

8. OCCUPATIONAL SAFETY AND HEALTH

Goal

Promote worker health and safety through prevention and early intervention.

Terminology

Asbestosis: A type of occupational dust disease of the lung caused by microscopic asbestos fibers.

Blood lead level: The concentration of lead in a sample of blood. This concentration is usually expressed in micrograms per deciliter (mcg/dL) or micromoles per liter (mcmol/L). One mcg/dL is equal to 0.048 mcmol/L.

Byssinosis: A type of occupational dust disease of the lung most often caused by cotton dust.

Coal workers' pneumoconiosis: A type of occupational dust disease of the lung caused by coalmine dust.

Ergonomic hazards: Factors or exposures that may adversely affect health and are related to the interaction between persons and their total working environment, including the organization of work, tools, equipment, and the social and behavioral elements of the workplace. These hazards also can apply to work performance capabilities and limitations of workers.

Musculoskeletal disorders: Conditions that involve the soft tissues of the body, including muscles, tendons, nerves, cartilage, and other supporting structures. The term usually refers to conditions of the large joints, including the neck, shoulder, elbow, hand and wrist, back, and knee.

National Occupational Research Agenda: A collaboration of the National Institute for Occupational Safety and Health and its public and private partners to provide a framework to guide occupational safety and health research through the next decade.

Natural rubber latex allergy: An immediate hypersensitivity reaction to one or more natural rubber latex proteins that can result in a wide spectrum of signs and symptoms, including skin rashes; hives or wheals; flushing; itching; nasal, eye, or sinus problems; asthma; and, rarely, anaphylaxis (shock).

Occupational dusts: Dusts associated with industrial processes and other work activities.

Occupational skin disease or disorder: An abnormal skin condition caused by exposure to factors associated with employment. Examples include contact dermatitis, eczema or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; chrome ulcers; and chemical burns or inflammations.

Pneumoconiosis: A major category of lung disease caused by breathing in certain types of occupational dusts. The dust deposited in the lung can result in inflammation and scarring, with associated respiratory symptoms, reduced lung function, and disability.

Pneumoconiotic agent: Any of a number of types of dust (for example, asbestos, silica, or coalmine dust) known to cause pneumoconiosis.

Repetitive motion injury: As reported to the Bureau of Labor Statistics (BLS), disorders due to repetitive motion or musculoskeletal disorders of the upper extremity associated with workplace exposures to a combination of repetitive, forceful exertions and constrained or extreme postures. The term “repetitive motion injury” is no longer favored and has been replaced by “work-related musculoskeletal disorder” by the International Committee on Occupational Health Musculoskeletal Subcommittee. Back disorders are separately reported to the BLS as “disorders due to over-exertion.”

Silicosis: A type of occupational dust disease of the lung caused by crystalline silica dust.

Work-related injury (fatal or nonfatal): Any injury incurred by a worker while on or off the worksite but engaged in work-related activities. The term includes apprenticeships, vocational training, working in a family business, and work as a volunteer fire fighter or emergency medical services provider. Injuries incurred during work-related travel are included, but injuries incurred during routine commuting to or from work are not included. Work-related injuries may be unintentional or intentional.

Work-related musculoskeletal disorders: Conditions that involve the soft tissues of the body, including muscles, tendons, nerves, cartilage, and other supporting structures due to exposure to work-related factors. The term usually refers to conditions of the large joints, including the neck, shoulder, elbow, hand and wrist, back, and knee.

Overview

Workplace injuries and illness are costly to employers, workers, and the compensation system. The impact of an injury on the normal activities of daily living can be devastating to a worker and the worker’s family. Preventing these injuries is the best way to reduce the medical and social costs.

Data from the Occupational Injury Prevention Program, Kentucky Injury Prevention and Research Center show Kentucky’s 1998 occupational injury death rate to be much more

serious than that for the United States. Kentucky had a death rate of 11 per 100,000 workers, while the comparable rate for the US was 5 per 100,000. Notable was the situation for agricultural and construction workers. The Kentucky injury death rate among agriculture workers in 1998 was 79/100,000 while the comparable US rate was 24/100,000. Construction workers in Kentucky suffered injury deaths at a rate of 25/100,000 construction workers, while the comparable rate for the US was 14/100,000.

No single agency or organization can reduce these injuries and associated costs. A collective, multifaceted approach is necessary. Employers, regulators, safety directors, and researchers must work together to initiate programs that are based on best practices to meet the common goal of workplace injury prevention.

Progress Toward Year 2000 Objectives

In *Healthy Kentuckians 2000*, eight occupational objectives were identified. None was based on Kentucky specific data and, therefore, can not be evaluated specific to Kentucky. Objective 10.1 was to reduce deaths from work-related injuries to no more than 4 per 100,000 full-time workers. The U.S. is close to achieving this objective with an estimated death rate of 5/100,000. However, Kentucky's 1998 worker death rate of 11/100,000 does not begin to approach the objective. Kentucky data were not used in setting the objective.

2010 Objectives

8.1. Reduce deaths from work-related injuries to no more than 5.5 per 100,000 full time workers.

Baseline: 11/100,000 in 1998

Target Setting Method: 50 percent reduction

Data Source: Fatality Assessment and Control Evaluation data, Kentucky Injury Prevention and Research Center.

Implementation Strategy:

- Support programs to accomplish statewide injury surveillance in order to develop the data sets that can pinpoint occupational injury risk factors.
- Quantify and prioritize risk factors through analytic injury research projects.
- Identify existing or develop new strategies to prevent occupational injuries (prevention and control).

- Implement the most effective injury control measures by communication, dissemination, and technology transfer.
- Monitor the results of intervention efforts (evaluation).

8.2. Reduce deaths from work-related injuries among agriculture and forestry occupations to no more than 40 per 100,000 full time agricultural, forestry, and fishing workers.

Baseline: 79/100,000 in 1998.

Target Setting Method: 50 percent reduction

Data Source: Same as 8.1.

Implementation Strategy: Same as for Objective 8.1.

8.3. Reduce deaths from work-related injuries among construction occupations to no more than 12.5 per 100,000 fulltime construction workers.

Baseline: 25/100,000 in 1998.

Target Setting Method: 50 percent reduction

Data Source: Same as 8.1.

Implementation Strategy: Same as for Objective 8.1.

8.4 (Developmental) Reduce the number of work-related disorders by 10 percent.

Target Setting Method: Based on *Healthy People 2010* guidelines.

Potential Data Source: Department of Workers Claims

Implementation Strategy:

- Support programs that accumulate information about the incidence and causes of work-related injuries and disorders.
- Evaluate existing interventions and the impact of these interventions.
- Support projects and programs that provide prevention services to at-risk workers.
- Develop and support projects and programs that are designed to prevent work-related injuries and disorders.

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