

Results: We have concluded the DMAT operation office placed in ASO Medical Center Hospital, subsequently, the Aso area disaster health care revival liaison conference, had inaugurated officially - which was named ADRO [Aso Disaster Recovery Organization]. We have estimated, and expected to be proceeded by the next phase of disaster medical relief coordination. We also had been establishing relationships with the local relevant sector or institute. We received permission from the Kumamoto authorized institutes, and attempted to share the concept of this organization's establishment among us, through out the activities follows: 1) we established an outline, including goals, structure, and contents of the functions of this organization; enrolled institutions/organizations, and 2) we created the operation manual of ADRO, to clarify the detail of operation such as meeting schedules, places, handout documents, and manuals of the Minutes.

Conclusion: We are deeply considering that this process has a high potential to be a model case of the procedures, from an acute phase to subacute phase, to handle the disaster medical relief activity in the affected area. It is indispensable and an essential element to establish the coordination or conference body in a disaster affected area for handling effective medical relief activity.

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Efficacy of Mass Graves for Management of the Dead in Mass Disasters - A Retrospective Multi-Center Study

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Study/Objective: To reassess the effectiveness of mass graves in managing the dead during post Asian tsunami period in Sri Lanka and India, to identify minimum standards and best practices for conduct of such graves.

Background: The unexpected high numbers of deceased, witnessed during a mass disaster, lead to the critical question of management of the dead including finding effective ways of disposal within a short period.

Methods: The data available for five selected mass gravesites located in tsunami affected southern Sri Lanka and south India, were perused and geographical locations of them were observed periodically since mid-2005, to assess the nature of the site and associated human action. The data was gathered on the criteria for selecting mass grave sites, burial procedure, members of the mass grave team, identification and documentation of deceased, involvement of first responders, strategies for maintenance of the mass grave, etc. The directions for locations and translators for interviews in south India were provided by the ICRC regional delegation in India and local Red Cross societies.

Results: The criteria for selecting mass burial sites were not uniform throughout the selected areas. Some were located

just opposite the community habitats. The depths of these sites were also varied, and some burials were just few feet deep. The boundaries of most of the mass burial sites were indistinct. Many burial sites were utilized for reburials, and some burials were done during the evening or in the night. The services of untrained personnel were obtained to dispose of the dead, and the deceased were not tagged with permanent identification codes prior to disposal in almost all the sites.

Conclusion: Although the disposal method can be differed according to the disaster situation, mass gravesites are a potentially safe and appropriate method for disposing of the dead in developing countries, if followed with the proper guidelines.

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Post-Disaster Recovery, Mental Health and Resiliency: The Role of Public Health Organizations

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Study/Objective: This case study aims to describe the role of public health in the long-term recovery of communities heavily affected by a disaster.

Background: In 2013, a train carrying 72 cars of oil derailed in Lac-Mégantic in the Estrie region (Québec, Canada), provoking a major conflagration and explosions. This disaster caused 47 deaths, the destruction of 44 buildings, the evacuation of 2,000 citizens (ie, one-third of local population), and an unparalleled oil spill.

Methods: The Public Health Department of the Estrie region examined the mental health consequences in the years following the disaster, using repeated cross-sectional studies (T1:2014; T2:2015) among large random samples of adults. Results from these two studies served as a powerful lever for community mobilization.

Results: Overall, seven in 10 adults living in Lac-Mégantic and surrounding areas reported human (eg, loss of a loved one) or material losses (eg, home damage) related to the train derailment. Two years after the event (T2), three-quarters of these "direct victims" showed moderate to severe signs of posttraumatic stress. Following the publication of these results, a multi-sectoral action plan, funded by the Québec health and social services ministry, was developed with community partners and citizens in order to increase resiliency. Through a wide range of actions, this plan pursued several objectives: to maintain and adapt psychosocial services (bringing them closer to people), to stay connected with the

community (creation of a space for citizens), and to foster resident involvement.

Conclusion: As supported by a large body of literature, the population burden of psychopathology in the aftermath of the Lac-Mégantic disaster is substantial and persistent. Public health organizations facing such disasters should: (a) establish a long-term monitoring system of psychological consequences; (b) advocate for social measures and psychosocial support; (c) collaborate closely with the community; and (d) build on the knowledge gained responding to previous disasters.

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Impact of the 2011 Triple Disaster in Fukushima, Japan – An Earthquake, Tsunamis, and a Nuclear Power Plant Accident – Physical Performance of the Children: A Retrospective Cohort Study in Soma City, Fukushima
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Study/Objective: The study objectives were twofold: (1) to assess the post-disaster versus pre-disaster physical performance among school children in Fukushima; and (2) to evaluate which types of performance were the most affected.

Background: The 2011 triple disaster in Fukushima posed a lot of public health challenges in the affected areas. As people tended to stay indoors from fear of radiation, there was an increasing concern about decline in physical performance among the residents, especially children, who were more likely to stay indoors because several schools restricted the time of outdoor exercise to reduce external radiation exposure.

Methods: In Japan, the School Health Examination Survey is performed annually. Data of these examinations among the elementary school children at the 10 elementary schools in Soma City, Fukushima were collected. The data obtained included height, body weight, and scores of grip strength, time of the 50m run, the 20m shuttle-run test, a softball throwing test, a side-step test, and sit-up test. The results of each test were scored from 1–10 according to the national standards. For each physical performance test, absolute values, as well as scores, were compared between 2010 (pre-disaster), 2012, and 2015 (post-disaster). The data were also compared with national average scores.

Results: Data were obtained from 3,663 school children. After controlling for height and weight, scores of 20m shuttle run and side-step test significantly decreased in the post-disaster period compared with the pre-disaster period. Comparison with national averages also showed the trend might be specific in Fukushima. Grip strength and handball throwing did not show a statistically significant difference.

Conclusion: This research suggests that school restrictions on outdoor activities after the Fukushima disaster had an effect. As physical performance among children may affect their life-long health status, as well as academic achievement, a future disaster mitigation plan needs to include plans to maintain physical activities among children.

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Knowledge, Attitude and Practices of Tuberculosis (TB) Management Among Health Workers at the Emergency Department (ED) of Komfo Anokye Teaching Hospital (KATH), in a Low Emergency Resource Setting in West Africa

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Study/Objective: To assess the knowledge, attitude and practices of health care workers at the ED of KATH towards TB management.

Background: Tuberculosis (TB) has long been known as an occupational hazard among Health Care Workers (HCWs). Previous research in Africa found that HCWs often lack knowledge about TB and its infection control. Key factors facilitating nosocomial TB transmission include: delayed diagnosis, ineffective treatment of patients, and lack or inadequate TB Infection Control (TBIC) measures.

In Ghana, many TB infected patients present late to the hospitals with various complications. Initial diagnosis of TB is usually delayed due to insufficient resources, lack of diagnostic tests and inadequate isolation units. This usually leads to long boarding hours of these patients, which facilitates health worker associated TB. Poor infection control practices by health workers also contribute to their increased risk of TB infection.

There is little literature in Ghana on the assessment of the knowledge, attitude and practices of HCWs in the ED regarding TB management. This research seeks to assess these amongst HCWs who are the frontline in TB management in the ED.

Methods: A cross-sectional descriptive study will be conducted among the HCWs, and all 200 health workers in the ED will be included. A structured based, self-administered questionnaire will be used to assess the knowledge, attitudes and practices of TB management among HCWs, which will include whether they are willing to screen for TB.

Results: The study will identify previously unknown gaps in TB treatment among health workers. Poor attitude of HCW towards TB management may be highlighted. Inadequate TBIC measures may also be identified.

Conclusion: These findings will help provide the needed support, resources and training in order to reduce health worker associated TB. It will also necessitate further studies to determine the TB burden among health workers in the ED.

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