Total Worker Health®
Addressing current workforce needs

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Work Can Be Dangerous
Economic Factors

- Workers Compensation
- Medical Expenses
- OSHA Fines/Penalties
- Decreased Productivity
- Lost Work Days
- High Turnover
Costs of Work Related Injuries and Illnesses

$250 Billion (in 2007)

- 8,564,600 work-related injuries → $192 billion
- 516,100 work-related illnesses → $58 billion

$31 billion more than costs of all cancers
$76 billion more than diabetes
$187 billion more than strokes

# Traditional Workplace Hazards

<table>
<thead>
<tr>
<th>Physical</th>
<th>Biological</th>
<th>Chemical</th>
<th>Biomechanical</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise</td>
<td>Pathogens</td>
<td>Gases</td>
<td>Force</td>
<td>Machines</td>
</tr>
<tr>
<td>Radiation</td>
<td>Molds</td>
<td>Vapors</td>
<td>Posture</td>
<td>Equipment</td>
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<tr>
<td>Temperature</td>
<td></td>
<td>Dusts</td>
<td>Repetition</td>
<td>Slips/trips/falls</td>
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<tr>
<td>Vibration</td>
<td></td>
<td>Fumes</td>
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</tr>
</tbody>
</table>

![Images of workers](healthier-workforce-center-for-excellence)
# Obesity by Occupation

A sampling of U.S. jobs and the prevalence of obesity in that occupational group

<table>
<thead>
<tr>
<th>Sample Jobs</th>
<th>Obesity Rate for Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIGHEST</strong></td>
<td></td>
</tr>
<tr>
<td>Police officers, firefighters, security guards</td>
<td>40.7%</td>
</tr>
<tr>
<td>Social workers, clergy, counselors</td>
<td>35.6</td>
</tr>
<tr>
<td>Home health aides, massage therapists</td>
<td>34.8</td>
</tr>
<tr>
<td>Architects, engineers</td>
<td>34.1</td>
</tr>
<tr>
<td>Bus drivers, truckers, crane operators, garbage collectors</td>
<td>32.8</td>
</tr>
<tr>
<td><strong>LOWEST</strong></td>
<td></td>
</tr>
<tr>
<td>Janitors, maids, landscapers</td>
<td>23.5%</td>
</tr>
<tr>
<td>Cooks, bartenders, food servers</td>
<td>23.1</td>
</tr>
<tr>
<td>Physicians, dentists, EMTs, nurses</td>
<td>22.0</td>
</tr>
<tr>
<td>Artists, actors, athletes, reporters</td>
<td>20.1</td>
</tr>
<tr>
<td>Economists, scientists, psychologists</td>
<td>14.2</td>
</tr>
</tbody>
</table>

**Average U.S. worker: 27.7%**

Note: Obesity defined as body mass index of 30 or above

Source: American Journal of Preventive Medicine’s 2014 report based on 2010 data

The Wall Street Journal
Risk of Obesity and Number of Stressors

Stressors: low decision latitude, poor coworker support, heavy lifting, night work, physical assault at work in past 3 months
### Today’s Workplace/Workforce Reality

#### Farm Jobs
- **METs Median (min, max):** 3.0 (2.5, 4.5)
- **Activity Category:** Moderate

#### Goods-Producing
- **Mining and logging:**
  - **METs Median (min, max):** 3.8 (3.0, 8.0)
  - **Activity Category:** Moderate
- **Construction:**
  - **METs Median (min, max):** 4.0 (1.5, 7.5)
  - **Activity Category:** Moderate
- **Manufacturing:**
  - **METs Median (min, max):** 3.0 (1.5, 4.0)
  - **Activity Category:** Moderate

#### Service-Providing
- **Trade (wholesale & retail), transportation, and utilities:**
  - **METs Median (min, max):** 2.0 (1.5, 3.0)
  - **Activity Category:** Light
- **Information:**
  - **METs Median (min, max):** 1.5 (1.5, 1.5)
  - **Activity Category:** Sedentary
- **Financial activities:**
  - **METs Median (min, max):** 1.5 (1.5, 1.5)
  - **Activity Category:** Sedentary
- **Professional and business services:**
  - **METs Median (min, max):** 1.5 (1.5, 2.0)
  - **Activity Category:** Sedentary
- **Education and health services:**
  - **METs Median (min, max):** 2.5 (1.5, 4.0)
  - **Activity Category:** Light
- **Leisure and hospitality:**
  - **METs Median (min, max):** 2.5 (1.5, 3.5)
  - **Activity Category:** Light
- **Other services:**
  - **METs Median (min, max):** 2.5 (1.5, 3.0)
  - **Activity Category:** Light

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Church et al., PloS ONE, 2011

43% of all U.S. Jobs
Today’s Workplace/Workforce Reality

Occupational or not, the time we spend sedentary has well-documented consequences:

- Cardiovascular disease
- Cancer
- Overweight and obesity
- Weight gain
- Type II diabetes
- All-cause mortality

All have been associated with sedentary behavior.
Changing Workplace/Workforce

- Increase in precarious or part-time work
- Multiple jobs or 24/7
- Changing demographics
- Changing benefits
- Work is no longer at a worksite
Impact of Non-Traditional Work Factors

**Work Factors**
- Shift work
- Workplace assaults
- Lack of decision making authority
- Time pressure/workload
- Physical fatigue
- Lack of affordable childcare
- Low wages

**Behavioral Effects**
- Cigarette smoking
- Alcohol use
- Unhealthy eating/obesity
- Lack of leisure time exercise

**Workplace Effects**
- Presenteeism
- Absenteeism
- Insurance costs
- Injury risks

**Physical/Somatic Effects**
- Low back pain
- High blood pressure
- Cardiovascular disease
- Depression
Total Worker Health® is...

Policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury and illness prevention efforts to advance worker well-being.
Total Worker Health® is...

Protection from work-related hazards

Prevention of injury and illness
Where do people spend their time?

Time use on an average work day for employed persons ages 25 to 54 with children

- Working and related activities (8.7 hours)
- Sleeping (7.7 hours)
- Leisure and sports (2.5 hours)
- Household activities (1.1 hours)
- Eating and drinking (1.0 hours)
- Caring for others (1.3 hours)
- Other (1.7 hours)

Total = 24.0 hours
Work and Home Often Interact
Healthier Workforce Center @ Iowa

Center Goals

Implement, evaluate and compare health protection and health promotion models

Identify and promote Total Worker Health best and promising practices

Serve as a state and national resource center for employee health programs, services and policies

Free video series available at:

www.TotalWorkerHealthEssentials.org
Statewide surveys on Iowans

Urban/rural differences in health, employment and resources

Small Business Outreach

Majority of business are small and many in rural settings

Develop low-cost resources

New video series rolling out

(see www.hwce.org)

Total Worker Health in Manufacturing

ERGONOMICS
- Training
- Exposure Assessment
- Controls

WELLNESS
- Needs Assessments
- Facility-Wide Events
- Health Coaching

Outcomes:
- MSD health
- General Health
- Wellbeing

www.TotalWorkerHealthEssentials.org
Healthier Workforce Center @ Iowa

**Pilot Grant Program**

- Student
- New Investigator
- Community

Law Enforcement
Nurses
Office Workers
Retail
Food Service
Emerging Workforce
Production workers/
Hispanic Workers
Corrections Officers
Childcare Workers

**Partnering with other U Iowa centers**

- Heartland Center for Occupational Health & Safety
- Great Plains Center for Agricultural Health
- Healthier Workforce Center for Excellence
- IPRC Injury Prevention Research Center
- Worksafe
Total Worker Health

Protection from work-related hazards

Prevention of injury and illness

www.hwce.org