WHITE PAPER

MEDICAL WORKPLACE VIOLENCE THREATS AND ISSUES

[Growing Recognition and Impact]

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On November 6th 2009, a 39 year old Army psychiatrist named Maj. Nidal M. Hasan MD [1997 graduate of Virginia Tech University who received a medical doctorate in psychiatry from the Uniformed Services University of the Health Sciences in Bethesda, Maryland, and served as an intern, resident and fellow at the Walter Reed Army Medical Center in the District of Columbia] went on a savage 100 round shooting spree and rampage that killed 13 people and injured 32 others.

Yet, the impact of workplace violence became widely exposed, more than two decades before, in Edmond, Oklahoma. In August 1986, Patrick Henry Sherrill, an employee of the US Postal Service, angered by perceived injustices against him by his employers, shot and killed fourteen people, wounded six, and then killed himself.

By 2012, the Bureau of Labor Statistics (BLS) reported that:

1. Nearly 2 million Americans report they’ve been victims of violence at work.
2. In 2010, 1 in 9 workplace fatalities were homicides.
3. Homicide is the most common cause of workplace fatalities in women.
4. Workplace violence is one of the gravest occupational hazards for healthcare workers.
5. Nearly one-third of nurses are subjected to physical or verbal assaults at least once a month.
6. Geriatric wards and waiting rooms are two of the most frequent sites for hospital violence (along with emergency departments and psychiatric wards).
7. A Detroit hospital began screening with handheld metal detectors — and collected 33 handguns, 1324 knives, and 97 mace type sprays during a 6-month period.
8. A veteran’s hospital in Oregon reduced violent attacks by 91.6% after implementing a database that identified patients with a history of violence.
9. An NYC hospital reduced reported violent crimes by 65% after implementing ID badges and color-coded passes that limited access to hospital floors.
Introduction

These shocking events have not only added, and reinforced, the term “going postal” to our lexicon, but contributed to our almost blasé attitude about them. Want more recent evidence?

A Boston cardiac surgeon was mortally wounded by a gunman at Brigham and Women's Hospital in January 2015. Dr. Michael Davidson, of Wellesley, was shot twice at a cardiac center after a man demanded to see him. The 44-year-old Davidson died despite frantic efforts of co-workers to save him. The shooter, who turned the gun on himself and committed suicide in an examining room, had some kind of previous relationship with the doctor, and was identified as Stephen Pasceri, 55 of Millbury, MA. Dr. Davidson, a Yale graduate, had worked at the hospital since 2006 and was an assistant professor at Harvard Medical School.

Yet, during Super Bowl XLIX week pre-game preparations, the local and national attention seemed only to be riveted on accusations that Coach Bill Belichick and the Boston Patriots football team deliberately deflated 11/12 of the footballs used in the division championship game.

ASSESSMENT OF WORKPLACE VIOLENCE IN HEALTHCARE

1. What Is Workplace Violence?

Workplace violence is more than physical assault — it is any act in which a person is abused, threatened, intimidated, harassed, or assaulted in his or her employment. Swearing, verbal abuse, playing “pranks,” spreading rumors, arguments, property damage, vandalism, sabotage, pushing, theft, physical assaults, psychological trauma, anger-related incidents, rape, arson, and murder are all examples of workplace violence. The Registered Nurses Association of Nova Scotia defines violence as “any behavior that results in injury whether real or perceived by an individual, including, but not limited to, verbal abuse, threats of physical harm, and sexual harassment.” As such, workplace violence includes:

- threatening behavior — such as shaking fists, destroying property, or throwing objects;
- verbal or written threats — any expression of intent to inflict harm;
- harassment — any behavior that demeans, embarrasses, humiliates, annoys, alarms, or verbally abuses a person and that is known or would be expected to be unwelcome. This includes words, gestures, intimidation, bullying, or other inappropriate activities;
- verbal abuse — swearing, insults, or condescending language;
- muggings — aggravated assaults, usually conducted by surprise and with intent to rob; or
- physical attacks — hitting, shoving, pushing, or kicking.
Workplace violence can be brought about by a number of different actions in the workplace. It may also be the result of non-work related situations such as domestic violence or “road rage.” Workplace violence can be inflicted by an abusive employee, a manager, supervisor, co-worker, customer, family member, or even a stranger. The University of Iowa Injury Prevention Research Center classifies most workplace violence into one of four categories.  

- **Type I Criminal Intent** — Results while a criminal activity (e.g., robbery) is being committed and the perpetrator had no legitimate relationship to the workplace.
- **Type II Customer/Client** — The perpetrator is a customer or client at the workplace (e.g., healthcare patient) and becomes violent while being assisted by the worker.
- **Type III Worker on Worker** — Employees or past employees of the workplace are the perpetrators.
- **Type IV Personal Relationship** — The perpetrator usually has a personal relationship with an employee (e.g., domestic violence in the workplace).

2. **Effects of Workplace Violence**

The healthcare sector continues to lead all other industry sectors in incidents of non-fatal workplace assaults. In 2000, 48% of all non-fatal injuries from violent acts against workers occurred in the healthcare sector. Nurses, nurses’ aides, and orderlies suffer the highest proportion of these injuries. Non-fatal assaults on healthcare workers include assaults, bruises, lacerations, broken bones, and concussions. These reported incidents include only injuries severe enough to result in lost time from work. Of significance is that the median time away from work as a result of an assault or other violent act is 5 days. Almost 25% of these injuries result in longer than 20 days away from work. Obviously, this is quite costly to the facility as well as to the victim.

A study undertaken in Canada found that 46% of 8,780 staff nurses experienced one or more types of violence in the last five shifts worked. **Physical assault** was defined as being spit on, bitten, hit, or pushed.

Both Canadian and U.S. researchers have described the prevalence of verbal threats and physical assaults in intensive care, emergency departments, and general wards. A study in Florida reported that 100% of emergency department nurses experience verbal threats and 82% reported being physically assaulted. Similar results were found in a study undertaken in a Canadian hospital. Possible reasons for the high incidence of violence in emergency departments include presence of weapons, frustration with long waits for medical care, dissatisfaction with hospital policies, and the levels of violence in the community served by the emergency department.

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Similar findings have been reported in studies of mental health professionals, nursing home and long-term care employees, as well as providers of service in home and community health.

Violence in hospitals usually results from patients, and occasionally family members, who feel frustrated, vulnerable, and out of control. Transporting patients, long waits for service, inadequate security, poor environmental design, and unrestricted movement of the public are associated with increased risk of assault in hospitals and may be significant factors in social services workplaces as well. Finally, lack of staff training and the absence of violence prevention programming are associated with elevated risk of assault in hospitals. Although anyone working in a hospital may become a victim of violence, nurses and aides who have the most direct contact with patients are at higher risk. Other hospital personnel at increased risk of violence include emergency response personnel, hospital safety officers, and all healthcare providers. Personnel working in large medical practices fall into this category as well. Although no area is totally immune from acts of violence it most frequently occurs in psychiatric wards, emergency rooms, waiting rooms, and geriatric settings.

Many medical facilities mistakenly focus on systems, operations, infrastructure, and public relations when planning for crisis management and emergency response: they tend to overlook the people. Obviously, no medical facility can operate without employees who are healthy enough to return to work and to be productive. Individuals who have been exposed to a violent incident need to be assured of their safety.

The costs associated with workplace violence crises are not limited to healthcare dollars, absenteeism rates, legal battles, or increased insurance rates. If mishandled, traumatic events can severely impair trust between patients, employees, their peers, and their managers. Without proper planning, an act of violence can disrupt normal group processes, interfere with the delivery of crucial information, and temporarily impair management effectiveness. It may also lead to other negative outcomes such as low employee morale, increased job stress, increased work turnover, reduced trust of management and co-workers, and a hostile working environment.

Data collected by the U.S. Department of Justice shows workplace violence to be the fastest growing category of murder in the country. Homicide, including domestic homicides, is the leading cause of on-the-job death for women, and is the second leading cause for men. The National Institute of Occupational Safety and Health (NIOSH) has found that an average of 20 workers is murdered each week in the U.S. In addition, an estimated 1 million workers — 28,000 per week — are victims of non-fatal workplace assaults each year. Workplace attacks, threats, or harassment can include the following monetary costs:

- $13.5 billion in medical costs per year;
- 500,000 employees missing 1,750,000 days of work per year; and
- 41% increase in stress levels with the concomitant related costs.


UNDERSTANDING THE DEEPER RISKS

More assaults occur in the healthcare and social services industries than in any other. In 2000, Bureau of Labor Statistics (BLS) data show 48% of all non-fatal injuries from occupational assaults and violent acts occurred in healthcare and social services. In 1999, 637 non-fatal assaults on hospital workers occurred — a rate of 8.3 assaults per 10,000 workers — and the National Institute of Occupational Safety and Health (NIOSH) confirmed this ratio in April 2002, reporting that U.S. hospital workers suffer non-fatal assaults at more than four times the rate of overall private sector workers, which is 2 per 10,000 workers. Almost two-thirds of the non-fatal assaults occurred in nursing homes, hospitals, and establishments providing residential care and social services.¹

Several studies indicate that violence often takes place during times of high activity and interaction with patients, such as at meal times, during visiting hours, and during patient transportation. Assaul ts may occur when service is denied, when a patient is involuntarily admitted, or when a healthcare worker attempts to set limits on eating, drinking, or tobacco or alcohol use.

The issue of assaults against health professionals is not new. Between 1980 and 1990, 106 occupational violence-related deaths occurred among the following healthcare workers: 27 pharmacists, 26 physicians, 18 registered nurses, 17 nurses’ aides, and 18 healthcare workers in other occupational categories.² Using the National Traumatic Occupational Fatality database, the study reported that between 1983 and 1989, there were 69 registered nurses killed at work. Homicide was the leading cause of traumatic occupational death among employees in nursing homes and personal care facilities.

Of greater significance than these numbers is the likely underreporting of violence and a persistent perception within the healthcare industry that assaults are part of the job. Underreporting may reflect a lack of institutional reporting policies, employee beliefs that reporting will not benefit (and may actually harm) them, or employee fears that employers may deem assaults the result of employee negligence or poor job performance.³

Workplace Violence Risks in Hospitals

NIOSH⁴ summarizes the risk factors for occupational violence to hospital workers. These include:

- working directly with volatile people, especially if they are under the influence of drugs or alcohol or have a history of violence or certain psychotic diagnoses;
- working when understaffed — especially during meal times or visiting hours;
- transporting patients;
- long waits for service;

• overcrowded, uncomfortable waiting rooms;
• working alone;
• poor environmental design;
• inadequate and/or ineffective security;
• lack of staff training and policies for preventing or managing crises with potentially volatile patients;
• drug and alcohol abuse;
• access to firearms;
• unrestricted movement of the public; and
• poorly lit corridors, rooms, parking lots, and other areas.

Violence occurring in other occupational groups is most often related to robbery. In healthcare settings, however, acts of violence are most often perpetrated by patients or clients.\(^1\) Family members who feel frustrated, vulnerable, and out of control, and colleagues of patients (especially when the patient is a gang member) are also identified as perpetrators of abuse. There are numerous case reports documenting violence in the medical setting, such as the following:

• An elderly patient verbally abused a nurse when she prevented him from leaving the hospital to go home in the middle of the night.
• An agitated psychotic patient attacked a nurse, broke her arm, and scratched and bruised her.
• A disturbed family member whose father had died in surgery at the community hospital walked into the emergency department and fired a small caliber handgun, killing a nurse and an emergency medical technician and wounding the emergency physician.

However, the presence of co-workers has been identified as a potential deterrent to assault in healthcare.

Healthcare and social service workers face an increased risk of work-related assaults stemming from several factors, including:

• the prevalence of handguns and other weapons — as high as 25% among patients, their families, and friends. Handguns are increasingly used by police and the criminal justice system for criminal holds and the care of acutely disturbed, violent individuals;
• the increasing number of acute and chronically mentally ill patients now being released from hospitals without follow-up care, who now have the right to refuse medicine and who can no longer be hospitalized involuntarily unless they pose an immediate threat to themselves or others;
• the availability of drugs or money at hospitals, clinics, and pharmacies, making staff and patients likely robbery targets;
• situational and circumstantial factors such as:

unrestricted movement of the public in clinics and hospitals;
the increasing presence of gang members, drug or alcohol abusers, trauma patients, or distraught family members;
long waits in emergency or clinic areas, leading to client frustration over an inability to obtain needed services promptly;
• low staffing levels during times of specific increased activity such as meal times, visiting times, and when staff is transporting patients. This also includes isolated work with clients during examinations or treatment;
• solo work, often in remote locations, particularly in high crime settings, with no backup or means of obtaining assistance such as communication devices or alarm systems;
• lack of training of staff in recognizing and managing escalating hostile and assaultive behavior; and
• poorly lighted parking areas.

The Guidelines established by the Occupational Safety and Health Administration (OSHA)\(^1\) seek to set forth procedures leading to the elimination or reduction of worker exposure to conditions causing death or injury from violence by implementing effective security devices and administrative work practices, among other control measures. Healthcare professionals need to be aware that violence can occur anywhere and in any practice settings. In hospitals and clinics, which are more likely to report incidents of violence than private offices, the most frequent sites are:

• psychiatric wards;
• acute care settings;
• critical care units;
• community health agencies;
• homes for special care;
• emergency rooms; and
• waiting rooms and geriatric units.\(^2\)

The impact of workplace violence is far-reaching and affects individual staff members, co-workers, patients/clients, and their families. Those who have been affected, directly or indirectly, by a workplace violence incident report a broad spectrum of responses — anger is the most common. There are also reports of:

• difficulty returning to work;
• decreased job performance;
• changes in relationships with co-workers;
• sleep pattern disturbance;
• helplessness;

\(^1\) OSHA. Guidelines for Preventing Workplace Violence for Health Care and Social Service Workers. OSHA 3148-OIR; 2004.

\(^2\) Violence-Occupational Hazards in Hospitals. NIOSH 2002.
• symptoms for post-traumatic stress disorders;
• fear of other patients; and
• fear of returning to the scene of the assault.¹

1. Contributing Factors

A number of factors may contribute to the risk of violence or potentially violent situations in the workplace, including but not limited to:

• **Characteristics of patients or clients**: history of aggressive or violent behavior; clinical conditions such as dementia, head trauma, hypoglycemia, emotional disorders; or substance abuse.

• **Environment factors**: inflexible institutional rules and policies; restrictions on activities; noise or lighting levels; busy or high activity times; invasion of personal space; layout of or overcrowding in units or areas housing patients/clients (e.g., emergency department settings).

• **Staff characteristics**: staff dynamics (i.e., conflict among staff members); staff attitudes, such as anxiety or ambivalence towards the prevention or management of aggression; and staff behavior (e.g., tone of voice, body language, overt aggression).

• **Organizational policies and educational programs**: a lack of policies or programs aimed at preventing and reducing the incidence and impact of workplace violence can in fact lead to increased risks.²

OSHA’s General Duty Clause requires employers to provide a safe and healthful working environment for all workers covered by the OSH Act of 1970. Failure to implement is not in itself a violation of the General Duty Clause, but if there is a recognized violence hazard in the workplace and employers do not take feasible steps to prevent or abate it, employers can be cited.

Courts have ruled against employers for the dangerous acts of employees if the employer does not use reasonable care in hiring, training, supervising, or retaining employees in the event such harm was foreseeable. You may be liable for an intoxicated employee or one who otherwise presents a risk to others. As an example, if one of your employees has had to take a restraining order out against a former spouse, boyfriend/girlfriend, or partner, there is an apparent risk.

Employers are expected to use reasonable care in the maintenance of healthcare facility premises, including reasonable security precautions and other measures seeking to minimize the risk of foreseeable criminal intrusion (based upon the experience of the employer, or its location in a dangerous area). Failing to take these precautions potentially leads to significant consequences for the victim as well for the organization including:

• increased costs to cover sick leave benefits of the individual involved, and of replacement staff;

¹ Cooper, 1995; Ryan and Poster, 1991.
² NSNU, 1995; Whitehorn, 1995; Worthington, 1993.
• decreased quality of care, resulting from reluctance on the part of the staff to care for the perpetrator of the violence;
• increased staff turnover, along with the difficulties of hiring a competent replacement should the victim choose to leave the profession following a violent incident; and
• lowered staff morale as workloads and stress increase as a result of the loss of qualified staff.  

Whether in a hospital, clinic, or private practice setting, good pre-employment screening is essential. A shortage of trained personnel is not a justification for haphazard hiring practices. As part of the screening, it is necessary to conduct criminal history checks; make certain that employees have the degrees and experience listed on the resume; check references; and make certain that the interviewer is skilled and thorough in questioning techniques.

2. Risk Analysis

Conducting a risk analysis represents the first step in risk identification. Risk represents exposure to the chance of injury or loss. Risks are relative to the observer and have to do both with uncertainty and damages. We can summarize this with the following formula:

\[
\text{Risk} = \text{Probability of an event occurring} \times \text{damages}
\]

Crisis management efforts following an incident of workplace violence in a medical facility need to recognize the extraordinary impact the event may hold for the survivors and witnesses — your employees. Drawing from the experiences of situations leading to human crises such as fatal accidents, violence, becoming overwhelmed when having to deal with situations involving mass fatalities, and being overwhelmed by other seriously injured patients, points to several guidelines needing to be considered prior to the establishment of a formal policy statement.

First, understand and plan for the physical and emotional health of employees at all levels. The emotional and behavioral consequences of the event may include a wide range of potentially disabling conditions such as avoidance, concentration problems, depression, and feelings of vulnerability and sadness. Long term they can lead to substance abuse (resulting from self medication), mental and physical problems, and marital problems. These then lead to direct costs from absences, healthcare expenses, workers compensation claims, lawsuits, and employee turnover. The time to identify resources, make policies, and establish delivery systems is prior to, and not during, the actual crisis event.

Second, prepare to respond to the crisis-related needs of employees by having a mechanism in place by which accurate and credible information can be disseminated to employees and their families. Lack of information can translate into lack of action. For instance, after the explosion at the World Trade Center in 1993, a survey taken the following month found that:

• 76% thought something serious had happened;

• 32% did not evacuate by one hour;
• 30% decided not to evacuate; and
• 36% participated in a previous emergency evacuation.¹

Third, create a safe haven for those directly and indirectly affected by events. Offering an environment where employees can come together in order to discuss their emotional troubles affords them the opportunity to see that their responses are not unique to them. This locale also offers a venue in which employees are able to talk, grieve, and receive counseling.

Finally, monitor the medium- and long-term effects of the crisis on the health and occupational functioning of individuals and work units. A mistake made by many organizations is that a crisis is considered to be over as soon as the cleanup is complete. They fail to take into account the far-reaching effects of stress on their employees. When employee stress levels are reduced, there is a concomitant reduction in errors. A study of hospitals showed that medication errors declined 50% after stress prevention activities were implemented in a 700-bed hospital. In another study conducted by St. Paul Fire & Marine Insurance, there was a 70% reduction in malpractice claims in 22 hospitals that implemented stress reduction activities, and no reduction in the 22 hospitals that did not.

Risk management has long been used in the context of the medical facility. Well-designed and comprehensive risk management programs reduce the losses of people, equipment, and material due to accidents. Completing the following six-step process can provide direction for risk management.

1. Identify hazards — Determine as much as possible about the hazards associated with a department or an area.
2. Assess hazards — Determine a means to measure the severity of risk and probability that an incident will occur. As an example a shooting in an urban emergency room may be likely, and the severity of the outcome could be catastrophic. The overall risk would be considered extremely high.
3. Determine types of hazard:²
   • frequent — experienced continuously during the day, occurs often;
   • likely — experienced often, several times during the day;
   • occasional — experienced sometimes, occurs sometimes;
   • seldom — possibly experienced, occurrence is remote; and
   • unlikely — improbable, not expected to occur.
4. Develop techniques to prevent or mitigate hazards — The organization develops controls and makes decisions for the hazards that have been identified. The goal is to

² Note: hazard severity can be looked at from the context of four outcome categories:
   • catastrophic — death or permanent disability, major equipment damage;
   • critical — permanent partial disability, significant equipment damage;
   • moderate — minor injury, lost workday, minor equipment damage; and
   • negligible — first aid, little equipment damage.
reduce the probability of a hazard turning into an incident and to limit the consequences of an incident if one does occur.

5. Implement those techniques — Put the techniques developed into actual practice. This requires making someone responsible for ensuring the control is used correctly.

6. Evaluate the process — Ironically, there is a lack of research data dealing with successful intervention programs. As a consequence, the words of Abraham Maslow are directly applicable: “To the man who only has a hammer in the toolkit, every problem looks like a nail.” Some programs, however, may be implemented on a universal basis. For instance, to prevent violence in medical settings, employers should develop a safety and health program that includes management commitment, employee participation, hazard identification, safety and health training, and hazard prevention, control and reporting. As with all other programs in place, this needs to be evaluated periodically.

DEALING WITH MEDICAL WORKPLACE VIOLENCE

The previous sections have dealt with some of the risk factors associated with workplace violence in a medical setting. The direct and indirect costs, as well as legal and financial implications associated with workplace violence have been presented. Unfortunately many practitioners or institutions practice extreme denial when it comes to the issue of workplace violence, maintaining that mind set of “it can’t happen here.” Those who have never experienced workplace violence often comment “I don’t need to worry about this.” Nothing can be further from the truth. In fact, situations of this type are increasing in number; they do occur and they cost lives.

1. Creating a Prevention Plan

A preventative, proactive approach is needed. In 1982, writing in the Atlantic Monthly, James Q. Wilson and George L. Kelling presented “The Broken Window Theory.” In effect, the theory holds that if a single window is left unrepaired in a building, in fairly short order, the remaining windows in the building will be broken.
Fixing windows as soon as they are broken sends a message that vandalism will not be tolerated. In contrast, not fixing the window sends a message that vandalism is acceptable. Worse, once a problem such as vandalism starts, if left unchecked it flourishes. Consider the situation where one of your employees begins coming in late on a more and more frequent basis. Not dealing with that employee at the outset of this behavior can result in the other employees delaying their start time.

In the context of workplace violence, we are dealing with problem employees and patients, and the same observations are valid. When verbal abuse, threats of assault, or harassment are tolerated in healthcare environments it increases the likelihood that more serious forms of violence will follow. In other words, ignoring a situation may result in an escalation of the problem. Morale and productivity are lowered; effective employees leave. However, dealing effectively with situations like hostility, harassment, intimidation, and other disruptive types of conflict will create a more productive workplace.

Obviously, it is incumbent upon every organization to create a safe workplace for its employees. An initial step is to review any history of violence in your own workplace. The purpose of this exercise is not to cast blame but rather to prevent or minimize the likelihood of any future occurrence. This review should include the following:

- Ask employees about their experiences, and whether they are concerned for themselves or others.
- Review any incidents of violence by consulting existing incident reports, first aid records, and health and safety committee records.
- Determine whether your workplace has any of the risk factors associated with violence.
- Conduct a visual inspection of your workplace and the work being carried out. Focus on the workplace design and layout, and your administrative and work practices.

Figure 1: A schematic plan for dealing with workplace incidents

There are both crisis-prone and crisis-prepared organizations. It is Pauchant and Mitroff’s thesis that given the proliferation of human and environmental crises in our current society, those organizations (medical offices, clinics, hospitals) that deny the possibility of crises and do nothing to prevent them or to prepare for them are more likely to experience severe disruption and harm.

A crisis-prone healthcare organization does the following:

- reacts to crises, rather than reading the warning signs that might allow problems to be prevented or mitigated;
- pays lip service to human issues but pays real attention only to bottom line figures and business interests;
- holds fast to denial, summarily expelling or punishing employees perceived as deviant, rather than confronting their behavior and its causes;
- “delegates” responsibility for programs and policies involving employee welfare to lower echelons while top leadership remains remote, especially during times of change and stress;
- directs communication outward in a crisis (e.g., toward the public and the media) rather than inward, toward employees; and
- remains mired in adversarial standoff, thwarting internal communication and problem solving.

A crisis-prepared healthcare organization does the following:

- maintains effective systems for collecting, reporting and analyzing early stage distress;
- cultivates a sense of mutual interest among stakeholders responding to incipient status;
- develops and fully disseminates a policy for dealing with potential and actual crises;
- encourages a climate in which employees feel free to communicate their distress to management and management feels a responsibility to respond;
- engages in effective problem solving rather than confrontation; and
- does not deny problems or avoid dealing with them by expelling or suppressing “deviants.”

Appendix 1 provides a sample Sexual Harassment Policy for Healthcare Facility Employees. It includes suggested sexual harassment topics that should be covered in any training program dealing with workplace violence. This list is geared primarily to medical supervisors, head nurses or nurse managers, and focuses on internal employees as opposed to patients or the general public. For shift managers it is recommended that personal safety issues also be included.

The Haddon Matrix for Injury Prevention

An invaluable tool for prevention program establishment is the Haddon Matrix. In 1968, William Haddon, Jr., a public health physician with the New York State Health Department, developed a matrix of categories to assist researchers trying to address injury prevention systematically.
The idea was to look at injuries in terms of causal factors and contributing factors, rather than just using a descriptive approach. It is only recently that this model has been put to use in the area of workplace violence.\(^1\)

The matrix (see Figure 2) is a framework designed to apply the traditional public health domains of host, agent, and disease to primary, secondary, and tertiary injury factors. When applied to workplace violence, the “host” is the victim of workplace violence, such as a nurse. The “agent” is a combination of the perpetrator and his or her weapon(s) and the force with which an assault occurs. The “environment” is divided into two sub domains: the physical and the social environments. The location of an assault such as the ER, the street, an examining room, or hospital ward is as important as the social setting in patient interaction, presence of co-workers, and supervisor support.

![Figure 2: The Haddon Matrix](image)

Subsequent versions of the matrix (see Figure 3) divide the environment into Physical environment and Social, Socio-economic, or Sociocultural environment. Each factor is then considered a pre-event phase, an event phase, and a post-event phase.

![Figure 3: The Haddon Matrix Applied](image)

The Haddon Matrix lends itself to a medical setting in that it uses a classical epidemiological framework to categorize “pre-event,” “event,” and “post-event” activities according to the infectious disease vernacular, host (victim), vector (assailant or weapon), and environment. The strength of the

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Haddon Matrix is that it includes the ability to assess “pre-events” or precursors in order to develop primary preventive measures.¹

**Figure 4: Application of Haddon Matrix to Workplace Violence Prevention**¹

<table>
<thead>
<tr>
<th>Phases</th>
<th>Host</th>
<th>Agent</th>
<th>Physical Environment</th>
<th>Social Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-event (prior to assault)</td>
<td>Knowledge</td>
<td>History of prior violence communicated</td>
<td>Assess objects that could become weapons, actual weapons, egress (means of escape)</td>
<td>Visit in pairs or with escort</td>
</tr>
<tr>
<td></td>
<td>Self-efficacy Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event (assault)</td>
<td>De-escalation</td>
<td>Reduce lethality of patient via increasing your distance</td>
<td>Egress, alarm, cell phone</td>
<td>Code and security procedures</td>
</tr>
<tr>
<td></td>
<td>Escape techniques</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alarms/2-way phones</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-event (post-assault)</td>
<td>Medical care/counseling</td>
<td>Referral Law enforcement</td>
<td>Evaluate role of physical environment</td>
<td>All staff debrief and learn Modify plan if appropriate</td>
</tr>
<tr>
<td></td>
<td>Post-event debriefing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Home Health Workplace Example

Figure 4 shows how the Haddon Matrix categorizes influence of:

- human or host behavior;
- agent or vehicle of situation;
- physical and sociocultural environment;
- pre-event, event, and post-event; and
- gaps and opportunities for improvement.

From the perspective of administration, the Haddon Matrix does not implicate policy. This means that the matrix does not necessarily guide policy. When implemented, the Haddon Matrix can be a “politically” neutral, trans-or multi-disciplinary, objective tool that identifies opportunities for intervention. Furthermore, it outlines sensible “targets of change” for the physical and social environment.

**Figure 5: Haddon Matrix Implementation**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Affected individual and population</th>
<th>Agent used</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-event</td>
<td>Psychological first aid</td>
<td>Communicate efforts to limit action</td>
<td>Have plans in place detailing agency roles</td>
</tr>
</tbody>
</table>

### 2. Workplace Violence Prevention Guidelines

The federal government and some states have developed guidelines to assist employers with workplace violence prevention. For instance, one of the earliest sets of guidelines for a comprehensive workplace violence prevention program was published in 1993 by California OSHA.\(^1\) This resulted from the murder of a state employee. In 1996, *Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers* was published by OSHA.

In its guidelines, OSHA sets forth the following essential elements for developing a violence prevention program:

- **Management commitment** — as seen by high-level management involvement and support for a written workplace violence prevention policy and its implementation.

- **Meaningful employee involvement** — in policy development, joint management-worker violence prevention committees, post-assault counseling and debriefing, and follow-up are all critical program components.

- **Worksite analysis** — includes regular walk-through surveys of all patient care areas and the collection and review of all reports of worker assault. A successful job hazard analysis must include strategies and policies for encouraging the reporting of all incidents of workplace violence, including verbal threats that do not result in physical injury.

- **Hazard prevention and control** — includes the installation and maintenance of alarm systems in high-risk areas. It may also include the training and posting of security personnel in emergency departments. Adequate staffing is an essential hazard prevention measure, as is adequate lighting and control of access to staff offices and secluded work areas.

- **Pre-placement and periodic training and education** — must include educationally appropriate information regarding the risk factors for violence in the healthcare environment and control measures available to prevent violent incidents. Training should include skills in aggressive behavior identification and management, especially for staff working in the mental health and emergency departments.

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\(^1\) See California Health & Safety Code §§ 1257.7, 1257.8. These provisions have been amended several times.
On May 17, 1999, Governor Gary Locke signed the New Workplace Violence Prevention Act for the state of Washington.¹ This act mandates that each healthcare setting in the state implement a plan to reasonably prevent and protect employees from violence. According to this act, prevention plans need to address security considerations related to:

- physical attributes of the healthcare setting;
- staffing, including security staffing;
- personnel policies;
- first aid and emergency procedures;
- reporting of violent acts; and
- employee education and training.

Prior to the development of an actual plan, a security and safety assessment needs to be conducted to identify existing or potential hazards. The training component of the plan must include the following topics:

- general safety procedures;
- personal safety procedures;
- the violence escalation cycle;
- violence-predicting factors;
- means of obtaining a patient history form from a patient with violent behavior;
- strategies to avoid physical harm;
- restraining techniques;
- appropriate use of medications as chemical restraints;
- documenting and reporting incidents;
- the process whereby employees affected by a violent act may debrief;
- any resources available to employee for coping with violence; and
- the healthcare setting’s workplace violence prevention plan.

The act further mandates that any hospital operated and maintained by the State of Washington for the care of the mentally ill is required to provide violence prevention training to affected employees identified in the plan on a regular basis and prior to providing patient care.

ASSESSMENT

If you work in a home healthcare environment, the US Department of Health and Human Services [DHHS] provides information highlighting the need to address workplace violence in your setting, thru the PDF publication: “Home Healthcare Workers: How to Prevent Violence on the Job.” It is available from the US Department of Health and Human Services (DHHS), National Institute for Occupational Safety and Health (NIOSH) Publication No. 2012-118 (2012, February).

CONCLUSION

Medical Work Place Violence (MWPV) is a recognized hazard in the healthcare industry. MWPV is any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the work site. It can affect and involve workers, clients, customers and visitors. MWPV ranges from threats and verbal abuse to physical assaults and even homicide. In its’ most extreme form, homicide, is the fourth-leading cause of fatal occupational injury in the United States, according to the Bureau of Labor Statistics Census of Fatal Occupational Injuries (CFOI).

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WEBSITES

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• [www.OSHA-slc.gov](http://www.OSHA-slc.gov)
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• [www.mediationworks.com](http://www.mediationworks.com)
• [www.Workplaceviolence911.com](http://www.Workplaceviolence911.com)
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THE END