

# Transforming Health Care Coalitions From Hospitals to Whole of Community: Lessons Learned From Two Large Health Care Organizations

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## ABSTRACT

A health care emergency preparedness coalition (coalition) is a group of health care organizations, public safety agencies, and public health partners that join forces for the common cause of making their communities safer, healthier, and more resilient. Coalitions have been characterized as being focused on hospital systems instead of the health care of the community as a whole. We discuss 2 examples of coalition partners that use a more inclusive approach to planning, response, and recovery. The first is a large health care system spread across 23 states, and the other is a public safety agency in northeast Pennsylvania that took the lead to address the preparedness and response toward a large influx of burn patients and grew to encompass all aspects of community health care. (*Disaster Med Public Health Preparedness*. 2015;9:712-716)

**Key Words:** disaster planning, community health planning, decision making, organizational, disasters, emergency preparedness

A health care emergency preparedness coalition (coalition) is a group of health care organizations, public safety agencies, and public health partners that join forces for the common cause of making their communities safer, healthier, and more resilient.<sup>1</sup> Since 2009 a greater number of coalitions have been building across the United States, as demonstrated in a 2011 survey showing that nearly 95% of hospitals participated in a coalition.<sup>2</sup> Coalitions have been focusing on the individual hospital or hospital system instead of the health care of the community as a whole. The federal funding program has even substantiated this focus through its name: the Hospital Preparedness Program (HPP). The release of Presidential Policy Directive 8 (PPD-8) in 2011 called for a “whole-of-community” response, which provided that overdue refocus. This does not mean we need to diminish the role of the hospital, as it will always be the hub of health care in our communities, but we must be more inclusive of other providers such as long-term care, long-term acute care, dialysis, clinics, pharmacies, research institutes, home health care, private physician practices, ambulatory surgery centers, and diagnostic centers. Additionally, we need to embrace partners within other disciplines, such as community business coalitions, not-for-profits, and other community-oriented organizations that support the greater need of the community in times of crisis.

Each of these stakeholders plays an important role in the health care of a community and are many times neglected during disaster planning and recovery.

We discuss 2 examples of coalition partners that use a more inclusive approach to planning, response, and recovery. The first is a large health care system spread across 23 states, and another is an agency in northeast Pennsylvania that took the lead to address the preparedness and response toward a large influx of burn patients but grew to encompass all aspects of community health care. One agency is a for-profit system, the other a not-for-profit that is privately funded through operating capital and philanthropic support, with additional funding from both federal preparedness allocations (HPP) and homeland security grants.

### EXAMPLE 1: THE HOSPITAL CORPORATION OF AMERICA

The Hospital Corporation of America (HCA) is the largest private health care provider in the world, with 166 hospitals, 124 ambulatory surgery centers, and over 500 physician practices across 23 states and the United Kingdom. The company also consists of free-standing imaging centers and emergency departments, clinics, cancer treatment centers, research centers, and long-term acute care facilities.

In the last decade, HCA has gained experience in responding to a number of disasters within the communities it serves (averaging 20 to 30 incidents per year), including the diagnosis of the first case of inhalational anthrax during the 2001 anthrax mailings, the evacuation of Tulane University Hospital after Hurricane Katrina, mass shootings in Colorado and Virginia, and the recent Ebola virus disease (EVD) crisis. Although each HCA facility is a member of a local health care coalition and participates in the HPP, they also use a “corporate community” response to disasters, which allows them to leverage personnel and resources to respond to an event.

The corporate community approach to disaster planning, response, and recovery mirrors the whole-of-community approach: all HCA business units are aligned to provide support during a disaster. The company is organized under 15 different division offices. Each division has hospitals and other health care locations operating under their supervision, and they operate a division emergency operations center (EOC) to support their facilities during a disaster. When a facility encounters a situation when they need to activate their incident command team, they notify their division EOC.

The division EOC can provide immediate support to the affected facilities. Each division office has available a supply warehouse (including disaster supplies), clinical teams, information technology, public relations, legal, and support services. The goal is to allow the facility to “put more hands on patients, and fewer hands on phones.” thus maintaining higher clinical standards and continuity of health care operations. Acquisition of generators and supplies, finding inpatient beds at other facilities, transportation, and moving staff are coordinated by the division office, freeing facility staff to care for more patients. During Hurricane Gustav in 2008, HCA supported and relocated more than 550 patients across multiple states, including behavioral health patients. To maintain continuity of health care operations, division staff were able to find beds for patients during the evacuation of 2 hospitals, thus limiting further disruption to clinical operations and maintaining services to the community.

Once a division EOC is notified by the hospital incident command team, they in turn notify the corporate EOC. The purpose of the corporate EOC is to provide support to the division. In the above example of Hurricane Gustav, the corporate EOC provided transportation assets (air and ground) to perform the evacuations. The structure of the corporate EOC is based on 15 identified business areas that can provide support during a disaster (Figure 1).

The corporate EOC runs virtually; members typically do not assemble in a fixed command center or board room to provide support. Electronic communications and a disaster planning and response website ([www.hcacodeready.com](http://www.hcacodeready.com)) are tools used

to coordinate a response. Most responses do not require the entire EOC to respond; thus, the system is scalable like other command systems.

While the division and corporate EOCs share a name with regional and state emergency operation centers that operate during disasters, they have one advantage: they delineate the roles within health care as it is practiced, instead of trying to adapt health care into a single emergency support function, ESF-8. An inclusive health care coalition can bring clarity to the roles, agencies, and purpose of ESF-8 tasks because they may be the only true representative of health care and public health in a community.

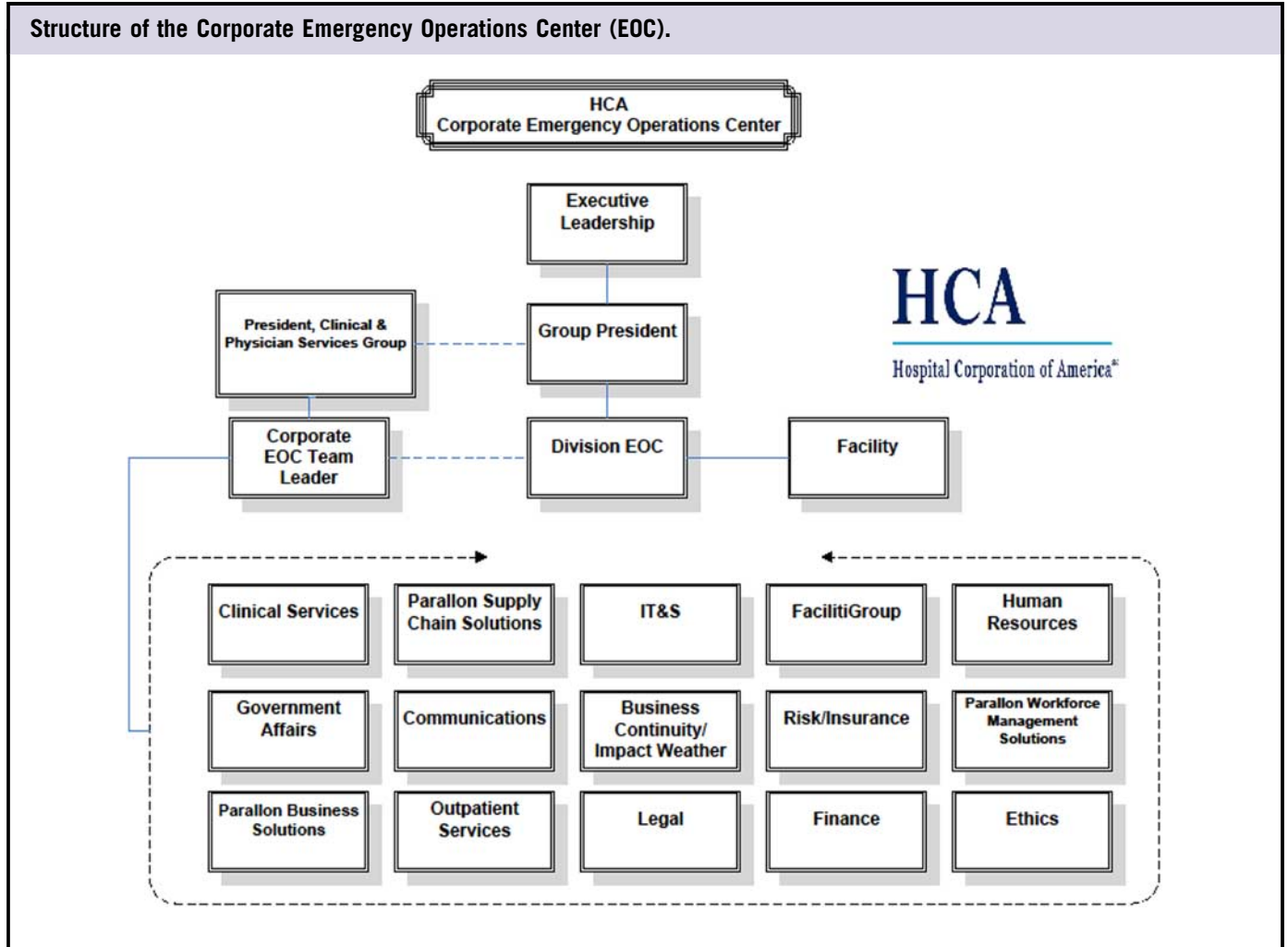
The recent EVD crisis (fall 2014 into winter 2015) highlights the advantages of this approach. HCA began watching the 2014 outbreak early that year. The outbreak was of great importance because of HCA having facilities located near international airports with direct flights from the stricken countries and clients from West African countries that traveled to their facilities for treatment. In July, conference calls began with at-risk divisions. On August 1, 2014, HCA issued guidance across the company outlining steps to identify, screen, and treat patients with suspected or confirmed EVD. This was in advance of the Centers for Disease Control and Prevention issuing their guidance nationwide. This guidance was posted to the Homeland Security Information Network website and became the most downloaded document from their health care and public health page during August and September 2014.

After Thomas Earl Duncan was diagnosed with EVD in Dallas, HCA sent a team of clinicians to educate and train staff at their Dallas facilities. The corporate EOC coordinated supply chain operations, reviewing and selecting the most appropriate personal protective equipment for care, while a clinical team provided additional guidance and training on care of patients, and an “Ebola Virus Disease Update” newsletter mailed to all HCA operations provided a single source of truth and guidance, which helped to avoid the struggles other health care facilities were seeing with conflicting information, lack of coordination, and plans being lost in never-ending committee meetings. From October 2014 until the spring of 2015, HCA facilities saw over 200 suspect patients, 2 of whom were admitted as patients under investigation. Fortunately, none were confirmed with EVD. The HCA corporate team also opened a biocontainment inpatient unit at Oklahoma University Medical Center, assisting local facility leaders with training, policies, and processes for the 2-bed special isolation unit.

In another example, HCA facilities in the New Orleans region were affected by Hurricane Isaac in 2012. Prior to landfall, 2-megawatt generators were connected to at-risk facilities. HCA leases 13 generators during hurricane season each year, which are strategically located for rapid

FIGURE 1

Structure of the Corporate Emergency Operations Center (EOC).



regional response. The generators not only power hospital HVAC systems (which many times are not connected to emergency power supplies), but also serve as a backup to emergency generators in case they fail (as seen during 2012's Hurricane Sandy.)

HCA also contracts with remediation teams to deploy to the area before a storm, and during Isaac embedded the remediation teams in hospitals. The storm was very slow moving and caused significant damage to structures. Three HCA hospitals received damage, but over \$3 million dollars of damage was avoided by having those remediation teams in place as the storm hit the facility, and hospital services were not significantly interrupted.

**EXAMPLE 2: THE NORTHEAST PENNSYLVANIA COUNTER-TERRORISM TASK FORCE: HEALTH & MEDICAL COALITION**

The Northeast Pennsylvania Counter-Terrorism Task Force: Health & Medical Coalition (NECTTF) in partnership with

the Pennsylvania Department of Health, Bureau of Public Health Preparedness, and Lehigh Valley Health Network (LVHN) developed a joint operations program to enhance community preparedness and health system capacity toward the potential influx of burn patients in a mass casualty scenario involving burns. Burn capacity was identified to be a critical priority in the post-9/11 regional clinical vulnerability assessment, in addition to a local vulnerability due to the high number of industrial sites that potentiate the need for burn bed capacity. LVHN, being the only verified burn center in the northeastern Pennsylvania region, played a critical role in providing clinical experts and resources and in developing the concept of operation (CONOP-Burn Surge). LVHN consists of 4 acute care hospitals (spread over 5 campuses), greater than 1000 acute care beds, and a line of services that include cancer treatment, mental health, neurosciences, pediatrics, trauma, kidney transplantation, and burn treatment. LVHN is one of 18 member hospitals in the Northeast Counter Terrorism Task Force region of Pennsylvania and the only level-one adult and pediatric trauma center verified by the American Burn Association.

In the event of a critical incident resulting in a surge of burn patients, Regional Burn Centers typically have limited capabilities to care for up to 25 to 30 patients. In 2008 the NECTTF developed a plan to address incidents when regional burn centers reach capacity. The Regional Burn Cart Program uses mobile burn carts that were initially distributed to 24 area hospitals and 3 mobile surge facilities.<sup>3</sup> Designed and constructed by LVHN's Regional Burn Center and Office of Emergency Preparedness, with support and leadership from the health care coalition, each cart contains supplies for local community-based hospitals to help care for up to 3 moderately burned patients for 3 days. This program was jointly funded by the Pennsylvania Department of Health as a pass through of the HPP and LVHN.

According to the American Burn Association,<sup>4</sup> 486,000 burn admissions take place annually in 128 verified US burn centers. In the 4500 non-burn-center hospitals in the United States, burn injuries account for less than 3% of total admissions. These statistics further strengthen the case to support non-burn-center hospitals with a specialty resource. This burn cart strategy increases a region's burn capacity and provides the necessary critical burn supplies and equipment to treat burns at every hospital in the region (39 total carts), thus allowing responders to save lives even when they are challenged by overwhelming numbers. Each deployable cart contains an antibacterial dressing (Acticoat; Smith & Nephew Inc, Ft Worth, TX) that needs to be applied only once over a 72-hour period, supplies to administer intravenous fluids, equipment to maintain a patient's airway, caregiver gowns and gloves, and other supplies. Sustainment of the carts and supplies is a critical factor for the program to remain viable. Annually, representatives from the LVHN burn center engage the custodians of the burn carts to exchange supplies that are nearing expiration. The supplies that are fast approaching expiration are then brought back to the burn center and used in the next earliest treatment before expiration. If the remote hospital utilizes the supplies, they are replenished at no cost by the burn center. The mobility of the carts allows them to be easily removed from their base hospital and transported to areas with greater clinical impact if needed. To provide an additional level of care, many of the participating hospitals partner with LVHN's burn center through its Teleburn service. Teleburn allows physicians at a remote hospital to upload photos of a patient's burn injuries to a secure website, where one of the on-call available burn surgeons assigned to burn triage will review the photos and consult with the referring providers in real time. The burn surgeon can assist with treatment and triage to an accredited burn center. This Teleburn program is designed to work in conjunction with regional emergency medical services burn treatment and mass casualty protocols. The program has demonstrated an enhanced triage and transfer process allowing for the most appropriate burn patient to take priority in the order of transfer.

The 2015 American Burn Association National Burn Repository Report of Data cites that "prevention and early

appropriate burn care" are essential to reducing the morbidity and mortality of burns.<sup>4</sup> The resources provided in the NECTTF burn carts aid in enhancing the clinical outcomes related to burns through early appropriate burn care, thus thwarting the prolonged effect of early mismanagement, both clinical and financial. In the United States, the national average length of stay for a burn patient is 8.7 days, with a morbidity rate of 3.2%.<sup>4</sup> Both the length of stay and morbidity increase when early care cannot be provided. Theoretically, the burn carts will allow clinicians the ability to appropriately triage the patient in most need of a burn center for early transfer, while providing early appropriate treatment to those in need of specialty burn care that can be provided at a non-burn facility. Additionally, the specialty resources available to community hospitals allow for less resource-dependent wound care and much less frequent treatment intervals, allowing the maximization of limited resources over a greater number of patients. Without this critical resource, the risk for increased complications exists, in turn increasing the admission length of stay, and greatly increasing the cost of providing care. The relatively minimal investment of \$2,889.00 for each of the 39 carts in providing such a preparedness resource will counter the long-term financial burden while enhancing quality clinical outcomes.

In addition to the burn program, LVHN senior leadership supported the development of the Department of Public Safety and Emergency Operations within their organization. This was a novel approach to enhancing the profile of health care emergency operations for the community and in the health network, by dedicating and sustaining a full time, fully staffed department for 24/7 support to the community. The vision of the leadership was to take like-missioned departments and align them under one service line, rather than in separate organizations. By aligning leadership and structuring emergency preparedness, fire and life safety, security services, emergency communications, and MedEvac air and ground transport divisions, LVHN created a unique program of professionals cross-trained to manage any critical incident impacting the health network and the community it serves. Their role serves the community operationally as the ESF-8 of the National Incident Management System. As a leading member of the NECTTF, LVHN Public Safety and Emergency Operations utilizes resources financially supported by the HPP and operating capital to ensure a whole-of-community response to maintaining continuity of health care operations within their coalition. As a proven model of health care organizations partnering with the community, this example provides a framework for other organizations to build sustainment of services through cost sharing, organizational leadership, and commitment to ensure health care resilience to the community.

The examples given above translate easily into work and actions health care coalitions can do. By sharing expertise and coordination, as demonstrated during the EVD outbreak and the burn bed project, and coordinating equipment as

shown during Hurricane Isaac, coalitions can have a great impact on their communities. While we understand that hospitals compete for patients every day, which is just part of the health care process, that competition ends during a disaster. The resources and expertise needed to plan for, respond to, and recover from a disaster are not located at one hospital; they are spread out among the community partners. Bringing these experts together can have a significant impact in responding to and recovering from a disaster. The coalition can also serve to better enable regional and state EOCs to coordinate health care and public health response (ESF-8) during a disaster by being more inclusive of all health care providers.

The future plans of the HPP revolve around the strengthening of coalitions. From that perspective, coalitions should enhance preparedness efficiency by using a whole-of-community approach. National benchmarks for coalitions and preparedness are changing; health care providers and coalitions are going to be measured on the basis of real-world experience and exercises. As federal allocations for preparedness shrink, coalitions must serve as a base for the community to make sure those dollars are directed toward the resilience of a community and not merely the preparedness of a hospital.

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