



THE BETHESDA HOSPITALS' EMERGENCY PREPAREDNESS PARTNERSHIP'S RESEARCH MISSION

BACKGROUND: The Bethesda Hospitals' Emergency Preparedness Partnership (BHEPP) launched a research initiative in 2008 to support the Partnership's efforts to enhance and sustain effective disaster response. The projects are aimed at evaluating innovative methods of sustaining communications during hospital disaster operations and ensuring essential information is accessible to hospital personnel at the point of need in a disaster.

THE RESEARCH INITIATIVES: Eleven BHEPP-sponsored projects are underway:

Communications

- **Laser Communications between Hospitals:** Roof-top lasers will be installed at each partner hospital and will transmit data between the hospitals as a back-up, dedicated disaster communications system.
- **Dark Fiber Communications between Hospitals:** A dedicated optical fiber network is established which will be used to transmit data between the hospital partners as a back-up method of disaster communications.
- **MARS Radio Backup:** The Military Affiliate Radio System (MARS), a DoD-sponsored entity, will be evaluated as a back-up communications system by moving digital information via radio in a disaster.
- **Wireless Communications Bridge:** Technology will be evaluated that links voice communications systems used in disaster response including hand-held devices, land-line phone, mobile phone and radio, permitting cross-device communications.



Patient Management

- **Digital Pen Recording of Triage Data:** Will evaluate the use of digital pens that record disaster patient triage data and uplink the data to a computer database; will preserve data and provide hospital personnel with overview of patient status.
- **Tracking Patients with RFID:** Will evaluate tracking disaster patients and critical hospital equipment; only research project not yet begun due to funding issues still being resolved.
- **Patient Data Exchange:** A core set of patient data elements is being devised so that hospital partners can communicate common patient data in a disaster.



Family Reunification in Disaster

- **Lost Person Finder:** Will use information technology to facilitate reunification of separated people; will permit them to locate the missing via computer, mobile phone, and other media.

Hospital Staff Training

- **Virtual World Interactive Disaster Training:** An online 'virtual' hospital environment will be constructed to permit hospital staff to train for disaster response in a realistic manner.



Information Access

- **SureScripts-Rx Hub Prescription Data Access:** Will evaluate a system to access patient medication data from commercial databases to provide clinicians with critical data that influences clinical decision-making in disaster and is often unavailable.
- **The Disaster Information Specialist:** Will evaluate the innovative use of hospital librarians as disaster information resources available to support clinicians and others during hospital disaster response.