

## ASPR TRACIE Technical Assistance Request

**Requestor:** [REDACTED]  
**Requestor Phone:**  
**Requestor Email:**  
**Request Receipt Date (by ASPR TRACIE):** 3 November 2016  
**Response Date:** 22 November 2016  
**Type of TA Request:** Standard

### Request:

[REDACTED] requested technical assistance in obtaining information and statistics on the frequency of hospital evacuation, specifically for overall national or state-based rates.

### Response:

The ASPR TRACIE Team reached out to Dr. Meghan McGinty, a stakeholder from National Association of County and City Health Officials (NACCHO), to connect directly with [REDACTED]. Dr. McGinty has worked on issues related to hospital evacuation and provided [REDACTED] with some of her published articles. These are also listed below for convenience.

In addition, the team conducted a search for resources related to hospital evacuation data, focusing on national and state-based rates. We also reviewed resources from our [Healthcare Facility Evacuation/ Sheltering Topic Collection](#). Unfortunately there are not many relevant resources available specific to evacuation data or systematic reviews conducted. The most relevant information gathered is the resource listed below from Sternberg, E., Lee, G.C., and Huard, D.; however, the data in this article is outdated (1971-1999).

Please let the ASPR TRACIE Team know if you are interested in being connected to additional SMEs to assist in this effort or if you need assistance with obtaining the full article for anything listed below as abstract only.

### I. Hospital Evacuation Resources

Bagaria, J., Heggie, C., Abrahams, J., and Murray, V. (2009). [Evacuation and Sheltering of Hospitals in Emergencies: A Review of International Experience](#). Prehospital and Disaster Medicine. (NOTE: See attachment for full article.)

The authors of this article conducted a literature search to assess how common hospital evacuation are, identify hospital evacuation policies, and review case studies to identify triggers, processes, and challenges involved in the evacuation of hospitals globally. Tables 1 and 2 provide statistics (1979 to date) on the number of events and hospitals evacuated by type of event, and the number of hospitals evacuated by shelter site and type of disaster respectively.

Grimm, D. (n.d.). [Evacuation Planning for Healthcare Facilities](#). (Accessed 11/18/2016.) BCFS Health and Human Services.

The author reviews evacuation history for healthcare facilities in disasters, examines issues related to evacuation planning, describes the difference between sheltering in place and evacuation, provides evacuation considerations, and addresses alternate care facilities and mutual aid evacuation planning. **Note:** Slide 6 provides a table with the number of events and hospitals evacuated by type of event. The table was taken from the resource cited above – Bagaria, J., et al., Evacuation and Sheltering of Hospitals in Emergencies: A Review of International Experience.

Hicks, J., and Click, R. (2015). [A Meta-Analysis of Hospital Evacuations: Overcoming Barriers to Effective Planning](#). Journal of Healthcare and Risk Management. (Note: Article is for purchase.) 34(3):26-36.

The authors of this study reviewed literature related to hospital evacuations over the past 30 years. The objectives of this study were: 1) to explain why hospital evacuation planning and preparation is important, and 2) to present the results of a thorough review of the literature. The authors share that the success or failure of hospital evacuations generally fall into one or more of the following eight categories: Predisaster Assessment, Logistics, Communications, Community Relationships, Manual Records and Tracking, Resource Management, Special Patient Populations, and Postevacuation Return.

McGinty, M.D., Burke, T.A., Barnett, D.J., et al. (2016). [Hospital Evacuation and Shelter-in-Place: Who Is Responsible for Decision-Making?](#) Society for Disaster Medicine and Public Health Preparedness. Volume 10, Issue 3 (Superstorm Sandy). (**NOTE:** See attachment for full article.)

The authors of this article examine perceptions of stakeholders involved in the decisions to evacuate hospitals throughout the Mid-Atlantic region of the U.S. during Hurricane Sandy in October 2012.

Schultz, C.H., Koenig, K.L., Auf der Heide, E., and Olson, R. (2005). [Benchmarking for Hospital Evacuation: A Critical Data Collection Tool](#). (Abstract only.) Cambridge University Press. Volume 20, Issue 5, pp. 331-342.

The authors of this article discuss their standardized data collection tool, which will enable researchers to record hospital evacuation information in a systematic manner so that comparable data can be accumulated, evacuation research methods can be improved, and consensus on methods can be reached. **Note:** This resource is outdated and may not include hospital evacuation data.

Sternberg, E., Lee, G.C., and Huard, D. (2004). [Counting Crises: US Hospital Evacuations, 1971-1999](#). Prehospital and Disaster Medicine. 19(2):150-7. (**NOTE:** See attachment for full article.)

The authors reviewed various types of articles to determine causes for hospital evacuations and found that more than half were due to hazards originating inside of the

facility or from "human intruders." Results indicated there were 275 reported evacuation incidents from 1971-1999, with an annual average of 21 in the 1990s, the period for which databases were more reliable. The authors emphasize the need for data gathering and reporting to facilitate the calculation of national data. **Note:** This data is outdated but may still be helpful.