

CONSULTATIVE THEMES:

Development of evidence-based technical guidance and education programs for the advancement of health and disaster risk management capabilities group

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Theme # 1: Information sharing between internal and external stakeholders is required for quick and effective response to disaster

Introductory description:

After onset of a disaster, healthcare providers should response to medical surge and public health authorities support medical care and public health activities. Even if each community has established emergency preparedness plan, it cannot work well without information in disaster-hit areas. Therefore, it is significant for stakeholders to build communication network in prior to a disaster and sharing information among stakeholders is required for quick and effective response[1].

Background statement highlight why the particular medical or health issue is currently not well or incompletely addressed:

The Great East Japan earthquake of March 2011 raised many issues in medical informatics. Loss of patient records and communications were major problems, but information sharing at evacuation centers and in registering displaced people also proved problematic. Because of the high turnover among volunteers and the poor level of information management, for example, the displaced were obliged to answer the same questions repeatedly as new volunteers stepped in[2].

Proposed solution with examples of successful programs (if relevant):

A proposal to develop a health management system to address these issues was raised by the Ministry of Health, Labor and Welfare, JAPAN. As a result, National Institute of Public Health has developed a health management system and a health policy supporting system for crisis management on the internet 'cloud'. This system relies on a Customer Relations Management System, which is used in commercial companies to share customer information and offers the capability to track people over time. Here, it is used for displacement and evacuation site management. A geographic information system (GIS) component was also developed to easily understand and overview the disaster area, disaster demographics and the locations of evacuation centers and disaster hospitals, among others, along with their pre-established capacities[2].

Anticipated impacts:

Information required for support operations is different among stakeholders and some of them contain private information. Therefore, prior to and during a disaster, rules and data elements for sharing should be determined by stakeholders. Although the Internet 'cloud' makes it possible to manage and assess information provided by stakeholders, stakeholders should standardize formats and definitions of common data.

Major challenges for the success of this proposal: •

Standardization of formats and definition of common data should be implemented by government level. ISO 22320 is an international standard that was issued to enhance the ability of private and public organizations to handle all kinds of emergencies and it covers command and control organizational structures and procedures, operational information, coordination and cooperation within an incident response organization, decision support, traceability, information management, and interoperability. Application of ISO22320 for data exchange might improve information sharing between internal and external stakeholders.

Integration of related data enables future log and assessment of the operation in many ways. Therefore, time line based data accumulation in CRM will be a good record for future analysis.

Summary:

Lessons learned from past natural disasters, information sharing between internal and external stakeholders is required for quick and effective response to the disaster. Internet 'cloud' makes it possible and easy to share information provided by stakeholders

Prior to a disaster, each stakeholder should standardize the format and definition of common data, and application of ISO22320 for data exchange might improve effective information sharing.

References:

1. Public Health Preparedness Capabilities. National Standards for State and Local Planning March 2011.
2. Mizushima H, Kanatani Y. A health support system of disaster management using the cloud. World Disaster Report 2013, International Federation of Red Cross and Red Crescent Societies.