



**Cal/OSHA, DOT HAZMAT, EEOC,
EPA, HAZWOPER, HIPAA, IATA,
IMDG, TDG, MSHA, OSHA, and
Canada OHS Regulations and
Safety Online Training**

Since 2008

This document is provided as a training aid
and may not reflect current laws and regulations.

Be sure and consult with the appropriate governing agencies
or publication providers listed in the "Resources" section of our website.

www.ComplianceTrainingOnline.com



[Facebook](#)



[LinkedIn](#)



[Twitter](#)



[Website](#)

WORKPLACE VIOLENCE

A Report
to the Nation

February 2001



*Some **2 million** American workers are victims of workplace violence each year.*

WORKPLACE VIOLENCE

Violence in the workplace. Every few days, there is another story on the news. One day, it may be a convenience store shooting; the next, a sexual assault in a company parking lot; a few days later, it's a disgruntled employee holding workers hostage, or a student attacking a teacher.

Not surprisingly, the incidents of workplace violence that make the news are only the tip of the iceberg. What its victims all have in common is that they were at work, going about the business of earning a living, but something about their workplace environment—often something foreseeable and preventable—exposed them to attack by a customer, a co-worker, an acquaintance, or even a complete stranger.

Some 2 million American workers are victims of workplace violence each year. It is estimated that costs of workplace violence to employers is in the billions of dollars. Unfortunately, research into the prevention of violence in the workplace is still in its infancy.

Solid information on what works, and what doesn't, is urgently needed.

In April 2000, The University of Iowa Injury Prevention Research Center took an important first step to meet this need by sponsoring the Workplace Violence Intervention Research Workshop in Washington, DC. The goal of this workshop was to examine issues related to violence in the workplace and to develop recommended research strategies to address this public health problem. The workshop brought together 37 invited participants representing diverse constituencies within industry, organized labor, municipal, state, and federal governments, and academia. The following is a summary of the problem of workplace violence and the recommendations identified by participants at the workshop.

The Extent of the Problem

Workplace violence is receiving increased attention thanks to a growing awareness of the toll that violence takes on workers and workplaces. Despite existing research, there remain significant gaps in our knowledge of its causes and potential solutions.

Even the extent of violence in the workplace and the number of victims are not well understood.

In 1999, the Bureau of Labor Statistics recorded 645 homicides in workplaces in the United States. Although this figure represents a decline from a high of 1,080 in 1994, homicide remains the third leading cause of fatal occupational injuries for all workers and the second leading cause of fatal occupational injuries for women.

The number of non-fatal assaults is less clear. The National Crime Victimization Survey, a weighted annual survey of 46,000 households, estimates that an additional 2 million people are victims of non-fatal injuries due to violence while they are at work.

Addressing this problem is complicated, because workplace violence has many sources. To better understand its causes and possible solutions, researchers have divided workplace violence into four categories. Most incidents fall into one of these categories:

Criminal Intent (Type I): The perpetrator has no legitimate relationship to the business or its employees, and is usually committing a crime in conjunction with the violence. These crimes can include robbery, shoplifting, and trespassing. The vast majority of workplace homicides (85%) fall into this category.

Customer/Client (Type II): The perpetrator has a legitimate relationship with the business and becomes violent while being served by the business. This category includes customers, clients, patients, students, inmates, and any other group for which the business provides services. It is believed that a large proportion

of customer/client incidents occur in the health care industry, in settings such as nursing homes or psychiatric facilities; the victims are often patient caregivers. Police officers, prison staff, flight attendants, and teachers are some other examples of workers who may be exposed to this kind of workplace violence.

Worker-on-Worker (Type III): The perpetrator is an employee or past employee of the business who attacks or threatens another employee(s) or past employee(s) in the workplace. Worker-on-worker fatalities account for approximately 7% of all workplace violence homicides.

Personal Relationship (Type IV): The perpetrator usually does not have a relationship with the business but has a personal relationship with the intended victim. This category includes victims of domestic violence assaulted or threatened while at work.

These categories can be very helpful in the design of strategies to prevent workplace violence, since each type of violence requires a different approach for prevention, and some workplaces may be at higher risk for certain types of violence.

How often does workplace violence occur? An essential problem with efforts to reduce workplace violence is that data are scattered and sketchy, making it very difficult to study what works and what doesn't work to reduce violence in the workplace. The best data available cover fatal events. There is less information available concerning injuries from non-fatal events, economic impact on businesses affected, lost productivity and other costs. Various data collection systems have different ways of defining "at work," especially when there are ambiguities such as commuting and

... homicide remains the third leading cause of fatal occupational injuries for all workers and the second leading cause of fatal occupational injuries for women



Type I: Criminal Intent

In May 2000, two men entered a Wendy's in Flushing, NY, with the intent to rob the fast-food restaurant. They left with \$2,400 in cash after shooting seven employees. Five of the employees died and two others were seriously injured.

This is an extreme example of Type I workplace violence: violence committed during a robbery or similar crime in the workplace. Type I is the most common source of worker homicide. Eighty-five percent of all workplace homicides fall into this category. Although the shootings in Flushing drew a great deal of media attention, the vast majority of these incidents barely make the news. Convenience store clerks, taxi drivers, security guards, and proprietors of “mom-and-pop” stores are all examples of the kinds of workers who are at higher risk for Type I workplace violence.

In Type I incidents:

- *The perpetrator does not have any legitimate business relationship with the establishment;*
- *The primary motive is usually theft;*
- *A deadly weapon is often involved, increasing the risk of fatal injury;*
- *Workers who exchange cash with customers as part of the job, work late night hours, and/or work alone are at greatest risk.*

travel, volunteers or students in a workplace, or workplaces that are also residences, such as farms or home offices. Sources of information such as police, physician, workers' compensation, or employee reports may capture only *one* element—the violent incident, or the injury, or the lost work time, or the setting (at work)—but not the whole picture of the trauma resulting from violence in the workplace. Finally, many non-fatal incidents, especially threats, simply go unreported, in part because there is no coordinated data-collection system to process this information.

Prevention

There are three general approaches to preventing workplace violence:

- **Environmental:** adjusting lighting, entrances and exits, security hardware, and other engineering controls to discourage would-be assailants;
- **Organizational/Administrative:** developing programs, policies, and work practices aimed at maintaining a safe working environment;
- **Behavioral/Interpersonal:** training staff to anticipate, recognize and respond to conflict and potential violence in the workplace.

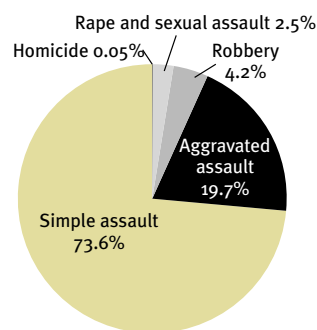
There has not been adequate research, however, into the effectiveness of these approaches for all types (I-IV) of workplace violence. For example, most research to date on criminal intent (Type I) violence in retail settings has focused only on environmental approaches. Although there have been some promising initial findings, more research is needed to help businesses properly protect their employees. Very little research has been conducted on behavioral/interpersonal or organizational/administrative approaches to prevention.

The Occupational Safety and Health Administration (OSHA) has developed voluntary guidelines for the prevention of workplace violence, including guidelines for specific industries such as late-night retail, health care and social service, and community workers. However, the effectiveness of these recommendations has yet to be fully evaluated. Funding is urgently needed to evaluate these guidelines.

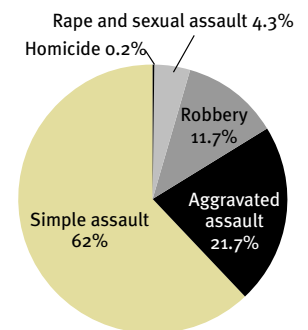
The most troubling problem with existing research is that very little of it has been conducted using rigorous scientific methods. One of the papers prepared for this workshop (Peek-Asa, Runyan, and Zwerling; see “Resources” on page 13 for more information) describes a comprehensive review of research to date. The authors raised a variety of concerns with a large proportion of the research, including sample sizes that were too small, a lack of appropriate control groups, publication without peer review, and other problems. This lack of good research severely hampers efforts to address the problem of violence in the workplace.

Victims of Violence, 1992-96

Victimization in the Workplace



All Victimizations



Source: National Crime Victimization Study, July 1998

Type II: Customer/Client

Rhonda Bedow, a nurse who works in a state-operated psychiatric facility in Buffalo, NY, was attacked by an angry patient who had a history of threatening behavior, particularly against female staff. He slammed Bedow's head down onto a counter after learning that he had missed the chance to go outside with a group of other patients. Bedow suffered a concussion, a bilaterally dislocated jaw, an eye injury, and permanent scarring on her face from the assault. She still suffers from short-term memory problems resulting from the attack. When she returned to work after recuperating, the perpetrator was still on her ward, and resumed his threats against her.

In Type II incidents, the perpetrator is generally a customer or client who becomes violent during the course of a normal transaction. Service providers, including health care workers, schoolteachers, social workers, and bus and train operators, are among the most common targets of Type II violence. Attacks from "unwilling" clients, such as prison inmates on guards or crime suspects on police officers, are also included in this category.

In Type II incidents:

- The perpetrator is a "customer" or a client of the worker;
- The violent act generally occurs in conjunction with the worker's normal duties;
- The risk of violence to some workers in this category (e.g., mental health workers, police) may be constant, even routine.



There is no national legislation nor are there any federal regulations specifically addressing the prevention of workplace violence.

Laws and Regulations

Federal: There is no national legislation nor are there any federal regulations specifically addressing the prevention of workplace violence. OSHA has published *voluntary* guidelines for workers in late-night retail, health care, and taxicab businesses, but employers are not legally obligated to follow these guidelines.

State: To date, several states have passed legislation or enacted regulations aimed at reducing workplace violence in specific industries. California and Washington have enacted regulations aimed at reducing patient-employee (Type II) violence in health care settings. At least three states (Florida, Virginia, and Washington) have laws or regulations intended to prevent robbery-related homicides (Type I) in late-night retail establishments such as convenience stores. The Florida law is the most comprehensive. Many convenience stores in Florida have found it easier to simply close for business during the late-night hours (11 p.m. to 5 a.m.) rather than make the changes required by the law. Neither the legal changes nor the store closings have been evaluated as strategies to prevent workplace violence.

State OSHA regulations: The states of California and Washington both enforce regulations requiring comprehensive safety programs in all workplaces, including the prevention of “reasonably foreseeable” assault on employees.

Local: Taxi drivers appear to have by far the highest risk of fatal assault of any occupation. Safety ordinances, such as those requiring bullet-proof barriers in taxicabs, have appeared in several U.S. cities, including Los Angeles, Chicago, New York City, Baltimore, Boston, Albany (NY), and Oakland (CA). More study is needed to assess these approaches.

Industry

Some employers have responded to the problem of workplace violence by implementing measures to reduce the risk to their employees. Different industries have different kinds of risks depending on a multitude of factors, including the type of business, populations served, management, employees, location of the workplace, layout of the work area, and the relationship of that business with the community.

Employers have attempted to increase safety by various means, including:

- Physical security enhancements, such as lighting and cash handling procedures, that make it more difficult to carry out a violent assault (All Types);
- Threat management procedures, such as a team-oriented plan of action in the case of a violent incident (All Types);
- Employee Assistance Programs (EAPs), to provide intervention for at-risk employees (Type III and IV);
- “Zero tolerance” policies related to threatening or harassing behavior (Type III);
- Employee training, to promote recognition of hazards and appropriate responses to incidents of violence (All Types);
- Screening, to identify potentially high-risk employees (Type III);
- Company policies and training to facilitate employee comfort in reporting threatening behaviors (All Types) and timely management response to the employee reports;
- Hiring of security firms that specialize in prevention of workplace violence (All Types).

In workplaces that have only infrequent incidents of violence, many employers find it difficult to decide which safety measures are most appropriate. This is especially true when faced with very expensive or labor-intensive interventions. Private security services and consultants abound, but there is limited scientific information on which strategies work best for the various types of



Type III: Worker-on-Worker

Type III violence occurs when an employee assaults or attacks his or her co-workers. In some cases, these incidents can take place after a series of increasingly hostile behaviors from the perpetrator.

Worker-on-worker assault is often the first type of workplace violence that comes to mind for many people, possibly because some of these incidents receive intensive media coverage, leading the public to assume that most workplace violence falls into this category. For example, the phrase “going postal,” referring to the scenario of a postal worker attacking co-workers, is sometimes used to describe Type III workplace violence. However, the U.S. Postal Service is no more likely than any other industry to be affected by this type of violence.

Type III violence accounts for about 7% of all workplace homicides. There do not appear to be any kinds of occupations or industries that are more or less prone to Type III violence. Because some of these incidents appear to be motivated by disputes, managers and others who supervise workers may be at greater risk of being victimized.

In Type III incidents:

- The perpetrator is an employee or former employee;
- The motivating factor is often one or a series of interpersonal or work-related disputes.

workplace violence. In addition, businesses are often reluctant to make their security methods public, not wanting to alarm customers or tip off potential perpetrators, which makes it difficult to evaluate those methods.

Employers are often in a difficult position when it comes to responding appropriately to the problem of workplace violence. They must avoid over-reacting, under-reacting, or reacting in a way that exacerbates the problem. In addition, businesses may face serious legal implications with some security measures. For example, some kinds of pre-employment screening may be viewed as discriminatory, but an employer could also face a “negligent hiring” lawsuit if an applicant with a past history of violence is hired.

Labor

In the past decade, representatives of organized labor have pushed for the recognition of workplace violence as an occupational hazard, not just a criminal justice issue. Of particular concern is the high rate of violent incidents targeting health care workers (Type II violence). On some psychiatric units, for example, assault rates on staff are greater than 100 cases per 100 workers per year. Unions representing workers in the health care industry suspect that “short-staffing” may play a role in this problem, but there is little research into this issue to date.

Organized labor professionals or representatives have also expressed concerns about workplace violence interventions that target employee behavior, such as “zero tolerance” policies and “worker profiling” designed to identify employees or potential employees at risk for violent behavior. There is concern that zero tolerance policies may be unevenly enforced and that they fail to address some of the root causes of violence, such as stress or situations leading to conflict. Profiling based on personal

characteristics, say its critics, is not an effective predictor of potentially violent behavior and may raise discrimination issues.

In general, labor unions favor an increase in voluntary implementation of workplace violence intervention by employers, coupled with some mandatory provisions such as state legislation or a mandatory OSHA standard. Labor also recognizes the need for more research to determine which current OSHA guidelines and other types of interventions are most effective in preventing violent incidents in the workplace.

Recommended Workplace Violence Research Agenda

Workshop participants identified specific areas of research needed for each of the four types of workplace violence. Intervention research questions that need to be addressed include:

Criminal Intent (Type I):

- What are people doing now?
 - What factors predict employers’ choices of strategies to prevent workplace violence?
 - How can employers choose appropriate workplace violence prevention consultants?
 - Are current training programs effective?
- How effective are the OSHA guidelines?
- How many businesses are voluntarily complying with OSHA guidelines?
- Do industry-specific environmental, organizational/administrative, and behavioral/interpersonal control strategies work?

Client/Customer on Employee (Type II):

- How do staffing and the organization of work affect violence in the health care setting?
- How effective are the OSHA guidelines?

... representatives of organized labor have pushed for the recognition of workplace violence as an occupational hazard, not just a criminal justice issue.

Type IV: Personal Relationship

Pamela Henry, an employee of Protocall, an answering service in San Antonio, had decided in the summer of 1997 to move out of the area. The abusive behavior of her ex-boyfriend, Charles Lee White, had spilled over from her home to her workplace, where he appeared one day in July and assaulted her. She obtained and then withdrew a protective order against White, citing her plans to leave the county. On October 17, 1997, White again appeared at Protocall. This time he opened fire with a rifle, killing Henry and another female employee before killing himself.

Because of the insidious nature of domestic violence, it is given a category all its own in the typology of workplace violence. Victims are overwhelmingly, but not exclusively, female. The effects of domestic violence on the workplace are many. They can appear as high absenteeism and low productivity on the part of a worker who is enduring abuse or threats, or the sudden, prolonged absence of an employee fleeing abuse. Occasionally, the abuser—who usually has no working relationship to the victim’s employer—will appear at the workplace to engage in hostile behavior.

In some cases, a domestic violence situation can arise between individuals in the same workplace. These situations can have a substantial effect on the workplace even if one of the parties leaves or is fired.

Type IV violence:

- Is the spillover of domestic violence into the workplace;
- Generally refers to perpetrators who are not employees or former employees of the affected workplace;
- Targets women significantly more often than men, although both male and female co-workers and supervisors are often affected.



... our understanding of workplace violence is still in its infancy. Much remains to be done in the area of research, particularly in data collection and in intervention.

- How extensive is voluntary compliance with OSHA guidelines in the health care industry?
- Do industry-specific environmental, organizational/administrative, and behavioral/interpersonal control strategies work?

Worker-on-Worker (Type III):

- What is the relationship between corporate culture, the organization of the workplace, security, and worker-on-worker violence?
- How can public health data on threats and violence be improved?
- Are “zero tolerance” policies and profiling effective?

Personal Relationships (Type IV):

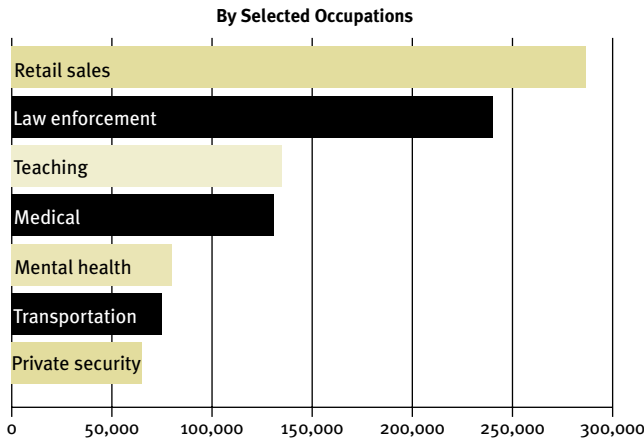
- How big is the problem? What is the impact of domestic violence on the workplace?
- What strategies have been used by labor and management to address this problem? How effective have they been?
- What is the legal situation? What duties do employers have under state laws? Are there legal barriers to early interventions?
- Can businesses play a critical role in changing social norms regarding domestic violence?

Conclusion

Workplace violence affects us all. Its burden is borne not only by victims of violence, but by their co-workers, their families, their employers, and by every worker at risk of violent assault—in other words, virtually all of us. Although we know that each year workplace violence results in hundreds of deaths, more than 2 million injuries, and billions of dollars in costs, our understanding of workplace violence is still in its infancy. Much remains to be done in the area of research, particularly in data collection and in intervention. Without basic information on who is most affected and which prevention measures are effective in what settings, we can expect only limited success in addressing this problem.

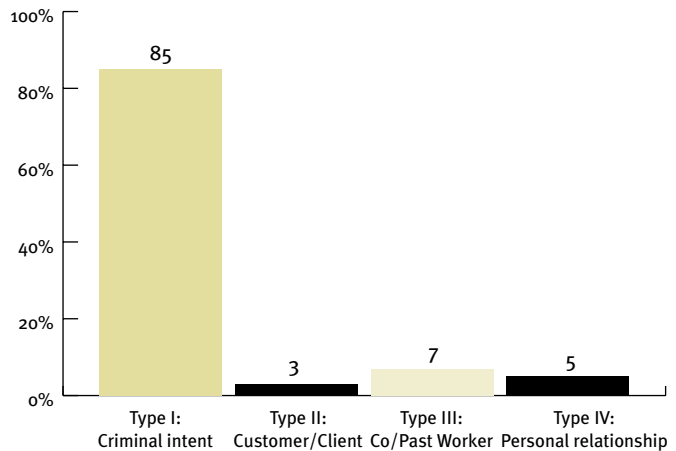
The first steps have been taken. With the help of a broad coalition, a number of key issues have been identified for future research. However, research funding focused on a much broader understanding of the scope and impact of workplace violence is urgently needed to reduce the human and financial burden of this significant public health problem.

Average Annual Number of Violent Non-Fatal Victimizations in the Workplace, 1992-96



Source: National Crime Victimization Study, July 1998

Percent of Work-Related Homicides by Type, United States, 1997



Total number of homicides=860 Source: Census of Fatal Occupational Injuries, BLS

Acknowledgements

This workshop would not have been successful without the support of several agencies and individuals. We would like to thank the National Institute for Occupational Safety and Health (NIOSH) and the National Center for Injury Prevention and Control (NCIPC) for the generous financial support that made the workshop possible. We received valuable advice throughout the process by the workshop's planning committee: Ann Brockhaus from Organization Resources Counselors; Lynn Jenkins from NIOSH; Keith Lessner from the Alliance of American Insurers; Corrine Peek-Asa from the Southern California Injury Prevention Research Center; and Robyn Robbins of the United Food and Commercial Workers International Union. The unique mix of participants invited to the workshop is a credit to the planning committee's efforts. The review paper authors are to be commended for their hard work spent preparing, presenting, and revising their papers. While many persons too numerous to list contributed to this workshop, we would like to single a few out for special recognition. Injury Prevention Research Center Director Craig Zwering provided leadership throughout the process. Associate Editor Leslie Loveless spent countless hours writing and editing the reports and papers resulting from this workshop. Carrie Kiser-Wacker from the UI's Center for Conferences and Institutes ensured that the workshop ran smoothly. And finally, we would like to thank Carol Runyan for her closing summary at the workshop and for writing the response paper.

We hope that the papers and recommendations from this workshop will be the catalyst for a national initiative on workplace violence intervention research. We appreciate the opportunity to organize the workshop, which has produced this report to the nation.

James A. Merchant, MD, Dr PH, Dean and Professor
College of Public Health
Director, Public Policy Core

John A. Lundell, MA
Deputy Director

The University of Iowa Injury Prevention Research Center
Workshop Co-Directors

Resources

Five review papers, each addressing a specific aspect of workplace violence, were prepared in conjunction with the workshop.

They appear in the February 2001 issue of the American Journal of Preventive Medicine, at www.elsevier.com/locate/ajpmonline.

The papers are:

Barish RC. Legislation and Regulations Addressing Workplace Violence in the U. S. and British Columbia.

Peek-Asa C, Runyan CW, Zwering C. The Role of Surveillance and Evaluation Research in the Reduction of Violence Against Workers.

Rosen J. A Labor Perspective of Workplace Violence Prevention: Identifying Research Needs.

Runyan CW. Moving Forward with Research on the Prevention of Violence Against Workers.

Wilkinson CW. Violence Prevention At Work: A Business Perspective.

Up-to-date information and statistics on workplace violence are available at the following web sites:

The OSHA web site on workplace violence, which includes recommendations for prevention at <http://www.osha.gov>

The Bureau of Labor Statistics web site: <http://stats.bls.gov>

National Institute for Occupational Safety and Health:
<http://www.cdc.gov/niosh>

National Center for Injury Prevention and Control:
<http://www.cdc.gov/ncipc>

American Federation of State, County and Municipal Employees:
<http://www.afscme.org/health/faq-viol.htm>

California OSHA web site on Workplace Security:
http://www.dir.ca.gov/DOSH/dosh_publications/index.html

Participants

David Alexander

George Meany Center for Labor Studies
Silver Spring, Maryland

Ileana Arias, PhD

Division of Violence Prevention
National Center for Injury Prevention and Control
Centers for Disease Control and Prevention
Atlanta, Georgia

Michael Arrighi

The Steele Foundation
Richmond, Virginia

Robert Barish

CAL/OSHA
San Francisco, California

Michele Beauchamp

OSH Compliance and Regulatory Development
HRDC Labour Program
Ottawa, Ontario

Patricia Biles

U.S. Department of Labor/OSHA
Washington, DC

Bill Borwegen

Service Employees International Union
Washington, D.C.

Ann Brockhaus, MPH

Organization Resources Counselors, Inc.
Washington, DC

Joanne Colucci

American Express Company
New York, New York

Detis T. Duhart, PhD

Bureau of Justice Statistics
Department of Justice
Washington, DC

Raymond B. Flannery, Jr., PhD

Massachusetts Department of Mental Health
Boston, Massachusetts

Lynn Jenkins, MA

Division of Safety Research
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
Morgantown, West Virginia

Spurgeon Kennedy

Office of Development and Communication
National Institute of Justice
Washington, DC

Theodore Krey

The International Association of Chiefs of Police
Alexandria, Virginia

Keith Lessner

Alliance of American Insurers
Downers Grove, Illinois

Jane Lipscomb, PhD

University of Maryland
School of Nursing
Baltimore, Maryland

Leslie Loveless, MPH

UI Injury Prevention
Research Center
Iowa City, Iowa

John A. Lundell, MA

UI Injury Prevention
Research Center
Iowa City, Iowa

Captain Jim McDonnell

Los Angeles Police Academy
Los Angeles, California

James A. Merchant, MD, DrPH

UI Injury Prevention
Research Center
Iowa City, Iowa

Sharon Ness, RN

Local 141, United Staff Nurses Union, UFCW
Federal Way, Washington

Corinne Peek-Asa, PhD

UCLA SCIPRC
Los Angeles, California

Gwendolyn Puryear Keita, PhD

American Psychological Association
Washington, DC

Robyn Robbins

United Food and Commercial Workers International Union
Washington, DC

Jonathan Rosen, MS, CIH

New York State Public Employees Federation
Latham, New York

Linda Rosenstock, MD

National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
Washington, DC

Eugene A. Rugala

National Center for the Analysis of Violent Crime
Supervisory Special Agent
FBI Academy
Quantico, Virginia

Carol Runyan, PhD, MPH

UNC Injury Prevention
Research Center
Chapel Hill, North Carolina

Dan Sosin, MD, MPH

National Center for Injury Prevention and Control
Centers for Disease Control and Prevention
Atlanta, Georgia

Rebecca A. Speer, JD

Law Offices of Rebecca A. Speer
San Francisco, California

Larry Stoffman

Canadian Council UFCW
Vancouver, British Columbia

Jeff Thurston, MN, ARNP

Service Employees International Union
Western State Hospital
Tacoma, Washington

Richard Titus, PhD

Office of Research and Evaluation
National Institute of Justice
Washington, DC

Barbara Webster

Liberty Mutual Research Center for Safety and Health
Hopkinton, Maryland

Carol Wilkinson, MD, MPH

IBM Corporation
Armonk, New York

Jan Williams, CSW-R, BCD, CEAP

Corning Incorporated
Corning, New York

Craig Zwerling, MD, PhD, MPH

UI Injury Prevention
Research Center
Iowa City, Iowa

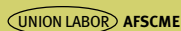
Additional copies of this report are available from the UI IPRC, 100 Oakdale Campus, 158 IREH, Iowa City, IA 52242-5000, or at the IPRC web site at www.public-health.uiowa.edu/iprc, or by sending an e-mail to: john-lundell@uiowa.edu

Editor: Leslie Loveless
Designer: Patti O'Neill
Illustrator: Luba Lukova

*The first steps have been taken. **Funding for research** into what works,
and what doesn't, is urgently needed.*



*Printed on
Recycled Paper*



THE UNIVERSITY OF IOWA

R13/CCR717056-01

R49/CCR703640-11

17551/1-01



100 Oakdale Campus
158 IREH
Iowa City, IA 52242-5000

THE UNIVERSITY OF IOWA