

### Disaster Collaborative Exercises for Healthcare Teamwork in a Saudi Context

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**Introduction:** Saudi Arabia has experienced special challenges calling for effective teamwork in the management of disasters and emergencies, such as wars, earthquakes, and major accidents linked to the Hajj pilgrimage over the years. In 2015, 769 pilgrims died in a crowd stampede during Hajj. The outcome of the incident could have been different if the rescuers had the necessary multiagency and collaborative disaster education. This study aims to determine the development of Saudi HCWs' teamwork during collaboration exercises.

**Method:** This study employed two methods to gather data: (observational) during three-level-collaboration (3LC) tabletop-exercises and semi-structured interviews, by employing two theoretical models (team development models). The number of participants was (100) HCWs.

**Results:** The results of these exercises had a positive impact on the functionality of HCWs and helped them prepare for disaster management and mitigation inside and outside of a medical facility. Based on the theoretical framework of the integration of team members, the participants reported that the trans-professional team developed because they understood the scenarios. In addition, the participants underscored they developed their skills and knowledge of disaster management because of the attempts made in scenario one. Furthermore, on the theoretical framework of team maturity, several participants indicated that immaturity in scenario one is because of the team members not having the same knowledge and skills. While in scenario two, they are mature because of training and challenges resulting in individual development.

**Conclusion:** This study focused on determining the development of healthcare teamwork during collaborative exercises. HCWs were exposed to two scenarios. The tabletop training enabled HCWs to gain the maturity in team building and disaster management. Immature and overripe HCWs cannot easily embrace teamwork. In addition, the public should be made aware of disasters that may come their way. Continuous training of HCWs and creating public awareness are essential parts of disaster management.

*Prehosp. Disaster Med.* 2023;38(Suppl. S1):s178  
doi:10.1017/S1049023X23004600

### A Crisis is an Opportunity for Human Resource Development

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**Introduction:** The COVID-19 pandemic also raged in Fukushima Prefecture, Japan. Moreover, it forced a response to the medical crisis just as much as the disaster. After the Great East Japan Earthquake, disaster response system development progressed in Fukushima Prefecture. The relationship between the DMAT and the Prefectural Medical Health and Welfare Department was becoming more assertive.

**Method:** However, as the disaster response members became fixed, there was an urgent need to develop new young human resources.

**Results:** Meanwhile, flood damage caused by Typhoon No. 24 occurred in September 2018. It was the first time since the Great East Japan Earthquake that a disaster countermeasures headquarters was set up within the prefectural office. In that response, we discovered young talents. Furthermore, they nurtured in response to the medical crisis caused by the COVID-19 pandemic.

**Conclusion:** In recent years, the main elements of disaster response required support for continuing medical care and securing public health. Unfortunately, however, these things are insufficient both as medical education and as postgraduate education. Therefore, few human resources are interested in disaster medicine and taking action. In addition, it is also a fact that, like surgical operations, if disasters are not responded to, they will not come to fruition. The response to this pandemic is genuinely an opportunity for human resource development. Taking advantage of this crisis to develop new human resources can be a blessing.

*Prehosp. Disaster Med.* 2023;38(Suppl. S1):s178  
doi:10.1017/S1049023X23004612

### Climate Change Impact on Floods and Water Borne Disease in Nepal

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**Introduction:** Nepal's reported risk to Climate Change adaptation reported by Notre Dame Global Adaptation Initiative Index (ND-GAIN Index) 2020 is 5.2 and ranked 71% high