INSTITUTE FOR HOMELAND SECURITY

Sam Houston State University

COUNTERING WORKPLACE VIOLENCE IN HEALTHCARE:

VOICES FROM THE FIELD

Institute for Homeland Security

Sam Houston State University

Magdalena A. Denham

Mark V. Denham

TITLE: Countering Workplace Violence in Healthcare: Voices from the Field

By Magdalena A. Denham & Mark V. Denham

1. Introduction – Scope of the Workplace Violence in Healthcare

Overall, the U.S. healthcare system has the highest workplace violence (WPV) rates of any occupational setting in the United States. Specifically, among 25,000 incidents of WPV reported annually, 75% percent occur in the healthcare system. Workers in healthcare are four times more likely to be victimized than workers in other private industries. Similarly, the National Crime Victimization Survey reported that healthcare workers have a 20% higher chance of being victims of WPV than other workers (Bureau of Labor Statistics, 2021). Generally, experts classify workplace violence (WPV) into four different categories depending on the relationship between the perpetrator and the workplace itself (Howard, 1996, Injury Prevention Research Center [IPRC], 2001).

- **Type I: Criminal Intent -** In this type of WPV individuals with criminal intent have no relationship to the business or its employees.
- **Type II: Customer/Client** – In this type of WPV an individual has a relationship with the business and becomes violent while receiving services.
- **Type III: Worker-on-Worker** – This this type of WPV involves a "worker-on-worker" relationship and includes employees who attack or threaten another employee.
- **Type IV: Personal Relationship** – This type of WPV includes individuals who have interpersonal relationships with the intended target but no relationship to the business.

Most common to the health care setting is a situation in which the perpetrator has a legitimate relationship with the business and becomes violent while being served by the business (categorized as a Type II Assault). Terms that have been used rather consistently in research to denote Type II violent events perpetrated by patients and visitors have included: Verbal Abuse, Physical Threat of Assault, Physical Assault (to include Sexual Assaults). The highest number of such abuse and assaults in U.S. workplaces each year are directed against health care workers and providers by patients and visitors. While all 4 types of WPV deserve attention, the International Healthcare Security and Safety Foundation (IHSSF) – a philanthropic arm of the International Association for Healthcare Security & Safety (IAHSS) reported that Type II workplace violence accounted for 75% of aggravated assaults and 93% of all assaults against employees based on its 2014 Healthcare Crime Survey (IHSFF, 2014). Table 1 summarizes selected national and international research on WPV in healthcare in the last two decades. It points to several trends in healthcare WPV. First, the WPV problem is prevalent in hospitals, community-based clinics, acute-care facilities, Emergency Departments (EDs), psychiatric units as well as home care. The problem is international, but US statistics appear the highest. Notably, nurses experience one of the highest Type II WPV ranging from 46% in the Canadian healthcare settings to 53.4% physical assaults alone on nurses in Australia, 67% nurse-reported Type II violence in Italy, and from 44.4% to as high as 74% physical assaults on nurses in USA depending on the study. Critically, nurses in EDs in the United States report 100% yearly prevalence of verbal abuse from patients and visitors while staggering 82.1% of them had been physically assaulted at work in one year.

During COVID-19, nurses involved in direct COVID19 patient care were victimized at higher rates than other nurses as well. More than half of physicians across wide range of hospitals in Israel and three quarter of physicians in the United States EDs have been regular victims of verbal violence. More than 25% of them in the United States have been subjected to physical violence alone. In Italy, 63% of all violent encounters occurred in EDs. Residents in EDs share similar victimization statistics as ED physicians while 33% of psychiatric residents fall victims to either verbal or physical abuse and 34% of psychiatric clinicians experienced bodily harm from patients and visitors in the United States.

Study Setting	Sample/Population	Reporting Type	Results	Reference
Hospitals (210 hospitals/Alberta and British Columbia, Canada)	Nurses, *n* = 8,780	Last 5 Shifts Worked	46% experienced at least 1 Type of WPV 38% Emotional Abuse 19% Threat of Physical Assault 18% Physical Assault 7.6 % Sexual Harassment 0.6% Sexual Assault	*Duncan, Hyndman, Estabrooks, Hesketh, Humphrey, Wong, Acorn, & Giovannetti (2001)*
Israel (95 hospitals and 82 community-based clinics)	177 Hospital and Community-Based Physicians	1 Year Prevalence	56% Verbal Violence 9% Physical Violence	*Carmi-Iluz, Pelag , Freud , Shvartzman (2005)*
North Florida Medical Center (Acute care 770beds)	ED, ICU, General Floor Nurses, *n* = 86	1 Year Prevalence	88% Verbal Assaults 74% Physically Assaulted at Work 100% Verbal Assaults for *ED Nurses* 82.1 Physical Assaults for *ED Nurses*	*May & Grubbs (2002)*
Michigan College of	171 ED Physicians	1 Year Prevalence	74.9% Verbal Threats	*Kowalenko, Walters,*

Emergency Physicians			28.1% Physical Assaults (88.3% Inside of ED)	*Khare & Compton (2005)*
National sample of EM physicians and residents	263 Emergency Physicians and Residents in 65 EM accredited programs	1 Year Prevalence	78% At least 1 Violent Incident Reported 21% More than 1 Violent Act Reported 75% Verbal Threats 21% Physical Assaults	*Behnam, Tillotson, Davis, & Hobbs (2011)*
Residency Programs in the USA	541 Pediatric Residents	During Residency	33% Verbally or Physically Abused during Residency	*Judy & Veselik (2009)*
Department of Psychiatry, University of Rochester Med Center	380 Psychiatric Clinicians and Staff	Across 4 Time Periods	43 % Threats of Physical Harm 25% Assaults 34% of Clinicians Experienced Assaults	*Privitera, Weisman, Cerulli, Tu, & Groman (2005)*
15 Wards of a General Hospital in Northern Italy	419 (Physicians, Head Nurses, Nurses, Nursing Assistants)	1 Year Prevalence	45% Experienced Episode of Violence 67% Nurse-Reported Violence (the highest group) 63% Episodes of Violence Occurred in ED Waiting Room	*Ferri, Silvestri, Artoni, & Lorenzo (2016)*
6 Hospitals in USA (North Carolina and Texas)	5,385 Hospital Workers	1 Year Prevalence	39% Experienced WPV (50.4% Career Span Prevalence) 30.5% Reported Physical Assaults in Direct Patient Care	*Pompeii, Shoenfisch, Lipscomb, Dement, Smith & Upadhyaya (2015)*

Home Care (Oregon)	Female Homecare Workers, *n* = 1,214	1 Year Prevalence	50.3 % Verbal Aggression	*Hanson, Perrin, Moss,*
			26.9 % Workplace Aggression 25.7% Sexual Harassment 12.8% Sexual Aggression	*Laharnar, & Glass (2015)*
National Sample (Type II Violence Only)	373 Nurses (ED, ICU, Med./Surgical Units)	COVID-19 Period	67.8% Verbal Abuse 44.4% Physical Violence 28.1% Experienced it More than Once	*Byon, Sagherian, Kim, Lipscomb, Crandall, & Stieg (2022)*

Queensland, Australia (4 Public Hospitals in a Metropolitan Health Service)	330 ED Workers (179 Nurses, 83 Medical Staff, 44 Admin., 14 Allied Health, 1 Operational)	Previous 6 Months	88.1% Reported Verbal Abuse (94% Medical Staff, 89.9% of Nurses, 77.3% of Admin. Staff) 44.1% Nurses Reported Harassment 44.4% Nurses Reported Verbal Threats of Assault 42.7% Reported Physical Attacks at Work (53.4% Nurses and 36.1% Medical Staff) 10.6% Nurses and 6% of Medical Staff Assaulted with Weapons	*Partridge and Affleck (2017)*

Table 1. Selected National and International Research on WPV in Healthcare Across Various Victim Groups. Source: Compiled by Authors.

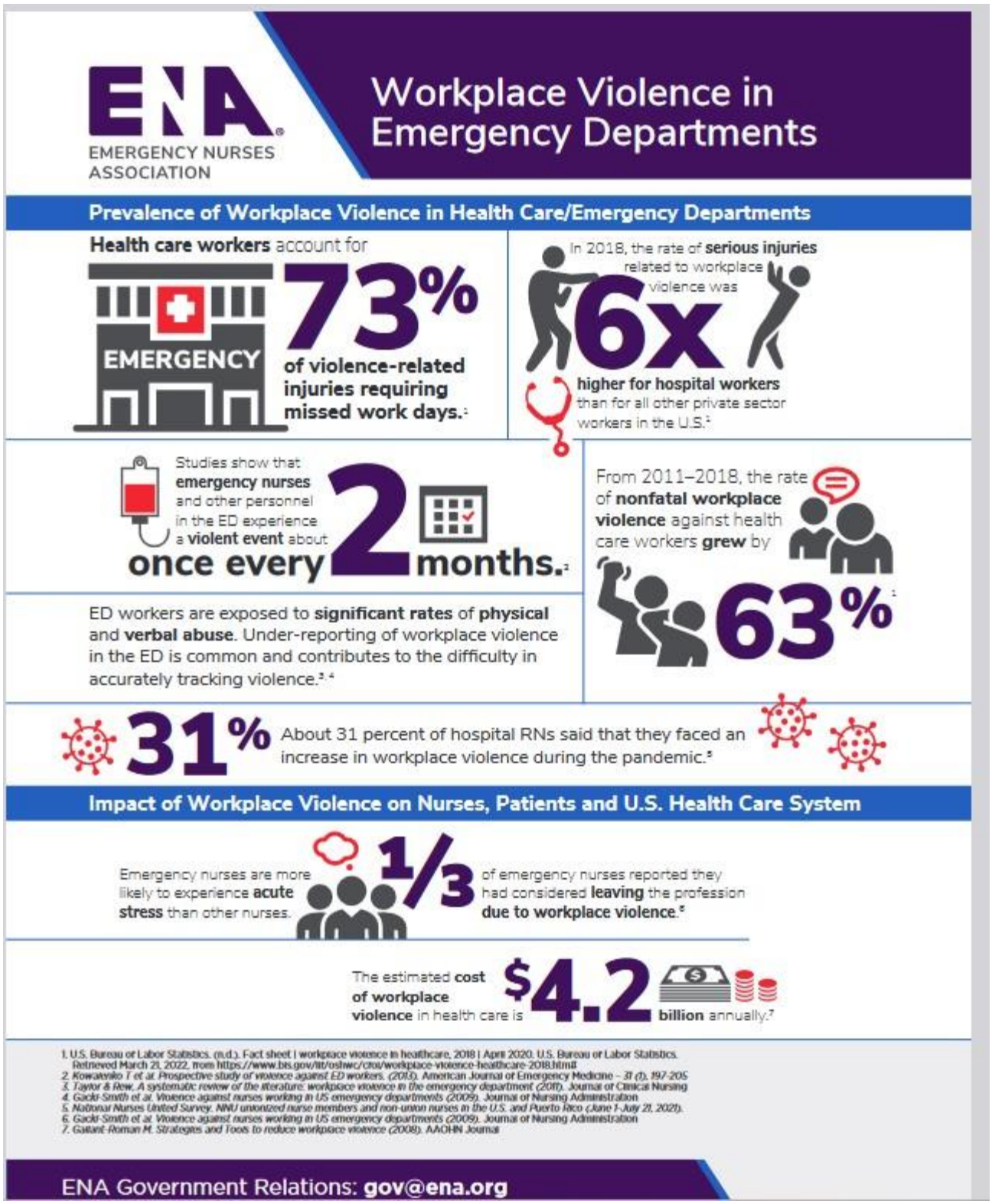

Figure 1: Source: Public Domain – Emergency Nurses Association. https://www.ena.org/docs/default-source/ena-events/doh2021/workplace_violence_infographic_03-2023_print.pdf?sfvrsn=ca7047d_4

2. Legislation to Counter WPV in Healthcare

Federal Legislation. Currently, there is no national standard to counter WPV in Healthcare. A national standard relating to workplace violence in healthcare would ensure that employers assess factors such as the physical security of their facilities, staffing issues related to security, training for employees on mitigating and responding to violence, and support for workers when they are assaulted. During 117th U.S. Legislature *Workplace Violence Prevention for Health Care and Social Service Workers Act* was introduced. The U.S. House of Representatives passed the legislation HR 1195 with 254-166 votes, but the bill never went to vote in Senate. HR 1195 required that health care and social service employers across the country take specific steps to prevent workplace violence and ensure the safety of patients and workers. This legislation directed the Secretary of Labor, through Occupational Safety and Health Administration (OSHA), to require these employers to develop and implement workplace violence prevention plans that are worker-driven and comprehensive (U.S. Congress, 2021). *Workplace Violence Prevention for Health Care and Social Service Workers Act* was to be grounded in OSHA WPV prevention standards (OSHA, 2016) and would include at the minimum (a) broad definitions of WPV to include threats and the use of physical force, including incidents involving the use of firearms or dangerous weapons; (b) development by employers of unit-specific and facilityspecific prevention plans rather than one-size-fits-all plans; (c) employees' engagement in developing, implementing, and reviewing the plan; (d) robust training programs for employees; (e) hazard and risk assessments with correction procedures, including staffing, trained security personnel, environmental risk factors, patient specific risk factors, alarm systems, and job design and facilities; (f) effective reporting processes and policies to ensure that employees can report workplace violence without fear of retaliation; (g) systems for communicating between coworkers, shifts, emergency services, and law enforcement about risks for violence; (h) Violent Incident Logs to track all incidents and threats; (i) effective and prompt response to all workplace violence incidents as well as appropriate follow-up investigations. While many associations and labor groups such as American Public Health Association, American Psychiatric Nurses Association, American Nurses Association, National Nurses United, the Academy of Medical-Surgical Nurses; the American Federation of State, County and Municipal Employees; the National Association of Social Workers, the American Psychiatric Association, or the American Federation of Teachers supported the bill (Courtney, 2023), the American Hospital Association (AHA) opposed the legislation. In opposing the House bill, AHA reaffirmed hospitals and health systems' commitment to a culture of safety though tailored policies and programs to counter WPV, but the Association found OSHA standards required by HR 1195 not warranted (AHA, 2021a, 2021b).

Most recently, *The Workplace Violence Prevention for Health Care and Social Service Workers Act* reemerged reintroduced as HR 2663 by Representative Courtney (Connecticut) on April 18, 2023, to ensure that emergency nurses and other health care workers have a safe working environment and receive support in addressing the widespread problem of workplace violence. This bill requires the Department of Labor to address workplace violence in health care, social service, and other sectors. Specifically, the Department must issue an interim occupational safety and health standard that requires certain employers to take actions to protect workers and other personnel from workplace violence. The standard applies to employers in the health care sector, in the social service sector, and in sectors that conduct similar activities that those in the health care

and social service sectors. The bill was referred to the Committee on Education and the Workforce, and in addition to the Committees on Energy and Commerce, and Ways and Means (U.S. Congress, 2023). On a Senate side S. 1176 was introduced by Senator Baldwin, Wisconsin on April 18, 2023 (U.S. Congress, 2023). If/when the Senate approves the Workplace Violence Prevention for Health Care and Social Service Workers Act, employers would have to establish violence prevention plans to include:

- Processes to identify and respond to risks and hazards that make settings vulnerable to violence.
- Protocols to document and investigate violence.
- Environment that supports employees who report incidents of violence, including nonretaliation policies.
- Training to employees in identifying and addressing hazards.
- Training to employees about their rights with respect to workplace violence.
- Risks associated with workplace violence to enhance both nurse recruitment and retention.

State Legislation. Many states in the nation have proposed laws that amend existing state assault statutes against first responders by adding health care providers, nurses and/ or increasing the penalties related to such behaviors. Currently, *CA, CT, IL, MD, MN, NJ, OR, WA* require employer-provided workplace violence prevention programs**.** Several states (38) have established or are revising penalties for assaults against nurses specifically - *AL, AK, AR, AZ, CA, CO, CT, DE, FL, GA, HI, ID, IN, IL, IA, KS, LA, MS, MO, NE, NV, NM, NY, NC, OH, OK, OR, PA, RI, SD, TN, TX, UT, VT, VA, WA, WV,* and *WI.* States like *GA, HI, NC, SC, SD, or OK* have laws/penalties for behaviors against ED personnel, *KS* for mental health personnel in selected facility types, and *MS* protections for emergency and public health personnel specifically American Nurses Association [ANA], 2023)**.** Figure 2 b Emergency Nurses Association (ENA) illustrates **s**tates with enhanced penalties for violence against healthcare workers, first responders and emergency medical services (EMS) workers only, or against nurses and other specified workers (with laws varying according to state). Also shown are states that have no enhanced penalties.

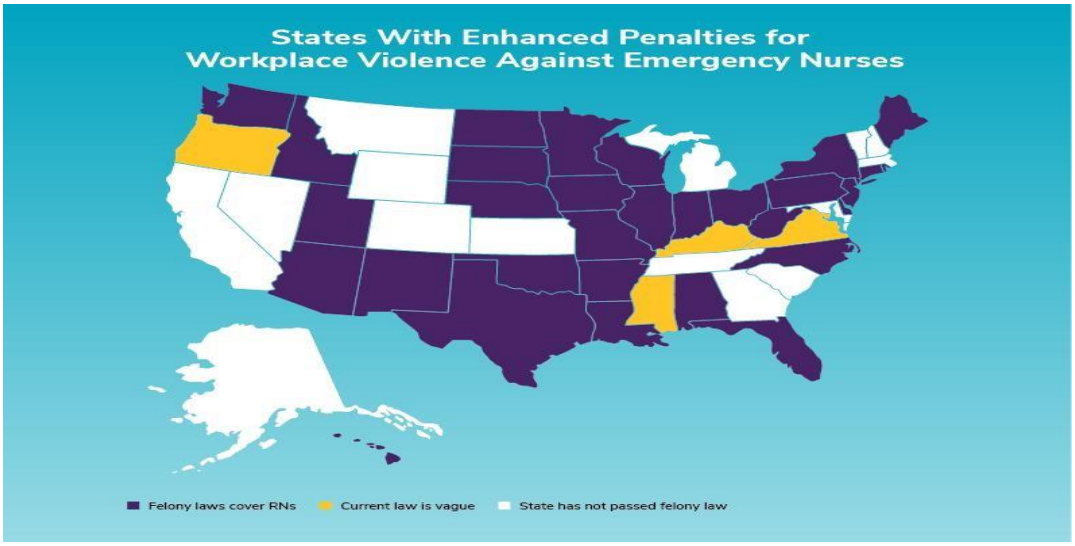

Figure 2: Emergency Nurses Association (ENA) Workplace Violence Map
https://www.ena.org/images/default-source/advocacy/ena-usa-map.jpg?sfvrsn=c9112821_2

However, while those state laws enhance penalties for WPV against specific healthcare workers, they do not have the elements of actual countering on WPV as suggested in OSHA 2016 Guidelines. However, Texas developed its own statute aimed at reducing acts of workplace violence directed against healthcare providers. Specifically, SB 240 *Relating to workplace violence prevention in certain health facilities,* passed with bipartisan support and was signed into law on May 15, 2023 (Tape & Shoonmaker, 2023). The law will go into effect on September 1, 2023 (LegiScan, 2023) and it will require each health facility to adopt written WPV prevention policy as well as a written WPV prevention plan (Texas Legislature Online, 2023). Per SB 240, facilities required to report include: (a) a home and community support services agency licensed or licensed and certified that employs at least two registered nurses; (b) a licensed hospital; (c) a licensed nursing facility that employs at least two registered nurses; (d) a licensed ambulatory surgical center; (e) a freestanding emergency medical care facility; and (f) licensed mental hospital. Such facilities will "*adopt, implement, and enforce a written workplace violence prevention plan in accordance with this section to protect health care providers and employees from violent behavior and threats of violent behavior occurring at the facility*" (Texas Legislature Online, 2023) and such plan must:

(1) be based on the practice setting;
(2) adopt a definition of "workplace violence" that includes:
    (A) an act or threat of physical force against a health care provider or employee that results in, or is likely to result in, physical injury or psychological trauma; and
    (B) an incident involving the use of a firearm or other dangerous weapon, regardless of whether a health care provider or employee is injured by the weapon;
(3) require the facility to provide at least annually workplace violence prevention training or education that may be included in other required training or education provided to the facility's health care providers and employees, including temporary employees, who provide direct patient care.
(4) prescribe a system for responding to and investigating violent incidents or potentially violent incidents at the facility.
(5) address physical security and safety.
(6) require the facility to solicit information from health care providers and employees when developing and implementing a workplace violence prevention plan.
(7) require health care providers and employees to report incidents of workplace violence through the facility's existing occurrence reporting systems; and
(8) require the facility to adjust patient care assignments, to the extent practicable, to prevent a health care provider or employee of the facility from treating or providing services to a patient who has intentionally physically abused or threatened the provider or employee (Texas Legislature Online, 2023).

4. New Joint Commission Standards on Workplace Violence Prevention

The Joint Commission (independent, non-for-profit) which is the oldest security standard setting and accrediting organization in healthcare in the United States and which accredits 4,500 hospitals and 20,000 other healthcare organizations (York & MacAlister), issued new and revised requirements for WPV on January 1, 2022. The Joint Commission acknowledged its efforts were

led by issues in definitions and standards, lack of safety culture, lack of awareness, lack of programs and systems in place (organizational and national-level regulations), lack of evidence-based research. New proposed guidelines aimed to guide accredited hospitals and critical access hospitals in developing WPV Prevention programs that include (a) leadership oversight, (b) policies and procedures, (c) post-incident strategies, (d) data collection and analysis, and (e) education and training (The Joint Commission, 2022). There were altogether 3 brand new elements of performance (EP17, EP29, and EP9 across three reporting domains) and two revised EPs (EP1 and EP6) within the Environment of Care (EC) domain.

The existing standard **EC.02.01.01**: *The hospital manages safety and security risks* was augmented by the new element of performance (EP17) that spells out that hospitals are mandated to conduct annual worksite analysis specifically related to WPV program. Upon findings on safety and security WPV risks based on such analysis the hospital must act in mitigating and solving them. Worksite analysis needs to be proactive, include investigation of hospital WPV incidents, and an analysis how policies, procedures, education, and training, and environmental (landscape, lighting, sensitive security areas) design align with best practices and conform to laws and regulations.

Within the existing standards **EC.04.01.01**: *The hospital collects information to monitor conditions in the environment,* the revised EP1 relating to the hospital establishing the process for monitoring, internally reporting, and investigating the following wording "security incidents involving patient, staff, and others within the facilities" was expanded to "**safety** and security incidents involving patient, staff, and others within the facilities, **including those related to WPV**". Based on the process in EP1, revised EP6 requires that the hospital **reports and investigates** the following: safety and security incidents involving patients, staff, or others within its facilities, including those related to WPV.

Within the existing standard **Human Resources (HR). 01.05.03:** *Staff participate in ongoing education and training*, new EP29 specified that hospital had to provide - within its WPV Prevention - training and education, and resources to leadership, staff, and licensed practitioners at the time of hire, annually, and whenever WPV changes occur and necessitate such training, education, and resources to be provided. Such training levels would be based on roles and responsibilities of staff, leadership, and licensed practitioners.

Finally, within existing standard **Leadership (LD).03.01.01**: *Leaders maintain and create a culture of safety and quality throughout the hospital*, new EP9 required that the hospital must have a WPV Program **led by an individual** and consisting of **a multi-disciplinary team** and that the program included: (a) policies and procedures to prevent and respond to WPV, (b) process to report incidents and analyze trends, (c) a process to follow-up and support victims and witnesses affected by WPV (with counseling if necessary).

Domain	Standards	Elements of Performance	Description

Environment of Care (ED)	EC.02.01.01 EC.04.01.01	EP17 EP1 & EP6	Annual Worksite Analysis Data Monitoring and Reporting WPV Risks (Setting the Process and Executing the Process)
Human Resources (HR)	EC.01.05.08	EP29	Education and Training In WPV
Leadership (LD)	LD.03.01.01	EP9	Establishing WPV Prevention Program

Table 2. Revised WPV Guidelines by the Joint Commission 2022. Compiled by the Authors.

The Joint Commission will assess all new elements of performance under respective standards in its subsequent site accreditation surveys. The guidance and development of new WPV guidelines signal a momentous shift in bringing WPV into focus within the healthcare industry because of the authority and gravitas the Joint Commission enjoys. Even though not the sole accreditation organization in the United States, the Joint Commission has historically led in international consultation, education, and guidance in healthcare.

5. Research Purpose and Methodology

The purpose of this research was to determine reporting mechanisms, training standards, established best practices, emerging solutions, and leadership directions related to countering WPV in healthcare settings. We conducted semi-structured interviews (Protocol included as Appendix A) among healthcare security executives recruited during the annual International Association for Healthcare Security and Safety (IAHSS) conference in Nashville, Tennessee in May of 2023. The study was approved by the Institutional Review Board at Sam Houston State University, Huntsville, Texas. We interviewed 9 healthcare security executives, of whom all but one have been certified as IAHSS Certified Healthcare Protection Administrator (CHPA) and all were Subject Matter Experts (SMEs) by virtue of their position and years of experience. Our respondents represented healthcare systems/organizations (to include a pediatric hospital system) in Texas (30% of our respondents), South Carolina, Kentucky, Illinois, Delaware, Georgia, and British Columbia (BC), Canada. All interviews were audio-recorded and transcribed. Data were inputted into MAXQDA 2022 software for theme extraction and analysis.

6. Results

Overview. All respondents agreed that WPV was of concern in their systems. Particularly, in urban areas like Houston and Chicago there is a correlation between WPV and community homelessness, street crime, drug addiction, or gang violence. Pediatric settings reported increased levels of aggression in their facilities as well. Some respondents indicated that COVID-19

pandemic impacts significantly affected healthcare customers' mental health coupled with the erosion of trust in medical providers and clinical staff. Inarguably, healthcare facility closures, general access restrictions, or visitor access restrictions contributed to better management of WPV during the pandemic and as facilities returned to normal operations, those restrictions were slowly lifted. Concurrently, greater access has correlated with observed spikes in WPV as well. As volumes of patients visiting EDs increase and as in-patient days increase, there is certainly an increase in observed WPV activities. A large system in Canada experiences approximately 25,000 WPV activities in one year. Even in facilities demonstrating an overall stability in WPV numbers, there are increasing reported levels of fear amongst the healthcare staff.

It is important to note, however, that there is a general agreement that enhanced WPV reporting by healthcare employees has been an intervening variable that needs to be taken into consideration as well. With better awareness, education and training programs, more incidents are being reported both those that require security interventions as well as those that might not trigger security response yet are increasingly being reported by clinical staff and healthcare employees by additional reporting platforms available. Finally, some of our interviewees noted that even though WPV numbers trended up overall, training and education initiatives in their settings contributed to decrease in serious injuries related to incidents involving physical assaults; verbal assaults or threats of physical assaults however remained high. On a positive note, there is consensus that the WPV discourse has firmly taken central stage in efforts and initiatives undertaken by healthcare organizations. Another positive direction is the improved alignment between the Occupational Safety and Health Administration (OSHA), Joint Commission, and Centers for Medicare and Medicaid Services (CMS) in their efforts to counter WPV. Similarly, there is an ongoing data warehouse project undertaken by the IAHSS to streamline definitions, incident categories, indicators to support WPV reporting standards.

Healthcare security executives also commented on the shift in mindset amongst healthcare executive leadership. The long-held views that security operations do not create revenue and investments in security lack return on the investment have been slowly replaced with keener interest in and commitment to such investment as a condition sine qua non for creating safe work environments for patients and healthcare employees alike. One contributing factor has been a system-wide approach to addressing the issue through multi-disciplinary teams, committees, or councils. Healthcare security is no longer uniquely the preoccupation of the security departments – increasingly, Human Resources, Legal Counsels, Clinical Staff, Risk Management, Emergency Management, or Facilities have been brought into the fold to jointly tackle the problem with security professionals' guidance. State regulations are certainly credited with contributing to this paradigm shift as well. Those gains notwithstanding, significant challenges remain.

Challenges to Countering WPV - Behavioral and Mental Health

One overarching theme is increasing concern about behavioral and mental health care which nationally is disjointed. Because psychiatric facilities do not create revenues, much of the funding needs to come from states. Conversely, many states have underfunded psychiatric facilities and the existing numbers of forensic psychiatric facilities are not adequate with many of them closing

for instance in Illinois or South Carolina. Community behavioral health has also moved in the direction of virtual support process and often patients need the personal interaction rather than having the discussion, assessment, and interaction over a computerized monitor not to mention that virtual access might not be available to many marginalized groups. Even in those systems that have psychiatric units, they are not designed for prolonged patient stays. As access to healthcare *itself is* a violence risk mitigation strategy, lack of access translates into populations seeking behavioral health care in healthcare facilities not equipped for that purpose. Ultimately, EDs are becoming primary care centers for individuals with mental health needs, and they certainly were not designed for that, some becoming holding centers. A wide range of patients display agitation related to an acute clinical emergency, often related to cognitive impairment, delirium, dementia, psychosis, smoking cessation, amphetamine withdrawals. Committal patients who cannot be accommodated require transfers to appropriate forensic facilities or long-term behavioral care facilities with some of those transfers involving great distances. One respondent indicated that behavioral health patients represent 80% to 90% of WPV issues in system's EDs.

In response to this problem, some interviewees reported that they had to create processes to remedy some of those issues such as creating a Behavioral Health Access Center comprising individuals who help to manage those patients, conduct assessments and screenings to determine best placement. Some organizations have considered adding psychiatrists and licensed practitioners to staff as support teams. Healthcare facilities have expanded great efforts to identify in-patient and out-patient behavioral care resources across their states. The state of Delaware, for example, hired a state funded position recently that works at the state level and helps coordinate placement of patients. Healthcare systems in the state have access to a state website called *Ready Bed* which displays bed availability and allows to match patients with appropriate forensic facilities. Those initiatives and processes notwithstanding, another challenge linked to behavioral health patients with respect to countering WPV and expressed by several of the interviewees relates to limited effectiveness as well as enforcement of existing state laws that impose increased penalties for WPV against healthcare workers. Notably, because of the difficulty in prosecution of individuals with degraded mental acuity, many responding law enforcement agencies do not arrest, do not write reports, and do not seek prosecution.

Expressed was a greater need for healthcare professionals to be understood and supported by law enforcement including an understanding that regardless of mental health or behavioral health component, assaults did occur often resulting in significant injuries. There need to be police reports and police should not be a judge of mental culpability in such cases. Cascading effects of lack of police reports and attempts at prosecution include reluctance by healthcare workers to report incidents as they believe that there is no support on the criminal prosecution side and undermines huge efforts undertaken to increase awareness and reporting. Thus, passing state laws might be ineffective when there are no actual enforcement and implementation efforts. This issue is even more dire in pediatric facilities where compassionate clinical staff dealing with challenges such as adolescents with autism might be generally reluctant to report incidents on WPV in the first place. Finally, specialized behavioral health assistance available to healthcare staff often extends beyond the resources available through Employee Assistance Programs (EAP) and can be too costly for employees to pursue.

Established Best Practices to Counter WPV

Despite challenges related to behavioral and mental health, much of which remain beyond the direct control of healthcare systems, healthcare organizations have developed successful strategies to counter WPV to date. Among those are Training and Awareness Education, Threat Assessments, Incident Reporting, and Visitor Management Systems, and Miscellaneous Physical Improvements.

Training and Awareness Education. The single most positive direction in countering WPV has been inclusion of diverse groups of vulnerable individuals, predominantly nurses and clinical staff (especially ED nurses) in healthcare setting in awareness education and training. Some systems have relied on nationally available curricula such as Critical Prevention Institute (CPI) that offer various modules to include an 8-hour block for nurses and some hands-on exercises.
Others relied on programs such as Non-Abusive Physical and Psychological Intervention (NAPPI) - a de-escalation training rooted in patient trauma-informed care and positive behavioral supports. Another program called Management of Aggressive Behavior (MOAB) contains principles, techniques, and skills for recognizing, reducing, and managing violent and aggressive behavior. In tandem, IAHSS offers online training modules. In BC, Canada, the province adopted Provincial Violence Prevention Curriculum, currently under revision by a newly created organization Safety, Wellbeing, Innovation, Training, and Collaboration in Healthcare (SWITCH BC) for greater inclusion of trauma-centered care principles and inclusivity. Some systems partnered with their Human Resources to offer conflict resolution training to clinical staff or reach out to groups like Coalition Against Violence and Exploitation (CAVE) or Center for Personal Protection and Safety (CPPS) that offer outreach and scalable training solutions.

Most of those curricula contain some type of education on recognition of signs of agitation and subsequent strategies at de-escalation, but there has been an agreement that some level of handson training in protective actions is necessary by selected groups of frontline healthcare workers as well. For example, healthcare defensive tactics (HDTs) designed specifically for healthcare settings such as AVADE could be considered not only as offering for security personnel but selected staff as well. The overarching consensus with regards to adoption of training and education curriculum by healthcare organizations has been proper assessment of critical staff, critical areas and locations, and critical needs by both the security personnel and other critical healthcare employees. Targeted training should consider levels of risk (for example ED and ICU units, transfer and travel areas) and type of WPV as well (e.g., active shooter training considerations are different than behavioral health de-escalation). To that end, many systems opted to reimagine training and create their own programs in-house, some with the help of consulting agencies. For example, one of the limitations of readily available curricula is their lack of tailoring to system and site-specific characteristics as well as staffing. Admittedly, many nurses are already taxed to their limit with staffing issues and the number of hours they're working and might not be available to participate in an 8-hour block offered by CPI while alternative in-house solutions might also be less costly. Bespoke training might be available during onboarding with some systems making it mandatory for new employees such as a general
45-minute employee orientation piece on public safety and security with basic strategies on how to stay safe. Ongoing training might consist for example of annual online workplace violence

course that is required for every single staff member across the organization, is 1-hour long and includes videos, definitions, violence types, statistics, as well as a video talking about reactionary methods. One system reported creating of the educational unit for pediatrics that includes just-intime training for nurses and clinical staff based on incidents and response. Training for security officers has expanded in scope as well. For example, one system reported 6 weeks WPV on the job training for security officers. Other organizations engage in joint training with law enforcement agencies to include scenario-based training with security officers, law enforcement partners, and identified staff working together as a team. In addition, one of the systems represented in our research partnered with the state to send nearly one third of their security officers to a law enforcement program run by the state which enables them to have powers to detain and arrest thus creating an intermediate transition between security and law enforcement.

Therapeutic controls' training is becoming increasingly common as well. In BC, Canada security officers are typically sent to the Justice Institute of British Columbia where a lot of municipal police forces receive their training for a week-long course that provides them with the skills and abilities to undertake targeted violence assessments; security officers also receive handcuffing training. Regardless of training models adopted, they consist of various types and levels, different duration, and cyclical recertification. Inarguably, one of the major challenges that remain related to education and training is the actual implementation of those practices particularly as it relates to critical clinical staff. Other challenges consist of time constraints of clinical personnel previously mentioned. One potential area of research would be to assess curricular content of Nursing and Health Sciences preparatory programs to gauge feasibility of including WPV topics in general education so that awareness, conceptual foundations, strategies for self-protection or criticality of reporting are introduced before nurses, particularly ED nurses enter the workforce.

Threat Assessments. One of the best proactive tools to counter WPV are comprehensive threat assessments that involve multi-disciplinary teams. Many healthcare organizations have engaged in multi-faceted risk assessments involving case workers, department heads, or legal counsel who form committees to address root causes of workplace violence and monitor WVP strategies and initiatives. In addition to security and emergency management, Multi-disciplinary Workplace Violence Committees or Councils comprising of Chief Medical Officers (CMOs), Chief Nursing Officers (CNOs), Behavioral Health Physicians, Chief Operation Officers, Employee Health and Welfare, or Physician Practice Leadership contribute to Threat Assessments and by that process also become champions of staff and patient safety initiatives. They should involve processes that allow for the analysis of historic clinical risk and risk enhancing factors such as a history of violence, history of mental illness, substance or alcohol use, access to weapons, or previous domestic violence that might be collected prior to intake and analyzed by the threat assessment teams. In addition, threat assessments include reviews of physical aspects of facilities to determine safety and security gaps. For example, Safety Analysis Risk Assessment (SARA) provides comprehensive review of facility safety conditions, assessment of safety and security procedures in place, or can be used to facilitate annual worksite analysis; worksite analysis might consider elements of Crime Prevention Through Architectural Design (CPTED) when new structures are being built. A system in BC, Canada which conducts approximately 200 individual threat assessments a year uses Workplace Assessment of Violence Risk 21 (WAEVR 21) which is a 21-item coded instrument allowing for structuring reports based

on levels of concern from low to imminent. It contains mechanisms for coding risk status of cases, or intake questionnaires and facilitates the analysis of psychological, behavioral, historical, and situational factors related to WPV of various types. The designated Threat Assessment Team undertake formal threat training at the Justice Institute of British Columbia.

Some systems partner with research institutions for development or use of appropriate tools. Notably, those systems allow for targeted safety and security planning and mitigation plans prior to intake or patient release or safety plans for the staff if the staff might be a potential target. Thus, threat assessments are data driven and provide an evidence-based practice for trend analysis, interventions, and proactive measures. Mitigation planning can establish visitation plans with restrictions such as limitation on patient visits, or escorts to units with security when patients are under watch. If the patient is a potential WPV target they can receive Do Not Acknowledge (DNA) in their file which will protect them from unwelcome visitors or contact inquiries. Flagging of medical records is another tool allowing for advanced notice of any future visits to one of systems' locations as practiced in a pediatric system in Texas. In those settings records of patients can be flagged for past parents' behavioral or other issues as well. Flagging might be based on severity levels (e.g., from S1 to S4) determined by criticality and number of times behavior was reported (it ties to incident reports). Clinicians' judgment is also sought because historical threats are just one indicator of safety. Red flagging in the chart for people who have propensity for violence, is being implemented in a lot of places beyond pediatric care with some medical charts having red banners across to visibly alert healthcare personnel.
Sometimes it is associated with markings on patient rooms that might spell caution for healthcare staff such as lab technicians or personnel other than nurses who might not know patients' history well.

Threat assessment might comprise combing through social media of specific users to look at things outside of the events that occur at the healthcare facility across different types of accounts, whether it's Twitter, Facebook, Instagram using keyword searches such as threatening statements or specific user searches, or if a location of user's name is mentioned throughout the post. Subsequently, dedicated investigators work to build the case related to the severity, the likelihood of WPV and then share results with the risk assessment. An established practice for dissemination of threat assessment data is *Safety Huddles* reported by all of our interviewees. Safety Huddles occur at many levels such as unit, department, management, or leadership and are typically conducted daily in form of briefing sessions to guide staff to the behaviors patients have been displaying, what the triggers might be, what to expect from the patient, and what factors they can use to mitigate. For example, one security executive reviews reporting every single morning and makes notifications to security leadership team about various system's locations and individuals arriving or leaving within the next 24 hours to allow for proactive planning based on severity codes regarding intake or moving to outpatient status. Planning might involve additional staffing at the location, or escorts. Safety Huddles might include alerts about key dates when persons of interest or threat to employees are going to court and whether they will be remanded into custody, or if they are released with conditions and how it might impact the facility and staff. More strategic Safety Huddles may take place weekly or monthly among different levels of leadership. Threat assessment include processes that are longitudinal with monitoring of trends over time, but they might also involve immediate processes (if possible) such as post-incident analysis after the

deployment of a response team to an incident code (those vary across the systems and states) allowing the staff to debrief after the incident sooner than later. Post Code Safety Huddles then provide immediate opportunity for feedback, support, aggression round tables, injury reviews as well as Root Cause analyses. They can also create space to review video material and issue immediate guidance, or immediate in-time training if needed. Post Code Huddles can also involve clinical psychiatry liaisons to assist with the future management plan for involved patients.

Another enhancement to Threat Assessment reported in large urban areas in our study is Violent Trauma Access Control planning. Upon notification from the emergency department that emergency medical services (EMS) are bringing in a violent trauma patient - whether from penetrating injury, like a gunshot wound or stabbing, or post domestic violence - security posture shifts in real time to secure the ED as those incidents bring large numbers of visitors and family members into EDs. Immediately prior to patient arrivals, precautionary measures such as restricted ED access and control, or even lockdown, or considerations of additional security staffing and outside visitor management that can be implemented temporarily until proper case threat assessment and determination of risk factors can be completed. Certainly, threat assessments are inherently linked to incident reporting systems.

Incident Reporting. The biggest advancement in incident reporting has been facilitated by auxiliary platforms that complement regular security incident reports and include anonymous or non-anonymous processes that allow for integration of data from clinical staff and frontline healthcare workers to allow for a more comprehensive picture of the WPV.
In essence, those platforms based on “if you see something, say something” philosophy allow for reporting WPV by anybody involved whether it happened on property, whether it's a domestic partner, and that data comes to the security leaders who can assess it and plan for the relocating of an employee, locking unit, making sure they have panic alarms, escorts to vehicles, relocating their vehicles, with notifications triggering real time responses such as prompt messaging about behaviors that are not tolerated. Additional reporting allows for deployment of additional resources, partnering with law enforcement to be able to look at criminal background, look at potential ongoing threats, and then to develop a plan that includes both the law enforcement partners and security teams to relocate the employee, lock a unit, test panic alarms., or provide escorts to them from the vehicles. Hotline numbers have been dedicated for reports as well.

Generally, those systems are separate from security incident reporting because of the U.S. Health Insurance Portability and Accountability Act (HIPPA) concerns, so typically they involve manual processes within information systems to create links and integration. Reporting can be supported with periodical survey monkey questionnaires eliciting safety and security perception data. Called by some Variance Reporting Systems have brought into the fold staff beyond security personnel. Of those platforms beyond standard security incident report database, systems may use Rl solutions for risk management reporting. It allows for anonymous as well as identifiable self-reporting from employees. The way those reporting systems work is that healthcare professional who witnessed the event (medication error, employee injury, fall, medical device malfunction, etc.) or near miss – or the first staff member who was notified about it – submits a report using the incident reporting software. An effective healthcare incident reporting system is equipped with immediate email notification alerts that notify risk management, the department supervisor, and/or

other relevant leadership to review the reported event. "*While IRS are relatively new in healthcare, similar systems in nuclear, railway, fire, and aviation industry have had tremendous success. The concept behind IRS is simple; they provide a mechanism to identify risks so that organizations can implement interventions to reduce these risks. IRS provide valuable information to identify hazards and surface learning opportunities. In healthcare, IRS provide frontline caregivers a mechanism to raise concerns, providing voice to these clinicians that management can work to mitigate*" (Pham, Girard, Pronovost, 2013, para. 3). RI Solutions has different categories within, but there is one specific to WPV and behavioral issues called *safety scoop* which can be easily extracted to supplement security report data. RI Solutions provide real-time interactive dashboards to identify trends and make well-informed decisions improving patient safety, Automatic Notification & Alerts, and Easy-to-Use Incident Forms that can be custom built to track the data that *are the* most important. Because the safety scoop is entered without security involvement, it needs to be manually entered into the security report to make sure that statistics are included in overall WPV statistics. In essence safety scoop includes events in which security were not called or notified of a situation and allows for an opportunity to create by simply cutting and pasting an incident report within the security software to document those. Another provider used is RL Datrix that contains good tools for reporting and rounding WPV and helps identify areas of improvement and encourage a culture of safety where staff feel safe to report concerns that put patients at risk.

Ultimately, data from processes like safety scoop can be disseminated in Safety Huddles and influence the overall threat assessment within the organization. Incident reporting allows also allows for EAP referrals, access to chaplaincy programs, counselors, or psychiatrists. They could lead to issuance of mental inquest warrants as is the case in Kentucky. Reluctance to report however is still an issue in many systems; for example, clinical staff are apprehensive to appear in court as witnesses, do not want to initiate actions against parents, adolescents, or individuals with cognitive and developmental needs, or simply do not believe that prosecution will ensue. One system used legal services to change their processes and allow for the organization itself to act as a complainant in those cases thus protecting staff from court appearances. That same system works very closely collaborating and liaising with state attorneys by its legal services and a contracted law firm to secure prosecutions.

Visitor Management Systems. Whereas only two respondents in our sample (one of them representing the pediatric system) confirmed that their organizations implemented system-wide visitor management system (VMS), most security executives both in the United States and Canada (one BC system lacks basic visitor management) advocated for it as the best practice to counter WPV. Most of them have considered digital, enterprise- type systems, and are conducting feasibility assessments about the human resources, financing, and necessary supports to implement it. For large hospitals with large footprints with multiple entry and exit points (some centers might have as many as 20 entrances for the public) into the facility, formal visitor management during the day is very difficult and the pandemic opened the door into challenging the *open concept* (healthcare facilities as welcoming) thinking. During COVID-19 healthcare organizations shut the door to visitors and saw a dip in WPV causing strong interest by the leaders in healthcare security to examine options for formalized visitor management processes. Open concept thinking however is generally preferred by the healthcare leadership; the reluctance to

shift away from the open concept is often grounded in belief that patients will seek health services in competing systems that would not inconvenience them. Various types of VMS are generally used in sensitive areas of hospitals to include pediatric units/infant units. Further, specialized hospitals within systems such as children's might have their own site VMS. In addition, many systems operate night visitor management where most people can be funneled through the ED and be signed in and out, but most security executives would like to see a daytime process for vetting mainstream visitors into facilities writ large. Markedly, architectural design of older buildings and complexes makes implementing formal visitor management challenging. For example, one hospital system in a large urban area in Texas reports 7,500 visitors daily with huge spikes in morning hours and the VMS in the current layout is feared to slow the traffic creating inconveniences, and delays for laboratory services and appointments for instance.

Newer constructions such as an example provided by one of the interviewees of Lurie Children's Hospital in Chicago - a 25-floor level one trauma, number one pediatric hospital in Illinois were built with a single point of entry; it was hence designed with general funneling layout that allows for operationalization of a comprehensive VMS. A healthcare system in Delaware implemented an electronic VMS and has been tracking all data from all entrances not just the ED since 2018 and thus has the accountability of who is in the building at a given time. They adopted the program called PassagePoint Global software which includes visitor pre-registration, security, and background checks, internal watchlist capabilities and watchlist flagging function, or automated email and mass notifications. It scans IDs and prints photo badges with color-coded destinations in the facility and duration in the facility, incorporates vehicle recognition system, and cross references sexual offender databases (for legal reasons some pediatric hospital sites that have electronic VMS opted to leave the sexual offender function of such systems off). While for many security executives, resources such as funding/staffing might constrain current implementation of formalized VMS, there is a strong belief that such systems should become norm rather than exception. In the words of one of them "*we used to design hospitals in the past, which was, make them look like a fortress or a castle on the outside, like a big old university building, but then once you get in, it's welcoming and open, and you can get in and walk everywhere. I think that was the old trend. And now the new trend is designing them so that they look welcoming on the outside, but when you actually try to get in, it's very restrictive for the control of your patients, visitors, and just all those traffic visitor flows that we have to kind of contend with*".

Miscellaneous Physical Improvements. Other successful practices to counter WPV extracted from interviews included signage, amnesty boxes, ED design, and camera systems. For example, few years ago a system in Delaware placed "no firearms" sings on all their facilities causing a significant decrease in the number of weapon encounters with individuals carrying firearms particularly in rural areas where people typically carry. Amnesty boxes to discard prohibited items have become commonly used as well. Other signage in ED rooms and high-risk units included posters setting the tone about violence, about not tolerating it, or about the ban from property or prosecution process for it, or signage on zero tolerance for threats, obscenities, or sexual harassment. Even though data on the effectiveness of signage with messages, directions, or advisories are not yet available, admittedly such signage is known to reassure the staff and reduce fear and the perception of risk. Another improvement consists of managed security inventory (testing functionality, reassessing use) particularly in EDs (e.g., chairs in ED area).

Finally, multi-functional, high resolution, fixed video and analytics systems like Avigilon by Motorola that can link to radio, access control or software have been successfully used for forensic purposes in WPV incidents. Certainly, the Artificial Intelligence (AI) capabilities of such systems harbinger paradigm shift in video-camera capabilities from reactive to proactive realm.

Emerging Best Practices and Innovations to Counter WPV

We identified two concurrent strands of emerging best practices and innovations. The first targets the challenges related to behavioral and mental health that underpin much of the WPV in healthcare and consists of initiatives and programs that are grounded in trauma-informed care philosophy. "Trauma-informed care acknowledges the need to understand a person's life experiences in order to deliver effective care and has the potential to improve patient engagement, treatment adherence, health outcomes and provider and staff wellness" (Menschner & Maul, 2016, p. 1). The second trend ties into emerging technologies that offer increasingly sophisticated, robust, and often interconnected systems and with them opportunities for novel safety and security solutions in curbing WPV.

Trauma-Informed Care Practices. One of the models rooted in trauma-informed care has been used by the pediatric system represented in our study. In pediatric settings parent escalations result from overwhelming challenges guardians experience in seeking and receiving professional care for their children with special cognitive and developmental needs. Many parents are not equipped with education and coping skills, lack access to or awareness about resources to support their kids, and some are reaching their limits of endurance because of back-and-forth state involvement. To respond to this growing need, the system created positions of *Parent Ambassadors* who are dedicated to advocate for parents, to direct them to education on what potential resources might exist in their communities such as Health Alliance for Violence (HAV), or social services, or not for profit organizations who might provide those services. The program has been extremely helpful in decreasing instances involving parent escalations. Another resource used by the system in B.C., called *Client Service Ambassadors* (CSAs) who have been placed in some of the busiest EDs in waiting room areas with family members and their role is to monitor the behavior of patients and visitors to identify signs of escalation towards aggression, and then to intervene early. Their role is also to provide comfort to those waiting by offering coffee or blankets, for instance. The non-uniformed officers involved in the program wear polo shorts and have softer presence (uniforms often trigger some individuals particularly those suffering from behavioral mental health conditions). Concurrently, they created a clinical version of security-based CSAs who perform similar functions, but are also able to provide basic clinical care, and some sites involved workplace health personnel to create their own version of it. The CSA program in many of its iterations has been successful. Beyond ED they might be involved in softening the transition of homeless from the hospital back into shelters by facilitating transportation. Ambassador program facilities have witnessed decreased numbers of trespassing and CAS have been an integral part of Safety Huddles for situational awareness, to understand concerns and planning for patient discharge. A formal 6-month pre and post evaluation conducted at one of the three test sites piloting CSAs saw a 23% reduction in physical aggression in those EDs.

Also, in B.C., the Ministry of Health in coordination with unions and nurse associations has just implemented a relational security model that mirrors relational security concepts from National Health Service (NHS) in the United Kingdom. The Province of B.C. will fund health authorities to establish a relational security model in 26 health-care settings and hire staff to support it (about 320 officers and 14 violence prevention leads, BC.gov, 2022). The new model ensures all security personnel have an acute awareness of patients and their surroundings, as well as how to anticipate, de-escalate and ultimately prevent aggression. Based in trauma-informed practice, it will integrate knowledge of how people are affected by trauma into procedures, practices, and services. Subsequently, *Relational Support Officers* (RSOs) trained under the model will be tasked with developing and maintaining strong relationships with patients, staff, and visitors based on respect, care, and empathy. They will be trained in cultural diversity issues particularly with respect to Indigenous cultural safety interventions with the aim to create a safe and compassionate environment for patients and staff (training curriculum is currently under development).

In the United States, Behavioral Emergency Response Team (BERT) has been piloted by one large healthcare system in Texas in one of its busiest Medical Centers. BERT consists of certified mental health nurse/s or other clinicians and secondary security assistance. It is used as a consultative resource for manifestations of psychiatric behaviors or behavioral emergencies present in a non-mental health care settings to identify and diagnose escalating behavior and intervene before a negative event or escalation to an alert code requiring security interventions. Leading mental health practitioner on the BERT deescalates potentially violent behaviors via therapeutic calming techniques, models crisis intervention skills to other nurses and healthcare personnel present, suggests medication initiation or adjustment, conducts debriefings after the situation is diffused, and suggests future education needs. If the patient does not respond to deescalating techniques, security personnel become involved. Whereas data were not available on the piloted BERT program in Texas, one U.S. BERT pilot study revealed the program significantly reduced security interventions (e.g., numbers of assaults and security interventions decreased by 83% while the use of restraints decreased by 80% [Zicko, Schroeder, Byers, Taylor, & Spence, 2017]).

Technology. Among technological advancements in healthcare security, one pursued with the greatest interest has been Weapon Detection Systems (WDS). Most security executives expressed strong interest in deploying WDS technologies in their facilities' main entries or in newly constructed facilities. WDS technologies surpass traditional metal detectors/magnetometers allowing for much faster, better, and more accurate rates of detection than older technologies. As such they are less invasive and more accurate. A WDS at the entry points with trained staff supersedes traditional metal screening because it assesses size, composition, depth, and shape of the metal as well as tubular shape. Thus, concerns about patients and visitors with keys in pockets, laptops, or cell phones can be eliminated. While large metal objects like wheelchairs and walkers still require additional side screening, more nuanced detection overall resolves issues of delays. Whereas in traditional metal detectors/magnetometers, one might have had to stop 85 out of 100 people walking through making it extremely resource intensive and clumsy, with WDS those numbers can be dramatically reduced and the pace much faster and the overall process less intrusive. Even though some systems consider it only in EDs, most conceded that it's a good start.

Even pediatric facilities that have shied away from having families walk through metal detectors/magnetometers, might consider WDS in the future.

Certainly, strong interest in the technology aside, actual implementation involves the ability to operate the system, putting policies and procedures in place in case security do come upon a weapon, and having trained individuals who are able to recover a weapon once detected. In essence, operationalizing the system requires foresight and extensive research, including vendor demonstrations and comparisons for the best fit. Other concerns are that in states like Texas that allow concealed weapon licenses, the risk for individuals who inadvertently carry might involve charges related to criminal trespassing in healthcare facilities. Interestingly, technology notwithstanding, few systems looking at cost benefit analysis of WDS, like the one in Illinois and Delaware have implemented pilot *Canine* programs aimed at WDS. Those have been well received and might be implemented in all facilities. Implementation considerations include handlers being armed security or law enforcement, selection of "floppy ears" breeds that do not cause intimidation, canines trained in passive signaling, and considerations for canine treatment issues such as canine-handler relationship (with best practice being canines reside with handlers).

Another piece of technology mentioned most frequently have been wireless solutions to *Duress Panic Alarms.* For clinical staff personnel who are in isolated situations and cannot access a phone, or do not have access to other staff when in unsafe situations, wireless duress alarms represent a huge force multiplier in assisting. Even though there are various types, all connect automatically to the security system secured networks and dispatchers. When activated, they work similarly to activating one of the fixed duress alarms under the desk for panic reasons in designated locations. Those traditional hardwired duress panic buttons might be inaccessible or out of service when panels are down, they are clumsy and costly. Behavioral units, for instance, do not sit at their desks and move around from the exam room, within patient rooms, in elevators or corridors when they find themselves in unsafe situations, Wifi supported systems worn on the person provide for a greater accessibility and response times. A pie in the skye, *Artificial Intelligence (AI)*, even though still cost prohibitive, offers another avenue and great promise for enhanced WPV strategies. For example, camera systems, used generally for forensic purposes, or WDS when overlaid with AI could be leveraged for real time response and interventions in the future.

Leadership Support to Counter WPV

In addition to security executives firmly establishing a seat at the healthcare leadership table in the discourse on WPV prevention, one of the most successful strategies to garner C-Suite (Chief Executives Within Healthcare Organizations) support to security initiatives has been linked to the revolution in *Data Analytics* and the level security experts leverage those developments. Sophisticated software programs and analytical data mining tools linked to them allow for a much broader picture of trends, comparative statistics, or disaggregation by variables of interest. Good raw data has been one most determining factors leading to shifts in perspectives on investments in curbing WPV by the healthcare leadership. Security executives who are capable of presenting evidence-based, research-based practices as well as sound feasibility assessments about the technological capabilities, who can expertly discuss national guidelines, and laws have become

valued. Their security expertise has become indispensable in organizational decisionmaking. C-Suite expects a lot of diversified input, cost benefit analyses, risk assessments, or litigation mitigation strategies. Many of the C-Suite healthcare personnel like Chief Medical Officers are scientists and they expect data supported with sound scientific methodologies to make informed decisions and to build trust in security experts. For example, comparing technology expenditures to the turnover cost of clinical staff and articulating overall savings helps fund important programs; some of our interviewees were able to work with Human Resources (HR) in pulling vital data from exit interviews and linking them to safety and security concerns. Most security investment decisions by C-Suite are about balancing cost with rewards. Calculating injury and workmen compensation claims, high medical and insurance expenses and juxtaposing those with savings from prevention programs offer compelling arguments about return on investment. Similarly, linking security officer-patient confrontations to lack of funding for training paints a picture about needs in education and training arena. Getting pre and post data on piloted de-escalation training and showing patterns of decrease in WPV incidents gets further buy-in to implement such training system-wide. To that end, security executives in healthcare systems have a huge role in educating their leadership about the actual value of safety and direct and indirect impacts of prevention measures.

Another aspect of C-Suite support indicated by security professionals in our study relates to *Engagement*. C-Suite loves the data, but they also like to see what the security department is doing and how it is doing it; video analytics with overlays, facial recognition/biometrics programs, license plate recognition technology, or WDS offer an opportunity for C-Suite to see how they work, to engage in conversations with vendors directly when they come to campuses, to alleviate privacy, confidentiality, or legal concerns, to get hands on experiences how exactly those technologies function and what their capabilities might offer. Bringing in several vendors and featuring alternative models with C-Suite involvement and engagement creates a greater sense of awareness, education, and ultimately trust in proposed solutions and financial allocations.

Another way to get C-Suite buy-in in security investments is raising awareness by security leadership that good safety and security have direct correlation to *Recruitment* of qualified healthcare personnel. With dire shortages of nurses internationally, and in the United States specifically, healthcare systems will be in high competition for clinical social capital with one another. In fact, the overall U.S. healthcare system might be short by as many as 400,000 nurses (York & MacAlister, 2015). Thus, systems that can reduce physical assaults or threats will have an upper hand in attracting clinical staff and that can be translated into good investment as well. In essence, security costs, compared to other medical expenditures like MRI equipment for instance are not that exorbitant and all security leaders in our study admitted that when they make judicious and strategic prioritization decisions supported with good data and research, they can generally secure finding for the most critical programs. Security professionals in healthcare all agree that WPV cannot be eradicated. However, they also believe that it can be efficiently managed with proper policies, strategies, processes, technologies, training/education, and with support of healthcare leadership that either already exist, that are emerging and promising and that are discussed herein.

Dr. Magdalena A. Denham is a Professor of Practice, College of Criminal Justice, Department of Security Studies, Sam Houston State University, Huntsville, Texas

Email: Magdalena@shsu.edu

Mark V. Denham, CHPA, is a Regional Security Director for Memorial Hermann Hospital System, Houston, Texas

Email: Mark.Denham@memorialhermann.org

The authors would like to thank all interviewees for generously donating their time and insights to inform this study.

References:

Behnam, M., Tillotson, R. D., Davis, S. M., & Hobbs, G. R. (2011). Violence in the Emergency Department: A National Survey of Emergency Medicine Residents and Attending Physicians. *The Journal of Emergency Medicine, 40*, 565-579. doi:10.1016/j.jemermed.2009.11.007

British Colombia Government. (2022, October 24). *320 protection services officers will support safer workplaces for health-care workers.* [Press Release]. Retrieved from 320 protection services officers will support safer workplaces for health-care workers | BC Gov News Byon, H. D., Sagherian, K., Kim, Y., Lipscomb, J., Crandall, M., & Stieg, L. (2022). Nurses' Experience with Type II Workplace Violence and Underreporting During the COVID-19 Pandemic. *Workplace Health and Safety, 9,* 412-420. doi:/10.1177/21650799211031233

Carmi-Iluz, T., Pelag, R., Freud, T., & Shvartzman, P. (2005). Verbal and physical violence towards hospital- and community-based physicians in the Negev: an observational study. *BMC Health Services Research*, *54*, 1-6. doi:10.1186/1472-6963-5-54

Duncan, S. M., Hyndman, K., Estabrooks, C. A., Hesketh, K., Humphrey, C. K. Wong, J. S. Acorn, S., & Giovannetti, P. (2001). Nurses' experience of violence in Alberta and British Columbia hospitals. *Canadian Journal of Nursing Research, 32*(4), 57-78. Accessed at https://pubmed.ncbi.nlm.nih.gov/11928302/

Ferri, P., Silvestri, M., Artoni, C., & Lorenzo, R. D. (2016). Workplace violence in different settings and among various health professionals in an Italian general hospital: a crosssectional study *Psychology Research and Behavior Management*, 9, 263-275. doi:10.2147/PRBM.S114870

Hanson, G. C., Perrin, N. A., Moss, H., Laharnar, N., & Glass, N. (2015). Workplace violence against homecare workers and its relationship with workers' health outcomes: a crosssectional study. *BMC Public Health, 15*(11), 1-13. doi: 10.1186/s12889-014-1340-7

Howard J. (1996). State and local regulatory approaches to preventing workplace violence. *Occupational Medicine*, 11, 293–301.

Injury Prevention Research Center. (2001, February). *Workplace Violence: A Report to the Nation*. [Report]. University of Iowa, Iowa Cite, IA. Accessed at 17551 PDF readers (uiowa.edu)

International Healthcare Security and Safety Foundation. (2014). *Healthcare Crime Survey*. [Report}. Accessed through crimesurvey2014.pdf (iahssf.org)

Judy, K., & Veselik, J. (2009). Workplace violence: a survey of pediatric residents. *Occupational Medicine, 59*, 472-475. doi:10.1093/occmed/kqp068

Kowalenko, T., Walters, B. L., Khare, R. K., & Compton, S. (2005). Workplace Violence: A Survey of Emergency Physicians in the State of Michigan. *Annals of Emergency Medicine, 46*, 142-147. doi: 10.1016/j.annemergmed.2004.10.010

LegiScan. (2023). *Texas Senate Bill 240*. [88th Legislature]. Texas State Legislature: Austin, Texas. Retrieved from TX SB240 | 2023-2024 | 88th Legislature | LegiScan

May, D. D., & Grubbs, L. M. (2002). The extent, nature, and precipitating factors of nurse assault among three groups of registered nurses in a regional medical center. *Journal of Emergency Nursing, 28*(1), 11-17. doi: 10.1067/men.2002.121835

Menschner, C., & Maul, A. (2016). *Key Ingredients for Successful Trauma-Informed Care Implementation.* [Issue Brief, 1-12]. Center for Health Care Strategies. Retrieved from Key Ingredients for Successful Trauma-Informed Care Implementation (samhsa.gov)

Jennifer M. Zicko, J. M., Schroeder, R. A., Byers, W. S., Taylor, A. M., & Spence, D. L. (2017). Behavioral Emergency Response Team: Implementation Improves Patient Safety, Staff Safety, and Staff Collaboration. *Worldviews on Evidence Based Nursing, 14,* 377-384. Retrieved from https://sigmapubs-onlinelibrary-wileycom.ezproxy.shsu.edu/doi/epdf/10.1111/wvn.12225

Partridge, B., & Affleck, J. (2017). Verbal abuse and physical assault in the emergency department: Rates of violence, perceptions of safety, and attitudes towards security. *Australasian Emergency Nursing Journal*, *20,* 139-145. doi:10.1016/j.aenj.2017.05.001

Pham, J.C., Girard, T., & Pronovost, P. J. (2013). What To Do with Healthcare Incident Reporting Systems. *Journal of Public Health Research, 2*. doi: 10.4081/jphr.2013.e27. Retrieved from What to do With Healthcare Incident Reporting Systems - PMC (nih.gov)

Pompeii, L. A., Shoenfisch, A. L., Lipscomb, H. J., Dement, J. M., Smith, C. D., & Upadhyaya, M. (2015). Physical assault, physical threat, and verbal abuse perpetrated against hospital workers by patients or visitors in six U.S. hospitals. *Australian Journal of Industrial Medicine, 58*(11), 1194-1204. doi: doi/10.1002/ajim.22489

Privitera, M., Weisman, R., Cerulli, C., Tu, X., & Groman, A. (2005). Violence toward mental health staff and safety in the work environment. *Occupational Medicine, 55*, 480-486. doi: 10.1093/occmed/kqi110

Tape, J., & Shoonmaker, L. C. (2023, July 24). Texas Takes the Lead in Addressing Workplace Violence in Healthcare Facilities. *Workplace Safety and Environmental Alert Blog*. Retrieved from Texas Takes the Lead in Addressing Workplace Violence in Healthcare Facilities | Workplace Safety and Environmental Law Alert Blog (environmentalsafetyupdate.com)

Texas Legislature Online. (2023). *Texas Senate Bill 240*. Austin, Texas. Retrieved from 88(R) SB 240 - Introduced version (texas.gov)

Joint Commission. (2022, January). Workplace Violence Prevention – New and Revised Requirements. Author. Retrieved from Workplace Violence Prevention – New and Revised Requirements | The Joint Commission

York, T. W., & MacAlister, D. (2015). *Hospital and Healthcare Security* (6th Ed.). ButterworthHeinemann: Waltham, MA.

Appendix A

Interview Protocol – Tentative Grand Tour Questions

1. Please tell me about your system/agency/entity and your role – if you serve special populations like children or the elderly, please think about special issues in workplace violence that you might have that differ from other healthcare entities.
2. What type of threat assessment processes, products, services and/or programs have worked for you in countering workplace violence?
3. Beyond threat assessments, what other initiatives, products, processes, or services have been effective in your experience to counter workplace violence?
4. What strategies, processes, initiatives have you found to be effective to garner support from C-suite to programs aimed at countering workplace violence? What have been the biggest challenges when dealing with leadership?
5. Should you have unlimited amount of funds, what emerging solutions would you like to adopt to counter workplace violence?

INSTITUTE FOR HOMELAND SECURITY

Sam Houston State University

The Institute for Homeland Security at Sam Houston State University is focused on building strategic partnerships between public and private organizations through education and applied research ventures in the critical infrastructure sectors of Transportation, Energy, Chemical, Healthcare, and Public Health.

The Institute is a center for strategic thought with the goal of contributing to the security, resilience, and business continuity of these sectors from a Texas Homeland Security perspective. This is accomplished by facilitating collaboration activities, offering education programs, and conducting research to enhance the skills of practitioners specific to natural and human caused Homeland Security events.

Institute for Homeland Security
Sam Houston State University

Denham, M. A. & Denham M. V. (2023) Countering Workplace Violence in Healthcare: Voices from the Field. (Report No. IHS/CR-2023-1006). The Sam Houston State University Institute for Homeland Security. https://doi.org/10.17605/OSF.IO/ATX5Z