

Disaster Landscapes In Health Care

Learning Experiences from Florida to Peru

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We see daily examples in the news of disasters around the United States and elsewhere in the world. We further understand climate change is taking a toll on the earth. And disasters like hurricanes, floods, earthquakes and wildfires affect every aspect of providing health care. In the last two years alone, Catholic health care facilities have experienced major disasters in Florida, California and the Carolinas, just to name a few, and also have contended with responding to disasters in some international ministries like Mexico and Peru.

During 2017, Bon Secours Health System had to face disasters that hit at the heart of its ministry. One disaster, Hurricane Irma, caused the evacuation of two facilities in St. Petersburg, Fla., Bon Secours Maria Manor and Bon Secours Place. The response posed significant challenges to patients and staff. The other disaster was more than 2,600 miles away from Florida. The floods in Peru that year directly impacted over one million people in that South American country where the Sisters of Bon Secours live, minister and provide health care to vulnerable communities. These very different disasters provided valuable organizational lessons about resilience and action. Health care's complex systems for providing care can be fragile in times of disasters, and we must continue to thoughtfully develop disaster preparedness plans to secure ongoing operations while also increasing mitigation practices to prevent greater warming of our common home.

CARE OF OUR COMMON HOME

Pope Francis highlights the urgency to curb the warming of our common home in his encyclical, *Laudato Sí*. He states that “reducing greenhouse

gases requires honesty, courage and responsibility, above all on the part of those countries which are more powerful and pollute the most.”²¹ Human beings have an ethical responsibility toward the natural world that sustains life itself. Curtailing the human-made effects on the earth's climate requires moral choices and bold action from every sector of society, including the health care sector. The challenge before society is not only to be resolute in the conviction that climate change is real but also to ensure that appropriate personal, organizational and societal action takes place in an accelerated manner. As a global family, we can no longer ignore the need for updated environmental regulation of industry and the need to end water and air pollution and backward energy practices. The victims hit hardest are already among the most vulnerable in the world.

The U.S. health care sector has a particular responsibility. Health care is the second largest producer of greenhouse gases after the food industry, yet the gravity of its operations on the environment is still largely underestimated. At a basic level, health care facilities produce and emit greenhouse gases into the environment through





heating and cooling units and energy-intensive equipment, which rely on electricity powered by fossil fuels. Once the greenhouse gases build up in the atmosphere, they directly contribute to the warming of the globe.

The use of fossil fuels and the health of the population also are intimately connected. The American Medical Association not only has agreed with the scientific evidence around climate change but also has urged physicians to play a critical role in advocating for climate change mitigation. According to *The Lancet*, mitigation strategies should include “the recognition by governments and electorates that climate change has enormous health implications.”²

Similarly, the *AMA Journal of Ethics* calls for medical advocates to promote “public and legislative support for international, national, and regional policies to mitigate climate change; encourage a co-benefits approach, which promotes policy and lifestyle measures to improve public health; and expand medical curricula and awareness on climate and global change.”³ The stakes could not be higher for the medical profession. Its members will increasingly contend with “changing patterns of disease and mortality, extreme weather events including flooding and drought,” and food insecurity.

Health care can have a negative effect on the environment, and the health care sector as part of the global community has an ethical responsibility to achieve even greater strides to help curb the warming of the planet. Every ethically responsible business looks to minimize egregious harm when dealing with personnel matters, as an example, yet many fall short of holding their operations to the same standard when it comes to protecting the environment. One possible reason is because there is no consensus, in moral terms, about how to deal with environmental issues. While some see it as a matter of right and wrong, others do not.

Climate change needs to be addressed in terms of protecting people from harm and protecting the ecosystem from irremediable destruction. While every sector of society, and every industry, has an environmental footprint and effect in the world, every industry should begin to fully understand its ethical environmental responsibility. Business leaders have a moral choice to discern about the

life-cycle of their products. For example, is there enough education that takes place within a business to understand the effects of where materials that will be used come from and what happens when the material ends its utility or life-cycle? If the use of such products affects the integrity of the environment and life itself, should they be used? Although there are numerous examples of business decisions that happen every day that have an implication on the environment, long-term consequences need to be weighed against short-term gains.

THE FRAGILITY OF HEALTH CARE: LESSONS FROM FLORIDA

From Aug. 30 to Sept. 6, 2017, Hurricane Irma caused major destruction in Barbuda, Saint Martin, Saint Barthelemy, Anguilla, the U.S. Virgin Islands and the Florida Keys. It reached its peak intensity as a Category 5 Hurricane. It significantly damaged many parts of Florida. Some islands were leveled, the Florida Keys experienced 90% of homes damaged, and millions across Florida were without power.

Florida is home to Bon Secours Maria Manor and Bon Secours Place, both of which had to be evacuated due to the hurricane. Luckily, the facilities experienced no significant infrastructure damage from the storm. Bon Secours staff in Florida did a heroic job in transporting medically

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frail residents and patients to St. Jude’s school and cathedral in St. Petersburg, which was on higher ground.

Bon Secours was not anticipating an evacuation. However, Pinellas County Disaster Management began redrawing evacuation zone lines at the last minute in the aftermath of Hurricane Harvey in Texas. There, some nursing homes had sheltered residents in place, based on the information they had, but media coverage soon showed some residents in waist-high water from a storm

surge. The two Bon Secours facilities in St. Petersburg found they were re-designated as being in an evacuation zone where facilities were required to suddenly evacuate.

On the morning of Sept. 8, 2017, Bon Secours in St. Petersburg began to execute its evacuation plan. Staff had already secured the facilities with protections to better withstand the storm. With the call to evacuate, 350 patients and residents were relocated from their skilled nursing and assisted living residences. Moving vans carried food and water for seven days, all patient records and possessions — including the patients' own mattresses, supplies, medications, medication carts, electronic medical records and associated technology. Everything except the walls and floor was moved by a small team of staff. Despite having been notified about the frailty of some patients at Bon Secours, the county sent school buses for transportation, which lacked sufficient lifts and wheelchair accommodations, resulting in strenuous physical labor for staff to assist those patients. Nonetheless, all the patients and residents were safely transported 10 miles across town to higher ground in only eight hours.

Over the course of five days, 150 staff and 50 family members and volunteers ensured that quality of care was maintained and also that the quality cadence of daily routines remained as normal as possible. While unfamiliar surroundings and mattresses on the floor of the cathedral and school made it difficult for patients as well as caregivers, compassionate care and a spirit of unity were palpable. "Eggs your way," Tai Chi, yoga, bingo, Mass and choir were among the many activities that were enjoyed. And, when it was time for a lockdown as the hurricane picked up, Bishop Gregory L. Parkes of the Diocese of St. Petersburg came to the shelter, bringing added comfort to all.

Even though the evacuation was successful and the patients were safe, Bon Secours faced challenges. Team members had to balance issues that arose from providing care in a difficult physical environment. These included operational and human matters, from the challenging logistics of working with vendors to get resources where

needed, while also contending with our employees' personal home evacuations and power outages. Many resources had been deployed to assist the hurricane response efforts in Texas, leading to a lack of generators and fuel supply throughout Florida. Bon Secours struggled to relocate new generators and to knit together several new fuel suppliers to total the 10,000 gallons needed

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— KATHRYN HYER

before going into the night of the storm. The other challenge faced was the lag time before the activation of temporary offsite generators; it required a two-hour manual procedure and involved the perfectly timed choreography of Duke Energy, the generator company and electricians.

Lessons learned from the experience led to changes. As a result of Hurricane Irma, there has been progress at the local level including automatic transfer switches, redundant vendor capabilities and improved planning. But as Kathryn Hyer, PhD, director of the Florida Policy Exchange Center on Aging at the University of South Florida, explains “evacuations should not be all or nothing. We need a much more nuanced and better-researched understanding of who should evacuate before, and how people can be sustained appropriately.”⁴ Hyer is a member of Bon Secours St. Petersburg Health System's board quality committee.

Hyer made eight recommendations from her ongoing research to improve the outcomes for the elderly:

1. Require generators and fuel to support air conditioning and other medical needs.
2. Improve education about emergency plans.
3. More federal oversight in a facility's evacuation plan is needed.
4. The decision to evacuate must take into



account the size and severity of the storm, the ability of the facility to withstand wind and potential storm surge and the needs of the residents.

5. Require facilities be built to minimize flooding risk and allow residents to shelter in place if necessary.

6. Give nursing homes and assisted living communities priority in power restoration efforts.

7. Provide some litigation protection for facilities that abide by regulations and provide care during disasters.

8. Commit to ongoing geriatric education programs.

Hyer also noted that the country needs ongoing geriatrics training and consistent research funding to evaluate disasters. “We know that disasters will continue to occur, and we must be prepared.”⁵

This disaster not only showed the leadership in place at Bon Secours facilities but also highlighted the fragility of health care operations and the need for disaster preparedness.

DISASTER GUIDELINES: LESSONS FROM PERU

On March 15, 2017, Peru suffered through the worst flooding in recent history due to the abnormal warming of the Pacific Ocean. Half of the country, 12 coastal states, were severely affected by the disaster. Relief was very limited since 4,000 miles of roads and 514 bridges were compromised. Over one million vulnerable people were affected, over 153,000 homes were destroyed, over 460 hospitals were compromised, and many people were left homeless.

Since Bon Secours Health System was founded by the Congregation of Sisters of Bon Secours, Bon Secours was aware that there were many Catholic groups directly impacted in Peru during the floods, especially the Sisters of Bon Secours in: La Libertad (Trujillo), Piura (Los Ranchos), Ancash (Huacho), and Lima; the Sisters of the Incarnate Word were affected in Ancash (Chimbote).

Even though the decision to become actively involved in support of the communities in need was unwavering, it was also guided by disaster guidelines and best practices already established under the organization’s office of Global Ministries. Responding to a disaster abroad without such guidelines would neither have been helpful nor organizationally sound. As an example, the guidelines follow the humanitarian core mandate

to “do no harm” or to minimize the harm organizations may be inadvertently doing simply by being present and wanting to assist.

In addition, the organization followed CHA’s report on disaster response which says, “Disaster situations evolve quickly. Financial contributions enable relief agencies to purchase exactly what is needed when it is needed. Financial contributions also avoid the expense and environmental impact of transporting and storing donated goods.” It is also true that the desire to help through hands-on work or by supplying donations is generous and admirable; however, the help most needed by people impacted by disasters comes from trained, experienced relief and development professionals.⁶

Bon Secours Health System (now known as Bon Secours Mercy Health) did not support employees wishing to donate supplies or their skills to the Peru disaster since the scale of the disaster response needed was massive. The response was better supported through an established partnership with an international disaster relief organization. Bon Secours and one of its disaster partners, Americares, provided aid for six months from the onset of the disaster. Bon Secours supported the emergency effort with professional relief workers, medical mobile units, cash, distribution of water purification solutions and critically needed medicines. The aid response included over 6,500 patient encounters and served well over 50,000 people. The total response was valued at more than \$8 million and included life-saving medications to treat dengue, and water purification to prevent more disaster-related illnesses.

Bon Secours also activated a program to match 100% of any cash donations received from any employee. The handful of medical professionals and experts deployed from the United States to Peru from the organization itself were rigorously screened and sent to fill specific short-term needs. They followed global guidelines the office of global ministries follows related to safety measures, ethical standards and professional protocols. The guidelines include:

1. All participants’ credentials and/or other required documentation will be properly submitted to the local Ministry of Health.
2. All participants will be briefed and educated on Bon Secours global ethical standards.
3. Participants will practice within the same

professional and specialized skills abroad as they practice within the U.S. under their professional licenses.

4. Participants respect local authority at all times.

5. All participants will understand their role and responsibility and the local context of deployment.

6. All participants must attend the international formation and orientation sessions prior to departure and the debriefing meeting upon their return.

7. Each trip will be chaperoned by a country leader who has the ultimate responsibility and authority for the safety, coordination and organization of the participants, and the safety of the patients and families.

8. Each trip will have competent, and sufficient, interpreters to support the participants.

9. Under no circumstance is it acceptable to give money to patients and families. The participant can refer the case to the country leader for evaluation.

10. No participant shall purchase gifts directly from, or for, patients or families. The participant can refer the case to the country leader for evaluation.

11. Maintaining personal safety is paramount. A requirement of participating in the trip is to read, understand and abide by the safety protocols. In addition, it is prohibited to travel alone and outside the approved security system set in place by the country leader.

12. Participants shall maintain open lines of communication with the country leader, interpreters, patients, families and coworkers to avoid misunderstandings or negligence that can often lead patients not to receive proper care.

A CALL TO ACTION

In his encyclical, Pope Francis called for honesty, courage and responsibility. The disaster landscape is vast, and health care organizations must contend with many challenges. Areas for additional development include disaster preparedness and mitigation efforts by health care systems to lessen their harmful impact on the environment. There are many resources available for those who need to start from scratch, such as tools from Health Care Without Harm, Practice Greenhealth, and Premier Safety Institute. Several Cath-

olic health care organizations have refined their disaster planning based on lessons learned from disasters like Hurricane Katrina and others. One such example is the U.S. command post set up by CHRISTUS Health.

What is upon all of us, as individuals and as a collective, is that the consequences of inaction both on disaster preparedness and climate change mitigation are far too great. There are many implications from inaction for people, society, industries and the world. The time to act is now in order to achieve a cultural transformation and to protect the generations to come. In a time of political denial, global unrest and personal strife, it is normal to see disasters as an abstract force that cannot be tamed. The health care sector's highest order is to do no harm. Health care has opportunities to mitigate its impact on the environment and to prepare for what is to come.

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NOTES

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JOURNAL OF THE CATHOLIC HEALTH ASSOCIATION OF THE UNITED STATES

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HEALTH PROGRESS®

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