Presenter Bio

Edward Wurster is the former Chief Physical Security Officer for PPL Corporation, a leading investor-owned utilities company in the United States, where he shaped corporate emergency management, business continuity strategies, executive protection, and physical security programs protecting over $39 billion in assets.

Recognized by the US Department of Homeland Security as a Master Exercise Practitioner, Wurster has designed and executed numerous multi-hazard exercises throughout the United States, fostering resilience and readiness in the face of adversity. Internationally, he has collaborated with government and public safety officials in Canada, Panama, South Korea and Turkey, elevating emergency response capabilities and enhancing preparedness measures.

Ed has a master's degree in public safety management from Saint Joseph's University and has augmented his expertise through prestigious programs such as the University of Pennsylvania-Wharton School Security Executive Program and the FBI Graduate Domestic Security Executive Academy in Quantico, Virginia.

Wurster holds certifications as a Chartered Security Professional, Certified Emergency Manager, Certified Healthcare Safety Professional and as a Certified Business Continuity Professional.

Currently, Ed is the Manager, Business Continuity and Cyber Resilience for the Hospital and Healthsystem Association of Pennsylvania, where he provides consultation, collaboration, and support to healthcare stakeholders.

Objectives

By the end of this presentation, participants will be able to:

1. Describe the current emergency management landscape within Pennsylvania hospitals, including key threats, risks, and workforce trends.

2. Identify the evolving responsibilities and competencies required of healthcare emergency management professionals in today's healthcare environment.

3. Recognize Pennsylvania specific hazards that influence hospital preparedness and response planning.

4. Explain recommended training pathways and professional development opportunities for emergency management practitioners in healthcare settings.

5. Understand the value of standardized emergency management program metrics and how they support continuous improvement.

6. Summarize key findings from the HAP review and identify actionable next steps for strengthening emergency management programs statewide.

7. Discuss opportunities for improved collaboration, resource support, and EM program maturity within hospital organizations and across the healthcare system

Introduction

- In 2025, HAP, in partnership with hospital emergency management professionals and supported by the ASPR COVID-19 Grant Program, conducted a comprehensive statewide review of hospital emergency management programs.

- The assessment examined workforce structure, capabilities, and needs, identifying opportunities to strengthen preparedness amid an increasingly complex threat environment.

Key Themes

- Broad hazard exposure: cybersecurity, infectious disease, severe weather, aging infrastructure, supply chain risk

- EM workforce challenges: staffing capacity, expanding responsibilities, limited training resources

- Evolving role post-COVID-19: increased emphasis on coordination, communication, and continuity

Key Themes

- Report highlights opportunities to enhance:
  - Professional development
  - Program metrics and evaluation
  - Statewide alignment
  - Support for EM professionals

- Insights, while Pennsylvania-focused, are broadly applicable across U.S. healthcare systems

Current Threat Landscape for Hospitals

Current Threat Landscape for Hospitals

- Evolving Threat Environment
  - Increasing frequency and severity of disasters since 9/11
  - Rising cybersecurity threats and ongoing terrorism risks
  - Growing complexity and cost of emergency management
  - Greater emphasis on technology and community resilience

Current Threat Landscape for Hospitals

- Hospital Vulnerability
  - Hospitals face expanding risks affecting continuity of care
  - Emergency demands have grown significantly in recent years
  - Multiple hazard types impact operations simultaneously
  - Preparedness requires sustained investment and resources

Current Threat Landscape for Hospitals

- Public Health Emergencies
    - COVID-19 exposed systemwide vulnerabilities
    - Capacity strain from patient surges and supply shortages
    - Need for strong infection control and medical stockpiles
    - Future pandemics remain a persistent threat

Current Threat Landscape for Hospitals

- Natural Disasters
  - More frequent hurricanes, floods, wildfires, and tornadoes
  - Facilities face physical damage and utility disruptions
  - Supply chain interruptions complicate response
  - Scale of events can overwhelm preparedness plans

Current Threat Landscape for Hospitals

- Cybersecurity Risk
  - Hospitals are prime targets for ransomware attacks
  - Cyber incidents disrupt care and compromise patient data
  - IT outages highlight vulnerability of critical infrastructure
  - Requires robust cybersecurity and response planning

Current Threat Landscape for Hospitals

- Workplace Violence
  - Healthcare workers are five times more likely to face violence
  - High rates of verbal and physical assaults on nurses
  - Violence impacts morale, care quality, and staff retention
  - Growing safety concern across U.S. healthcare systems (global)

Current Threat Landscape for Hospitals

- Aging Infrastructure
  - Outdated electrical and mechanical systems increase risk
  - Limited surge capacity reduces resilience
  - Dependence on utilities creates vulnerability in outages
  - Backup systems may not sustain prolonged disruptions

Current Threat Landscape for Hospitals

- Supply Chain Vulnerabilities
  - Global supply dependence affects medical goods availability
  - Disruptions due to geopolitical, trade, and transport issues
  - Need for coordinated supply resilience strategies
  - Essential to maintain continuity during major events

Current Threat Landscape for Hospitals

- Workforce Shortages
  - Significant vacancy rates among nurses and support staff
  - Shortages worsen during emergencies and surges
  - Impacts timely, high-quality patient care
  - Necessitates well-tested contingency staffing plans

Current Threat Landscape for Hospitals

- Overall Preparedness Needs
  - Hospitals face a complex and growing risk landscape
  - Critical need for enhanced preparedness and resilience
  - Requires investment in cybersecurity, infrastructure, and training
  - Collaboration across sectors essential for effective response

Pennsylvania Risks

- Pennsylvania Risk Profile
  - Pennsylvania faces risks similar to national healthcare infrastructure vulnerabilities
  - Geography, climate, and population density increase exposure to hazards
  - Frequent natural, environmental, and public health emergencies
  - Highlights need for strong emergency management and community resilience

Pennsylvania Risks

- Flooding as a Major Threat
  - High vulnerability due to hurricanes, tropical storms, and heavy rainfall
  - Historic events: Hurricane Ivan (2004), Tropical Storm Lee (2011), Hurricane Irene (2011)
  - Flood-prone regions include Pittsburgh, Harrisburg, and river basin communities
  - Flash flooding risks intensified by dense river systems

Pennsylvania Risks

- Severe Weather Risks
  - Tornadoes occur, especially in western and central regions
  - Notable tornado outbreak: November 2002
  - Severe winter storms (e.g., Snowmageddon 2010, Winter Storm Jonas 2016) cause major disruption
  - Heavy snow, ice, and blizzard conditions impact operations statewide

Pennsylvania Risks

- Hazardous Materials and Transportation Risks
  - Extensive highway and rail networks increase hazardous materials spill risk
  - Spills can trigger evacuations and environmental damage
  - Transportation incidents pose unique operational challenges for hospitals
  - Heightened need for rapid multi-agency coordination

Pennsylvania Risks

- Hospital Closures and Community Impact
  - Rural and underserved communities face greatest closure risk
  - Closures reduce access to care and delay emergency treatment
  - Neighboring hospitals experience overcrowding and resource strain
  - Economic and workforce impacts deepen community vulnerability

Pennsylvania Risks

- Preparedness Challenges
  - Hospitals must rapidly activate emergency operations during crises
  - Surge capacity and resource flexibility are essential
  - Real-world events reveal uncertainty in regulatory requirements
  - Regulatory modernization needed to support effective response

Pennsylvania Risks

- Role of Advocacy
  - Hospitals exercise and plan extensively, but barriers remain
  - Outdated regulations impede timely implementation of emergency plans
  - HAP advocates for updated hospital regulations aligned with modern threats
  - Collaboration with state partners is essential to strengthen resilience

Emergency Manager Role

- Why Emergency Management Staff are Essential
  - Expanding threats (pandemics, cyberattacks, terrorism) require specialized expertise
  - Hospitals must meet growing regulatory and accreditation standards (Joint Commission, CMS)
  - Dedicated EM professionals ensure compliance and preparedness
  - Health care settings require unique, complex emergency planning

Emergency Manager Role

- Evolution of Healthcare Emergency Management
  - 9/11 highlighted the need for specialized emergency management in hospitals
  - Academic programs and certifications (CEM, CHEP) have expanded
  - Professionalization of the field has increased standardization and skill development
  - EM roles now include risk assessment, incident command, and recovery planning

Emergency Manager Role

- Expanding Role: Continuity and Resilience
  - EM leaders ensure continuity of operations during disasters
  - Protect access to supplies, infrastructure, and patient data
  - Collaboration with public health, government, and community partners is critical
  - Focus extends beyond hospital walls to community resilience

Emergency Manager Role

- Core Responsibilities of Hospital Emergency Managers
  - Develop and maintain emergency plans, procedures, and training
  - Ensure safety of patients and staff through evacuation and protective protocols
  - Coordinate resources to maintain essential hospital operations
  - Facilitate communication and collaboration across internal and external partners

Emergency Manager Role

- Operational Leadership During Emergencies
  - Conduct ongoing risk assessments and address vulnerabilities
  - Manage critical supplies (e.g., PPE, medical equipment)
  - Mobilize resources quickly and maintain information flow
  - Prioritize reliable communication systems and tested response plans

Emergency Manager Role

- Continuous Improvement and Readiness
  - Lead post-incident debriefings and integrate lessons learned
  - Support mental health services for patients, families, and staff
  - Organize regular drills and training exercises
  - Maintain compliance with emergency preparedness regulations

An "Insurance Policy"

An "Insurance Policy"

- Emergency Management as an "Insurance Policy"
  - EM programs function like insurance—reducing impact of unexpected events
  - Provide protection for operations, finances, and organizational reputation
  - Enable hospitals to respond effectively to disasters and maintain continuity
  - Offer peace of mind to staff and leadership through structured preparedness

An "Insurance Policy"

- The Value of Preparedness Investment
  - Requires upfront investment in training, equipment, and supplies
  - Minimizes losses from downtime, liability, and reputational harm
  - Reduces indirect costs such as productivity loss and supply chain disruption
  - Supports faster recovery and quicker return to normal operations

An "Insurance Policy"

- Long Term Cost Savings
  - Preparedness and mitigation reduce frequency and severity of disruptions
  - Investing early shortens recovery time and lowers response costs
  - More resilient systems require fewer emergency resources during crises
  - Improves overall organizational stability and patient care continuity

An "Insurance Policy"

- The Economic Case for Preparedness
  - Research shows preparedness is far more cost-effective than response
  - FEMA and NIBS studies: each $1 invested yields $4–$6 in savings
  - Savings come from avoided damage, reduced downtime, and efficient recovery
  - Clear consensus: proactive investment outperforms reactive spending

Note- $7,500 per minute. That's the average cost that hospitals face when systems go down, a figure revealed by Censinet's recent study.

Support for the Future

- Planning for the Future of Hospital Emergency Management
  - Emergency managers understand that uncertainty requires proactive contingency planning
  - Long-term sustainability of EM programs depends on reliable funding and community support
  - Hospitals must look beyond current models to ensure EM remains a continuous capability
  - Future strategies must account for legislative, political, and structural changes

Support for the Future

- Opportunities: CMS Support
  - CMS mandates preparedness but provides no direct funding
  - Potential for CMS to adjust reimbursements to cover preparedness costs
  - Preparedness investments could be integrated into quality programs or cost reporting
  - Expanded CMS flexibilities and resources could support rural and critical access hospitals

Support for the Future

- Opportunities: Partnerships with Health Insurance Payors
  - Payors benefit when hospitals are prepared and resilient during emergencies
  - Shared-risk or co-funded regional preparedness initiatives could reduce long-term costs
  - Preparedness metrics could be included in network contracts or reimbursement models
  - Payors can support proactive claims processing during declared disasters

Support for the Future

- Opportunities: State Grants and Funding
  - State-level programs could mirror fire & EMS grants for hospital preparedness
  - Grants could fund supplies, equipment, backup systems, and infrastructure upgrades
  - Support for surge capacity, training, and community preparedness programs
  - Strengthens coordination between hospitals and local emergency responders

Support for the Future

- Opportunities: Federal Funding through HPP
  - HPP funding shifted away from direct hospital support after 2012
  - Revising HPP to include direct sub-awards would strengthen hospital preparedness budgets
  - Tiered allocations could prioritize rural, safety-net, and critical access hospitals
  - Direct funding reduces delays and ensures hospitals receive tangible preparedness resources

Support for the Future

- Importance of Federal Program Stability
  - Ongoing federal restructuring may affect HHS, ASPR, FEMA, and HPP
  - Future funding levels and program design remain uncertain
  - Continued advocacy is essential to maintain hospital preparedness capabilities
  - Hospitals rely on HPP to support critical healthcare readiness

Support for the Future

- Integrating Hospitals into Community Readiness
  - Effective community-wide response requires coordinated cross-sector planning
  - Hospitals must be fully integrated with emergency response, public health, and local agencies
  - Lack of pre-event collaboration leads to substandard outcomes
  - National partnerships (e.g., AHA's Convening Leaders for Emergency & Response) aim to strengthen collaboration

Support for the Future

- Building a Culture of Preparedness
  - Preparedness must be normalized within hospital operations
  - Strong relationships across sectors ensure rapid, effective response
  - Integration improves patient outcomes and supports quicker community recovery
  - Hospitals are central to restoring stability after major emergencies

Hospital Emergency Manager Training

- Training & Experience Needed for Hospital Emergency Managers
  - Require formal education + specialized emergency management training
  - Need deep understanding of hospital operations (clinical, mechanical, administrative)
  - Must lead multidisciplinary teams and make high-pressure decisions
  - Strong communication, data analysis, and risk assessment skills are essential

Hospital Emergency Manager Training

- Importance of Ongoing Education
  - EMs must stay current with evolving emergency management science
  - Formal training helps standardize competencies across hospitals
  - Supports rapid decision-making in diverse emergencies
  - Consistency across EMs improves regional and statewide response

Hospital Emergency Manager Training

- Foundational Training: FEMA & NIMS
  - Required NIMS Courses: IS-100, IS-200, IS-700, IS-800
  - Advanced NIMS Courses: IS-300 and IS-400 (highly recommended)
  - FEMA Independent Study Courses provide national-standard EM fundamentals
  - Core training needed for compliance and grant eligibility

Hospital Emergency Manager Training

- Hazardous Materials & Domestic Preparedness
  - Hazardous Materials Awareness (in-person; identify, assess, and report hazmat incidents)
  - Center for Domestic Preparedness (CDP): HERT, Health Care Leadership, FRAME
  - TEEX AWR-160 and other CBRNE-focused courses
  - OSHA-required HAZWOPER for decontamination team personnel

Hospital Emergency Manager Training

- Professional EM Development
  - FEMA Professional Development Series (PDS) for broad EM fundamentals
  - PEMA Certification Program establishes a statewide competency baseline
  - SkyWarn (NWS) for severe weather recognition
  - FCC Amateur Radio License for resilient emergency communications

Hospital Emergency Manager Training

- Healthcare-Specific EM Certifications
  - CEM (Certified Emergency Manager) – internationally recognized
  - CHEC (Certified Hospital Emergency Coordinator) – basic & advanced
  - CHEP (Certified Healthcare Emergency Professional) – healthcare-focused EM certification
  - AHEPP Healthcare Emergency Management Certification (Basic → Mastery)

Hospital Emergency Manager Training

- Medical & Clinical Disaster Response Courses
  - Basic Disaster Life Support (BDLS) – 7.5-hour competency-based course
  - Advanced Disaster Life Support (ADLS) – 15-hour hands-on mass-casualty training
  - Advanced HazMat Life Support (AHLS) for clinicians managing hazmat exposures
  - PA-HPP Healthcare Incident Command System (HICS) Series for ICS application in hospitals

Hospital Emergency Manager Training

- Business Continuity and Disaster Recovery
    - DRI International (ABCP, CBCP, MBCP)
    - Various TEEX Courses

Emergency Management Program Metrics

Emergency Management Program Metrics

- Purpose of EM Program Metrics
  - Provide a consistent, standardized framework for preparedness
  - Ensure alignment with Joint Commission, CMS, and regulatory requirements
  - Promote accountability, quality improvement, and readiness
  - Address statewide needs while supporting local flexibility

Emergency Management Program Metrics

- Core Elements of Strong Facility-Level EM Programs
  - Designated EM coordinator with appropriate training & external partnerships
  - Comprehensive all-hazards EM program: EOP, HVA, AAR/IP, MYTEP
  - Multidisciplinary EM committee with regular meetings and leadership reporting
  - Evidence of staff training, incident command competencies, and plan awareness

Emergency Management Program Metrics

- Key Program Metrics: EM Coordinator
  - EM coordinator identified with ≥50% dedicated EM responsibilities
  - Training/education/experience documented; relationships with local partners
  - Ongoing continuing education required
  - Mentorship under experienced healthcare EM leaders

Emergency Management Program Metrics

- Key Program Metrics: Comprehensive EM Program
  - All-hazards EOP, HVA, sustainment plans, active AAR/IP, and MYTEP
  - Broad EM committee participation (clinical, facilities, security, IT, etc.)Regular meetings with documented attendance and leadership visibility
  - Continuous improvement via AAR/IP and ongoing staff training

Emergency Management Program Metrics

- Key Program Metrics: Regional Participation
  - Healthcare Coalition (HCC):
    - Mutual aid agreements documented
    - Attendance at HCC meetings (initial + quarterly ongoing)
    - Participation in hospital/acute-care HCC committees

  - HAP Emergency Management:
    - Active organizational membership
    - Attendance at ≥6 HAP meetings/events annually

Emergency Management Program Metrics

- Key Program Metrics: Hazard Analysis & Planning
  - Hazard Vulnerability Analysis (HVA):
    - Completed HVA updated annually
    - Shared with local/regional emergency management & HCC
    - Approved through EM/safety committees

  - Emergency Operations Plan (EOP):
    - All-hazards, aligned with HVA, updated annually
    - Approved through appropriate governance

Emergency Management Program Metrics

- Key Program Metrics: Training, Exercises & Communications
  - Training & Exercise Plan (MYTEP):
    - MYTEP incorporates top hazards and receives leadership approval
    - Exercises and training conducted per plan; reviewed bi-annually

  - Redundant Communications:
    - At least two functional communication platforms
    - Annual testing + staff competency training
    - Ongoing testing and maintenance

Emergency Management Program Metrics

- Key Program Metrics: Continuity & Recognition
  - Continuity of Operations Plan (COOP):
    - Facility-level COOP updated annually
    - Approved by administrative/operational leadership

  - Program Certification/Recognition:
    - Participation in programs such as StormReady
    - Evidence of continued compliance or additional certifications

Emergency Management Program Metrics

- System-Level EM Metrics
  - System EM Leadership:
    - Designated leader coordinating facility EM programs
    - Documented qualifications and ongoing education

  - Systemwide EM Program:
    - System-level all-hazards EOP with integrated facility relationships
    - Annual system-level exercise involving multiple facilities

Emergency Management Program Metrics

- System-Level Continuity Planning
  - System/enterprise-level COOP updated annually
  - Clear integration with facility COOPs
  - Annual business continuity exercise across the system
  - Governance approval for COOP revisions

Conclusions, Activities, and Call To Action

Conclusions

- Essential Role of Emergency Management Staff
  - EM professionals are vital to maintaining safety and readiness in hospitals
  - They prepare for a wide range of emergencies—natural disasters, pandemics, mass casualty events
  - Ensure protection of patients, staff, and continuity of critical services
  - Their work supports daily resilience and operational stability

Conclusions

- Growing Challenges
  - Increasing frequency and severity of weather-related events
  - Rising public health threats and emerging infectious diseases
  - Expanding cybersecurity risks impacting hospital operations
  - Complex risk environment requires advanced, proactive preparedness

Conclusions

- Importance of Sustained Investment
  - Strong EM programs are essential—not just regulatory requirements
  - Act as a strategic insurance policy protecting hospitals and communities
  - Reduce operational, financial, and safety impacts during disasters
  - Enable hospitals to remain resilient, responsive, and mission-ready

Conclusions

- Final Takeaway
  - Effective emergency management safeguards patient care during crises
  - Preparedness strengthens community resilience statewide
  - Continued support ensures hospitals can meet unexpected threats
  - Investing in EM programs protects lives, infrastructure, and health systems

What HAP is Doing

- Focus Groups
  - Physical Security
  - Technology, Business Continuity, and Cyber Resilience

- Weekly Emergency Manager Briefing

- Bi-Monthly Blog and Healthcare Preparedness Digest

- Workplace Violence Roundtable Discussions

What HAP is Doing

- Annual Emergency Management Conference

- Workforce Development- Virtual Career Fair

- Advocacy

- Through subsidiary HAPevolve:
  - Long Term Care Tabletop Exercise Series
  - Consultation to other state hospital associations, hospitals, and health systems

HAP Considerations

- Develop self-assessment maturity model for emergency management and resilience programs

- Report on Workplace Violence Prevention

- Webinar and Podcast Series

- Expand outreach to other healthcare providers such as long-term care

- Industry Specific Education Programs
  - Healthcare Emergency Management Leadership Academy
  - Healthcare Business Continuity Leadership Academy
  - CEO and Board of Director Cyber Resilience Boot Camp

Call To Action

- Call to Action: Strengthen Hospital Preparedness
  - Prioritize investment in emergency management staffing, training, and infrastructure
  - Support ongoing development of resilient, all-hazards EM programs across facilities
  - Champion collaboration with state agencies, healthcare coalitions, and community partners
  - Commit to continuous improvement through exercises, after-action reviews, and readiness metrics

"Preparedness is not a cost—it's a commitment to protecting the people who depend on us most."

Thank You- Please Connect With Me

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References and Links

Links

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