

Hurricane Harvey - MegaShelter Medical Clinic
After Action Review
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Overview:

- Dates we became aware of the event
 - Ranged from Aug 25 - 28
 - Depended on the “circle” you were in
 - Most notifications were made due to professional relationships (phone calls, emails, etc.), i.e., word of mouth rather than an organized dissemination
- Determination of how many evacuees to accept per facility
 - Complex planning from state (i.e., State Operation Center/TDEM and Regional DDCs
<http://www.dps.texas.gov/dem/GrantsResources/execGuide.pdf>)
 - Dependent on availability, type of shelter (general population vs FNSS capabilities), geography, transportation routes, personnel, resources
- Rationale for Megashelter setting
 - The City of Dallas and Dallas County were asked by the State of Texas to create significant sheltering capacity based on the scale of the disaster and possible needs.
 - Florida hurricane response focused on smaller shelters, which would have been more manageable in terms of infection control. Florida, however, has regulations that sets standards for the building of schools and other facilities so that they would be suitable in the event of sheltering operations.
 - Unlike Florida, there is no state mandate in Texas with specific requirements (construction, infrastructure) for shelters in areas likely to be impacted by hurricanes or other natural disasters.
 - Because of our previous experiences with Megashelters, large scale sheltering was logistically more feasible due to better concentration of resources and less duplications compared to multiple smaller operations.
 - Implication of FNSS guidelines which require shelters to provide certain health and social services restricts smaller shelter operations as such requirements may be too much of an undertaking

- <https://www.phe.gov/Preparedness/planning/abc/Pages/functional-needs.aspx>
 - Smaller shelters within the city of Dallas, Addison and Irving were already in use, so we needed to consider a larger facility as an augmentation of already existing operations.
- Arrival of evacuees – Initial wave of evacuees arrived by personal vehicle and self evacuated. The second wave of evacuees were via state-arranged transportation by plane and bus.
- Inaccuracies existed in the information provide by Red Cross intake as to total capacity of the Megashelter. Best numbers are:
 - 2647 - max that stayed at the shelter, peak on 9/7
 - 3829 - max registered who utilized shelter services, peak on 9/9

Pre-Event Planning:

- Activation system for core partners
 - Met on Sunday, Aug 27
 - Medical branch was notified by the city; however, no system currently exist to formally notify key members within the medical branch.
 - Tiered notification – Medical branch members require notification at different time points. Key members involved in planning require earlier notification while those involved in implementation require a second tiered notification.
 - Leadership meeting for capital planning and for implementation
 - Different agencies had varying lengths of time of notification - some were too long, some were not long enough. There should be a standardization as to when notification of various organizations is needed. For the most part, the more notice, the better to maximize efficiency but initial decision of activation is needed first.
 - **Potential Action Item** - A “call network” to activate potential leadership players within the medical operations to properly escalate the level of service required - Tiered Response List - Potential phone app for list of notification for emergency activation with targeted messaging. Parkland is on the verge of creating this infrastructure to support DMOC but will need workgroup buy-in and participation.
 - **Potential Action Item** - A pre-determined call list of available credentialed, skilled providers who are able to volunteer and tap into area resources
 - Split amongst different categories of care provided – provider, nursing, social work, nonmedical
 - **Potential Action Item** - Meet every April/May to update the “Tiered Response List” to include both individuals and organizations
 - **Potential Action Item** - Mission task / 213 notification from the city not received; this is important for later reimbursement of services provided
- Setup
 - Configuration and layout of the clinic
 - Design and presentation of the model was done in ~ 2 hours because the layout was distinctly different from past experiences.

- Layout plans need to be understandable and sizable that will fit into any space.
- We were asked to provide a lactation and breastfeeding area within the clinic, which has no role in a medical clinic as this population does not have any immediate medical needs requiring the clinic. Additionally, there was no running water/stove tops or other way to make formula next to the clinic. Placing lactating mothers and infants next to a medical clinic increases their risks for infection. This was changed within the first week of clinical operations.
- What went well:
 - Dedicated space for infection control/isolation, especially important in large sheltering areas
 - Dedicated data and medical charts area
 - Dedicated break room for clinic staff
- **Potential Action Item:** A solid partition is needed that separates the shelter from the clinic. This is important for patient privacy, noise cancellation, security, etc.
- **Potential Action Item:** Restroom and sinks for staff and shelter guests should be distinctly different from those for clinic patients. A proportional number of sinks are necessary for the number of restrooms provided. More sinks are needed within the clinic so that each clinic area has a sink. These sinks and restrooms should be distinctly different from that used for the isolation area.
- **Potential Action item:** Clinic spaces alterations include:
 - A larger space for the triage area
 - A dedicated area for psych crisis intervention within close proximity to primary triage
 - A break area for clinic volunteers
 - Increased walkway width by 5 feet to avoid overcrowding as this provided a challenge for wheelchairs.
- **Potential Action item:** Outside of the clinic area, spaces must be requested for:
 - An OTC pharmacy area
 - American Red Cross intake area to address durable medical needs
 - A waiting area for families with chairs available for this area and a means to ensure these chairs are not reassigned elsewhere
 - Personal belongings storage (for patients who present with multiple large bags of belongings which do not fit in the clinic area)
 - A separate waiting area for patients leaving for outpatient appointments
- **Potential Action Item:** Medical operations personnel need to have an influence on the City of Dallas (i.e., OEM), or other sheltering organizations, regarding the availability of specific medical/ADL

- equipment (bathrooms, sinks, handwashing stations, etc.) within or very near the clinic.
 - **Potential Action Item:** Dedicated newborn area (possibly within the medical clinic vs ARC/FEMA arranging outside housing) for safe newborn care, and for the sake of keeping family units together and avoiding overcrowding in the medical clinic. Children's Health System leadership should be engaged to help with pediatric layout and safety considerations.
- Shelter Layout
 - Cot spacing should meet minimal standards from the standpoint of infection prevention and safety of shelter guests. Need to work with City of Dallas OEM and other possible sheltering organizations to discuss planning spacing vs actual spacing allocated.
- Patient Access to clinic - Patients had access to the clinic. No change needed in this flow.
- Worker Access
 - Parking - staffing was impacted due to insufficiency of the parking plan;
 - **Potential Action Item:** Need to address setting up pre-identified parking lots specific for medical clinic volunteers with City OEM .
 - Considerations for providing shuttles from off site (perhaps hospital campuses)
 - Better publicized partnerships with rideshare programs if available
 - Check in process from shelter
 - Clear pathway to clinic, various staging areas and command area for volunteers
 - Volunteer sign in that is consistent
 - Staffing delay for shift arrival due to check-in process
- Safety
 - Texas Guard was instrumental to the security of medical supplies
 - **Potential Action Item:** Stable daily schedule of security officers who would man each point of interest (supplies, medical records, pharmacy, intake and exit of clinic and one assigned to crisis intervention providers)
 - **Potential Action Item:** Need lock boxes or other means for securing medical records, pharmacy and supplies
- Supplies: More power strips, tables, chairs, phones, laptops, color copiers, office supplies, etc. were needed
 - Need fax line for epidemiology and pharmacy
 - There was a phone available for a clinic representative in OEM, however due to understaffing, no representative could man this phone.
 - Additional phone line should be manned by a social work coordinator and volunteer coordinator

- A potential solution would be to provide handheld “disaster” phone lines for coordinators and incident command staff

Operations

- Pharmacy staffing and capabilities were very well coordinated for this event. What is the strategy for future clinic operations?
- Supply (medical equipment, medication needs and office supplies) restock of the clinic need to have a clear procedure. Do we stick with one vendor or do we have multiple vendors available, and call on each of them?
- Identify supply lines and supply lists for future needs, with potential for scaling up
- Do sheltering organizations need contracts with local hospitals for future staffing of providers, RNs, SWs, etc.? Pre-set criteria should be outlined for at which point to call on contracts to staff the clinic depending on critical needs.
- Clinic needs to have constant communication with OEM. What is the best way to do this?
- Need to consider if this operation is best through current processes or if it needs to be contracted out
- After Action list needs to be prioritized into a phased approach with an annual meeting to review.
- Store documents from AAR and meetings in multiple locations and multiple forms to have documentation retention over the course of time.
- Protocols for patients requiring CPS, APOWW, victims of abuse, etc. need to be predetermined with appropriate legal consultation
- Define who qualifies for FNSS shelter, who does not belong and where they should be sent if they don't qualify.
 - Outside the clinic, we need capabilities for infants, special needs, etc. What organization is responsible for this?

Staffing

- Command organization
 - Initial response lacked ICS structure. The ICS structure should be predefined for future Megashelter Medical Clinic operations and the structure should be utilized from the start of the event.
 - Incident action planning and development
 - Specific identification of each individual's roles and who makes the final decisions about specific aspects of those roles
 - DMOC and emergency medicine physicians should be appropriately utilized as disaster response specialist in addition to logistical coordination (chair recommendation)
 - Make sure ICS is staffed appropriately with the right credentials/skill set from the start
 - Continuity of leadership
 - Need to have a designated schedule for command staff and redundancies built in to allow for work/rest cycles
 - Communication:

- Objectives, daily mission statement and daily briefing notes should be made available to all members on a daily basis.
 - Command staffing needed:
 - Safety Officer
 - Oversight of clinic procedures
 - Coordinate and identify volunteers who may need counseling or debriefing
 - Liaison Officer
 - To coordinate communication with outside agencies regarding staff, supplies, etc.
 - To communicate with the city/leaders
 - To gather resources provided by organizations such as the VA/agape/etc.
 - PIO (to notify ICS regarding daily updates, dignitary visits, etc. to the OEM/COD, Judge's office, or others)
 - Operations
 - Needed a volunteer and orientation coordinator,
 - Logistics
 - Supplies and inventory officer
 - Donations manager (private donations, corporate relationships)
 - Supply chain management
 - Restocking manager
 - Planning officer
 - Responsible for just in time education and briefing for clinic staff and volunteer
- General Staffing
 - Volunteers
 - **Potential Action item:** Pre-arrival orientation for volunteers (consider template email in advance with instructions/orientation vs document to read upon arrival to MMC)
 - **Potential Action Item:** Clear communication between ARC/CERT/MRC and clinic command as to what volunteers are sent and for what purpose
 - Orientation coordinator for disseminating information for clinic
 - Appropriate training of staff and specific definition of their roles
 - Onsite representative from each of the organizations providing volunteers who is responsible for coordinating staffing to meet the real time needs
 - Medical students – Establish agreements with deans of local health professions schools for future use of medical/nursing/public health students with process of activating these resources and policies as to the scope of practice of each school.

- Nursing - Need EM/critical care nurse staffing from the beginning, with specific staffing needs pre-defined with the capability scaling as needed
 - Maintain relationship with Dallas County Emergency Nurses Association
 - Contact Board of Nursing to identify those who would be willing to respond in disasters and tap into this resource
 - Create pediatric strike teams to respond within the state through coordination with Jori Klein, RN (Texas Emergency Medical Task Force)
- Credentialing - Need centralized, on-site, clinic-specific, credentialing of both clinical and non-clinical personnel that fit the needs of the medical clinic
 - Maintain a just-in-time, onsite process to credential
 - **Potential Action Item:** Develop a targeted workgroup dedicated to organizing this component
- MRC
 - Indiscriminate messaging of volunteers is not effective and caused confusion and fatigue amongst volunteers. Need to have a focused manner for a unified message and a unified manner for signing up volunteers.
 - Better communication was needed with the MRC who was suppose to be doing the scheduling
 - There were different needs for medical and non-medical staffing and the specific hours needed. There was confusion on mission tasking.
 - Need a plan to address self-deployed volunteers – To be able to redirect them to the MRC for appropriate volunteer sign up
- Infection prevention team staffing needed from the start (consider having IPC if > 500 shelter population, or > 7 days of shelter operations)
- Need specific staff assigned to data/records management preferably with some experience in this field
- Intake desk staffing and training
- Recommendation for standardized forms
- Social Service - needs leadership in ICS structure with social work/case manager representation
 - Request needs to be made for specific staffing numbers and hours
 - The clinic should provide social services for the care of clinic patients. However, the shelter also needs to have available social services to address general shelter guests needs
 - Early contact with a representative affiliated with the ARC Disaster Health Services should occur prior to a disaster
 - Social workers must be familiar specifically with Texas laws which can be an issue if relying on social workers who are from out of state.
 - Within the clinic, social workers were needed to connect patients to the services in the community. We had the shuttle van, had the

clinics in the community available, but didn't have the social workers there in the shelter to connect these services to the patients within the clinic

- ESRD Network system was not as helpful as anticipated; need to be readdressed to be more feasibly implemented.
- Shelter staffing: A request to the ARC should be made to better staff floor roamers to help with repatriation needs so that our mental health crisis intervention team can focus on their expertise
- Protocols should be established in the event that the clinic needs to release staff for behavioral issues
- Need area for a lost and found for staff

Planning

- Establish a planning section to help provide the following:
 - Develop incident action plan for volunteers and EOC
 - Sit Rep - daily briefs
 - Planning for future needs during the operation
 - Increased utilization of emergency management trained personnel
- DMOC representation would be appropriate to improve this section

Logistics

- Records
 - Who will house the records and the liability of that storage?
 - Who has jurisdiction?
 - Is it possible to develop an EMR?
 - Unique identifier need to be assigned for each individual patient
 - Time/date stamp should be used for clinic encounter
 - Mechanism for secure storage of records needed
- Scope of responsibility from the city as to what we are responsible for and what advisory role we can play. What is our authority and who has that authority?
- Medical supplies
 - Scalable supply list available in advance
 - Pre-identified supply lines/agencies and supply chain process.
 - CLIA certification waiver
 - List of redundancies in available pharmaceutical support
 - Tracking of inventory/what's in stock
 - Office supplies stocking, procurement and requests should be centralized
 - Determine what DMEs the clinic should provide and have system for keeping this in stock and being able to refer other DME needs that are not clinic to the appropriate contact.
- Having contracted cleaning for clinic that is hospital grade was important.
- Provide food and water for clinic volunteers that is outside of OEM ICS command
- Donations – The city should provide a medical liaison who can help coordinate both requests for corporate and individual donations.

- Tracking of patients to and from the clinic and to hospitals; regional NCTTRAC system was not sufficient and there was no communication or just-in-time training given for system utilization.
 - Ensure enough scanners for patient tags to track those leaving the shelter via clinic transport
 - A means within the clinic should be developed to track where patients are being admitted to so that readmits can be transported to the same hospital from which the patient was discharged so that there can be continuity of care.
 - A system for tracking of patient belongings for patients presenting to the clinic and those who were transported to hospitals with appropriate staffing needed so that the clinic is not liable for patient belongings

Finance and Administration

- Tracking of worker time and attendance
 - Need scanned codes on clinic credential badges to track time in and out
- Cost recording/reporting was missing

Forms

- Pre-event signage – Signs that the clinic may need should be anticipated and electronic version of these signs should be easily available for implementation.
- During Event
 - Electronic Medical Record would be ideal for management of clinic flow and documentation if possible
 - Organizations like HASA can help with HIE access
 - Templates of available forms for patient care should be stored in a centralized location with specific plans for what needs to be photo copied, how many copies are needed on a daily basis.
 - Work group dedicated to documentation should think about any additional forms that may be needed that were improvised due to lack of available forms.
- Post Event
 - Demobilization plan should be pre-defined prior to the event so that only minor adjustments need to be made. Tiered and scalable demobilization plan should be developed.

Liability and Legal Issues

- Whether the shelter needs CLIA waivers or not and if this can be fast tracked should be determined.
- Specific shelter (dorm) vs clinic scope of practice should be defined
- Altered standard of care policy
 - Patients should have the option to seek further care in a hospital setting rather than the MMC should they so choose. The MMC should be made clear as not the only option
 - Pre-determined protocols for the most common complaints with recommendations for treatment standards, disposition decision making,

etc. that meets most recent standard of care - should be made and reviewed on an annual basis

- HIPAA and EMTALA concerns – What are the obligations of the clinic when it comes to HIPAA compliance and EMTALA rules? Set policy should be written into the clinic's guidelines as to what the protocols should be if there is a declared state of emergency based on legal counsel recommendations.
- 1135 waiver specific to the MMC
- Volunteer liability, malpractice coverage
 - DCMS contacted the state. The State statute allows for volunteers who operate at the direction of a state/federal agency in the setting of a sheltering clinic to be covered, but must have the Governor's declaration and the appropriate credentialing
 - This means, the clinic needs an official request from the city as to what the MMC's role is: official deployment of volunteers to a predefined mission
- AMA process
- Legal counsel in real time

Demobilization

- Non-regulated supplies/DME plan was made up on the fly and given to the City
 - Future demobilization plan should predefine agencies/nonprofits
- Incorporate terminal cleaning of clinic
- Process for continuity of care of patients after the clinic is shut down:
 - Scheduling of clinic visits/surgeries post repatriation
 - Hospitalized patients at time of demobilization - where to go on discharge and process to reunite them with their belongings