

learned by the military community worldwide to support their vaccination efforts within their countries. By collating this information into a single document, the collective global experience can be better analyzed and this information utilized to develop a framework for future disaster preparedness and mitigation planning efforts.

Method: Medline (PubMed), Google Scholar and the JSTOR Security Studies collection were searched for English language articles from January 1, 2020 and onwards. Keywords used included civil-military coordination, military, COVID-19, vaccination, vaccine. Titles were initially screened for relevance. The abstracts were then reviewed for a decision on inclusion. Article inclusion was determined by author consensus based on relevance to the objectives. Key papers were also hand searched for additional unidentified references.

Results: Data collection and analysis planned for completion by January 2023.

Conclusion: The COVID-19 pandemic created a public health need for mass vaccination distribution that was assisted by militaries throughout the world. This literature search demonstrates the ways in which military resources contributed to COVID-19 vaccination efforts, including creative techniques, successes and opportunities for future improvement.

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Emergency Health Care Workers' Preparedness for Disaster Management: An Integrative Review

Yasir Almkhblifi EMS, MSc, PhD(c)^{1,2}, Gary Crowfoot RN, PhD¹, Alison Hutton RN, PhD¹

1. University of Newcastle, Newcastle, Australia
2. King Saud bin Abdulaziz University for Health Sciences, Jeddah, Saudi Arabia

Introduction: Around two billion people globally were affected by natural disasters between 2008 and 2018. Countries are required to effectively prepare their healthcare workers for disaster response. A greater level of preparedness is associated with a more effective response to disasters. The World Health Organization requires countries and governments to have disaster plans and emergency health workers ready and prepared at all times. This integrative review aims to understand emergency healthcare workers' perceived preparedness for disaster management.

Method: An integrative literature review using the PRISMA checklist guidelines was conducted to explore physicians, nurses, emergency medical services, and allied medical professionals' preparedness for disasters. Literature was searched from 2005, published in the English language and from MEDLINE (PubMed), Google Scholar, EMBASE, PsycINFO, SCOPUS, ProQuest and CINAHL databases. Reviews, case reports, clinical audits, editorials and short communications were excluded. Studies were critically appraised using the Mixed Methods Appraisal Tool.

Results: The initial search yielded 9,589 articles. Twenty-seven articles were included following the application of the eligibility criteria. Included studies were geographically diverse including North America, the Middle East, and the Asia Pacific. Most

studies (n=24) assessed the knowledge of healthcare workers in general disasters. Studies using the Disaster Preparedness Evaluation Tool reported moderate disaster preparedness and knowledge, while studies using other instruments largely reported inadequate disaster preparedness and knowledge. Regional variations were recorded, with high-income countries' reporting a higher perceived preparedness for disasters than low-income countries.

Conclusion: The majority of emergency healthcare workers appear to have inadequate disaster preparedness. Previous disaster experience and training improved disaster preparedness. Future research should focus on interventions to improve emergency healthcare workers' preparedness for disasters.

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Targeted Review and Amalgamation of Unmapped Major Trauma and Ambulance Data in Ireland: TRAUMA Study

Nora-Ann Donnelly PhD¹, Louise Brent MSc², Siobhan Masterson PhD³, Conor Deasy PhD⁴, Brid Moran Advanced Diploma in Data Protection Law², David Willis³, Fiona Boland PhD¹, David Hennelly MSc³, Anne Hickey PhD¹, Frank Doyle PhD¹

1. Royal College of Surgeons in Ireland, Dublin, Ireland
2. National Office of Clinical Audit, Dublin, Ireland
3. National Ambulance Service, Limerick, Ireland
4. Cork University Hospital, Cork, Ireland

Introduction: The trauma care system in Ireland is being re-configured to have major trauma centers for severe injuries and other sites for less severe injuries. This is to ensure patients are brought quickly to the most appropriate hospital to manage their injuries. The National Ambulance Service (NAS) electronic Patient Care Record (ePCR) records what happens to patients before they reach the hospital and the Major Trauma Audit (MTA) captures data on patients' hospital treatment. These datasets are currently separate and if they could be joined, they would inform important decisions on which hospitals to take patients. This study aims to investigate joining these datasets to create a seamless database of the patient journey from roadside to recovery.

Method: Proof of Concept—The ePCR and MTA datasets will be linked on a once-off basis. The combined anonymized dataset will then be analyzed to identify pre-hospital characteristics that determine the need to bypass smaller hospitals and bring patients to a larger major trauma center or trauma unit.

Stakeholder input for ongoing dataset combination and utilization—A stakeholder consultation process will explore the best way to make a GDPR-compliant combination of datasets on an on-going basis, including geo-location data and the inclusion of patient reported outcome measures. This will incorporate the requirements of the Data Protection Commissioner, National Office of Clinical Audit, patients, clinicians, NAS, HSE and other stakeholders.

Geospatial implications of major trauma services—Once ongoing data combination is approved, we will determine geospatial implications of the trauma network for prehospital care configuration and the patient journey.

Results: Study results will inform prehospital service configuration to ensure safe and equitable patient management.

Conclusion: The data arising from this study will capture the full trauma patient journey. This data is essential to inform policy and practice for trauma care in Ireland.

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The Public Health Emergency Response Model of COVID-19 Pandemic in North-eastern Part of Thailand

Orathai Srithongtham PhD¹, Rungrueng Kitpati PhD², Chulapon Kratet PhD³, Worayuth Nak-ai PhD⁴, Tarweewun Srisukkam PhD⁵, Tossaphong Buraman BSc¹, Ploypailin Limpatbepakorn BSc¹

1. The Office of Disease Prevention and Control Region 10. th Ubon Ratchathani Province, Muang ubon, Thailand
2. Ministry of Public Health, (MOPH), Thailand
3. Ministry of Public Health, (MOPH), Timor-Leste
4. Sirindhorn College of Public Health, Chonburi, Thailand
5. Phayao University, Muang Phayao, Thailand

Introduction: The pandemic of COVID-19 in the northeastern part of Thailand established the response mechanism to COVID-19.

Method: This study aimed to explore the PHER model of the COVID-19 pandemic in three provinces located in northeastern Thailand. The target group was 78 people who were responsible for COVID-19 response from the sub-district, district, and provincial levels. The data was collected through in-depth and group interviews following the non-structure interview guide and data was analyzed by content analysis.

Results: Two levels of the PHER model were: 1) The response of the provincial level related to national and global situations. The provincial's measure of the COVID-19 response was run by the Provincial Communicable Disease Committee (PCDC) and followed by the COVID-19 Epidemic Administrative Center (CEAC). The core team was a public health subcommittee who ran the Emergency Operation Center (EOC) and COVID-19 pandemic. The PCDC launched the provincial measure, risk communication response to COVID-19, and issues of the pandemic from CEAC and EOC. 2) The response inside the provincial level two components of the structure were the PCDC and the PEOC and the district EOC. They composed the Situation Analysis Team (SAT) and Joint Investigation Team (JIT), which was an operation to surveillance, investigation, real-time situation and reported to PEOC and PCDC as the issues of measures decision. Thailand's identity of the PHER model was the village and sub-district on behalf of the Communicable Disease Control Unit (CDCU) and Community COVID-19 Respond Teams (CCRTs) in which members were Health Volunteer (HV), Village's leader, and Local organization. Core activities were screening the risky group and surveillance: Home or Local quarantine and Home isolation (HI) or community isolation (CI) of rehabilitation from Covid-19 post treatment.

Conclusion: The strengthening of PHER depended on the CCRTs and CDCU which supported the PEOC and PCDC to prevent and control Covid-19.

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Media Mortality Surveillance during Winter Storm Uri, United States – 2021

Arianna Hanchey MPH, Amy Schnall DrPH

Centers For Disease Control And Prevention, Atlanta, USA

Introduction: On February 13, 2021, Winter Storm Uri hit the United States beginning in the Pacific Northwest, heading across the central US, and eventually exiting on the East coast. By February 16, roughly 73% of the continental United States had snow coverage leading to ten million households without power. To understand the disaster-related causes and circumstances of death for Winter Storm Uri, we activated media mortality surveillance to help inform preparedness and response efforts.

Method: We searched the internet for key terms related to the winter storm, including storm name and type (e.g., winter storm), location-specific terms (e.g., state, county, city), mortality-related terms (e.g., death, mortality), cause of death (e.g., exposure, motor vehicle collision, carbon monoxide), along with other information learned from previous days (e.g., name of individual). We compiled and coded data into a standardized media mortality surveillance database and conducted descriptive statistics.

Results: Between February 13 and March 2, 2021, the media reported 136 storm-related deaths from nine states. The winter storm had the largest impact in Texas (n=91). Of decedents with sex data available (n=91), the majority (58%) were male. For decedents with age data available (n=93), the majority (91%) were adults. Exposure to extreme temperatures (47%) was the most common cause of death, followed by blunt force trauma (15%), CO poisoning (7%), and fire (7%). Roughly one-third of deaths (34%) were indirectly related to the winter storm with motor vehicle collision (13%) representing the top indirect circumstance. Twenty-six deaths (19%) have an unknown circumstance and cause of death.

Conclusion: This was the first time we activated media mortality surveillance for a winter storm providing timely data for public health action. Media mortality surveillance continues to be a useful tool in assessing the impact of a disaster and guiding response efforts.

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Improving Hazardous Material Incident Preparedness for Emergency Medicine Physician Trainees: A Quality Improvement Project

Yevgeniy Maksimenko MD, MA, NRP^{1,2}, Kevin Ryan MD, MBA², Julianne Dugas MPH², Laura Hahn MS²

1. Brooke Army Medical Center, San Antonio, USA
2. Boston Medical Center, Boston, USA