NBSB Public Teleconference

Call to Order, Review of Federal Advisory Committee Conflict of Interest Rules, Introductions

Opening Remarks
Prabhavathi Fernandes, PhD, NBSB Chair

Draft NBSB Report on the Implementation of the National Biodefense Strategy
Elizabeth Leffel, PhD, MPH

Public Comment Period

Vote on the Draft NBSB Report on the Implementation of the National Biodefense Strategy

Draft NBSB Report on the Strategic improvements to the National Disaster Medical System (NDMS)
H. Dele Davies, MD, MSc, MHCM

Public Comment Period

Vote on Draft NBSB Report on the Strategic Improvements to the National Disaster Medical System (NDMS)

Closing Remarks
Prabhavathi. Fernandes, PhD, NBSB Chair

Adjourn

NBSB Public Teleconference
December 13, 2018

Dr. Prabhavathi Fernandes, NBSB Chair
Dr. Elizabeth Leffel
Dr. H. Dele Davies

NBSB Report on the Implementation of the National Biodefense Strategy

Three questions were presented to the NBSB All Hazards Science Response Science Working Group:

- Question #1: How can the Federal government best coordinate with non-federal stakeholders?

- Question #2: What are the most significant challenges related to implementation of the Strategy?

- Question #3: What are the highest priority actions necessary to implement the objectives of the Strategy?

How can the Federal government best coordinate with non-federal stakeholders?

- Option 1: Issue a Request for Information (RFI) to solicit feedback from non-federal stakeholders utilizing a posited scenario to focus responses.

- Option 2: Commence a targeted outreach campaign to seek feedback from industry, academia, state and local governments and public non-governmental groups.

- Option 3: Sponsor an in-person Stakeholder's meeting with streaming capability to review the Strategy, learn what others are doing and solicit input on how to best coordinate across the spectrum of biodefense stakeholders.

How can the Federal government best coordinate with non-federal stakeholders?

- The NBSB recommends Option 1 as it is the most cost-effective, most quickly executed and most likely to reach the largest and most diverse group of stakeholders.

Appendix 1: Scenarios (Question #1)

The NBSB has provided examples of a scenario-based situations to facilitate thought-provoked responses from non-federal stakeholders. It is intended that language and details be amended depending on use (e.g., RFI to general populous or local agencies developing the exercises). Each example provides a slightly different approach to illustrate this point.

- Scenario #1: Avian Influenza
- Scenario #2: Unknown viral fever
- Scenario #3: Botulinum Toxin

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Question #2: What are the most significant challenges related to implementation of the Strategy?

- Developing a comprehensive communication plan to promote awareness of the Strategy among all stakeholders
- Identifying both minimal and optimal resources required and the processes to access those resources
- Defining metrics of success for each objective that are: specific; quantifiable and time-actionable; and used to monitor and report implementation progress
- Using the metrics devised to identify gaps and assist in problem-solving and resolution

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Question #3: What are the highest priority actions necessary to implement the objectives of the Strategy?

- The NBSB concludes that it is premature to make recommendations on prioritization of implementation actions.

- The NBSB notes two action-items recommended for completion before actual prioritization could occur:
  - Focus on the completion of the BCT Strategy goals and objectives metric mapping process.
  - Utilize a tiered approach in the metric mapping process to allow categorization as Tier 1, Tier 2, etc.

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Thank You's

- All Hazards Science Response Working Group Members
  - Gray Heppner, Co-Chair
  - Prabha Fernandes, NBSB Chair
  - Noreen Hynes
  - Joelle Simpson
  - Cathy Slemp
  - Tammy Spain

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Thank You's Continued

- ASPR Staff
  - CAPT Theresa Lawrence, PhD
  - Daniel Dodgen, PhD
  - Maxine Kellman, DVM, PhD, PMP
  - Katie Danskin, MS
  - Sarah Verbofsky, MPA
  - Jose Velasco, MSW

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Questions?

NBSB votes on the Draft NBSB Report on the Implementation of the National Biodefense Strategy

NBSB Report on the Strategic improvements to the National Disaster Medical System (NDMS)

Seven questions were presented to the NBSB Disaster Medicine Working Group:

1. Identify common data elements within an electronic medical record that can be collected and used to guide decision making in a disaster.

2. How can NDMS data be useful to the broader disaster research community?

Questions (Continued)

3. Related to the September 12, 2018: NACCD/NBSB Joint Future Strategies for Children Report, Strategy 8, how does the Board define the "unique needs (and data sources) for children"?

4. Does the NBSB have recommendations for the "creation of a pre-positioned data set" that could be incorporated with NDMS data?

5. What capability does NDMS have to export EMR/HIR data into healthcare facilities systems?

Questions (Continued)

6. Any additional data elements NDMS aims to collect is dependent upon the research questions we want answered? For example, does NDMS want information on diagnoses, lab results, etc. or the ability to identify gaps in services/care provided?

7. What are possible topics for ongoing research to help with the NDMS?

Identify common data elements within an electronic medical record that can be collected and used to guide decision making in a disaster.

- Recommendations for Common Data Elements:
- Date of Birth / Age
- Contact information for parents/guardians/ and /or other family members or responsible party
- Names of siblings
- Address info for patient (if at an alternate location –current address where sheltered/treated)
  - If unknown, what school they attend and name of street?
- Chief Complaint/diagnosis

Identify common data elements within an electronic medical record that can be collected and used to guide decision making in a disaster.

- Recommendations for Common Data Elements (continued):
- Social Security Number
- Allergies
- Current medications, doses and frequency
- The software should contain a formulary that includes the following:
  - Standard medication doses by weight/age/size, special conditions (especially for children/infants)
  - Doses for renal failure/age pre-calculated or with pop-up warnings
- Medical conditions
  - Any immunocompromise

Identify common data elements within an electronic medical record that can be collected and used to guide decision making in a disaster.

- Recommendations for Common Data Elements (continued):
- Significant PMH, ideally in a checklist format to enable ease of utilization during a disaster
- Disposition/Arrival date-time and release time (total time in care)
- Disposition vitals
- Contaminated/decontamination time
- Transfer status?   To what location? Via ground/air/etc?
- Date of last physician visit and recommended follow-up?
- Immunization history and records, especially tetanus
- Exposure history for communicable diseases, e.g. TB
  - A-priori decision as to whether to use ICD-9 codes, ICD-10 codes or both; clarify which DSM is being used.

How can NDMS data be useful to the broader disaster research community?

- Recommendations:
- An NDMS database of disaster can be useful:
  - To predict medical and social outcomes of disasters
  - To predict elements of an effective response strategy and response needs.
  - To identify communication needs
  - For effective management of 'Ripple effect' for patient transport to local and regional medical centers
  - To measure time to care (throughput), transfer times
  - To identify different types of resources that may be needed during different types of disasters
- The database should have last minute editable fields to NDMS that can be used for new research topic ideas during disasters.

How does the Board define the "unique needs (and data sources) for children"?

- The Working Group identified three categories of Unique Needs – Physiologic and Anatomical Needs, Patient Tracking Needs and Mental/ Emotional Needs.

Does the NBSB have recommendations for the "creation of a pre-positioned data set" that could be incorporated with NDMS data?

We recommend including data already mentioned in response to Item #1: Identify common data elements within an electronic medical record that can be collected and used to guide decision making in a disaster.

What capability does NDMS have to export EMR/HIR data into healthcare facilities systems?

Recommendations:
- There should be common use and adoption of known standards.
- NDMS should use communication protocols as defined by the Health Level 7 (HL7) International standards using Continuity of Care documents (CCD) .
- NDMS should use robust application programming interface (middleware) to enable connection to different systems including eHealth and regional HIE systems.
- NDMS should use technology that will allow the mass queries that would likely be needed during disasters
- There should be enough computing power to allow massive querying of multiple EHRs at once.
- Legal and technical considerations for data sharing should be addressed upfront.
- If linkage of NDMS to other databases is not feasible, NDMS should ensure that data is exported into a portable format such as a flash drive and print copy that can be provided to families.

Any additional data elements NDMS aims to collect is dependent upon the research questions we want answered?

Recommendations; NDMS Should:
- Collect data that can help inform decision making during disaster response .
- Enable access to insurance information databases to track different types of treatment associated with the catastrophe that allows long term tracking.
- Track demographics (race, ethnicity, religion, zip codes) that may help understanding of how different groups are managed and their long-term outcomes.
- Collect data elements including time to provide service, time to discharge, time to get resources into disaster areas that can help management of future disasters.
- Identify elements that were associated with successful implementation of disaster plans versus lessons that could be learned from plans that were not as successful.
- Clearly identify people with disabilities, access & functional needs (especially mobility, cognitive and communication issues) as a special group.
- Because separation from family pets can also be traumatic, "chipping" the pets may also be of value for successful reunion. The family / child's bar-code or chip should also be linked to the pet's chip.

What are possible topics for ongoing research to help with the NDMS?

Recommendations for Possible Topics:

- ID tagging of children (similar to what is done in hospitals) to get downloadable information to link to their guardians in the future
- Development / use of bar codes that facilitate information download on the child when power becomes available.
- Other methods of retrieving such data with an informal power source.
- How to link needs with available resources, especially at remote sites and deliver those needs in a timely fashion.
- Use of drones for moving goods including food and water when transportation mechanisms are disrupted.

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What are possible topics for ongoing research to help with the NDMS? (continued)

- Could such materials be distributed while preserving the cold chain for vaccines or medications that need it?
- A low technology supply chain system should be developed to enable linking of resources to movement of such resources to where they are most needed.
- Provide resources to create and study opportunities for the best practice in managing "Dark Sky Events" (these are events in which there is total power disruption that could take weeks to months to restore). Study how such events impact medical care including:
  - What is the impact of sleep deprivation caused by displacement over an extended period on behavioral health?
  - What is the impact of such deprivation on other morbidity and mortality?
  - What is the impact of lack of food and fluids caused by displacement over an extended period on behavioral health and long-term outcomes?
- Re-evaluate the need for specific countermeasures during disasters – do we currently have the right mix, and right number of components?
- Members of the NBSB would be willing to help identify other potential research questions

Thank You's

- NBSB Disaster Medicine Working Group Members
  - Carl Baum
  - John Benitez
  - Mark Cicero
  - David Schonfeld
  - Marc Shepanek
  - Joelle Simpson

Thank You's Continued

- Subject Matter Experts
  - Dr. W. Scott Campbell
  - Ms. Donna Weis

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Thank You's Continued

- ASPR Staff
  - Ron Miller, PhD
  - Maxine Kellman, DVM, PhD, PMP
  - Tara Holland, MS
  - Sarah Verbofsky, MPA
  - Jose Velasco, MSW

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Questions?