Chapter 22
Community Hospital Disaster Preparedness in the United States

Dan J. Vick
St. Vincent College, USA

Asa B. Wilson
Methodist University, USA

Michael Fisher
Regis University, USA

Carrie Roseamelia
SUNY Upstate Medical University, USA

ABSTRACT

Disasters are common events in the United States. They generally result in casualties and community hospitals play a critical role in caring for these victims. Therefore, it is critical that hospitals are prepared for disasters. There has been increased focus on hospital disaster preparedness in the United States because of events that have occurred in the 21st century. To determine the current state of disaster preparedness among community hospitals, a comprehensive review of the literature was conducted that focused on studies and other articles pertaining to disaster preparedness in U.S. community hospitals. The review showed mixed results as to whether hospitals are better prepared to handle disasters. Barriers to preparedness were identified. Opportunities for improvement may require additional study and involvement by federal and state governments, other agencies, and hospitals themselves to overcome barriers and assist hospitals in achieving a higher level of preparedness.
INTRODUCTION

A disaster is defined as a “sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources” (International Federation of Red Cross and Red Crescent Societies, n.d.). Natural disasters include weather-related phenomena, such as floods, hurricanes, and blizzards, and non-weather-related incidents, such as wildfires, tsunamis, and epidemics. Non-natural disasters include events such as mass transit mishaps, terrorist attacks, and chemical spills.

Disasters are common in the United States. Forty-three states have experienced earthquakes, all 50 states have encountered flooding, and approximately five hurricanes impact the southern and eastern coastlines every three years (McGlown & Robinson, 2011). Disasters are occurring more frequently; the average number per year increased around 60% from 2006 to 2015, compared with the average annual number in the two previous decades (U.S. Federal Emergency Management Agency, 2016). The number of people affected by disasters from 2006 to 2015 increased 44% over the number of people affected by disasters occurring in the previous decade (Centre for Research on the Epidemiology of Disasters, 2015). There have been a number of notable disasters in the 21st century, including the terrorist attacks of September 11, 2001; severe hurricanes, such as Katrina and Rita in 2005, Sandy in 2012, and Irma in 2017; and the tornado that devastated Joplin, Missouri in 2011.

Disasters inflict casualties, either from direct injuries or indirectly, such as from illnesses caused by contaminated water and food or toxic fume inhalation. Hospitals play a critical role in disaster response in affected communities. They represent an important component in a regional system for disaster preparedness and management. Disaster preparedness, as defined by the Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA), is “a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response” which contributes to the ability to “prevent, respond to, and recover from natural disasters, acts of terrorism, and other disasters” (U.S. Department of Homeland Security, 2013, Plan and Prepare for Disasters).

It is important for hospital administrators and staff to improve their organizational ability to address disasters. This includes being able to handle large numbers of patients (surge) and to collaborate with outside agencies, community governments, and other healthcare facilities within the stricken area (Krizner, 2007).

Government resources are crucial for helping hospitals to achieve and maintain preparedness. Following the events of September 11th, the U.S. Department of Homeland Security (DHS) was established along with several other offices and agencies. A National Response System was developed to address terrorist attacks and natural disasters. The DHS issued a national strategy for homeland security in July 2002. This included creating the National Incident Management System (NIMS) and preparing health care providers to respond to incidents of catastrophic terrorism (Harrald, 2012).

The U.S. Department of Health and Human Services (HHS) established the Hospital Preparedness Program (HPP) in 2002 under the Health Resources and Services Administration (HRSA). The All-Hazards Preparedness Act of 2006 transferred the HPP from HRSA to the newly-created Assistant Secretary for Preparedness and Response (ASPR) (Cagliuso, 2014a). The HPP assists health systems and hospitals to prepare for public health emergencies and disasters (University of Pittsburgh Medical Center, 2009). It is the sole provider of federal funding for promoting regional healthcare system preparedness. Initially, the program awarded funds to hospitals for the purchase of preparedness-related equipment and supplies