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Preparedness is comprised of a response plan which is taught in basic EMS training and practiced a few times each year. The response is based on shift ambulances, Mobile Intensive Care Units (MICU), and volunteer first responders. This article proposes to study the phase which occurs after authorization by the fire department, extraction of the patients, and first triage and treatment that includes secondary triage and allocation of the patient to the appropriate transporting vehicle, with the appropriate medical team for transportation to the hospital, with consideration of injury types and severity. The departure site facilitators conduct secondary triage, ensure the proper medical team and vehicle, and report quantity of injured and severity to the receiving destination hospital.

Methods: MDA is using a departure dispatch site to make secondary triage and transportation decisions. MDA conducted a drill to compare the efficiency between the use of a dedicated app for report and decision making and the use of a smartphone messaging app that allows recording of times and voice recording.

Results: Data were extracted from both apps and compared as to time intervals, report quality, apprehension of the dispatch center, and decisions made by the dispatch center. The data were compared with consideration of data from the records of MDA representative in the receiving hospitals which records arrival of ambulances, number of injured, and injury types.

Conclusion: The messaging app allowed for quicker apprehension by the dispatch, higher quality of report, and quicker and better decisions as to the destination hospital.

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Pediatrics for the Non-Pediatric Provider: Kids are Just Small Adults

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Study/Objective: 1. Provide an overview of pediatric emergency care in the US, emphasizing the fact that most children are seen in non-pediatric facilities. 2. Describe various tools available to reduce cognitive load and error when caring for children. 3. Describe the Northwest Healthcare Response Network's (NWHRN) regional Hospital Toolkit for Managing Pediatric Patients in Disaster, and the statewide trainings developed as a result.

Background: Children under the age of 18 represent approximately 25% of the total US population. Many metropolitan areas have specialized Children's Hospitals. However, studies show that the majority of pediatric ER visits are made to non-pediatric hospitals¹. Therefore, pediatric specialists must continue training and engaging their non-pediatric colleagues. Initial stabilization of a child can be done by *any* non-pediatric emergency provider. The NWHRN has developed tools and trainings for non-pediatricians, and over the past 3 years has taught throughout Washington state.

Methods: The NWHRN is a healthcare coalition representing the 2 largest counties in Washington state. We developed a regional Hospital Pediatric Toolkit specifically for non-pediatric hospitals.² We then created half-day workshops incorporating hands-on skills sessions. Participant evaluations are reviewed and used to improve and develop new trainings.

Results: The NWHRN Pediatric Toolkit received the 2010 NACCHO Model Practice Award (National Association of County and City Health Officials (NACCHO)). Since then eleven different hands-on pediatric training sessions have been developed. Participant evaluations have "strongly agreed" that these sessions are "valuable" and "useful learning aids". The demand for trainings continues. We have also shared these products with our colleagues in Oregon through a "Train the Trainer" Workshop. Oregon has successfully completed 2 workshops in their state.

Conclusion: Pediatric emergency care and disaster preparedness should be an everyday priority in <u>all</u> healthcare facilities. There are several tools available to help non-pediatric providers plan and train for the pediatric patient. Hands-on sessions have been a valuable training tool. ¹Gausche-Hill, M, et al, JAMA Pediatr. 2015;169(6): 527-534. doi:10.1001/jamapediatrics.2015.138 ²www.nwhrn.org/all-documents/hospital-guidelines-for-managing-pediatric-patients-in-a-disaster/

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Development and Application of an Educational Program for Medical Disaster Health Coordinators in an Earthquake and Tsunami Prone Area of Japan

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Study/Objective: We have developed and implemented an educational program for medical professionals in an earthquake and tsunami prone area of Japan, in order to provide training on the competencies needed by medical and disaster health coordinators to run a cluster meeting.

Background: Major earthquakes with a magnitude of 8.0-9.0 are anticipated to occur on the southern coast of Japan. Most part of Mie Prefecture would likely be damaged severely by tsunami and landslides. We need to foster medical and disaster health coordinators who could serve the area's Health Emergency Management Service.

Methods: We have developed a 4-hour program for the coordinators, that includes 2-hour didactic lectures and 2-hour tabletop exercises, which will be organized by the local government. The educational contents include practical procedures necessary to function as a disaster health and medical coordinator; ie, registering and dispatching medical teams and public health teams, analyzing and assessing situations in order to plan further response to a disaster, and organizing health cluster meetings. The tabletop exercise simulates disaster response in the area where the program is conducted. It requires participants to utilize the cluster meetings to share information and dispatch each team to rescue sites, shelters and/or facilities for medical and health support. The program evaluation by the participants was anonymously conducted using a questionnaire.

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Results: We implemented the program at nine different sites in Mie prefecture, and a total of 40 medical and health professionals participated in the program. The program was well perceived and the participants expressed their willingness to undergo the exercise with other various scenarios on a regular basis.

Conclusion: A practical program with a useful framework to prepare health and medical coordinators in disaster prone areas was successfully developed and implemented. We believe the approach used in this program could help in training health professionals in disaster prone areas.

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Creating Order Out of Chaos: Centralized Team Training for Disaster and Austere Medical Response

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Study/Objective: To explore a prototype in the medical training for civilian disaster response.

Background: Medical response to complex humanitarian disasters requires organized training that is lacking in most civilian health care providers. We believe that because of the unique challenges faced in austere medical environments, a centralized team approach to training needs to be created by the overarching command structure of international disaster response. This training should include not only damage control procedural skill acquisition, as well as realistic simulation drills, but also fundamental instruction of the pre-existing command framework within the greater disaster response, such that a trained team can productively incorporate within this context. Methods: Modeled after the military Tactical Combat Casualty Care (TCCC), we developed a team-based, Disaster and Austere Medicine Course for civilian providers called the International Disaster Austere Medicine Course (IDAMC). This course has been in existence for five years and highlights didactic teaching, procedural skills, simulation training, and Mass Casualty theory through the use of cadaver models and surgical simulators.

Results: Participants demonstrated an increased knowledge of core curricula learning objectives on pre- and post-course testing and displayed increased knowledge of their role within the structure of a greater disaster response. One disaster response team, in which 76% percent had undergone IDAMC training, was able to work efficiently in the immediate aftermath of Super Typhoon Haiyan and serve as the de facto hospital for a population of 2.1 million for four days.

Conclusion: The IDAMC serves as a prototype for civilian medical training in which simulation, procedural skills, and

disaster response command framework are taught based on a successful military model.

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Disaster Preparedness for Clinics - Further Study from Haiti

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Study/Objective: Our team created a manual to train clinics in Low- and Middle-income (LMI) countries to effectively respond to disasters. This study is follow-up to a prior study evaluating disaster response. We returned to previously trained clinics to evaluate retention and performance in a disaster simulation.

Background: Local clinics are the first stop for patients when disaster strikes in LMI countries. They are often under-resourced and under-prepared to respond to patient needs. Further effort is required to prepare these crucial institutions to respond effectively, using the Incident Command System (ICS) framework.

Methods: Two clinics in the North East Region of Haiti were trained through a disaster manual created to help clinics in LMI countries respond effectively to disasters. This study measured the clinic staff's response to a disaster drill using the Incident Command System (ICS) and compared the results to prior responses.

Results: Using the prior study's evaluation scale, clinics were evaluated on their ability to set up an Incident Command System. During the mock disaster, staff was evaluated on a 3-point scale in 13 different metrics grading their ability to mitigate, prepare, respond and recover in a disaster. By this scale, both clinics were effective (36/39, 92%) in responding to a disaster.

Conclusion: The clinics retained much of the prior training and after repeated training the clinics improved their disaster response. Future study will evaluate the clinic's ability to integrate disaster response with regional health resources, to enable an effective outcome for patients.

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Simulating a Disaster - Preparing Responders

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Study/Objective: This study evaluates the effectiveness of a novel modality created by our team to teach disaster