



The Shift from Disaster Response to Preparedness and the Role of Volunteer Health Professional Teams



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Abstract

Loss of essential services post hurricane Maria affected the health services infrastructure hindering the capacity to provide care for both acute and emerging health conditions as well as continuity of care of established chronic diseases. Healthcare professionals from different backgrounds met to establish multidisciplinary groups and set out to offer medical assistance to help the communities affected by the hurricane in response to a call to action disseminated through professional organizations on the behalf of the Puerto Rico Department of Health. Beyond the impact on resource availability and established infrastructure on the routine delivery of services, a more humane approach is required considering the impact of the event on social determinants of health. The objective of this project is to document the experience of a team of providers who participated of this volunteer effort. Every day, a group of healthcare professionals from different disciplines reached out to communities affected in different municipalities. Upon completion of each visit the team performed a debriefing procedure.

Time investments to establish and sustain a deployment process and steady supply of resources are needed to provide timely response. The accounts of providers and receivers of the services channelled through this effort should encourage partnerships between the private and public sector and the willingness from both sectors to assist with funding for training, and logistical support for healthcare professionals on how to prepare and respond to other disasters events

Keywords: Preparedness; Volunteer; Disaster Response; Hurricane Maria

Introduction

Climate change has been reported to affect global health either through the direct effects of extreme temperatures [1] or the importation of disease vectors to new territories thanks to adaptation the resultant ecosystem [2]. One such example is the increasing frequency of natural disasters worldwide. The World Bank estimated that the amount of people living under the threat of earthquakes and cyclones will increase from 680 million in 2000 to 1.5 billion in 2050 [3]. Hurricanes cause a wide range of health impacts. In September 20, of 2017, Hurricane Maria hit the island of Puerto Rico and caused loss of communication, water and electric power. There was destruction of health care facilities and hospitals without electricity or fuel for generators which disrupted the health care system [4]. Loss of essential services affected the health services infrastructure obstructing the capacity to provide care for both acute and emerging health

conditions as well as the continuity of care of established chronic diseases.

Healthcare professionals from different backgrounds, such as psychologists, nurses, dentists, medical and public health students, undergraduate students, and doctors, met to establish multidisciplinary groups and offered medical assistance to help communities that were affected by the hurricane. Collaborations with other disciplines such as engineers and community based volunteers were established to achieve service plans. This effort was in response to a call-to-action disseminated through professional organizations on the behalf of the Puerto Rico Department of Health. Beyond the impact on resource availability and established infrastructure on the routine delivery of services, a more humane approach is required considering the impact of the event on social determinants of health.

Discussion

Every day, a group of healthcare professionals reached out to communities affected in several municipalities as Toa, Baja, Cataño, Yabucoa, Guayama, San Juan, Naranjito, Vieques, Arecibo, Florida, Camuy, Hatillo, Barranquitas, Villalba and Humacao. Upon completion of each visit the team performed a debriefing procedure. People were provided with necessity goods, medical prescriptions, medicines, basic health education and simple conversations. Time invested to establish and sustain a deployment process, and steady supply of resources, are needed to provide a timely response. In this emotionally intense scenario, we heal not only through medicine but we also through the psychological, social and emotional aspects. A sense of abandonment was a recurrent complaint and the steadiest resource was community based. Twigg argues that vulnerability is the human dimension of disaster [5]. While everyone is potentially risk of harm in a disaster some people, due to their circumstances, are at greater risk during and following a disaster [4]. Hurricane Maria revealed the close interconnection between natural environment and human health risk. Debriefing reports: Volunteer A: "Volunteering after hurricane Maria has been a great and rewarding experience. I was able to work with a very talented group. We relied on each other's knowledge and experience to provide the much needed medical assistance, help and care that the population lacked after Maria. Most of the people we saw and treated lacked access to the healthcare services and telecommunication services, people were unable to reach their primary healthcare physicians and most, if not all, had run out of their medications. This made our presence in those communities even more important, since we could fill in those gaps and provide our communities with the medical services that otherwise wouldn't have been available to them after such an event."

Volunteer B: "After the passage of the hurricane, I joined a multidisciplinary group as a psychologist to provide psychological consultations in isolated communities. I saw people mostly by referrals from doctors, psychiatrists and/or nurses. Most of the cases that were expressed in consultations were about family problems, couple/relationship issues, the experience of anxiety, insomnia, anorexia, depression and suicidal ideation. The careful listening of these consultations and the referral to the available resources of accompaniment and follow-up was the main objective of my interventions. I understand that the possibility of an interdisciplinary work of attention and relief, both psychological and somatic, was one of the main achievements of this valuable work done by groups of professionals after the passage of Hurricane Maria".

Volunteer C: "Sometimes the most difficult moments in our lives such as hurricanes allow us to bring out unique and real feelings in people; that's what the whole group of health professionals, who participate as volunteers, experienced. It is an experience that we can never forget where we see the need not

only for medical assistance, but also for psychological assistance. As a health professional, it was an indescribable moment where many feelings surfaced such as frustration, sadness, despair but also in turn empathy towards the pain of others; the desire to make a change selflessly for someone in need. These feelings changed the lives of the people we had the pleasure to help and created a permanent footprint in our lives.

Conclusion

Effective emergency and disaster risk management entire specific health and multi-sector measures to reduce the overall risk to health from different types of hazards. These measures include prevention, preparedness, response and recovery [7]. The stakeholders, including health practitioners, local leaders, civil societies, public/private and policy makers, have to understand the health impacts of a disaster and how social determinants influence these impacts. This comprehension is indispensable in order to help identify entry points for action, develop strategic directions for health policy, and practice on long-term disaster risk management. Virchow said, "Medicine has imperceptibly led us into the social field and placed us in a position of confronting directly the great problems of our time" [8].

The new level of awareness and commitment to their chosen career path was most significant among the students who participated in the mission who might otherwise not have such a hands on experience on the provision of holistic medical care under extreme conditions. As Puerto Rico faces the next hurricane season, multiple locations and sectors of the healthcare infrastructure continue to be in recovery phase. The ongoing contributions made by the leaders of efforts such as the one described here will translate to the integration of the lessons learned from the experience. The establishment of standard prescription policies when the primary care provider is not providing services. Expanded prescriptions during hurricane season are also being considered as part of the new standard of care.

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