

Discussion: We found HCPs had a lower prevalence of PTSD compared with earthquake survivors (Chou 2007), and physicians had longer working years and lower DTS-C scores. The professional training may help HCPs going through psychological impacts during the disaster. HCPs with 6–10 years of experience in the emergency department were found to have a higher risk of developing PTSD. Most of them were taking the responsibility of a team leader during the MCI, which may cause significant stress to these staff. Adequate training regarding MCI management could help to relieve tension and frustration, hoping to prevent the development of PTSD. Based on our study, PTSD among HCPs is an ignored issue, and we should follow-up HCPs' psychological condition in the future.

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Incident Command Adaptations during Sustained Mega-Shelter Medical Clinic Operations during 2017 Hurricane Harvey Response in Dallas, Texas

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Introduction: The Dallas Convention Center received over 3800 evacuees because of the unprecedented flooding caused by Hurricane Harvey. A multidisciplinary medical clinic was established onsite to address evacuee needs for medical evaluations, emergency care, chronic disease management, pharmaceuticals, durable medical equipment, and local health services integration. To operate efficiently, the Dallas Mega-Shelter Emergency Operations Center (EOC) worked with the Mega-Shelter Medical Clinic (MMC) under a fluid incident command (IC) structure that was National Incident Management System (NIMS) compliant. Iterations of MMC IC demonstrated maturations in organizational structure while supporting MMC operations that varied from rigid NIMS doctrine.

Aim: To explore the use of a fluid IC structure at a large evacuation medical shelter after Hurricane Harvey.

Methods: We observed evolutions of IC organizational charts and operational impacts.

Results: Modifications through just-in-time iterations of the IC organizational chart were posted and reviewed with MMC IC and EOC sector chiefs. Changes in the organizational chart were noted to improve identification of logistical needs, supply delivery, coordinate with other agencies, and to make decisions for resource typing and personnel utilization. Adaptations also improved communication, which led to timely situational awareness and reporting accuracy.

Discussion: MMC medical services were improved by allowing modifications and adaptations to NIMS compliant MMC IC organizational roles and duty assignments. The fluidity of IC structure with ability for just-in-time modifications directly impacted the provision of disaster medical services. Unique situational awareness, coordination of care pathways within the local innate health infrastructure, compliance with health service regulations, and personnel resource typing all

contributed to and benefitted from these IC modifications. MMC and EOC IC collaboration facilitated effective communication and maintained an appropriate span of control and efficient activity reporting.

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Influenza Vaccine Uptake and Associated Factors in Aged Care Facilities

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Introduction: Influenza vaccine is recommended for high-risk populations in Australia (including those aged over 65 years) but is less effective in the elderly due to a progressive and predictable age-related decline in immune function, referred to as immunosenescence. Aged care facilities (ACF) are known to be at high risk of explosive outbreaks of influenza (even in highly vaccinated populations) and may reflect a higher intensity of transmission within the closed setting of ACF, as well as lower immunity and immunosenescence in the frail elderly.

Methods: To measure the impact of influenza in aged-care staff (ACS) and residents as well as vaccine effectiveness, a prospective observational epidemiological study was conducted in collaboration with an aged-care provider with multiple sites from March to October 2018. Weekly active surveillance on influenza-like symptoms and questionnaires were used to collect data on two groups: ACS and residents. A range of variables was examined against their 2018 influenza vaccination status in statistical analysis.

Results: Vaccination rates were high in residents and consistent with other studies. Vaccine rates in aged-care staff were lower and consistent with other studies.

Discussion: Residents and relatives are unlikely to change their minds about vaccination from year to year unless there is targeted effort to persuade them to so, and negative perception of the vaccine is likely to persist. Workplace influenza vaccination programs targeted at staff could be an effective method of raising vaccine uptake.

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Innovating Disaster Health and Medical Emergency Responses for an Emerging Global Threat

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Introduction: The global health threat posed by the ongoing deterioration in natural ecosystems and damage to our physical environment is growing at a rapid pace. Less recognized is the threat from natural hazard disasters, which concentrate contaminants from the damaged environment and expose large vulnerable populations to life-threatening medical conditions and disease. Currently neither international nor any national