Progress in Saving Lives Aspects of Emergency Management Since the 2014 Mt. Ontake Eruption

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Introduction: Mt. Ontake (3,067m), Japan's second-highest volcano, erupted without warning on September 26, 2014, leaving 58 dead and five people missing. More than 20,000 rescue workers were mobilized from all over the country. The findings on rescue operations and subsequent advances in emergency preparedness and rescuer education are presented.
Method: After the disaster, public data was obtained from the Cabinet Office by conducting interviews. Photographs and videos were collected from the military, the police, and the Fire and Disaster Management Agency sources, as well as from local governments and the Volcano Research Institute.
Results: The volcanic eruption received governmental disaster designation. The leading cause of death and the rescued survivors were traumatic injuries caused by sudden falling rocks. Volcanic tremors and landform upheaval were observed immediately before the eruption, but they were too short-lived to lead to evacuation. The location of the victims at the time of the eruptions seemed to be the most critical determinant of survival. What medical care could do at this point was very limited. No rescuers died, but some suffered acute mountain sickness and hypothermia. In the following year, education for rescue organizations began, and volcano information was released to the public in real-time as raw data, regardless of whether they could be understood. In 2022, shelters were constructed near the summit of Mt. Ontake.
Conclusion: A severe volcanic eruption leaves little time for people to evacuate, and emergency medical care can play only a minor role. In Japan, where there are many volcanoes, measures are underway to support self-help to increase the possibility of saving lives for climbers and rescuers in an eruption that is difficult to predict.

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Climate, Weather Extremes and Health: Latest WHO-WMO Resources and Tools for Health Emergency Managers

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Introduction: As populations worldwide are experiencing more frequent and intense weather and climate extremes, many professionals of the WADEM community are at the frontline of managing compounding and cascading impacts on physical and mental health. Vulnerable, isolated, and marginalized people are the most affected by climate and weather threats. The elderly and children faced 3.7 billion more life-threatening heatwave days in 2021 than annually in 1986-2005 increasing the need for emergency care on a large scale.
Method: The World Health Organization (WHO) and World Meteorological Organization (WMO), together with partners from health agencies, climate services, academia and other sectors are collaborating to accelerate the use of climate, weather and environmental science and services for better health protection. A selection of key resources and tools will be highlighted that can be used by the WADEM community to better understand, anticipate, and manage health risks from extreme weather and climate.
Results: Participants will learn about the new WHO-WMO ClimaHealth Portal, a global knowledge and action hub with huge potential for facilitating learning and action to better protect health from climate risks. Tools and resources include the Global Heat Health Information Network (GHHIN) Checklist and Technical Brief for improved heatwave preparedness and response in the context of COVID-19, and a new WHO Guidance Document on Measuring the Climate Resilience of Health Systems providing a framework and indicators for assessing and protecting health systems from climate threats.
Conclusion: As extreme weather intensifies, integrated climate-informed services for the health sector including multi-hazard early warning systems and action plans, as well as strengthened partnerships between the health community and hydrometeorological services are indispensable to further restrict adverse health impacts. Accelerating the uptake and upscale of existing tools and resources is urgently needed to meet the increasing health and societal challenges caused by climate change and weather extremes.

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Straddling the Fields of Disaster Preparedness and Disaster Epidemiology: Lessons Learned from Planning a Study for Implementation Within Weeks of an Unpredictable Natural Disaster

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Introduction: Studies on the impact of disasters on communities often occur months to years after the event. Pre- and peri-event details collected from participants may be imprecise or even unobtainable as memory is affected by time. More so, delays in data collection can introduce recall bias when participants with adverse outcomes provide differential responses about exposure. In 2019, the US Centers for Disease Control

(CDC) and RTI International designed a study to mitigate these issues by surveying within weeks of a natural disaster to examine associations of preparedness to peri-event exposures, emergency services, and health.
Method: Given the unpredictability of natural disasters, a significant challenge for the team was to plan a rigorous study design applicable to several types of severe weather events. This presentation will review our forethought, planning, and resulting strategy, including important considerations related to IRB and OMB applications with unspecified disaster/location details. We will share decision-making on sampling, instrumentation, communication materials, and multi-mode data collection procedures. The impact of delays due to COVID-19 and waiting to select a disaster that met a prior disaster inclusion/exclusion criteria will also be presented.
Results: Results are forthcoming. We will present details on RTI's 2022 survey implementation in the Fort Myers area of Florida within weeks of Hurricane Ian landfall including information on our final sampling strategy, field period, and outcome rates among key community groups and exposures.
Conclusion: Conclusions will be presented. Pragmatic lessons learned related to timeline, labor, and other resources will be used to compare our strategy to rapid needs assessment methodology as well as more typical self-report surveys with later post-disaster data collection periods. Researchers working in emergency preparedness/response and disaster epidemiology will have gained a solid understanding of the advantages and disadvantages to planning studies for the immediate aftermath of undefined disasters.

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Quarantine Facility Model of Care Toolbox

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Introduction: The COVID-19 pandemic public health strategy to reduce community transmission in Australia included unprecedented use of quarantine facilities to separate those at risk and those with the infection from the rest of the community. No standardized approach to quarantine facilities existed resulting in different models of care emerging across the country. The Northern Territory Howard Springs Quarantine Facility was a large-scale quarantine and isolation operation which hosted over 33,000 domestic and international arrivals with zero COVID-19 transmission recorded from residents to staff for the duration of its operation. The facility was deemed the gold standard model of care and the aim of this project was to distill the important elements of that model of care into an evidence-based tool kit for future use as an open access, online resource. The toolkit was a result of intense data and information analysis including resident, staff and leadership surveys, policies and procedures and results of audits of the facility during its operation.
Method: This project to develop an online, open access evidence-based toolkit forms part of the Translational Research to Improve Health Outcomes project funded by the Australian Government's Medical Research Future Fund. The methodology included mixed methods with an underpinning grounded theory approach to analyze de-identified audit data and information from the quarantine and isolation facility operational period. Staff and leadership team surveys were conducted to explore experiences of site functions and infrastructure. A (non-experimental) descriptive design allowed collation and statistical analysis of information recognizing the variables in the data and information.
Results: The toolbox includes a resident centered quarantine care model, infection, prevention and control strategies for health professionals and non-health staff, quarantine communication model and presentation of core challenges (rapid recruitment, environmental factors, workforce resilience).
Conclusion: The resulting online web resource presents evidence-based core strategies and resources for implementation in future pandemics.

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A Characterization of the Burden from Mandated COVID-19 Public Health Reporting on a Small Independent Hospital in New York City

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Introduction: Public health agencies' ability to monitor outbreaks requires government mandated reporting from healthcare institutions, with consequences for noncompliance. This study aims to characterize the burden on acute care hospitals from government reporting requirements during COVID-19 pandemic.
Method: A retrospective study over a 14-month period (April 27th, 2020 to June 10th, 2021) during the COVID-19 pandemic examining the log of changes and requirements of the Health and Human Services (HHS) Teletracking, an online system for hospital reporting. We interviewed 33 individuals including hospital leadership, clinical directors, and infection control personnel in a New York City (NYC) small independent hospital (SIH).
Results: During the study period, reporting requirements increased from five daily reports to 29 daily reports across eleven different agencies, all with separate reporting systems. Reporting schedules varied from several times a day to intermittently. Typically, new reporting requirements were conveyed to institutional contacts at 8 AM with a required deadline of 1 PM the same day. The continuous changes reportedly made it difficult to develop stable data gathering and workflow processes. There was a reported lack of clarity around new data elements' definitions and different agencies employed different variables for the same measure. There were hospital penalties for missing