

## CHAPTER 30

On April 7, 2017, this chapter was updated to include a corrected 2020 target value for objective OSH-7. Midcourse progress status for OSH-7 was re-assessed based on the corrected target. Corrections to text, figures, and tables are highlighted in yellow on pages 30–2, 30–3, and 30–7.

# Occupational Safety and Health (OSH)

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## Lead Agency

Centers for Disease Control and Prevention

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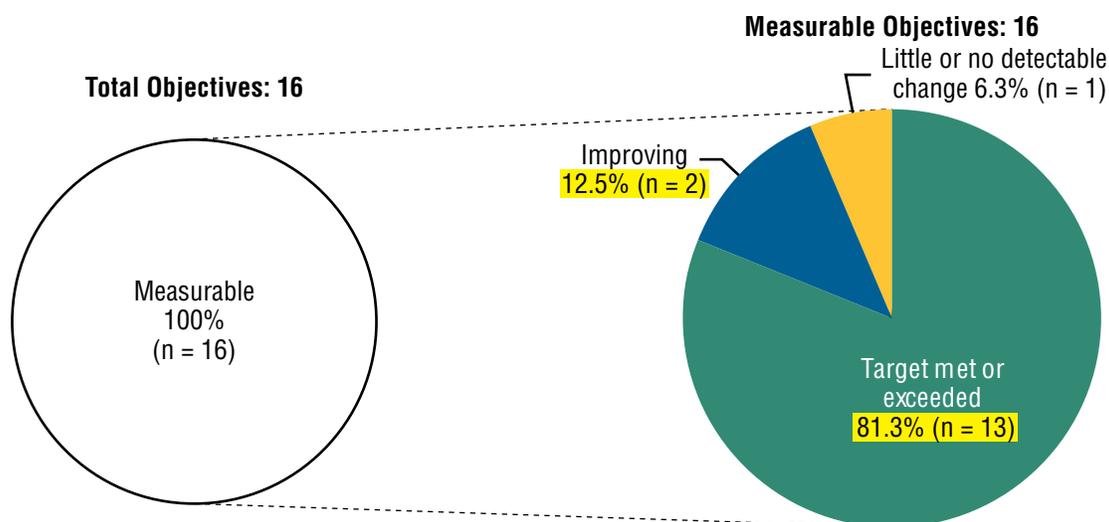
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## Goal: Promote the health and safety of people at work through prevention and early intervention.

This chapter includes objectives that monitor deaths from work-related injuries, nonfatal work-related injuries, work-related homicides and assaults, occupational exposures, and worksite stress reduction. The [Reader's Guide](#) provides a step-by-step explanation of the content of this chapter, including criteria for highlighting objectives in the Selected Findings.<sup>1</sup>

### Status of Objectives

Figure 30–1. Midcourse Status of the Occupational Safety and Health Objectives



All 16 of the objectives in the Occupational Safety and Health Topic Area were measurable<sup>2</sup> (Figure 37–1, Table 37–1). The midcourse status of these objectives (Table 37–2) was as follows:

- 13 objectives had met or exceeded their 2020 targets,<sup>3</sup>
- 2 objectives were improving,<sup>4</sup> and
- 1 objective had demonstrated little or no detectable change.<sup>5</sup>

### Selected Findings

#### Work-related Injury Deaths

The five objectives monitoring work-related injury deaths had all met or exceeded their 2020 targets at midcourse (Table 30–2).

- Between 2007 and 2012, work-related injury deaths among workers aged 16 and over per 100,000 full-time equivalent (FTE) workers in **all industries** (OSH-1.1)

decreased from 4.0 to 3.4; in the **mining industry** (OSH-1.2), from 21.4 to 15.4; in the **construction industry** (OSH-1.3), from 10.8 to 9.7; in the **transportation and warehousing industries** (OSH-1.4), from 16.5 to 12.5; and in the **agriculture, forestry, fishing, and hunting industries** (OSH-1.5), from 27.0 to 22.6 (Table 30–2).

- » In 2012, there were statistically significant disparities by sex and race and ethnicity in work-related injury deaths among workers aged 16 and over per 100,000 FTE workers in all industries (OSH-1.1), the construction industry (OSH-1.3), the transportation and warehousing industries (OSH-1.4), and the agriculture, forestry, fishing, and hunting industries (OSH-1.5) (Table 30–3).
- » In 2012, there was a statistically significant disparity by sex in work-related injury deaths among workers aged 16 and over per 100,000 FTE workers in the mining industry (OSH-1.2, Table 30–3). The disparity by race and ethnicity was not statistically significant.

## Nonfatal Work-related Injuries

Three of the four objectives monitoring nonfatal work-related injuries met or exceeded their 2020 targets at midcourse and one objective had improved (Table 30-2).

- **Work-related nonfatal injuries** (OSH-2.1) per 100 FTE workers declined from 4.2 injuries in 2007 to 3.3 in 2013, exceeding the 2020 target (Table 30-2).
- Between 2007 and 2012, **emergency department visits for work-related injuries** (OSH-2.2) declined from 2.4 to 2.0 visits per 100 FTE workers; and **emergency department visits for work-related illnesses and injuries among workers aged 15-19** (OSH-2.3) also decreased from 5.5 to 4.5 visits per 100 FTE workers, exceeding their respective 2020 targets (Table 30-2).
  - » In 2012, there was a statistically significant disparity by sex for emergency department visits for work-related injuries (OSH-2.2, Table 30-3).
  - » In 2012, there was a statistically significant disparity by sex for emergency department visits for work-related injuries and illnesses among workers aged 15-19 (OSH-2.3, Table 30-3).
- The rate of **overexertion or repetitive motion injuries** (OSH-3) per 10,000 full-time workers decreased from 29.6 in 2008 to 27.0 in 2013, moving toward the 2020 target (Table 30-2).

## Other Work-related Conditions

Five of the seven objectives monitoring other work-related conditions met their 2020 targets at midcourse, one had improved, and one demonstrated little or no detectable change (Table 30-2).

- The number of **pneumoconiosis deaths among persons aged 15 and over** (OSH-4) declined from 2,430 in 2005 to 2,037 in 2010; and the number of **work-related homicides** (OSH-5) also declined, from 628 in 2007 to 475 in 2012, both exceeding their respective 2020 targets (Table 30-2).
- The number of **emergency department visits for work-related assaults per 10,000 FTE workers aged 15 and over** (OSH-6) demonstrated little or no detectable change between 2007 (8.4) and 2012 (9.5) (Table 30-2).
  - » In 2012, the disparity by sex in emergency department visits for work-related assaults (OSH-6) was not statistically significant (Table 30-3).

- Between 2008 and 2012, **blood lead levels greater than or equal to 10 mcg/dL** (OSH-7) declined from 27.7 to 22.5 cases per 100,000 workers, exceeding the 2020 target (Table 30-2).
- Between 2008 and 2013, **occupational skin diseases or disorders** (OSH-8) decreased from 4.4 to 3.2 cases per 10,000 full-time workers, exceeding the 2020 target (Table 30-2).
- The proportion of **employees who had access to a workplace program to prevent or reduce employee stress** (OSH-9) increased from 36% in 2010 to 38% in 2014, moving toward the 2020 target (Table 30-2).
  - » In 2014, there were statistically significant disparities by sex, race and ethnicity, and education in the proportion of employees who had access to a workplace program to prevent or reduce employee stress (OSH-9, Table 30-3).
- Between 2008 and 2013, new cases of **work-related noise-induced hearing loss** (OSH-10) declined from 2.2 to 2.0 cases per 10,000 full-time workers, meeting the 2020 target (Table 30-2).

## More Information

Readers interested in more detailed information about the objectives in this topic area are invited to visit the [HealthyPeople.gov](https://www.healthypeople.gov) website, where extensive substantive and technical information is available:

- For the background and importance of the topic area, see: <https://www.healthypeople.gov/2020/topics-objectives/topic/occupational-safety-and-health>
- For data details for each objective, including definitions, numerators, denominators, calculations, and data limitations, see: <https://www.healthypeople.gov/2020/topics-objectives/topic/occupational-safety-and-health/objectives>  
*Select an objective, then click on the “Data Details” icon.*
- For objective data by population group (e.g., sex, race and ethnicity, or family income), including rates, percentages, or counts for multiple years, see: <https://www.healthypeople.gov/2020/topics-objectives/topic/occupational-safety-and-health/objectives>  
*Select an objective, then click on the “Data2020” icon.*

Data for the measurable objectives in this chapter were from the following data sources:

- Adult Blood Lead Epidemiology and Surveillance Program: <http://www.cdc.gov/niosh/topics/ABLES/description.html>

- Census of Fatal Occupational Injuries: <http://www.bls.gov/iif/oshcfoi1.htm>
- Current Population Survey: <http://www.census.gov/programs-surveys/cps.html>
- National Electronic Injury Surveillance System–Work Supplement: <http://www2a.cdc.gov/risqs/wrtechinfo.htm>
- National Surveillance System for Pneumoconiosis Mortality: <http://www.cdc.gov/niosh/programs/surv/products.html>
- Quality of Worklife Module: <http://www.cdc.gov/niosh/topics/stress/qwlquest.html>
- Survey of Occupational Injuries and Illnesses: <http://www.bls.gov/respondents/iif/>

## Footnotes

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<sup>1</sup>The **Technical Notes** provide more information on Healthy People 2020 statistical methods and issues.

<sup>2</sup>**Measurable** objectives had a national baseline value.

<sup>3</sup>**Target met or exceeded**—One of the following, as specified in the Midcourse Progress Table:

- » At baseline the target was not met or exceeded and the midcourse value was equal to or exceeded the target. (The percentage of targeted change achieved was equal to or greater than 100%.)
- » The baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)

<sup>4</sup>**Improving**—One of the following, as specified in the Midcourse Progress Table:

- » Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was statistically significant.
- » Movement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.

<sup>5</sup>**Little or no detectable change**—One of the following, as specified in the Midcourse Progress Table:

- » Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.
- » Movement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.

- » Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.
- » Movement was away from the baseline and target, standard errors were not available, and the objective had moved less than 10% relative to the baseline.
- » There was no change between the baseline and the midcourse data point.

<sup>6</sup>**Getting worse**—One of the following, as specified in the Midcourse Progress Table:

- » Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.
- » Movement was away from the baseline and target, standard errors were not available, and the objective had moved 10% or more relative to the baseline.

## Suggested Citation

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National Center for Health Statistics. Chapter 30: Occupational Safety and Health. Healthy People 2020 Midcourse Review. Hyattsville, MD. 2016.

**Table 30–1. Occupational Safety and Health Objectives**

## LEGEND



Data for this objective are available in this chapter's Midcourse Progress Table.



Disparities data for this objective are available, and this chapter includes a Midcourse Health Disparities Table.



A state or county level map for this objective is available at the end of the chapter.

Not Applicable

Midcourse data availability is not applicable for developmental and archived objectives. **Developmental** objectives did not have a national baseline value. **Archived** objectives are no longer being monitored due to lack of data source, changes in science, or replacement with other objectives.

| Objective Number | Objective Statement  | Data Sources   | Midcourse Data Availability |
|------------------|--|--|-----------------------------|
| OSH-1.1          | Reduce deaths from work-related injuries in all industries   | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |                             |
| OSH-1.2          | Reduce deaths from work-related injuries in mining   | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |                             |
| OSH-1.3          | Reduce deaths from work-related injuries in construction   | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |                             |
| OSH-1.4          | Reduce deaths from work-related injuries in transportation and warehousing   | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |                             |
| OSH-1.5          | Reduce deaths from work-related injuries in agriculture, forestry, fishing, and hunting  | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |                             |
| OSH-2.1          | Reduce work-related injuries in private sector industries resulting in medical treatment, lost time from work, or restricted work activity, as reported by employers | Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS                                   |                             |
| OSH-2.2          | Reduce work-related injuries treated in emergency departments (EDs)  | National Electronic Injury Surveillance System–Work Supplement (NEISS–WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS |                             |
| OSH-2.3          | Reduce work-related injuries among adolescent workers aged 15 to 19 years  | National Electronic Injury Surveillance System–Work Supplement (NEISS–WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS |                             |
| OSH-3            | Reduce the rate of injury and illness cases involving days away from work due to overexertion or repetitive motion   | Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS                                   |                             |
| OSH-4            | Reduce pneumoconiosis deaths   | National Surveillance System for Pneumoconiosis Mortality (NSSPM), CDC/NIOSH   |                             |
| OSH-5            | Reduce deaths from work-related homicides  | Census of Fatal Occupational Injuries (CFOI), DOL/BLS  |                             |

**Table 30-1. Occupational Safety and Health Objectives—Continued**

## LEGEND

|  |   |   |  |   |  |
|--|---|---|--|---|--|
|  | Data for this objective are available in this chapter's Midcourse Progress Table. |  | Disparities data for this objective are available, and this chapter includes a Midcourse Health Disparities Table. |  | A state or county level map for this objective is available at the end of the chapter. |
|--|---|---|--|---|--|

Not Applicable

Midcourse data availability is not applicable for developmental and archived objectives. **Developmental** objectives did not have a national baseline value. **Archived** objectives are no longer being monitored due to lack of data source, changes in science, or replacement with other objectives.

| Objective Number | Objective Statement   | Data Sources   | Midcourse Data Availability   |
|------------------|---|--|---|
| OSH-6            | Reduce work-related assaults  | National Electronic Injury Surveillance System–Work Supplement (NEISS–WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS |       |
| OSH-7            | Reduce the proportion of persons who have elevated blood lead concentrations from work exposures                  | Adult Blood Lead Epidemiology and Surveillance Program (ABLES), CDC/NIOSH  |    |
| OSH-8            | Reduce occupational skin diseases or disorders among full-time workers  | Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS                                   |    |
| OSH-9            | Increase the proportion of employees who have access to workplace programs that prevent or reduce employee stress | Quality of Worklife Module (QWL), CDC/NIOSH and NSF  |   |
| OSH-10           | Reduce new cases of work-related, noise-induced hearing loss  | Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS                                   |    |

**Table 30–2. Midcourse Progress for Measurable<sup>1</sup> Occupational Safety and Health Objectives**

## LEGEND

|  |  |  |  |   |   |
|--|--|--|--|---|---|
|  Target met or exceeded <sup>2,3</sup> |  Improving <sup>4,5</sup> |  Little or no detectable change <sup>6-10</sup> |  Getting worse <sup>11,12</sup> |  Baseline only <sup>13</sup> |  Informational <sup>14</sup> |
|--|--|--|--|---|---|

| Objective Description   | Baseline Value (Year) | Midcourse Value (Year) | Target | Movement Toward Target <sup>15</sup> | Movement Away From Baseline <sup>16</sup> | Movement Statistically Significant <sup>17</sup> |
|---|-----------------------|------------------------|--------|--------------------------------------|---|--|
|  <sup>2</sup> <b>OSH-1.1</b> Work-related injury deaths—All industries (per 100,000 full-time equivalent workers, 16+ years)                              | 4.0 (2007)            | 3.4 (2012)             | 3.6    | 150.0%                               |   | Yes  |
|  <sup>2</sup> <b>OSH-1.2</b> Work-related injury deaths—Mining (per 100,000 full-time equivalent workers, 16+ years)                                      | 21.4 (2007)           | 15.4 (2012)            | 19.3   | 285.7%                               |   | Yes  |
|  <sup>2</sup> <b>OSH-1.3</b> Work-related injury deaths—Construction (per 100,000 full-time equivalent workers, 16+ years)                                | 10.8 (2007)           | 9.7 (2012)             | 9.7    | 100.0%                               |   | Yes  |
|  <sup>2</sup> <b>OSH-1.4</b> Work-related injury deaths—Transportation and warehousing (per 100,000 full-time equivalent workers, 16+ years)              | 16.5 (2007)           | 12.5 (2012)            | 14.8   | 235.3%                               |   | Yes  |
|  <sup>2</sup> <b>OSH-1.5</b> Work-related injury deaths—Agriculture, forestry, fishing, and hunting (per 100,000 full-time equivalent workers, 16+ years) | 27.0 (2007)           | 22.6 (2012)            | 24.3   | 163.0%                               |   | Yes  |
|  <sup>2</sup> <b>OSH-2.1</b> Work-related nonfatal injuries (per 100 full-time equivalent workers)  | 4.2 (2007)            | 3.3 (2013)             | 3.8    | 225.0%                               |   | Yes  |
|  <sup>2</sup> <b>OSH-2.2</b> Emergency department visits for work-related injuries (per 100 full-time equivalent workers)                               | 2.4 (2007)            | 2.0 (2012)             | 2.2    | 200.0%                               |   | No   |
|  <sup>2</sup> <b>OSH-2.3</b> Emergency department visits for work-related illness and injuries (per 100 full-time equivalent workers, 15–19 years)      | 5.5 (2007)            | 4.5 (2012)             | 4.9    | 166.7%                               |   | No   |
|  <sup>5</sup> <b>OSH-3</b> Overexertion or repetitive motion injuries (per 10,000 full-time workers)  | 29.6 (2008)           | 27.0 (2013)            | 26.6   | 86.7%                                |   |  |
|  <sup>2</sup> <b>OSH-4</b> Pneumoconiosis deaths (number, 15+ years)  | 2,430 (2005)          | 2,037 (2010)           | 2,187  | 161.7%                               |   |  |
|  <sup>2</sup> <b>OSH-5</b> Work-related homicides (number)  | 628 (2007)            | 475 (2012)             | 565    | 242.9%                               |   |  |
|  <sup>8</sup> <b>OSH-6</b> Emergency department visits for work-related assaults (per 10,000 full-time equivalent workers, 15+ years)                   | 8.4 (2007)            | 9.5 (2012)             | 7.6    |                                      | 13.1%                                     | No   |
|  <sup>2</sup> <b>OSH-7</b> Persons with blood lead levels 10+ µg/dL (per 100,000 workers, 16+ years)  | 27.7 (2008)           | 22.5 (2012)            | 24.9   | 185.7%                               |   | Yes  |
|  <sup>2</sup> <b>OSH-8</b> Occupational skin diseases or disorders (per 10,000 full-time workers)   | 4.4 (2008)            | 3.2 (2013)             | 4.0    | 300.0%                               |   |  |

**Table 30–2. Midcourse Progress for Measurable<sup>1</sup> Occupational Safety and Health Objectives—Continued**

| LEGEND  |                                       |   |                          |   |  |   |                                |   |                             |   |                             |
|---|---------------------------------------|---|--------------------------|---|--|---|--------------------------------|---|-----------------------------|---|-----------------------------|
|   | Target met or exceeded <sup>2,3</sup> |  | Improving <sup>4,5</sup> |  | Little or no detectable change <sup>6–10</sup> |  | Getting worse <sup>11,12</sup> |  | Baseline only <sup>13</sup> |  | Informational <sup>14</sup> |
| Objective Description   | Baseline Value (Year)                 | Midcourse Value (Year)  | Target                   | Movement Toward Target <sup>15</sup>  | Movement Away From Baseline <sup>16</sup>      | Movement Statistically Significant <sup>17</sup>                                  |                                |   |                             |   |                             |
|  <sup>4</sup> <b>OSH-9</b> Employees who have access to workplace programs that prevent or reduce employee stress (percent) | 36% (2010)                            | 38% (2014)  | 40%                      | 50.0%   |  | Yes   |                                |   |                             |   |                             |
|  <sup>2</sup> <b>OSH-10</b> Work-related noise-induced hearing loss (per 10,000 full-time workers)                          | 2.2 (2008)                            | 2.0 (2013)  | 2.0                      | 100.0%  |  |   |                                |   |                             |   |                             |

NOTES

See [HealthyPeople.gov](http://HealthyPeople.gov) for all Healthy People 2020 data. The [Technical Notes](#) provide more information on the measures of progress.

FOOTNOTES

<sup>1</sup>**Measurable** objectives had a national baseline value.

**Target met or exceeded:**

<sup>2</sup>At baseline the target was not met or exceeded and the midcourse value was equal to or exceeded the target. (The percentage of targeted change achieved was equal to or greater than 100%.)

<sup>3</sup>The baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)

**Improving:**

<sup>4</sup>Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was statistically significant.

<sup>5</sup>Movement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.

**Little or no detectable change:**

<sup>6</sup>Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.

<sup>7</sup>Movement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.

<sup>8</sup>Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.

<sup>9</sup>Movement was away from the baseline and target, standard errors were not available, and the objective had moved less than 10% relative to the baseline.

<sup>10</sup>There was no change between the baseline and the midcourse data point.

**Getting worse:**

<sup>11</sup>Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.

<sup>12</sup>Movement was away from the baseline and target, standard errors were not available, and the objective had moved 10% or more relative to the baseline.

<sup>13</sup>**Baseline only:** The objective only had one data point, so progress toward target attainment could not be assessed.

<sup>14</sup>**Informational:** A target was not set for this objective, so progress toward target attainment could not be assessed.

<sup>15</sup>For objectives that **moved toward** their targets, movement toward the target was measured as the percentage of targeted change achieved (unless the target was already met or exceeded at baseline):

$$\text{Percentage of targeted change achieved} = \frac{\text{Midcourse value} - \text{Baseline value}}{\text{HP2020 target} - \text{Baseline value}} \times 100$$

FOOTNOTES—Continued

<sup>16</sup>For objectives that **moved away** from their baselines and targets, movement away from the baseline was measured as the magnitude of the percentage change from baseline:

$$\text{Magnitude of percentage change from baseline} = \frac{|\text{Midcourse value} - \text{Baseline value}|}{\text{Baseline value}} \times 100$$

<sup>17</sup>Statistical significance was tested when the objective had a target and at least two data points, standard errors of the data were available, and a normal distribution could be assumed. Statistical significance of the percentage of targeted change achieved or the magnitude of the percentage change from baseline was assessed at the 0.05 level using a normal one-sided test.

DATA SOURCES

|         |  |
|---------|--|
| OSH-1.1 | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |
| OSH-1.2 | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |
| OSH-1.3 | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |
| OSH-1.4 | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |
| OSH-1.5 | Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS   |
| OSH-2.1 | Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS                                   |
| OSH-2.2 | National Electronic Injury Surveillance System-Work Supplement (NEISS-WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS |
| OSH-2.3 | National Electronic Injury Surveillance System-Work Supplement (NEISS-WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS |
| OSH-3   | Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS                                   |
| OSH-4   | National Surveillance System for Pneumoconiosis Mortality (NSSPM), CDC/NIOSH   |
| OSH-5   | Census of Fatal Occupational Injuries (CFOI), DOL/BLS  |
| OSH-6   | National Electronic Injury Surveillance System-Work Supplement (NEISS-WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS |
| OSH-7   | Adult Blood Lead Epidemiology and Surveillance Program (ABLES), CDC/NIOSH  |
| OSH-8   | Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS                                   |
| OSH-9   | Quality of Worklife Module (QWL), CDC/NIOSH and NSF  |
| OSH-10  | Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS                                   |

**Table 30–3. Midcourse Health Disparities<sup>1</sup> for Population-based Occupational Safety and Health Objectives**

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios<sup>2,3</sup> for selected characteristics at the midcourse data point

| Population-based Objectives  |  | Sex  |        | Race and Ethnicity                   |                                  |       |   |                   |                    |                     | Education <sup>4</sup> |                                      |                       |                      |                       |                    | Family Income <sup>5</sup> |                 |                                      |      |           | Disability |           | Location |                                      |                           |                              |                                      |              |                 |
|--|--|------|--------|--------------------------------------|----------------------------------|-------|---|-------------------|--------------------|---------------------|------------------------|--------------------------------------|-----------------------|----------------------|-----------------------|--------------------|----------------------------|-----------------|--------------------------------------|------|-----------|------------|-----------|----------|--------------------------------------|---------------------------|------------------------------|--------------------------------------|--------------|-----------------|
|  |  | Male | Female | Summary Disparity Ratio <sup>2</sup> | American Indian or Alaska Native | Asian | Native Hawaiian or other Pacific Islander | Two or more races | Hispanic or Latino | Black, not Hispanic | White, not Hispanic    | Summary Disparity Ratio <sup>3</sup> | Less than high school | High school graduate | At least some college | Associate's degree | 4-year college degree      | Advanced degree | Summary Disparity Ratio <sup>3</sup> | Poor | Near-poor | Middle     | Near-high | High     | Summary Disparity Ratio <sup>3</sup> | Persons with disabilities | Persons without disabilities | Summary Disparity Ratio <sup>2</sup> | Metropolitan | Nonmetropolitan |
| <b>OSH-1.1</b> Work-related injury deaths—All industries (per 100,000 full-time equivalent workers, 16+ years) (2012)                              |  |      | 9.308* |                                      |                                  |       |   |                   |                    |                     | 1.762*                 |                                      |                       |                      |                       |                    |                            |                 |                                      |      |           |            |           |          |                                      |                           |                              |                                      |              |                 |
| <b>OSH-1.2</b> Work-related injury deaths—Mining (per 100,000 full-time equivalent workers, 16+ years) (2012)                                      |  |      | 5.260* |                                      |                                  |       |   |                   |                    |                     | 1.288                  |                                      |                       |                      |                       |                    |                            |                 |                                      |      |           |            |           |          |                                      |                           |                              |                                      |              |                 |
| <b>OSH-1.3</b> Work-related injury deaths—Construction (per 100,000 full-time equivalent workers, 16+ years) (2012)                                |  |      | 9.097* |                                      |                                  |       |   |                   |                    |                     | 1.222*                 |                                      |                       |                      |                       |                    |                            |                 |                                      |      |           |            |           |          |                                      |                           |                              |                                      |              |                 |
| <b>OSH-1.4</b> Work-related injury deaths—Transportation and warehousing (per 100,000 full-time equivalent workers, 16+ years) (2012)              |  |      | 5.287* |                                      |                                  |       |   |                   |                    |                     | 1.545*                 |                                      |                       |                      |                       |                    |                            |                 |                                      |      |           |            |           |          |                                      |                           |                              |                                      |              |                 |
| <b>OSH-1.5</b> Work-related injury deaths—Agriculture, forestry, fishing, and hunting (per 100,000 full-time equivalent workers, 16+ years) (2012) |  |      | 4.919* |                                      |                                  |       |   |                   |                    |                     | 2.098*                 |                                      |                       |                      |                       |                    |                            |                 |                                      |      |           |            |           |          |                                      |                           |                              |                                      |              |                 |
| <b>OSH-2.2</b> Emergency department visits for work-related injuries (per 100 full-time equivalent workers) (2012)                                 |  |      | 1.349* |                                      |                                  |       |   |                   |                    |                     |                        |                                      |                       |                      |                       |                    |                            |                 |                                      |      |           |            |           |          |                                      |                           |                              |                                      |              |                 |
| <b>OSH-2.3</b> Emergency department visits for work-related illness and injuries (per 100 full-time equivalent workers, 15–19 years) (2012)        |  |      | 1.380* |                                      |                                  |       |   |                   |                    |                     |                        |                                      |                       |                      |                       |                    |                            |                 |                                      |      |           |            |           |          |                                      |                           |                              |                                      |              |                 |
| <b>OSH-6</b> Emergency department visits for work-related assaults (per 10,000 full-time equivalent workers, 15+ years) (2012)                     |  |      | 1.043  |                                      |                                  |       |   |                   |                    |                     |                        |                                      |                       |                      |                       |                    |                            |                 |                                      |      |           |            |           |          |                                      |                           |                              |                                      |              |                 |

**Table 30–3. Midcourse Health Disparities<sup>1</sup> for Population-based Occupational Safety and Health Objectives—Continued**

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios<sup>2,3</sup> for selected characteristics at the midcourse data point

| LEGEND   |  | Characteristics and Groups                         |  |   |   |       |   |                   |                    |                     |                        |                                      |                       |                      |                       |                            |                       |                 |                                      |      |           |        |           |      |                                      |                           |                              |                                      |              |                 |                                      |  |
|--|--|--|--|---|---|-------|---|-------------------|--------------------|---------------------|------------------------|--------------------------------------|-----------------------|----------------------|-----------------------|----------------------------|-----------------------|-----------------|--------------------------------------|------|-----------|--------|-----------|------|--------------------------------------|---------------------------|------------------------------|--------------------------------------|--------------|-----------------|--------------------------------------|--|
| At the midcourse data point  |  | Group with the most favorable (least adverse) rate | Group with the least favorable (most adverse) rate | Data are available, but this group did not have the highest or lowest rate. | Data are not available for this group because the data were statistically unreliable, not collected, or not analyzed. |       |   |                   |                    |                     |                        |                                      |                       |                      |                       |                            |                       |                 |                                      |      |           |        |           |      |                                      |                           |                              |                                      |              |                 |                                      |  |
| Population-based Objectives  |  | Sex  |  | Race and Ethnicity  |   |       |   |                   |                    |                     | Education <sup>4</sup> |                                      |                       |                      |                       | Family Income <sup>5</sup> |                       |                 | Disability                           |      | Location  |        |           |      |                                      |                           |                              |                                      |              |                 |                                      |  |
|  |  | Male   | Female   | Summary Disparity Ratio <sup>2</sup>  | American Indian or Alaska Native  | Asian | Native Hawaiian or other Pacific Islander | Two or more races | Hispanic or Latino | Black, not Hispanic | White, not Hispanic    | Summary Disparity Ratio <sup>3</sup> | Less than high school | High school graduate | At least some college | Associate's degree         | 4-year college degree | Advanced degree | Summary Disparity Ratio <sup>3</sup> | Poor | Near-poor | Middle | Near-high | High | Summary Disparity Ratio <sup>3</sup> | Persons with disabilities | Persons without disabilities | Summary Disparity Ratio <sup>2</sup> | Metropolitan | Nonmetropolitan | Summary Disparity Ratio <sup>2</sup> |  |
| <b>OSH-9</b> Proportion of employees who have access to workplace programs that prevent or reduce employee stress (2014) |  |  |  | 1.023*  |   |       |   |                   |                    |                     |                        | 1.319*                               |                       |                      |                       |                            |                       |                 | 1.487*                               |      |           |        |           |      |                                      |                           |                              |                                      |              |                 |                                      |  |

**NOTES**

See [HealthyPeople.gov](https://www.healthypeople.gov) for all Healthy People 2020 data. The **Technical Notes** provide more information on the measures of disparities.

**FOOTNOTES**

<sup>1</sup>**Health disparities** were assessed among population groups within specified demographic characteristics (sex, race and ethnicity, educational attainment, etc.). This assessment did not include objectives that were not population-based, such as those based on states, worksites, or those monitoring the number of events.

<sup>2</sup>When there were only two groups (e.g., male and female), the **summary disparity ratio** was the ratio of the higher to the lower rate.

<sup>3</sup>When there were three or more groups (e.g., white non-Hispanic, black non-Hispanic, Hispanic) and the most favorable rate ( $R_b$ ) was the highest rate, the **summary disparity ratio** was calculated as  $R_b/R_a$ , where  $R_a$  = the average of the rates for all other groups. When there were three or more groups and the most favorable rate was the lowest rate, the summary disparity ratio was calculated as  $R_a/R_b$ .

<sup>4</sup>Unless otherwise footnoted, data do not include persons under age 25 years.

<sup>5</sup>Unless otherwise footnoted, the poor, near-poor, middle, near-high, and high income groups are for persons whose family incomes were less than 100%, 100%–199%, 200%–399%, 400%–599%, and at or above 600% of the poverty threshold, respectively.

\*The summary disparity ratio was significantly greater than 1.000. Statistical significance was assessed at the 0.05 level using a normal one-sided test on the natural logarithm scale.

<sup>a</sup>Data do not include persons of Hispanic origin.

<sup>b</sup>Data are for Asian or Pacific Islander persons.

<sup>c</sup>Data are for persons who graduated from college or above.

**DATA SOURCES**

- OSH-1.1 Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS
- OSH-1.2 Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS
- OSH-1.3 Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS
- OSH-1.4 Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS
- OSH-1.5 Census of Fatal Occupational Injuries (CFOI), DOL/BLS; Current Population Survey (CPS), Census and DOL/BLS
- OSH-2.2 National Electronic Injury Surveillance System-Work Supplement (NEISS-WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS
- OSH-2.3 National Electronic Injury Surveillance System-Work Supplement (NEISS-WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS
- OSH-6 National Electronic Injury Surveillance System-Work Supplement (NEISS-WORK), CDC/NIOSH and CPSC; Current Population Survey (CPS), Census and DOL/BLS
- OSH-9 Quality of Worklife Module (QWL), CDC/NIOSH and NSF