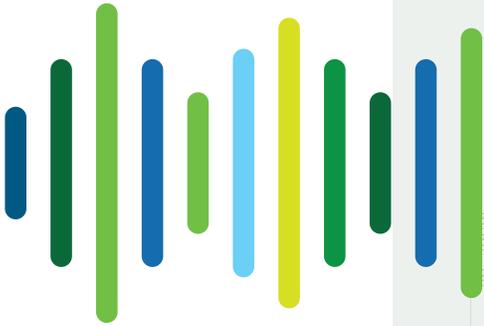
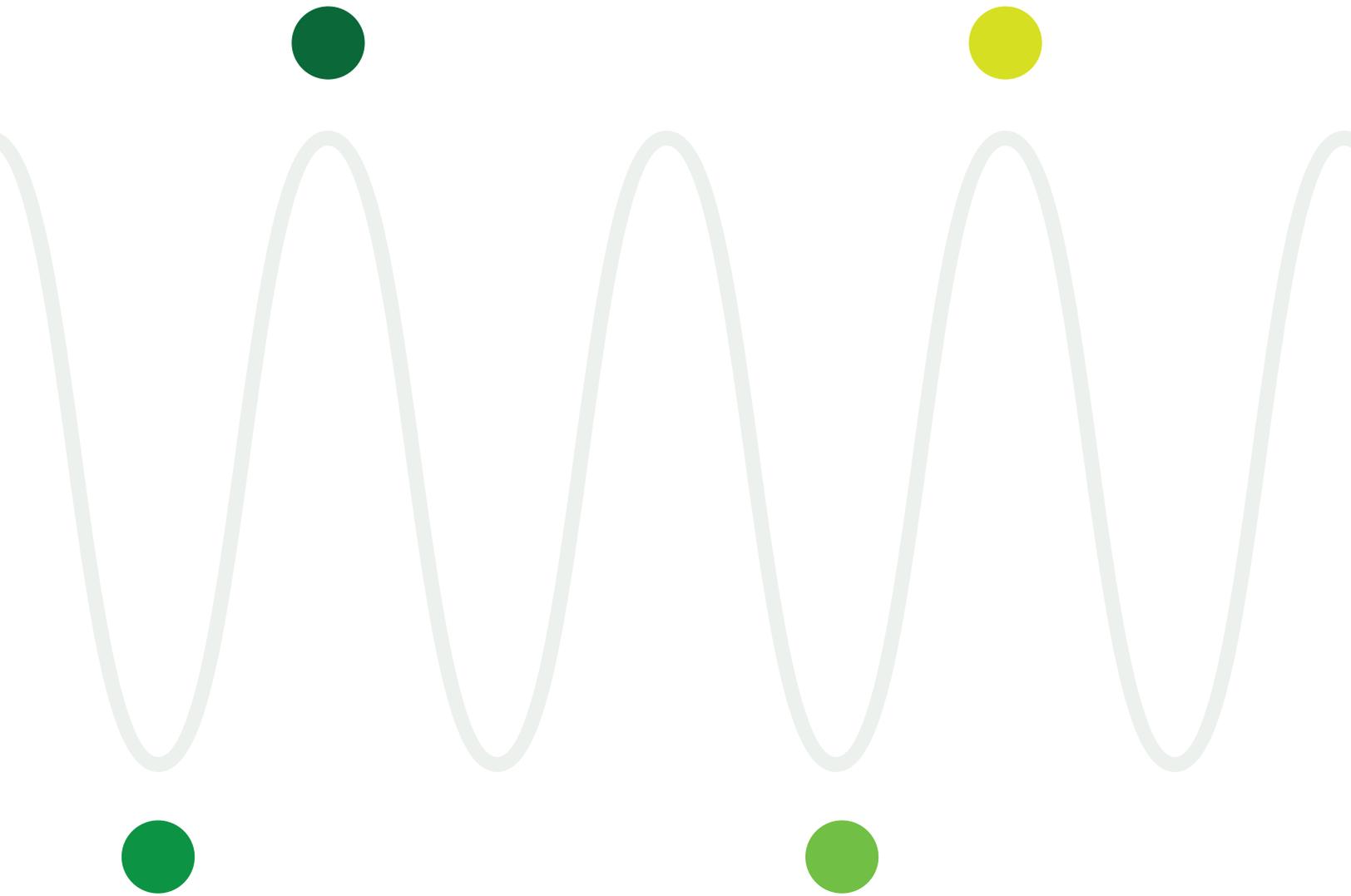


WORKtoZERO

an nsc program



Workplace Violence: Using Technology to Reduce Risk



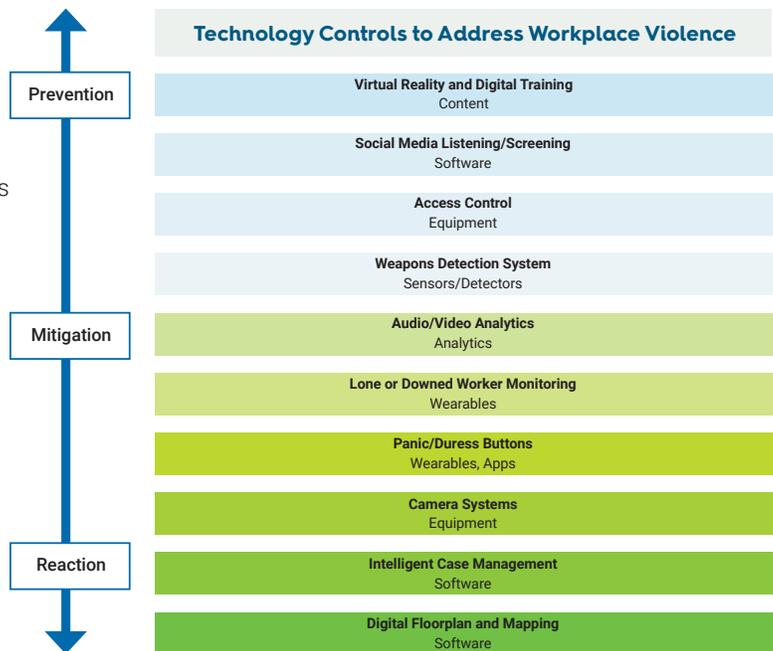
Executive Summary

Workplace violence (WPV) is a chronic threat across all industries and occupations. According to the Bureau of Labor Statistics, 705 workers in the United States lost their lives to violence in 2020, accounting for approximately 15% of all fatal occupational injuries (BLS, 2021). Still, this is likely a vast underestimation; workers may be suffering as many as three times the number of injuries and illnesses than officially reported (U.S. House of Representatives, 2008).

Data from the National Crime Victimization Survey show that as many as 761,000 workers experience some form of physical assault in the workplace each year (NCVS, 2021). Behind transportation incidents, violence is also the number one cause of death for women in the workplace, accounting for about 25% of female workplace fatalities in 2020 (BLS, 2021).

Still, given its recognition as a top occupational hazard, relatively few organizations have sufficient programs in place to prevent, mitigate and respond to violence. It has been argued the environment, health and safety (EHS) approach to hazard identification and controls is an often-missing component in these programs (Bailey, Spicer, & Byrd, 2018; Fuller, Rosen, & Hartman, 2016). WPV risk management can be approached in the same manner as other safety and health programs, utilizing a well-rounded approach rooted in hazard prevention strategies. These strategies include a written WPV policy, employee training, and engineering and administrative controls to prevent or mitigate the hazardous situation.

On both ends of the spectrum, from small businesses to Fortune 500 companies, employers continue to seek an increased understanding of how new technology can improve workplace safety. As a result, the National Safety Council launched its Work to Zero initiative with a mission to eliminate workplace fatality risks through the use of technology controls. Much like other hazards, several technology solutions exist that can solve for WPV risks.



Defining Workplace Violence

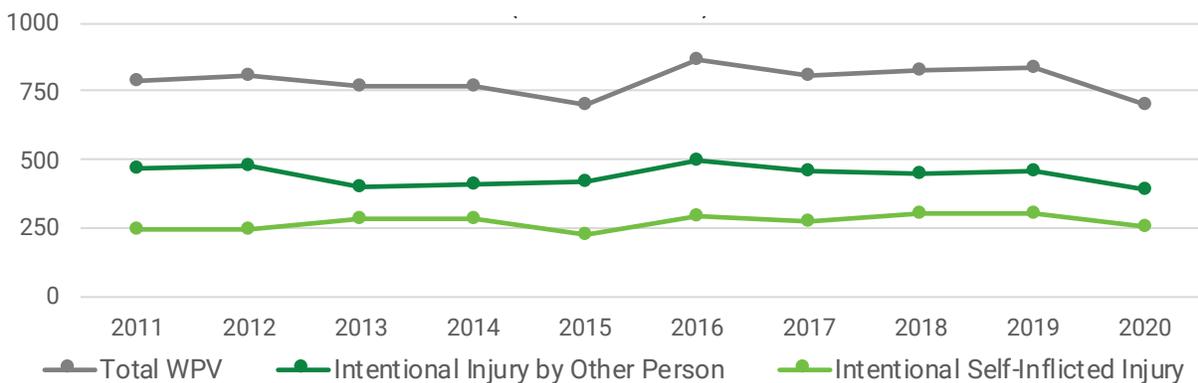
“A spectrum of behaviors, including overt acts of violence, threats and other conduct that generates a reasonable concern for safety from violence, where a nexus exists between behavior and the physical safety of employees and others (such as customers, clients and business associates), on-site or off-site when related to the organization.”
(ASIS & SHRM, 2011)

Workplace Violence: A Universal Threat

Fatal Workplace Violence

According to the most up-to-date data from the Bureau of Labor Statistics (BLS), in the past decade workplace violence (WPV) has taken the lives of 788 U.S. workers per year, on average (see Figure 1). Intentional assault (homicides) claim the lives of 443 workers per year, while another 273 die of intentional, work-related and self-inflicted injuries (suicide) per year.¹ In 2020 alone, 705 WPV fatalities occurred (BLS, 2021). This represented the first year-over-year decrease since 2017, although this is likely due in part to the economic disruptions triggered by the COVID-19 pandemic.

Figure 1. **Fatal Workplace Violence Counts in the United States**
(BLS, 2011-2020)



Non-Fatal Workplace Violence

Data from BLS show, in the U.S. between 2011 and 2020 there were, on average, over 16,700 reported incidents of WPV resulting in at least one day away from work – a rate of about 1.7 assaults for every 1,000 workers. In the years between 1993 and 2011, there was a gradual decline in the prevalence of WPV (Harrell, 2011), although rates have been on an upward trend in the past decade (see Figure 2). In 2020, an estimated 20,050 workers suffered injuries from violence on the job, about 2.1 assaults per 1,000 workers (BLS, 2021) – an increase from a rate of 2.0 in 2019.

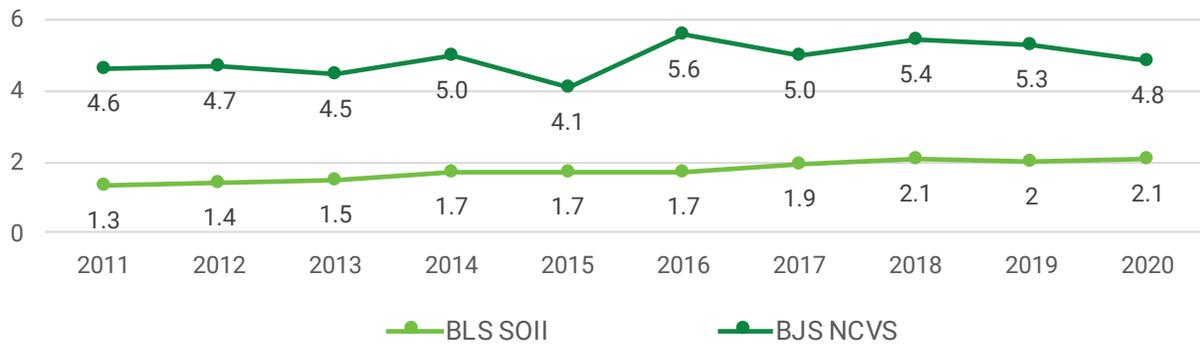
Alternatively, the National Crime Victimization Survey (NCVS) relies on self-report victimization data collected by the Bureau of Justice Statistics (BJS). A primary goal of the NCVS is to measure the “dark figure of crime,” a term used to describe crime incidents not reflected in official data. While the official BJS reports put the ten-year average at about 16,700, NCVS estimates place the true prevalence at over 761,000 injuries each year. However, both datasets indicate the overall rate of WPV is trending upward (see Figure 2), highlighting the need for enhancements in current violence prevention plans. It is likely the true prevalence of WPV lies somewhere between these estimations, further demonstrating the need for improved data collection methods on the subject.

A 2019 national survey of 500 employers conducted by Work to Zero found 25% of employers considered violence a workplace injury risk. Retail (39%), mining (37%) and construction (26%) felt most vulnerable.

On average, 10% of employers reported a violent act in their workplace with retail (20%) and mining (19%) being most affected.

¹To be counted by the BLS, suicides must occur at a worksite or be definitively linked to the workplace based on statements, notes, etc.

Figure 2. **Non-Fatal Workplace Rate per 1,000 U.S. Employees**
(BLS, 2011-2020; BJS, 2011-2020)



In 2020, an estimated 20,050 workers suffered injuries from violence on the job, about 2.1 assaults per 1,000 workers.

Table 1 breaks down fatal and non-fatal WPV incidents by major industry sector. The first column, “fatal homicide,” includes intentional injuries committed by another person, while fatal suicides are self-inflicted. The far right represents non-fatal injuries resulting in at least one day away from work. Based on the past ten years of BLS data, Trade, Transportation and Utilities faced the highest number of fatal WPV injuries, while health care faced the most violence overall. Notably, because fatalities resulting from violence are most often attributed to criminal intent, occupations in front-facing industries, such as retailers and taxi drivers, face the highest fatality risk.

Table 1. **Average Number of Annual Workplace Violence Incidents, Inflicted by a Person, by Sector**
(BLS 2011-2020)

Industry	Fatal Homicide	Fatal Suicide	Non-Fatal Injury
Trade, Transportation and Utilities	150	60	1,448
Leisure and Hospitality	71	21	925
Professional and Business Services	33	28	721
Other Services	33	23	120
Financial Activities	24	12	255
Education and Health Services	22	16	12,953
Construction	15	22	118
Manufacturing	13	25	116
Natural Resources and Mining	9	15	44
Information	4	4	69



Behind transportation incidents, violence is the number one cause of death for women in the workplace, accounting for about 25% of female fatalities in 2020.

Types of Workplace Violence

The sheer complexity of human behavior means the types of actions considered to be “violent” are not always well defined. ASIS International, a membership-based organization for security professionals, refers to a broad spectrum of behaviors that, due to their nature or severity, pose a risk to personal safety.

Figure 3. **Workplace Violence Prevention Spectrum**
(Adapted from Romano, Levi-Minzi, Rugala & Van Hasselt, 2011)



Observable actions indicating an individual may be on the pathway to violence	Disruptive, aggressive or emotionally abusive conduct	Overt, physical acts of violence and abuse
<p>Examples include: Aggressive outbursts; erratic, impulsive or bizarre behavior; inappropriate comments or jokes related to violence; harboring grudges; obsessive or persistent unwanted romantic pursuit; or chronic, unsubstantiated complaints about persecution or injustice</p>	<p>Examples include: Direct and indirect threats, verbal abuse or harassment, bullying, property damage, stalking or sexual harassment</p>	<p>Examples include: Simple assault (hitting, punching, kicking, slapping, etc.), aggravated assault with a weapon, robbery and homicide</p>

While this report refers predominately to physical violence, the strongest prevention policies consider violence in all forms. Furthermore, though violence does tend to build and escalate over time, it does not always follow a neat linear progression. Therefore, it is recommended each incident or report is analyzed individually for credibility, severity and the potential for future escalation.





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There are four main types of WPV, determined by perpetrators' motivations and their relationship to the organization (UIIPRC, 2001): criminal intent, customer-on-worker, worker-on-worker and personal relationship.

Table 2. **Types of Workplace Violence**

Type	Details	Estimated Percentages of WPV Fatalities (NIOSH, 2006)	Industries Most Impacted (OSHA, 2009)
Criminal Intent	This type of violence occurs when the perpetrator has no legitimate relationship with the business or employees and is usually committed in conjunction with another crime (e.g. robbery, shoplifting, trespassing, etc.); also includes acts of mass violence and terrorism.	85%	Public transportation, retail, liquor stores and gas stations
Worker-on-Worker	Occurs when the perpetrator is a current or former employee, vendor, contractor, etc. of the targeted workplace. This type of violence often attracts media attention despite being lower prevalence.	7%	Non-industry specific due to data limitations; predominately directed toward employees deemed "lower" than the perpetrator
Personal Relationship	The perpetrator has a personal relationship to the victim(s) outside of work that spills over into the workplace, including domestic and intimate partner violence	5%	Non-industry specific due to data limitations; predominately impacts female workers
Customer/Client	The perpetrator has a legitimate relationship with the business, and this can include customers, patients, students, etc. This type of violence usually occurs during routine job duties.	3%	Law enforcement, flight attendants, correction officers and teachers

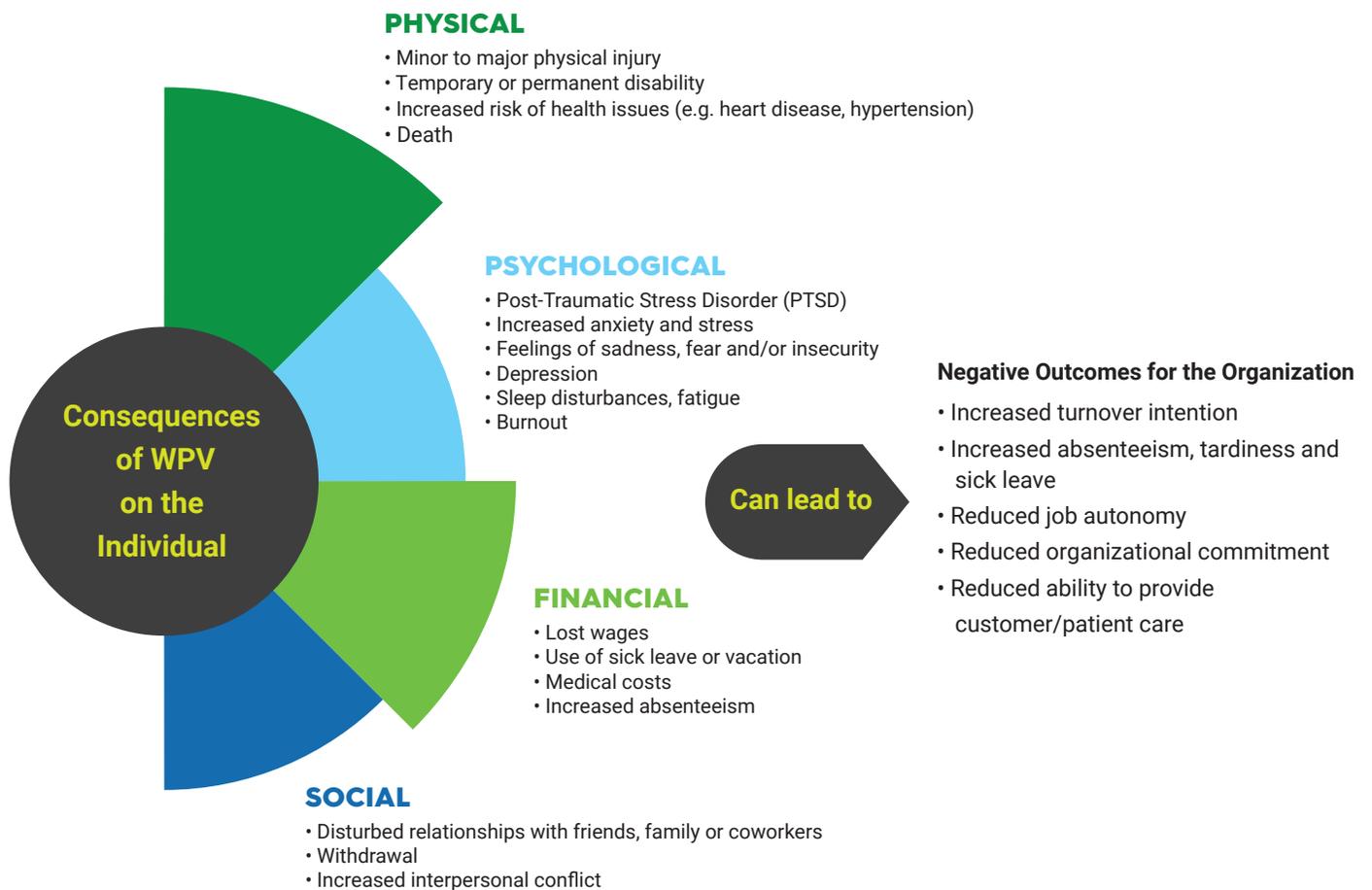


Impacts of Workplace Violence

Numerous studies have exemplified the devastating and often far-reaching consequences of WPV, both on the individual and the organization (see Lanctot & Guay, 2014; Piquero, Piquero, Craig, & Clipper, 2013). The most direct impacts are those faced by the victim(s) involved, which can be classified into several categories: physical, psychological/emotional, financial and social (see Figure 4).

Research has also demonstrated the negative impacts WPV can have on the organization as a whole. NIOSH estimates the annual economic cost nationwide to be nearly \$121 billion. Some of these financial consequences are direct, and include losses from liability settlements, OSHA citations, increased insurance premiums and operational disruptions (see Bruce & Nowlin, 2011). Other losses include those incurred indirectly (see Piquero et al., 2013; Zhou, Rosool, & Ma, 2020). For example, the National Institute for the Prevention of Workplace Violence estimates employee productivity can decrease up to 50% in the 6 to 18 weeks following an incident of violence, while turnover can increase to upwards of 30% to 40% (Donald, 2019).

Figure 4. Understanding How Workplace Violence Affects Organizational Health



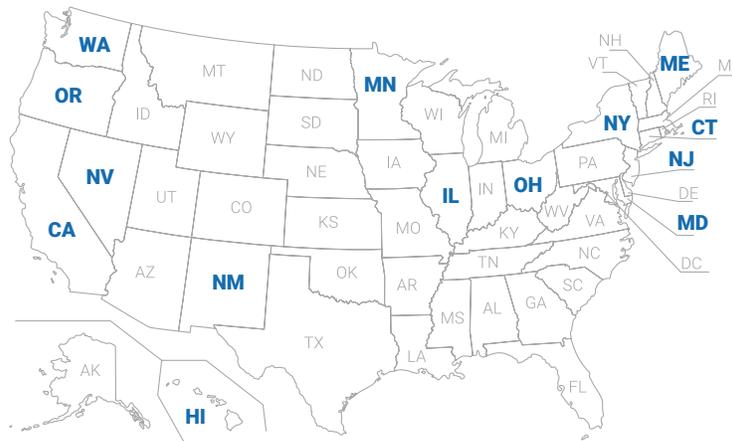
Numerous studies have exemplified the devastating and often far-reaching consequences of WPV, both on the individual and the organization.

Prevent and Mitigate Workplace Violence to Save Lives

Workplace Violence Policies

In April 2021, the House of Representatives passed the Workplace Violence Prevention for Health Care and Social Service Workers Act (H.R. 1195), which would require employers in the health care and social services sectors to develop and implement a comprehensive workplace violence prevention plan (WPVPP). The bill is currently awaiting a Senate vote, and if approved, it would be the first piece of federal legislation addressing the issue. There are, however, various state laws outlining requirements for WPV prevention (see Figure 5). A majority of these laws apply to health care and mental health facilities, which face the highest rate of non-fatal violence.

Figure 5. State Laws with Requirements for Workplace Violence Prevention



California (2017)

Requires health care facilities to establish a committee responsible for development and maintenance of a WPVPP. Must be updated annually based on annual facility assessments. Employee training is required.

Connecticut (2011)

Requires health care facilities to establish a committee responsible for development and maintenance of a WPVPP. Must be updated annually based on annual facility assessments. Employee training is required. The law also designates specific rights to victims of WPV.

Hawaii (2006)

While not a binding law, the senate resolution urges employers to develop and implement standards of conduct and policies to reduce incidents of workplace bullying and violence.

Illinois (2019)

Requires health care facilities to develop and implement a WPVPP. Must be reviewed every three years based on findings from risk assessments and record reviews. Employee training is required.

Maine (2011)

Requires health care facilities to adopt a safety and security plan to prevent aggressive and violent behavior. Must include a process for receiving and recording incidents or threats.

Maryland (2014)

Requires health care facilities to establish a committee responsible for development and maintenance of a WPVPP. Must be updated annually based on annual program evaluations. Employee training is required.

Minnesota (2021)

Requires health care facilities to establish a committee responsible for development and maintenance of preparedness and incident response action plans. Employee training is required.

Nevada (2020)

Requires health care facilities to establish a committee responsible for development and maintenance of a WPVPP. Employee training is required.

New Jersey (2008)

Requires health care facilities to establish a committee responsible for development and maintenance of a WPVPP. Must be updated annually based on annual risk assessments. Employee training is required.

New Mexico (2005)

Requires convenience stores to establish and implement certain safety and security measures, including lighting requirements, security alarm, surveillance systems, etc. Employee training is required.

New York (2006)

Requires all public employers, including health care and social services, to develop and implement a WPVPP based on periodic risk assessments. Employee training is required.

Ohio (2013)

Authorizes health care facilities to post signage communicating zero tolerance for abuse or assault, and raised the penalties for assault against health care workers and first responders. Employee training is required.

Oregon (2007)

Requires health care facilities to develop and implement a WPVPP to be reviewed periodically via hazard assessments and record reviews. Employee training is required. The law also designates specific rights to victims of WPV.

Washington (2019)

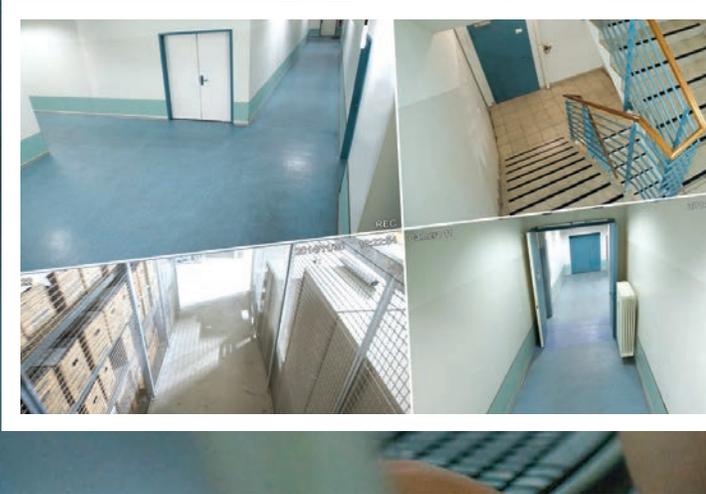
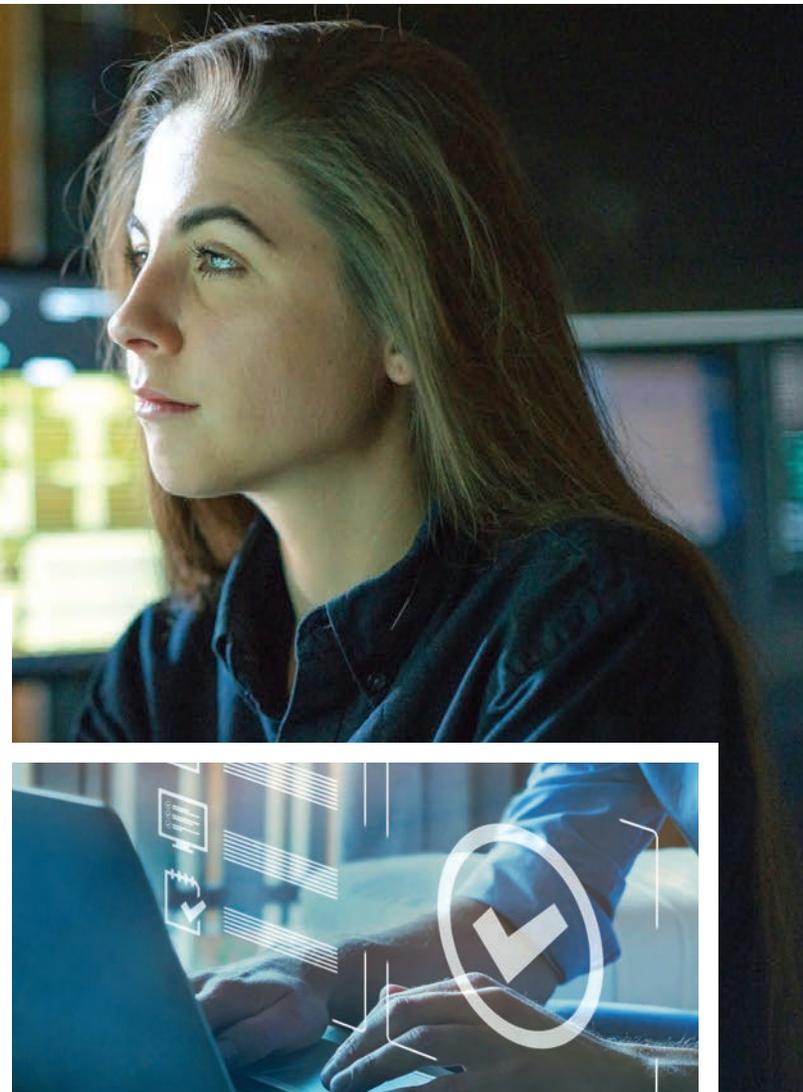
Requires health care facilities to develop and implement a WPVPP to be evaluated every three years via hazard assessments and record reviews. Employee training is required.

Furthermore, the [Bipartisan Safer Communities Act of 2022](#), while not directly addressing WPV, would be a significant step in combating violence at the national level. The bill would expand background checks for firearm purchases, provide additional funding for mental health services, delay the purchase of firearms by individuals convicted of domestic violence and provide funding for states to implement crisis intervention order programs.

Just as there are no current federal laws directly addressing WPV, there are also no specific OSHA standards.

However, the General Duty Clause outlined in the OSHA Act of 1970 (H.R. 1195) gives the administration the right to inspect and cite businesses who fail to keep the workplace free from recognized hazards, including violence:

“An employer that has experienced acts of workplace violence, or becomes aware of threats, intimidation or other indicators showing that the potential for violence in the workplace exists, would be on notice of the risk of workplace violence and should implement a workplace violence prevention program combined with engineering controls, administrative controls and training.” (OSHA, 2022)



The Role of Safety in Violence Prevention

As safety leaders, it is essential we do our due diligence to ensure workplaces are free from recognized hazards. Traditionally, WPV was considered separate from the types of hazards commonly associated with EHS – an issue better suited for security, not safety. However, the events of Sept. 11, 2001, coupled with the countless devastating incidents of mass violence across the U.S., have led to growing public interest in personal safety and, ultimately, an overlap between the two disciplines (Bieder & Gould, 2020).

A strong argument can be made for consulting health and safety on WPV. According to an article from the American Industrial Hygiene Association (Bailey, Spicer, & Byrd, 2018), an effective safety professional may be amongst the best to lead their organizations' WPV prevention plan for three key reasons:

- 1. They have an existing avenue and rapport with workers to address safety concerns.**
- 2. They are likely already conducting trainings on a variety of safety-sensitive topics.**
- 3. The very nature of their job requires a multidisciplinary understanding of risk assessment and control.**

Additionally, it has been argued the industrial hygienist (IH) approach to hazard identification and control is a missing component in many existing programs. Thomas Fuller of Illinois State University and his colleagues argue that IH can assist in each stage of a WPV prevention plan (Fuller et al., 2016) (see Figure 6).

Workplace Violence Prevention Plan

Unfortunately many organizations feel ill-equipped to prevent a WPV event. A nationwide poll of over 2,100 American HR professionals and employees showed about 30% of employees feel ill-equipped to deal with WPV, while only 45% are aware whether their employer has an existing prevention plan in place (SHRM, 2019). All too often, the incentive for implementing a prevention plan comes in response to tragedy, rather than leveraging the window of opportunity for prevention of future incidents. Violence often arises from the escalation of multiple, less severe behaviors; early detection of these behaviors is critical to any effective plan, both to prevent further escalation and to minimize the consequences faced by employees (Fuller, Rosen, & Hartman, 2016). Beyond reducing the risk for violence, a good prevention plan also has other benefits (see Aytac & Dursun, 2012), including:

- **Increased feelings of safety**
- **Increased reporting confidence**
- **Higher levels of job satisfaction**
- **Reductions in insurance costs**
- **Strengthening of organizational safety culture**

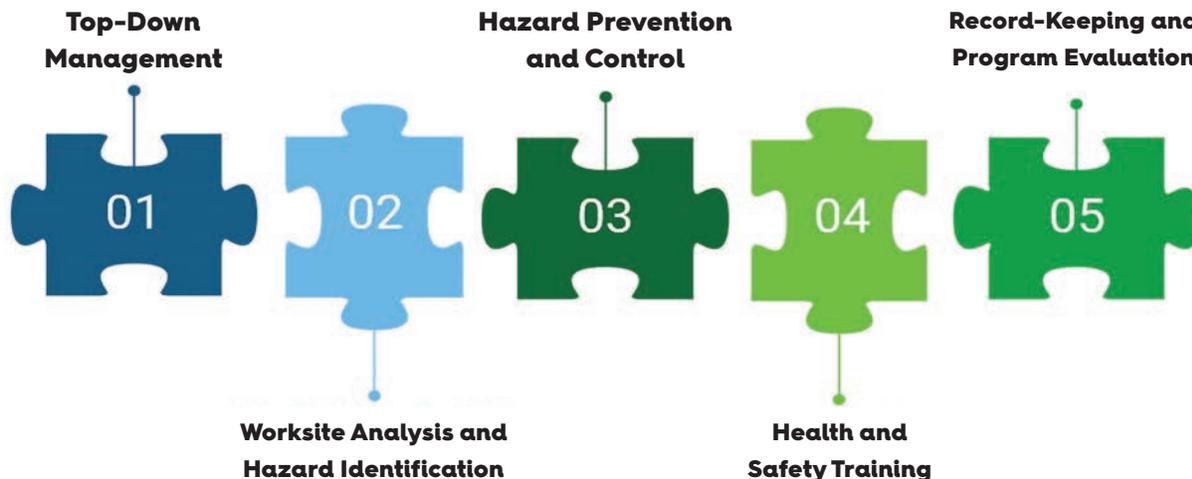


All too often, the incentive for implementing a prevention plan comes in response to tragedy, rather than leveraging the window of opportunity for prevention of future incidents.



OSHA believes a well-written and implemented WPV prevention program, combined with hazard controls and employee training, can reduce the incidence of WPV (see Figure 6). Furthermore, a zero-tolerance company policy provides a necessary “code of conduct” for employees. An example of a strong WPV policy can be found in the corresponding playbook on page 20.

Figure 6. OSHA’s (2009) Building Blocks of an Effective Workplace Violence Prevention Plan



An element that cannot be neglected is the role of company culture and psychological safety in prevention. Psychological safety is found in a workplace where people feel included and reciprocally share a space to learn, and where they are free to contribute to and challenge the status quo (see Sannito, 2021). While technology and training are essential elements, culture remains perhaps the most important component, often making the difference between a high or low-risk workplace. When employees feel both safe and empowered to challenge the status quo, they are more likely to report their safety concerns and contribute to conversations around potential solutions. Just like any strong health and safety plan, a strong WPV prevention plan involves top-down commitment and an ongoing and open discussion at all levels of employment (ASIS & SHRM, 2011; Siegel, 2019).



WPV risk management can be approached in the same manner as other safety and health programs, utilizing a well-rounded approach rooted in hazard prevention strategies. This includes having a written workplace violence policy, employee training, and engineering and administrative controls to prevent or mitigate the hazardous situation.

Workplace Violence Risk Assessments

Like other occupational hazards, the risk of violence in the workplace can be better understood through the use of risk assessments. While human behavior is notoriously difficult to predict, decades of research have demonstrated the link between WPV prevalence rates and risk factors at the environmental, occupational and organizational level.² When hard questions are answered an organization can truly prepare for hazardous situations. The following table (see Table 3) can help you understand if your organization is at an increased risk of WPV activity due to its characteristics and/or current working climate.

There are dangers in over-scrutinizing employee behaviors or misinterpreting them as indicators of violence. If your organization chooses to leverage an internal WPV task force, each member should receive additional training in threat assessment and response, and law enforcement or third-party consultants can also be leveraged for additional support. Each report or incident of WPV should be carefully vetted and investigated using relevant background information, including the involved individuals' work performance and disciplinary history. These records should remain confidential and shared only on a need-to-know basis.

If intervention is necessary, a strong violence prevention policy can help clarify the disciplinary action and give the employee a better understanding of why the behavior was deemed threatening, violent or otherwise inappropriate. Support services should be offered on an ongoing basis to victims and accused perpetrators of WPV. Examples of these services include Employee Assistance Programs (EAPs), conflict resolution and mediation, and mental health services.

Table 3. **Understanding Workplace Violence Risk Based on Workplace Factors**

Level	Risk Factors
Environmental (see Peek-Asa, 2000; NIOSH, 1996; Wassell, 2009)	<ul style="list-style-type: none"> • Lack of natural surveillance • Obstructed entryway or exit routes • Poor lighting in corridors, parking lots, rooms, etc. • Unstable political or social environment • Working in a high-crime or low socioeconomic status area • Working in or near establishments that serve alcohol
Organizational (see Kenny 2010; Roderick, 2010)	<ul style="list-style-type: none"> • Acceptance of WPV as “part of the job” and/or fear of retaliation • Chronic labor vs. management disputes • Frequent grievances filed by employees; feelings of injustice, unfairness or double standards • Chronic dangerous work conditions • Frequent injury claims, especially for psychological or occupational stress • Understaffing and/or excessive demands for overtime • Low employee engagement results; including HR grievances, stressors or high conflict
Occupational (see Holbrook, Bixler, Rugala, Casteel, 2019; NIOSH, 1996; OSHA, 2016)	<ul style="list-style-type: none"> • Prolonged or irregular shift work • Working alone, in isolated locations or in a patient/customer’s home • Public-facing work, especially service-providing industries • Working with volatile or unstable individuals • Working with people with a history of violence, drug/alcohol abuse, gang membership etc. • Working in community-based settings, such as rehab centers and group homes • Handling cash and valuables • Working where alcohol is served • Delivery of passengers, goods or services

²There are existing workplace violence risks assessments and checklists available through sources such as [OSHA](#), [AIHA](#) and [NIOSH](#).

WPV rarely happens out of the blue, and there are frequently concerning behaviors exhibited before an event, often accompanied by diminished work performance in the case of employee violence (Romano, Levi-Minzi, Rugala, & Van Hasselt, 2011). It is important all employees are trained to recognize and empowered to report concerning behaviors, and to have a team and process in place to manage them. Employees essentially serve as the eyes and ears of the organization, and their role in the prevention of WPV cannot be understated. In many cases, violence follows a significant life event, such as a close death, being fired or financial strain. Examples of the warning signs or indicators that a WPV activity could occur include:

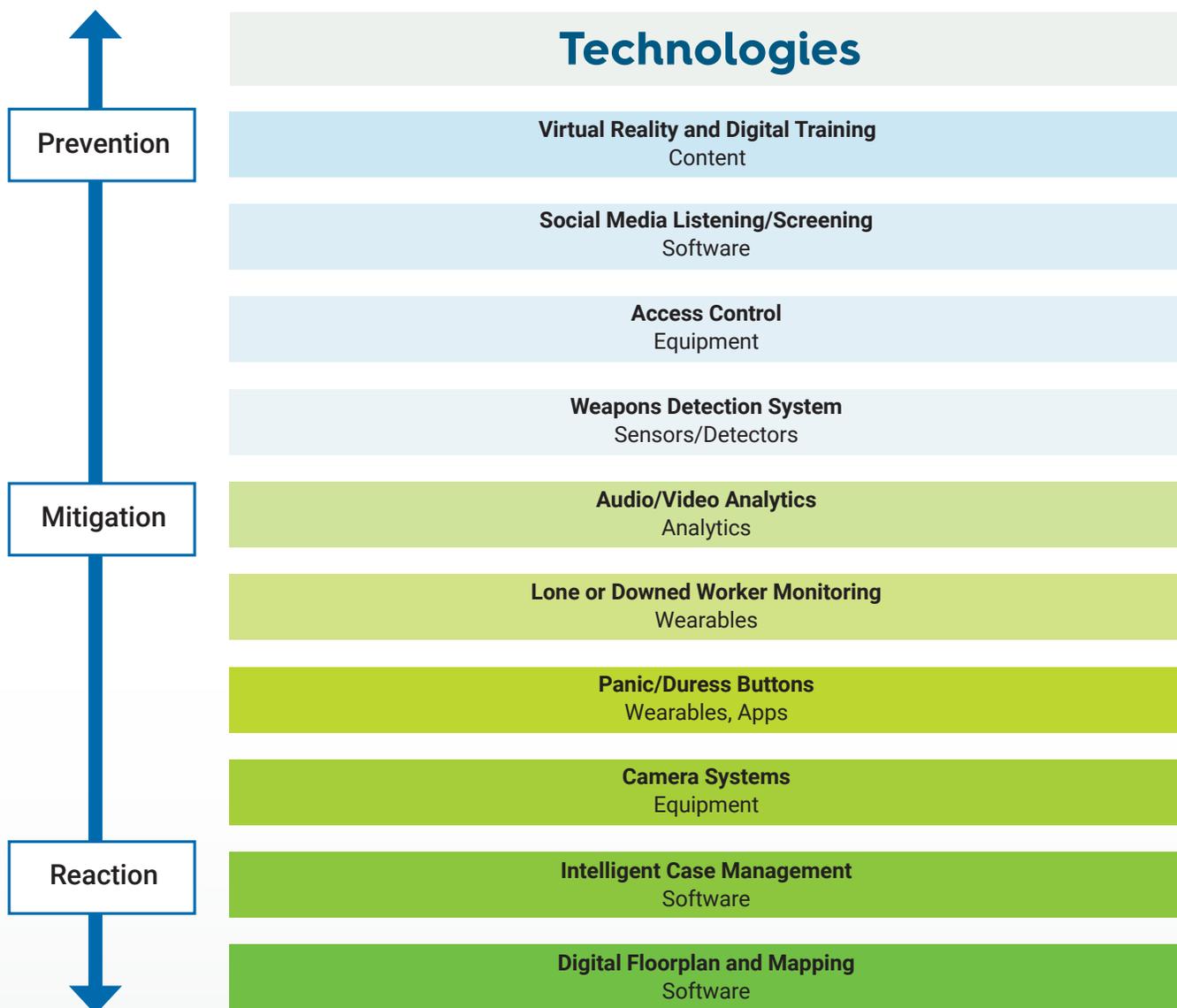
<p>General Behavioral Indicators</p>	<p>Direct or indirect threats; a history of violence or criminal behavior; verbal abuse; erratic or menacing behavior; being uncooperative with peers; preoccupation with weapons; offensive commentary or jokes about violence; drug and alcohol abuse</p>
<p>Work Performance Indicators</p>	<p>Disregard for health and safety; frequent and unexplained absences/tardiness; difficulty concentrating; inconsistent work performance and attitude; excessive need for oversight and supervision; deteriorating work performance; poor health and hygiene</p>

Utilizing Technology to Reduce Risk

Knowing businesses of all sizes are in need of a better understanding on the benefits of safety technology, the Council’s Work to Zero initiative helps employers take steps to move forward on the Safety Innovation Journey. Hazard prevention and control is the third building block to a successful WPV prevention program (OSHA, 2002). There are a wide variety of technological solutions that can be used or repurposed with the potential to prevent, mitigate or respond to WPV situations (see Figure 7).



Figure 7. Technology Controls to Address Workplace Violence



Prevention	Technology	Description	Application to Workplace Violence
	Virtual Reality (VR), Augmented Reality (AR)	VR training immerses users into a life-like, computer-generated environment via a VR headset or computer display, often with a 360° view.	Example VR Training Modules: <ul style="list-style-type: none"> • Engineering and administrative controls • Recognizing warning signs • De-escalation tactics • Incident reporting • Emergency response procedures
	Social Media Listening, Screening	Software that collects, analyzes and flags public access online conversations about a specific brand, company, topic, keyword, etc.	<ul style="list-style-type: none"> • Screening applicants for employment • Flagging direct or indirect threats to an organization • Monitoring potentially dangerous situations (e.g. political unrest, severe weather, mass violence)
	Access Control	The restriction of access to a particular building or worksite; oftentimes solutions are equipped to send an alert of an unauthorized or potentially dangerous entry.	<ul style="list-style-type: none"> • Visitor management systems (e.g. ID badges) • Security gates • Alarm systems • Emergency lockdown systems • Biometric readers • Metal detectors
	Weapons Detection Systems	Artificial intelligence (AI) or machine learning-powered technology that identifies the presence of weapons through camera analytics or electromagnetic sensors.	<ul style="list-style-type: none"> • Visitor screening • Employee screening • Early detection and threat response
	Video/Audio Analytics	Software designed to monitor, analyze and manage large amounts of video or audio data. Advanced algorithms can be trained to identify a variety of objects, sounds or actions.	<ul style="list-style-type: none"> • Flagging visual signs of violence (e.g. weapon detection, fighting, running, fall detection, loitering, etc.) • Flagging audible signs of violence (e.g. gunshots, glass breaking, car alarms, verbal aggression, etc.) • Digital fencing • Facial recognition • License plate readers



Mitigation	Technology	Description	Application to Workplace Violence
	Lone, Downed Worker Monitoring	Technology, oftentimes a mobile app or wearable device, that protects lone workers through real-time location tracking, fall detection and two-way communication capabilities.	Monitoring employees working alone or in potentially dangerous situations, such as: <ul style="list-style-type: none"> • Work in remote or isolated locations • Fieldwork • Overnight shifts • Work in patient/customer homes • Work in high-risk environments (e.g. corrections, mental health facilities, hospitals, etc.)
	Panic or Duress Buttons	Technology (wearables, mobile apps or wall-mounted devices) enabling employees to discretely send SOS alerts in emergency situations. Often used with mass notification systems.	Sending discrete SOS alerts in emergency situations, such as: <ul style="list-style-type: none"> • Verbal or physical altercations • Robbery • Hostage situations • Trespassing, break-ins • Mass violence
	Video Cameras	Includes the use of closed-circuit television (CCTV), public view monitors (PVMs) or body-worn cameras to surveil a building, area, worksite, etc.	<ul style="list-style-type: none"> • Monitoring entry/exit • Manual or digital assessment of warning flags (e.g. fighting, falls, running, brandishing a weapon, etc.) • Deterrence of potential violence • Investigations

Reaction	Intelligent Case Management	Software solutions that help organizations track workplace incidents, analyze trends and generate reports.	<ul style="list-style-type: none"> • Proactively detecting red-flag behavior indicators • Capturing and recording complaints, corrective actions, terminations and policy violations • Tracking investigations • Generating reports
	Digital Floorplan Mapping	Software applications that generate interactive workplace floorplans on map-like grids.	Facilitates an organization's emergency response plan, including: <ul style="list-style-type: none"> • Response planning • Route assignments • Employee training • First responder navigation



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Workplace Violence: A Playbook for Effective Risk Management



Steps Towards Addressing Workplace Violence in Your Organization

Work to Zero understands that for some working in safety, or other departments within an organization, this may be a new topic of concern or one you are newly expected to help control. Work to Zero is focused on making innovation accessible and providing education on the life-saving technology solutions currently available. This playbook will guide you through the recommended steps and resources to address workplace violence (WPV) in your organization. Reducing the risk of WPV can be achievable and we hope your organization is successful in providing a safe workplace for all employees.

The following steps are provided as a guidance document and should be edited as your organization/leadership sees fit.

1. Identify a Workplace Violence Prevention Taskforce and include the right people in the conversations.

- a. Include representatives across departments, including Security, Safety, IT, HR and Employee Assistance Program Managers (if applicable).
- b. Include employees from varying levels of responsibility, with an emphasis on those performing the highest-risk job duties.
- c. If your site does not have these specific departments, reach out to those responsible for performing those duties. If working with consultants or third party vendors, request the applicable information necessary to complete the following steps.

2. Prepare a working policy and WPV prevention plan and get workforce feedback on the organization's position.

- a. Understand if you work in a state with WPV provision(s):

Table 4. States with Workplace Violence Provisions

<p>States with WPV Provisions in Health Care</p> <p><i>Generally requires health care facilities to develop, implement and periodically evaluate a WPV prevention plan.</i></p>	<ul style="list-style-type: none"> • CA 2017 • CT 2011 • IL 2019 • ME 2011 • MD 2014 	<ul style="list-style-type: none"> • MN 2021 • NV 2020 • NJ 2008 • OR 2007 • WA 2019
<p>States with WPV Provisions in Other Industries</p> <p><i>Requires employers in convenience stores (NM) or all public employers (NY) to have controls in place to prevent violence.</i></p>	<ul style="list-style-type: none"> • NM 2005 • NY 2006 	
<p>States with Other Laws or Recommendations</p> <p><i>Provides suggestions or guidelines to reduce violence in the workplace.</i></p>	<ul style="list-style-type: none"> • HI 2006 • OH 2013 	

b. Regularly review the program and determine its effectiveness:

- i. Evaluate the program through tabletop exercises or simulations involving emergency response personnel (e.g. law enforcement, local officials and internal security), and utilize the program as a guideline during WPV response drills. Reach out to your local law enforcement and/or a third party consultant to help develop these exercises.
- ii. Use the results from the tabletop exercise(s) to uncover and address weaknesses in your plan, such as gaps in security protocols, clarity around individual responsibilities or missing links in the chain of command.

c. Utilize the following indicators as a screening tool for HR complaints and/or incident investigations, if needed:

Does the employee express any of the following warning signs or indicators?

General Behaviors

- History of violent or criminal behavior
- Direct or indirect threats to a person or organization
- Bouts of angry outbursts and/or temper tantrums
- Verbal abuse and/or bullying
- Drug or alcohol abuse
- Erratic, unstable or menacing behavior
- Preoccupation with weapons, violence or past violent events
- Offensive commentary or jokes about violence
- Frequent complaints about perceived slights or injustices
- Social isolation
- Excessive and/or unwanted romantic advances
- Inability to handle criticism and/or always being "right"

Work Performance

- Blames others for mistakes
- Poor or deteriorating health and hygiene
- Bouts of crying or sulking
- Disregard for health and safety protocols
- Uncooperative with peers
- Inconsistent or deteriorating work performance/quality
- Excessive need for oversight or supervision
- Misinterpretation of communications from supervisors and coworkers
- Disrespect for authority
- Testing limits or challenging peers
- Frequent and unexplained absences or tardiness
- Frequent sick leave for unusual or unspecified illness(es)
- Difficulty concentrating, forgetfulness

Note: *If an employee does exhibit these signs, it may be best to refer them to an Employee Assistance Program, health care professional or a qualified professional and communicate with their supervisor that the employee may need additional support/monitoring.*

3. Understand if characteristics of your organization increase the risk of a WPV event.

- a. Utilize the Site Workplace Violence Risk Assessment and Auditing Tool that follows, completed by the WPV Taskforce (see Step 1).
- b. If corrective actions are needed, utilize recommendations in Step 4 to find potential solutions and assign an action-item owner to investigate.
 - i. Reviewing the following documents may be helpful during completion:

1. Employee Engagement Surveys

- a. If not already completing, introduce this type of survey system to your organization to better understand the overall culture. Visit the following link to learn more: [nsc.org/surveys](https://www.nsc.org/surveys).

2. Site Records/Metrics

- a. Collect information, such as HR files/grievances, injury reports, overtime/turnover reports and legal restrictions between coworkers (restraining orders, etc.).



Site Workplace Violence Risk Assessment and Auditing Tool

Level	Risk Factors	Controlled	Needs Improvement	Project Owner	Example Corrective Action
Does the worksite have any of the following characteristics?	Geographically isolated				<ul style="list-style-type: none"> • Camera/Detection System • Lone Worker Monitoring • Panic Button/Apps
	Obstructed entryways or exit routes				<ul style="list-style-type: none"> • Reduce Overgrown Foliage • Remove Signage Blocking Sight In or Out • Establish Clear Entryways and Exits
	Inadequate lighting in parking lots, rooms, corridors, etc.				<ul style="list-style-type: none"> • Add Lighting
	Unstable political or social environment				<ul style="list-style-type: none"> • Social Media Listening • Access Control System • Camera Analytics
	Working in a high crime or high poverty area				<ul style="list-style-type: none"> • Camera/Detection Systems • Panic Button/Apps • Access Control System
	Working in/near establishments serving alcohol				<ul style="list-style-type: none"> • Camera/Detection Systems • Panic Button/Apps
	Working in a mobile workplace (e.g. taxi drivers, transportation)				<ul style="list-style-type: none"> • Lone Worker Monitoring • Panic Button/Apps • Camera Systems
	Lacking a means of emergency communication				<ul style="list-style-type: none"> • Panic Button/Apps • Radios or Pagers • Emergency Response Notification Systems

Level	Risk Factors	Controlled	Needs Improvement	Project Owner	Example Corrective Action
Do any of the following reflect your organizational culture?	Acceptance of WPV and/or fear of retaliation				<ul style="list-style-type: none"> • Development of a “Zero Tolerance” Policy • WPV Training • WPV Taskforce • Pre-Hire Social Media Screening • Camera Systems • Intelligent Case Management
	Chronic supervisor vs. employee disputes				
	Frequent grievances from employees				
	Chronic dangerous work conditions				
	Frequent injury claims				
	Understaffing and/or excessive demands for overtime				
	Low employee engagement scores				
	Lack of consistent and transparent performance goals				

Level	Risk Factors	Controlled	Needs Improvement	Project Owner	Example Corrective Action
Do jobs require any of the following type of work?	Prolonged or irregular shift work				<ul style="list-style-type: none"> • Lone Worker Monitoring • Panic App/Button • Mass Notification System
	Working alone				<ul style="list-style-type: none"> • Lone Worker Monitoring • Panic App/Button • Camera Systems • Access Control
	Public-facing or service-providing industry				<ul style="list-style-type: none"> • Lone Worker Monitoring • Panic App/Button • Camera Systems • Access Control
	Working with volatile or unstable individuals or in community-based settings (e.g. rehab, group homes)				<ul style="list-style-type: none"> • Lone Worker Monitoring • Panic App/Button • Camera Systems
	Working with individuals with a history of violence, drug/alcohol abuse, gang membership, etc.				<ul style="list-style-type: none"> • Access Control • Social Media Listening • Intelligent Case Management
	Handling cash and valuables				<ul style="list-style-type: none"> • Time-Delay Safes • Panic App/Button • Camera Systems
	Delivery of goods/services, working off site				<ul style="list-style-type: none"> • Lone Worker Monitoring • Panic App/Button

4. After completing the risk assessment and auditing tool, explore technology solutions that could reduce the risk of a hazardous situation in your workplace. For the most effective approach, choose solutions that will remedy risk factors identified during the assessment. Be sure to focus on a full-spectrum approach including solutions that help to prevent, mitigate and react to WPV.

- a. Implement WPV prevention training if not already doing so. Review this training and evaluate if you need to update and/or consider VR training modules.
- b. Determine if you have existing solutions that could be used for this application (access restriction, cameras, software, etc.).

Mapping Workplace Violence Risk Factors to Technology Solutions

Technology	Category	Example use cases	Would our organization benefit from this?
<p>Virtual Reality (VR), Augmented Reality (AR) <i>Immerses users into a life-like, computer-generated environment via a headset or computer display, often with a 360° view.</i></p>	Prevention	<ul style="list-style-type: none"> • Flagging audible signs of violence • Digital fencing • Facial recognition • License plate readers • Crowd management 	All organizations benefit from training, and immersive experiences have better user retention and response.
<p>Social Media Listening, Screening <i>Software that collects, analyzes and flags public access online conversations about a specific brand, company, topic, keyword, etc.</i></p>	Prevention	<ul style="list-style-type: none"> • Visitor management systems • Security gates • Alarm systems • Emergency lockdown systems • Biometric readers • Metal detectors 	It is recommended to complete pre-screens for new hires and monitor social media/screening if a complaint has been received. Social media listening can be used to monitor ongoing or volatile political or social unrest.
<p>Video/Audio Analytics <i>Software designed to monitor, analyze and manage large amounts of video or audio data. Can be trained to identify a variety of objects, sounds or actions.</i></p>	Prevention	<ul style="list-style-type: none"> • Flagging audible signs of violence • Digital fencing • Facial recognition • License plate readers • Crowd management 	<p>This is recommended for use in parking lots and entrances, especially those in the service-providing industries or during large-scale events.</p> <p><i>Examples: Health Care, Retail, Banking, Leisure and Hospitality</i></p>
<p>Access Control <i>Restriction to a particular building or worksite; often-times solutions are equipped to send an alert of an unauthorized or potentially dangerous entry.</i></p>	Prevention	<ul style="list-style-type: none"> • Visitor management systems • Security gates • Alarm systems • Emergency lockdown systems • Biometric readers • Metal detectors 	<p>Recommended in situations where the area puts the public and/or workers in unsafe conditions, and where there is handling of cash, valuables or sensitive data.</p> <p><i>Examples: Retail, Health Care, Banking, Municipal Government, Construction, Manufacturing</i></p>
<p>Weapons Detection Systems <i>Artificial intelligence (AI) or machine learning-powered technology that identifies the presence of weapons.</i></p>	Prevention	<ul style="list-style-type: none"> • Visitor screening • Employee screening • Early detection and threat response 	<p>Recommended in entrances and parking lots of businesses, especially public-facing industries.</p> <p><i>Examples: Retail, Health Care, Education, Municipal Government</i></p>

Technology	Category	Example use cases	Would our organization benefit from this?
<p>Lone, Downed Worker Monitoring Technology protects through real-time location tracking, fall detection and two-way communication capabilities.</p>	<p>Mitigation</p>	<p>Monitoring employees working alone or in potentially dangerous situations, such as:</p> <ul style="list-style-type: none"> • Work in remote or isolated locations • Fieldwork • Overnight shifts • Work in patient/customer homes • Work in high-risk environments 	<p>Recommended for organizations that require employees to work alone, work in client/patient homes and/or those exposed to high-risk individuals.</p> <p><i>Examples: Utilities, Health Care, Corrections, Retail, Social Services, Law Enforcement</i></p>
<p>Video Cameras Includes the use of closed-circuit television (CCTV), public view monitors (PVMs) or body-worn cameras to surveil a building, area, worksite, etc.</p>	<p>Mitigation</p>	<ul style="list-style-type: none"> • Monitoring entry/exit • Manual or digital assessment of warning flags • Deterrence of potential violence • Investigations 	<p>At a minimum this is recommended for entrance and exits and for surveillance uses. All industries are encouraged to install camera systems to monitor safety.</p>
<p>Panic or Duress Buttons Technology enabling employees to discretely send SOS alerts in emergency situations. Often used with mass notification systems.</p>	<p>Reaction</p>	<p>Sending discrete SOS alerts in emergency situations, such as:</p> <ul style="list-style-type: none"> • Verbal or physical altercations • Robbery • Hostage situations • Trespassing, break-ins • Mass violence 	<p>Recommended for those that may have access control or if request is controlled by an employee – security guard, teller, etc.</p> <p><i>Examples: Retail, Banking, Health Care, Corrections</i></p>
<p>Intelligent Case Management Software solutions that help organizations track workplace incidents, analyze trends and generate reports.</p>	<p>Reaction</p>	<ul style="list-style-type: none"> • Proactively detecting red-flag behavior indicators • Capturing and recording complaints, corrective actions, terminations and policy violations • Tracking investigations • Generating reports 	<p>This is a good resource for those that may not have assigned personnel or the bandwidth to complete investigations or reporting.</p> <p>All industries are encouraged to have a system in place for tracking incidents and reports.</p>
<p>Digital Floorplan Mapping Software applications that generate interactive workplace floorplans on map-like grids.</p>	<p>Reaction</p>	<p>Facilitates an organization's emergency response plan, including:</p> <ul style="list-style-type: none"> • Response planning • Route assignments • Employee training • First responder navigation 	<p>Recommended to have a blueprint available for response purposes. At a minimum a hard copy should be available, but digital plans are more widely accessible.</p> <p><i>Examples: Retail, Health Care, Education</i></p>

5. After you've identified technology solutions that could help reduce the risk of WPV in your organization, determine if you're ready to address the issue digitally. WPV Taskforce and Digital Champions in the organization should collaborate in completing the readiness assessment.

- a. To identify your organization's digital readiness level when it comes to safety technology, utilize this [assessment](#).

It is important leaders inspire trust by engaging employees in co-defining the purposes and need for change and new technology. This can help people see innovation as an opportunity rather than a threat, thus fostering readiness for digitalization. When people feel valued by their leaders, trust grows. Leadership must replace employee anxiety toward change and fears around job security with curiosity and a sense of purpose so people can genuinely take part in the organization's digital journey.

6. If choosing to utilize a technology solution to prevent WPV in your organization, you may be asked to "sell" this type of control to leadership. After determining which control may be most effective for your risks, use the following investment calculator to make the business case.

- a. [This calculator is an easy-to-use tool](#) allowing a company to compare the costs of "business-as-usual" and an investment in optimized operations using safety technology.

- i. Currently, investment calculators are available for the following related technologies: VR for safety training and lone worker monitoring

7. When you're ready to utilize technology in your organization, follow the [pilot and implementation roadmap](#) to facilitate the process

To prepare for piloting or implementing safety technology, several steps exist to assist employers on their innovation journey. Simply implementing technology does not constitute a successful digital transformation. By focusing on preparing people for change and properly assessing digital readiness, organizations invest in developing agility and resiliency that can produce endless benefits.





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