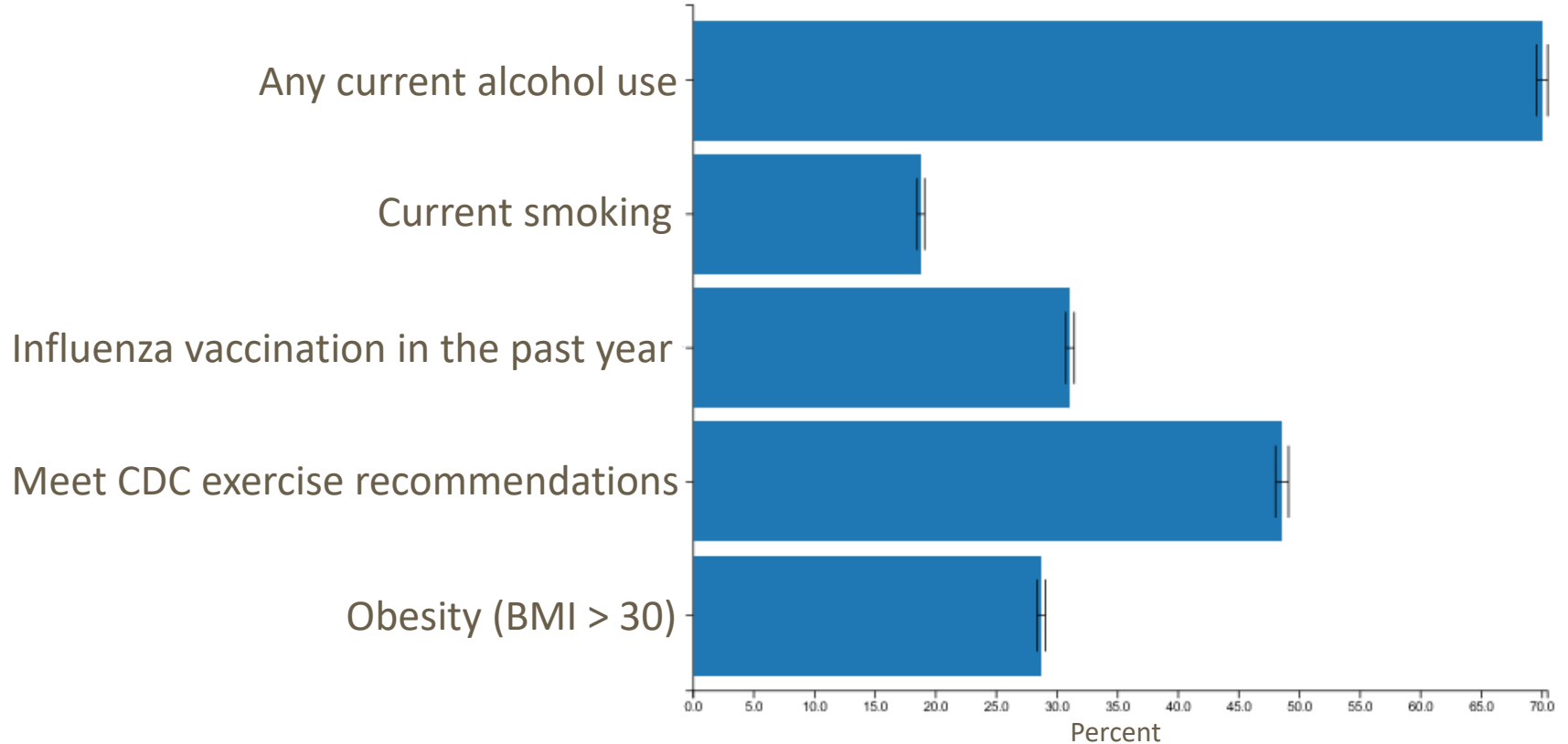
- Overexertion
- Falls, slips and trips
- Contact with objects and equipment

PREVALENCE OF CHRONIC CONDITIONS AMONG WORKERS



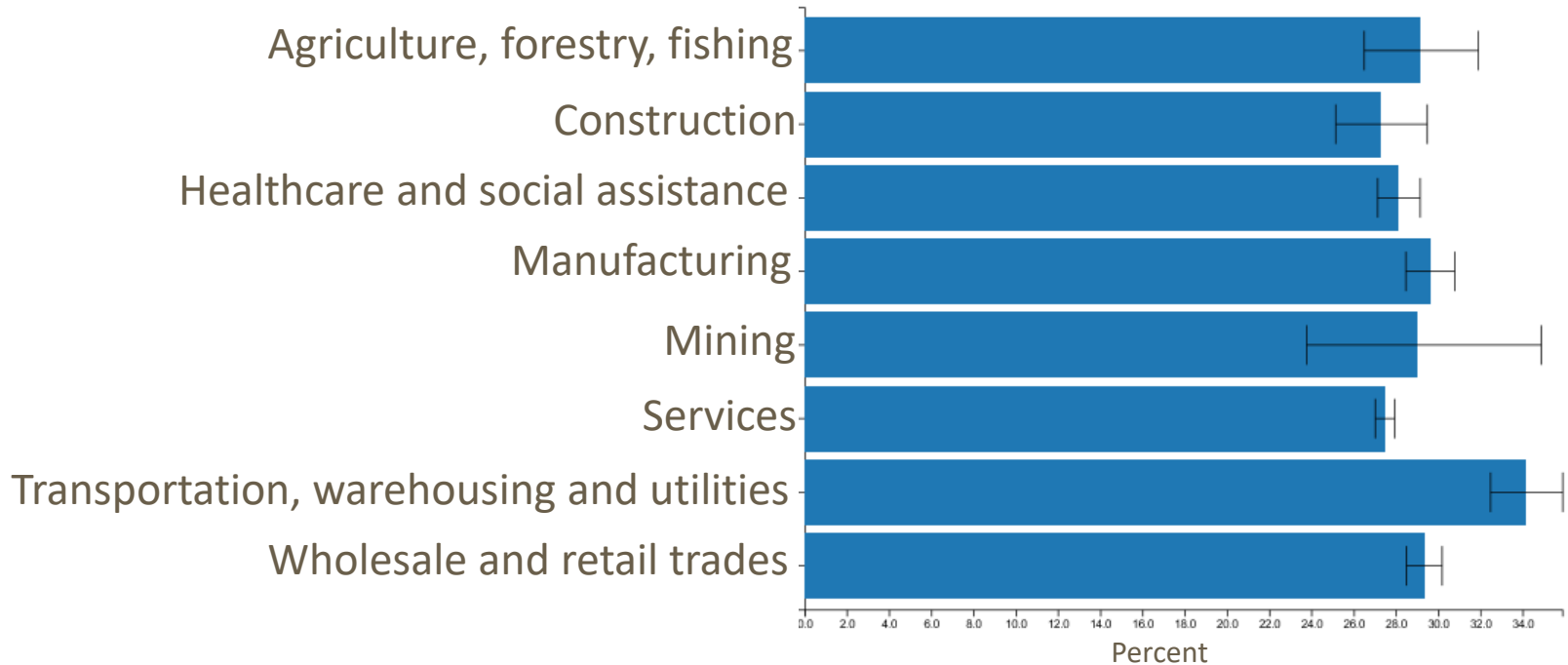
Source: National Health Interview Survey (NHIS), 2004-2013. Estimates based on a sample; adjusted for age, sex, and race.

PREVALENCE OF HEALTH BEHAVIORS AMONG WORKERS



Source: National Health Interview Survey (NHIS), 2004-2013. Estimates based on a sample; adjusted for age, sex, and race.

PREVALENCE OF OBESITY AMONG WORKERS BY INDUSTRY



Source: National Health Interview Survey (NHIS), 2004-2013. Estimates based on a sample; adjusted for age, sex, and race.

OBESITY AMONG LONG-HAUL TRUCK DRIVERS

- 69% obese compared to 31% of population
- Work characteristics that may contribute to obesity:
 - Limited opportunities for physical activity and healthy food options
 - Work stress



References: Sieber et al [2014]. Am J Ind Med, 57(6): 615-626.;
Lincoln et al [2018]. Am J Health Promot, 32(3): 546-553.

How Work Influences Health Outcomes and Vice Versa

HOW WORK INFLUENCES HEALTH OUTCOMES

- Work conditions determine risk for injury, illness and disability.
- Work conditions determine our risks for and control over exposures to environmental toxins, chemical, biologic and other hazards.
- Work largely controls many elements of our daily life schedule, to include the time we have for sleep, physical activity, healthier nutrition practices, relationships and rest.
- Work provides access to most health-related benefits, including healthcare and insurance, workers compensation, income security, dental care, mental health services, and disability income.

OPIOIDS AS EXAMPLE OF COMPLICATED ASSOCIATIONS WITH WORK

Why workers use opioids?

- Work injury or illness (e.g., back pain)
- Nonwork injury or acute health condition (e.g., post-surgery)
- Chronic health condition (e.g. cancer, arthritis, depression)
- Substance misuse

Risks when opioids in use

- Decreased psychomotor performance can increase risks for injury (e.g. motor vehicle, machine, falls)
- Delayed recovery and return to work

Workplace factors that may influence risk for opioid use/injury

- Fatigue associated with shiftwork
- Stress
- Workplace policies that inhibit or support reporting of opioid use

**What Can Industry Do?
Total Worker Health[®] Approach**

DEFINING TOTAL WORKER HEALTH® ...

....policies, programs, and practices that integrate protection from work-related safety & health hazards with promotion of injury and illness prevention efforts to advance worker well-being.



EXAMPLE OF INTEGRATED APPROACH TO TRANSPORTATION- RELATED INJURIES

Well-maintained fleet and
policies prohibiting driving
under the influence



Education on
opioid crisis/EAP



Non-driving
tasks when using
medications



EXAMPLE OF INTEGRATED APPROACH TO FALL INJURIES

Ladder safety training



Tai chi programs for stress and fitness



Decreased risk for falls



WHAT IS THE PROMISE OF TOTAL WORKER HEALTH®?

- Reduction in workplace injuries and illnesses
- Safer, healthier, and more productive employees
- Improved workers' job satisfaction
- Enhanced organizational culture (of trust, of safety, of health)
- More energizing, meaningful work
- Reduction in work-related stress
- Improved health opportunities, more informed decision making
- Reduction in healthcare costs
- Family, community and societal gains



Resources

NIOSH Webpage, www.cdc.gov/niosh

Total Worker Health,

<https://www.cdc.gov/NIOSH/twh/>

“Work is central to people's well-being.”

Source: International Labour Organization, <http://www.ilo.org/global/about-the-ilo/decent-work-agenda/lang--en/index.htm>

Adapted from a slide shared by Dr. Casey Chosewood, NIOSH Total Worker Health® Program

THANK YOU FOR YOUR ATTENTION

Dawn Castillo
Dcastillo@cdc.gov
304-285-5894

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

