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

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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

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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

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Introduction: Hazardous materials (HazMat) training is not a requirement for accreditation of US Emergency Medicine (EM) residencies, nor for EM board certification by the American Board of Emergency Medicine (ABEM). However, the US Occupational Safety and Health Administration (OSHA) requires hospitals train all personnel expected to deal with contaminated patients. This QI project aimed to develop an EM physician-specific HazMat course and evaluate the physician comfort level with HazMat personal protective equipment (PPE) donning and doffing, triage, procedural skills, and decontamination.
Method: A four-hour "HazMat for Docs" course was designed at a large urban academic trauma center and offered to second-year EM residents. Additionally, we performed a quantitative survey of a cohort of 72 current and recently graduated EM residents (classes 2019-2024), some of whom had taken the course in person. Our primary outcome was to measure improvement in comfort level with essential HazMat tasks after completing the course. Our secondary outcome was to evaluate the current or recently graduated EM physician's overall comfort levels with managing a HazMat incident, as well as HazMat skills and knowledge retention.
Results: A total of 53 responses (73.6%) were obtained. 45.3% of the respondents were male and 54.7% female. 37.8% of the respondents were recent EM graduates, with 20.8% PGY-4, 13.2% PGY-3, 15.1% PGY-2, 13.2% PGY-1. 16/53 (30.2%) had prior EMS experience. EM Physicians were most comfortable with donning and doffing PPE (4.92 on a 7-point scale) and least comfortable with decontamination procedures (2.98/7). After completing the HazMat course, EM physicians increased their comfort level with HazMat decontamination procedures by 8.6% and with organizing a multi-disciplinary ED HazMat response by 10.5%.
Conclusion: EM Physician comfort levels with HazMat procedures are low. Increased training aimed at improving physician knowledge, preparedness, and comfort level for such events is necessary and can be accomplished through a short course.

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"Is Resilience Useful, Usable, and Used? Outlining the Social Characteristics of a Resilient System"

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Introduction: The COVID-19 pandemic has underlined the international priority to systemically operationalise resilience in the face of increasing prevalence of complex and cascading hazards. This concept paper identifies the components of a resilient society, establishing the usefulness and usability of the application of 'resilience', and proposes the characteristics used by a resilient system.
Method: Through the review of case-based examples and previously published concept papers, this paper underwent a concept analysis to understand and qualify the characteristics of a resilient community. Through extensive research and critical analysis of disaster risk responses both effective and not, the authors condensed the literature to identify the key components of a resilient society.
Results: To respond to this evolving landscape of disaster risk, community and governmental responses should be collaborative in order to be successful and sustainable to increase resilience across communities, societies and networks. To unpick the complexity of how communities and governments might promote resilience effectively, we explore whether community and social capital are useful resources to create and sustain resilient approaches to disaster risk reduction and management. We consider that by exploring how social capital links, bridges and bonds actors within a system are qualitative key facets of a resilient community. A resilient system is the product of trust and collaboration between asset-based networks of bonded and bridged communities and risk and support-based networks of bonded and bridged organizations.
Conclusion: By evaluating the usefulness and usability of the concept, we consider that a resilient system is an iterative learning process, asset based, trusting across power and resource gradients and is best built before or even if essential during a crisis. Noting that resilience is a dynamic process which requires integrated collaboration and continual adjustment to develop a sustainable framework, we consider that social characteristics of a resilient system are useful, useable and should be used.

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Mass Hospital Evacuation During COVID-19 Pandemic: Experience of Hospital Cluster Infection in Taiwan

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Introduction: A mass hospital evacuation occurred in Taiwan in 2021 due to the clustered COVID-19 infection in Hospitals. To maintain essential services with limited manpower, 74 patients are triaged and evacuated to 12 hospitals in 6 cities in 16 hrs for further treatment.
Method: All patients were evaluated by physicians for discharge. The patients who still needed hospitalization were classified into three groups according to the risk of infection[1]. The high-risk group of patients were cared for by infected staff directly; the moderate-risk group were patients admitted to the same ward but didn't receive care from infected staff. The low-risk group were patients avoiding infection outbreak. Only the low-risk group patients were transferred, excluding patients with unstable vital signs, hospice, and prison. Command Center of HICS of TGH set up a transfer execution team to handle this task.

Results: There were 74 patients transferred, including 56 from internal medicine and 18 from the surgery ward. Most of the transfers are concentrated within 16 hours. These patients were transferred to 12 emergency hospitals in 6 cities. The average transport time was 1.5 hours and the longest was about 3 hours due to the distance and traffic.The 17 private ambulances and 11 Fire Department ambulances were dispatched and transferred 60 patients. In addition, there were 14 patients evacuated by small buses. No mortality or COVID-19 infection had been reported within 3 days after this mass evacuation, only one patient had been intubated after one hour of arrival to hospital due to condition deterioration.
Conclusion: A hospital evacuation is a complicated process, especially during a pandemic. All infection control measures create difficulties in the patient transfer process. Well-prepared evacuation plans, regular drills, well-trained personnel, an organized command system, and regional cooperation are the keys to mass evacuation in a disaster.

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Thai Hospitals' Evacuation Preparedness: A Survey Among 42 Hospitals According to the Flexible Surge Capacity Concept.

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Introduction: Hospitals are subject to internal and external threats which could necessitate an evacuation. Such evacuation needs deliberate surge and collaboration, particularly collaborative use of community capacities to handle affected patients, personnel, devices, and hospital structures using consensus systems. Therefore, it is crucial to identify hospital evacuation procedures' flaws and assess the possibility of implementing measures using community resources. This study aimed to explore Thai hospitals' current evacuation readiness and preparation regarding surge capacity and collaboration according to the Flexible Surge Capacity concept.
Method: The previously used hospital evacuation questionnaire was adopted. It contained relevant questions about hospital evacuations' responses and preparedness encompassing surge capacity and collaborative elements and an open-ended question to collect possible perspectives/comments.
Results: The findings indicate glitches in evacuation protocols and triage systems and inadequacies in surge planning and multi-agency collaboration. Additionally, it was evident that hospitals had limited information about communities' capabilities and limited collaboration with other public and private organizations.
Conclusion: Although implementing the measures for concept integration to hospital evacuation is challenging, pragmatic research exploring planning for community engagement according to the flexible surge capacity to build a concrete hospital evacuation plan would enhance hospital readiness and its generalizations. The latter needs to be tested in simulation exercises.

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Attitudes of Members of Public to Mass Casualty Incidents in Singapore

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Introduction: Mass casualty incidents result in mass casualties at short notice and stress healthcare systems. Research shows the critical potential role laypersons have by providing time critical intervention, on-scene, while awaiting arrival of emergency services, thus reducing mortality.

This study aims to demonstrate the attitudes of laypersons to responding to mass casualty incidents in Singapore.
Method: Laypersons were invited to participate in a pilot course aimed at training laypersons principles and interventions for mass casualty incidents. This was developed by the Disaster Volunteer Corps of Singapore General Hospital Department of Emergency Medicine. Respondents were invited to answer a questionnaire which aimed to explore knowledge and prior experiences, willingness, attitudes, and readiness. Descriptive statistics were analyzed, and free-text responses were categorized into various headings by theme.
Results: A total of 29/30 course enrollees responded to the questionnaire. Twenty (69%) participants were female. The median age was 50 years old (IQR 35-56.5). Most of the participants were employed (82.7%) and were Singapore Citizens (89.7%).

65.5% had no previous experience with first aid, and none had experience with MCIs. Understanding of mass casualty incidents was poorly understood, 1.42/5 (±0.56).

Respondents were most willing to assist in conventional disasters as compared to other types. Competency in voluntary role and altruism were the most important motivators as compared to compensation which was the least.

Overall, there is a high understanding that Singapore is at risk of disasters but most respondents do not have emergency plans in place for disaster situations.
Conclusion: This study shows that while laypersons are willing, most do not have the knowledge or experience to respond to