

ASPR TRACIE Technical Assistance Request

Request Receipt Date (by ASPR TRACIE): 16 November 2018

Response Date: 16 November 2018

Type of TA Request: Standard

Request:

The requestor asked if ASPR TRACIE had statistical information on healthcare staff who do not return to work following a disaster.

Response:

The ASPR TRACIE Team reviewed existing Topic Collections and other ASPR TRACIE resources, and conducted a search online for statistical information on healthcare staff who do not return to work following a disaster. Resources gathered can be found in Section I of this document. Anecdotal feedback from ASPR TRACIE subject matter experts from two large healthcare systems that have been in the direct path and impacted by many disasters over the last few years noted that they have nearly a 100% return of staff post-disaster. They correlate this high return rate and low absenteeism to their company's support system provided to personnel and their families during and after an incident.

I. Resources Including Statistical Information on Healthcare Workers Returning to Work Post-Disaster

ASPR TRACIE. (2017). [Healthcare System Recovery Timeline: A White Paper for Texas](#).

Following a number of related technical assistance requests and in anticipation of future information needs from healthcare systems impacted by current and future disasters, ASPR TRACIE developed this white paper to answer the question: "How long does it take the healthcare system to recover from a major hurricane?" **NOTE:** The following information is provided on page 7 of this document.

"About 4,500 doctors serving three of the city's parishes were forced to relocate because of Katrina, and a year later, only 1,200 had returned to practice."

Berggren, R. (2006). [After the Storm – Health Care Infrastructure in Post-Katrina New Orleans](#).

This article provides an overview of the healthcare infrastructure in place one year following the impact of the storm. It also provides information on the health status of the population and attitudes towards healthcare in the affected area. **NOTE:** The following information is provided in this article.

"Approximately 40 of Ochsner's 600 physicians and 1500 of its 7400 other employees resigned after Katrina — because their spouses no longer had local employment, children's schools were closed, or housing was not available, among other reasons."

Charney, R. Rebmann, T., and Flood, R. (2014). [Working After a Tornado: A Survey of Hospital Personnel in Joplin, Missouri](#). ResearchGate. 12(4).

This article assessed the resilience of healthcare workers in hospitals in Joplin, MO following the 2015 tornado. The authors conducted a survey of healthcare workers to measure: the number reporting to work, their willingness to work, personal disaster preparedness, and childcare responsibilities following the disaster. **NOTE:** The following information is provided in this article.

“A total of 1,234 healthcare workers completed the survey (response rate: 23.4%). Most (87.8%) worked the week following the Joplin tornado.”

Davis, J., Wilson, S., Brock-Martin, A., et al. (2011). [The Impact of Disasters on Populations With Health and Health Care Disparities](#). Disaster Medicine and Public Health Preparedness. 4(1): 30–38.

The authors conducted a literature review and found that while there was a lack of scientific information on the topic, “the lay press” had covered it relatively well. They emphasized the need for rural healthcare to consider people with chronic healthcare issues after disasters (as these conditions can quickly worsen). The authors also suggest that “Future studies should account for differences in health status and access before and after the disaster to better address the interaction between disparities in health and health care and adverse health outcomes in disaster populations.”

Gold, J. (2013). [Post-Sandy, NYU Langone has reopened, but can it regain market share?](#) Kaiser Health News.

This article outlines the possible challenges with retaining lost business and staff after a hospital closing due to a disaster. NYU Langone Medical Center reopened most of its services three months after the storm, but some of their doctors have applied for permanent positions at competitor hospitals and many of their patients may also continue to go to other hospitals in the future. The article notes that competitor hospitals saw large spikes in their monthly birth rates the months that NYU was closed. It also notes that the positive outcome was that they saw that the closing of two large hospitals in NY (approx. 900 beds each) were able to be absorbed by other hospitals in the area. **NOTE:** The following information is provided in this article.

“Most of the 500 NYU doctors who left for other hospitals have since returned, according to Dr. Andrew Brotman, a senior vice president there. But more than a dozen have applied for permanent privileges at competitors Mount Sinai Hospital and Beth Israel.”

Kashima, S., Inoue, K., and Matsumoto, M. (2017). [Characteristics of Physician Outflow from Disaster Areas following the Great East Japan Earthquake](#). PLOS One.

The authors discuss characteristics of medical providers who left affected areas after the 2011 Fukushima Daiichi Nuclear Power Plant accident caused by the Great East Japan Earthquake.

“The number of physicians decreased in Fukushima Prefecture (–5.3%) and increased in Miyagi Prefecture (2.8%). The decrease in Fukushima and increase in Miyagi were evident even after taking the prefecture’s population change into account (change in physician to population ratios: –1.9% and 3.2%, respectively). Compared with physicians who lived in areas >100 km from the nuclear power plant, physicians living 20–50 km and 50–100 km were, respectively, 3.9 times (95% confidence interval, 2.6–5.7) and 2.6 times (95% confidence interval, 1.7–3.8) more likely to migrate to distant areas. In the stratified analysis, younger physicians and those earlier in their careers had higher odds ratios for outflow than other physicians (P for interaction = 0.02 and <0.01, respectively).”

King, R. (2005). [Hospitals still closed after Katrina](#). The Times- Picayune.

This article provides information on the hospitals still closed one month after Hurricane Katrina. Half of the hospitals in a seven parish area closed, including all in New Orleans. **NOTE:** The following information is provided in this article.

Of approx. 4000 employees at two hospitals, about 2500 of their employees had not yet checked in. 5,944 doctors were displaced in the 10 parishes in Louisiana and Mississippi flooded by Katrina. That figure does not include doctors working as administrators or researchers, only those caring for patients. The article notes that many healthcare workers will likely not come back to the area because they lost their homes and schools.

Morris, A., Ricci, K., Griffin, A., et al. (2016). [Personal and Professional Challenges Confronted by Hospital Staff Following Hurricane Sandy: A Qualitative Assessment of Management Perspectives](#). BMC Emergency Medicine. 16: 18.

Interviews were conducted with staff from the U.S. Department of Veterans Affairs New York Harbor Healthcare System to determine challenges to reporting to duty, and how staff overcame these challenges after Hurricane Sandy. Transportation and personal property loss were the two primary barriers which, combined with communication challenges, contributed to a delay or inability to report. A sense of duty and leadership support were important incentives staff listed for reporting for duty.

Ochi, S., Tsubokura, M., Kato, S., et al. (2016). [Hospital Staff Shortage after the 2011 Triple Disaster in Fukushima, Japan-An Earthquake, Tsunamis, and Nuclear Power Plant Accident: A Case of the Soso District](#). PLoS One. 11(10): e0164952.

The authors discuss what contributed to staff shortages after the 2011 incidents and emphasize the need to provide short- and long-term support (particularly to non-medical staff). **NOTE:** The following information is provided in this article.

“Staff shortages at hospitals reached a maximum within one month after the disaster (47% reported to work). The shortage of clerks was the most severe (38% reported to work), followed by nurses (48% reported to work). The shortages remained even 18 months after the disaster.”

Rudowitz, R. (2006). [Health Care in New Orleans Before And After Hurricane Katrina](#). Health Affairs.

This article describes the healthcare system in place before the storm, including how the healthcare structure affected the ability to respond to the storm and describes the post-storm rebuilding of a different healthcare model. **NOTE:** The following information is provided in this article.

“An estimated 4,500 active, patient care physicians were dislocated from three New Orleans area parishes by the storm; many of them were primary care physicians. By March 2006, about a quarter of the area’s doctors (1,200 physicians) had returned and were practicing.”

Scott, D. (2017). [What Katrina can teach us about health care after Hurricane Harvey](#). Vox.

This article briefing highlights impacts to the healthcare system following Katrina as a description of what Texas may face following Hurricane Harvey. The author provides a number of statistics on healthcare availability prior to Hurricane Katrina and availability one year after Katrina in New Orleans and the surrounding areas. **NOTE:** The following information is provided in this article.

“About 4,500 doctors serving three of the city's parishes were forced to relocate because of Katrina, and a year later, only 1,200 had returned to practice.”