Healthcare Coalition Surge Capacity Pilot Summary

Background

When a mass casualty or hospital evacuation event occurs within a healthcare coalition's (HCC) borders, it can be extremely helpful for the coalition, its members, and partners to understand the coalition's capacity to surge to accommodate the incident. This information can help the coalition and other partners plan for the incident, manage response, anticipate mutual aid requests, and identify other potential needs. Though licensed bed data is generally available, this is rarely helpful in understanding functional coalition surge capacity. The HCC Surge Tool was developed to support coalitions in determining their surge capacity. There are three distinct variables which vary significantly between hospitals that drive rapid development of surge capacity:

1. Use of all available "staffed" beds – including closed units that could be rapidly re-opened with appropriate staff (but are otherwise equipped and appropriate for inpatient care);
2. Use of pre-induction, post-anesthesia, and procedural area beds that can be used for temporary inpatient boarding/care – usually at an intermediate care (telemetry) or higher level;
3. Surge discharge – generating space or reducing the numbers of patients requiring evacuation by early discharge of appropriate, current inpatients.

The aggregate of this information can provide critical information about the capacities of the coalition's hospitals and allow rapid prediction about whether a given incident will outstrip the local beds available and how much support may be required from outside the coalition.

Pilot Overview

NHPP collaborated with ASPR's Technical Resources, Assistance Center, and Information Exchange (TRACIE) to develop the HCC Surge Capacity tool and distribute the tool to the following six healthcare coalitions from various regions within the US:

1. Boston Healthcare Preparedness Coalition, Massachusetts Region 4C
2. Colorado South Region Healthcare Coalition
3. North Central Wisconsin-Healthcare Emergency Readiness Coalition
4. DEMHS Region 1 Healthcare Coalition, Connecticut
5. Salt Lake, Summit, and Tooele Healthcare Coalition, Utah
6. SouthEast Texas Regional Advisory Council (SETRAC)

The aim of this pilot was to gain a deeper understanding of processes and systems that HCC members utilize to capture vital surge capacity data from hospital partners within coalitions. Its objectives were to explore and assist ASPR to understand:

1. Whether compiling the data was helpful to the HCC
2. The burden (time/effort) associated with collecting the information
3. Whether ASPR's National Healthcare Preparedness Program (NHPP) should consider collecting HCC surge capacity data during future project periods.

Each HCC varies in geographic location, size, number of hospital partners, and range of maturational development. HCC leadership engaged their hospital partners to collect individual facility bed data which

was used to calculate coalition-level surge capacity estimates. In addition, each hospital partner, and HCC leadership representative completed a questionnaire to further understand the data collection process at the hospital and coalition level. Upon completion of the HCC Surge Tool, each HCC submitted their aggregate data to ASPR TRACIE for additional data analysis. Analysis included quantitative assessment of initial surge capacity data for accuracy and a qualitative analysis of data obtained through completing the HCC Surge Tool and questionnaire.

Key Findings

Based on responses received from the HCC Surge Capacity Tool, ASPR TRACIE has identified the following key findings:

- The majority of the HCC Leadership respondents expressed satisfaction in participating in this pilot project. Their participation allowed for coalition level discussions about surge capacity and enhanced coalition building through sharing surge capacity data, and data collection processes used by their hospital members. The perceived burden with completing the surge tool mainly surrounded definitions of variables, and the tool format (manual entry and calculations).

- Of the variables utilized within the tool, surge discharge was the most challenging for hospital members and healthcare coalition leadership to calculate. Variances in definitions, assumptions, scenarios, and bed types were expressed as challenges to obtaining surge discharge data.

- Data collection within hospitals was obtained through a variety of hospital staff/departments. Various hospital personnel contributed to, or were responsible for, gathering the needed data to complete the tool. Personnel ranged from Emergency Preparedness Leads to Senior Administrators.

- The time utilized for hospitals to collect this data ranged from less than one hour to 30 hours (*as reported by one hospital partner*).

- Requesting this data in future budget periods may support coalition building activities while providing NHPP with a general snapshot of aggregate surge capacity metrics for all HPP-funded health care coalitions.

"Completing the HCC Surge Capacity tool helps provide regional awareness not only to me but to other members. Many facilities are well aware of their capabilities but do not truly know others." - **HCC Surge Capacity Pilot Participant**

"This pilot project greatly contributed to the work we have been doing in our coalition Healthcare Facility evacuation working group and leaves us in a better position to contribute to the upcoming Regional Disaster Health Response System pilot project." - **HCC Surge Capacity Pilot Participant**

Conclusion

Surge capacity planning is an imperative activity for all health care coalitions. The HCC Surge Pilot demonstrated the value of collecting coalition-level surge capacity data. This critical aggregate baseline data can assist coalitions and their members identify resources needed to meet surge needs and demands, while providing NHPP with a snapshot of the aggregate surge capacity within health care coalitions across the US.