

Healthcare at Home Emergency Preparedness: A Service Line Approach

Sara Kelly, MPH^{1*} and Kevin Whitney, DNP, RN, NRP²

¹Department of Emergency Preparedness and Business Continuity, Mass General Brigham; ²Healthcare at Home, Mass General Brigham

Background & Objective

Mass General Brigham (MGB) Healthcare at Home (HC@H) is a service line that includes Home Hospital, Home Care, and MGB Ambulance. MGB HC@H supports over 4,000 Home Care and 30 Home Hospital patients daily, with the goal of scaling the Home Hospital census to 100 beds by the end of 2023.

While these three entities have historically been separated, their coming together calls for a centralized and comprehensive emergency preparedness program that engages and supports stakeholders from across the HC@H service line at large.

Description of Intervention Program

HC@H emergency preparedness program elements include:

- An all-hazards emergency operations plan outlining the way HC@H recognizes, responds to, and recovers from incidents.
- A scalable healthcare incident command system (HICS) that is equipped to respond to any incident HC@H may face (Fig. 1).
- A comprehensive hazard vulnerability analysis that evaluates the probability, impact and mitigation of various hazard types to determine what pose the highest relative risk.
- An administrator-on-call (AOC) program that provides 24/7/365 support to all frontline staff for non-routine incidents requiring escalated support.
- Synchronous and asynchronous training opportunities for HC@H leadership, AOCs and HICS team members.

Measures of Success

Several elements are considered in monitoring and evaluating the success of the HC@H emergency preparedness program:

- A continuous improvement process comprised of
 - Table-top and full-scale exercises.
 - Debriefs following major exercises and activations.
 - After-action reports that consider response strengths, best practices, and opportunities for improvement.
- An AOC call log, which is automatically shared with stakeholders via email and continuously reviewed to inform operations, training, and the hazard vulnerability analysis.

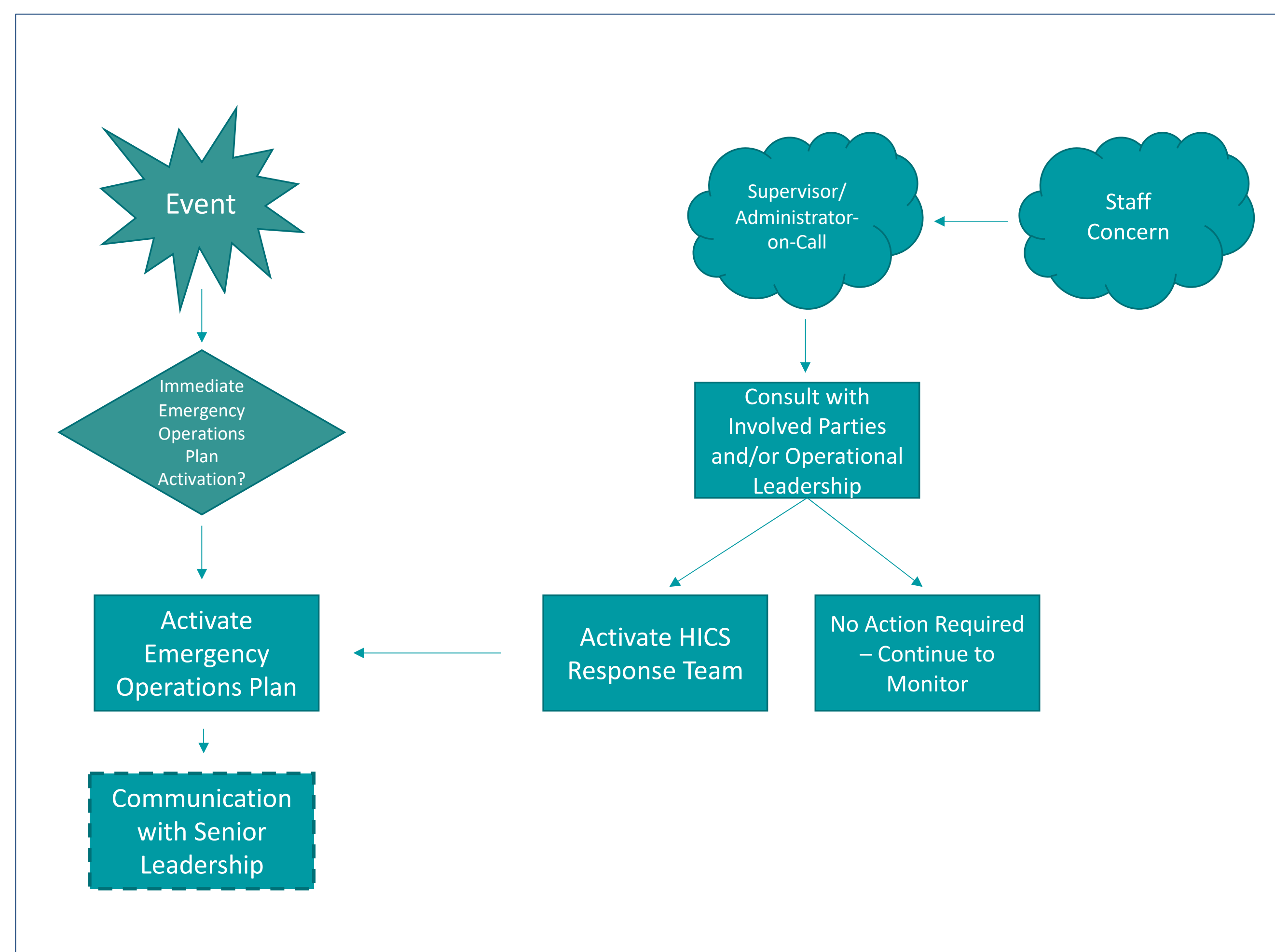


Fig. 1. HICS Activation Process. The figure shows how the HC@H Emergency Operations Plan may be activated for an event that immediately warrants an activation or a staff concern that is escalated through operational leadership.

A multidisciplinary home-based care service line calls for a **centralized and comprehensive emergency preparedness program.**

Clear methods of communication and escalation are vital for coordinated response to complex emergency events.

Emergency preparedness programs create a **foundation for scalability, innovation, and integration** as a service line grows.

Findings to Date

Since the program launch in July 2023, several modified HICS teams have been activated to respond to digital incidents, severe weather, and security concerns. During debriefs of these events, HC@H team members have observed that:

- Clear methods of communication and escalation are vital for coordinated response to complex emergency events.
- The new HICS response structure provides more robust support than a single entity's emergency management group.
- The emergency preparedness continuous improvement program has catalyzed new processes that have benefited future response efforts.

Next Steps

Future emergency preparedness program work will consider how to build on existing Home Care plans for the entire service line, as well as Home Hospital needs as it scales and explores new ways of integrating with its base hospitals and capacity management efforts.

Future pillars of work will include:

- Hazard-specific quick reference guides
- Patient triaging and care relocation
- Severe weather planning
- Digital downtime and continuity
- Safety and security preparedness in partnership with MGB Police & Security

Implementation Recommendations

Given the nascent nature of Home Hospital as a clinical service, formalized emergency preparedness programs that use standard processes tailored to the home environment, engage an all-hazard approach, and draw on a wealth of expertise and resources create a foundation for safety in the dynamic home environment and changing world.