



A Cooperative Approach to Alternate Care Site Planning: Emphasizing the Role of Laboratory Medicine

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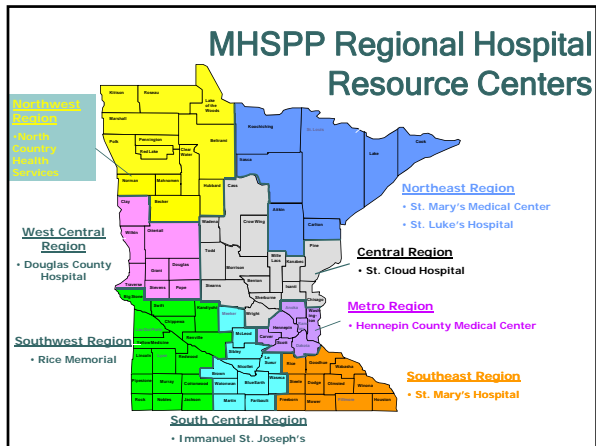


Objectives

- o Public Health in Minnesota
 - Organizational structure
 - Laboratory background
- o Real event: Ft. Ripley
 - Challenges
 - Outcomes
 - Future directions
- o Large-scale exercise: Snowball III
 - Goals/Challenges
 - Outcomes
 - Future directions
- o Laboratory Preparedness Workgroup
- o 2008 Republican National Convention

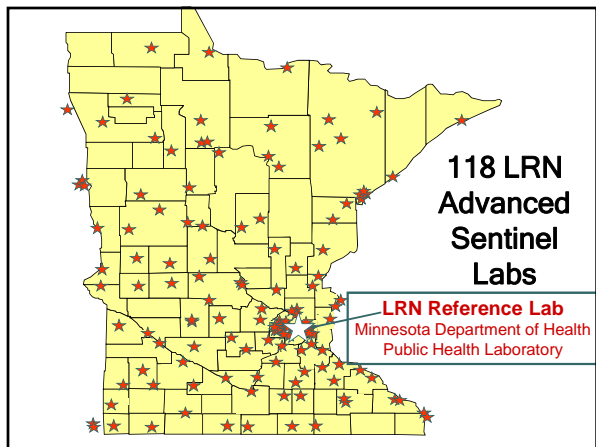
- o **Population**
5.2+ Million
54% in Metro Region
- o **8 Regions (87 Counties)**
- o **LPH Departments**
91 Total
- o **EMS**
78 % Volunteer
- o **Nursing Homes & LTC**
389 Skilled Nursing Facilities
1,700 Long Term Care Facilities
- o **Hospitals**
140 Acute/Chronic Care (80 Critical Access)
10 Community Behavioral Health Hospitals
7 Regional Treatment Centers
- o **Clinics**
More than 2,000 statewide

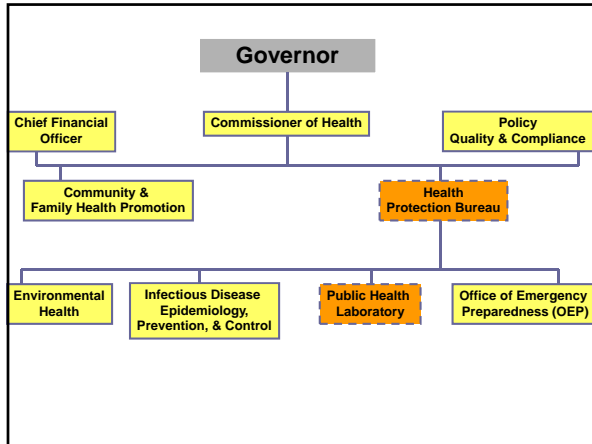


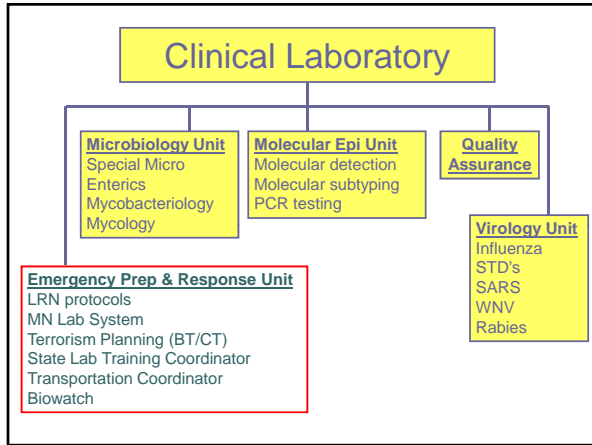


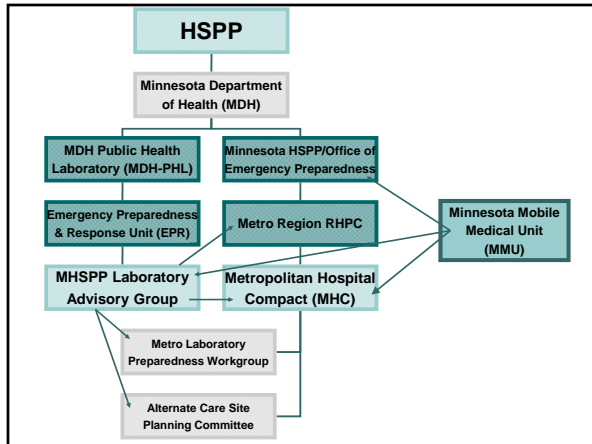
● ● ● Background

- **Metropolitan Hospital Compact**
 - Mutual aid agreement among 29 Metro hospitals
 - Resources, personnel, and communication
 - Works in parallel with HSP and RHRC
 - Metro RHRC located at Hennepin County Medical Center, Minneapolis.













Background

- o Laboratory medicine under-represented
- o Lab tests represent 70% of patient dx
- o "Ancillary services" in HSPP
- o MDH BT workshops
- o Spring conferences
- o HCMC Preparedness Practicum



- o **September, 2005: Operation Northern Comfort, Ft. Ripley**
- o Survivors from states affected by Hurricanes Katrina and Rita
- o Teams from across MN
- o Stocked entirely by volunteering hospitals and regional partners
- o Staffed by volunteers and DMAT teams
- o Laboratory staffed by 4 volunteers and 1 DMAT member



i-STAT Analyzer

- o Handheld, portable blood analyzer
- o Disposable sample cartridges
- o Chemistry, blood gas, coag
- o 2-minute TAT
- o On-board memory
- o IR results printer
- o 7 instruments in Metro Region through HRSA/HSPP



Northern Comfort: Outcomes

- Basic procedures written on-site
- Demonstrated many system gaps:
 - No unified lab procedures
 - No plans for lab set up, stocking, or re-supply.
 - Too much work for 1-2 people (HICS model)
- More & better lab representation



Large-scale Exercise

- **May, 2007: Snowball III**
 - Metro Region exercise: Metrodome BT release
 - One pod of (ACS) at the Minneapolis Convention Center
 - ~15 technologists from several regional hospitals



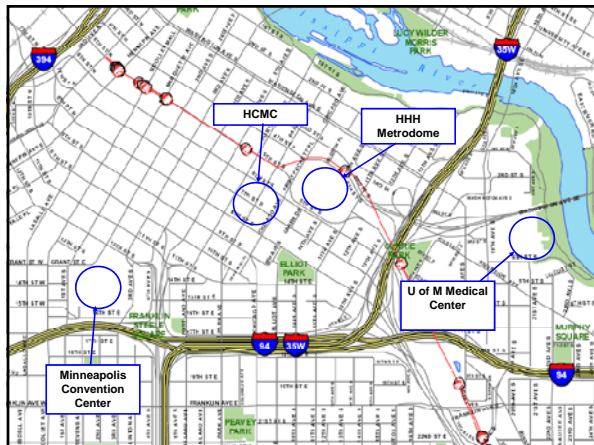
Alternate Care Site

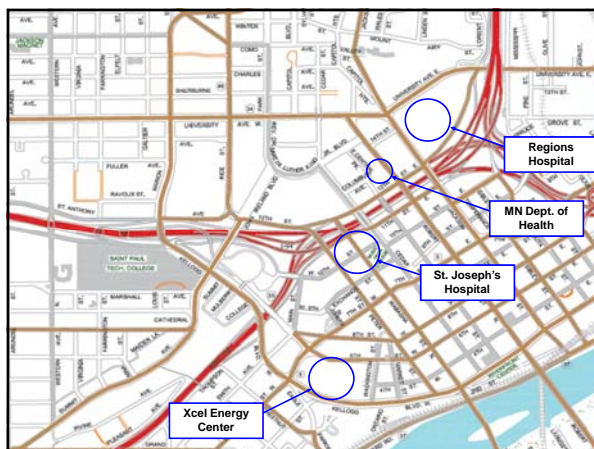
- Requested through RHRC, approved by Governor, implemented by MDH
- Overflow buffer for regional hospitals
- **Austere**, step-down care
- Staffed and supplied through members of the Metro Hospital Compact



Alternate Care Site

- o Divided into “pods”:
 - 1 pod = 50 patients on cots
 - Supplies are determined “per pod/per week.”
 - Each pod has a nursing station.
 - Depending on the event, the system can be scaled up to 10 pods = 500 patients.
- o Two possible locations
 - Minneapolis Convention Center
 - Xcel Energy Center, St. Paul







Laboratory Perspective: Snowball III

- MDH Lab Goals:
 - Set up ACS Lab (staff, supplies, space)
 - Test current policies & procedures
 - Test courier system
- First large scale test of Northern Comfort framework
- Both missions point-of-care testing
- Still had many issues around procedures, supplies, staffing, etc
- Completed an After-Action Report to address lab-related issues



Snowball III: Outcomes

- SOP
- Job Roles
- Physical space
- Supplies
- Communication
- Role of Public Health



Metro Region Laboratory Preparedness Workgroup

- Regional labs formed a cooperative workgroup with guidance from MDH-OEP.
 - Quarterly meetings since October, 2007
 - Backing from HSPP grant
 - Broad representation
 - Bench techs, administrators, point-of-care coordinators



LPW Mission

- Identify actionable items
- Laboratory coordination & communication
- Training
- Increase awareness & involvement



**Alternate Care Site
After-Action Report**



After-Action Report Summary

- ○ SOP
- Job Roles
- Physical space
- Supplies
- Communication
- Role of Public Health



LPW Goal: ACS Lab

- ACS Lab Manual
- i-STAT analyzer inventory
- Master supply list (all lab materials for 1 pod for 1 week)
- Regional contact list
- Regional testing capability assessment



ACS Lab Manual

- o 3 hard copies at two primary hospitals (Regions and HCMC) and MDH.
- o Electronic copies:
 - Stored on USB flash drives distributed to Metro Compact hospitals.
 - Stored on shared MNTrac folder.
 - Easily updated on MNTrac or modified at the ACS for changes to testing menu, etc.

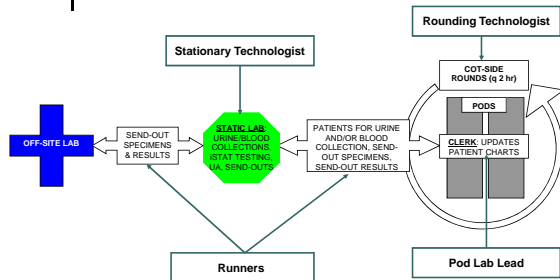


After-Action Report Summary

- o SOP
- o Job Roles
- o Physical space
- o Supplies
- o Communication
- o Role of Public Health



Laboratory Workflow



**Metro Region Alternate Care Site –
Operations/Medical Care Branch/Laboratory
Laboratory Unit Leader**

Mission: Provides guidance for all Laboratory operations
Minimum Qualifications: CLS-manager or supervisor preferred

**Metro Region Alternate Care Site –
Operations/Medical Care Branch/Laboratory
Rounding Technologist**

Mission: Performs patient testing and reporting as needed.
Minimum requirements: Phlebotomy experience required- point of care experience preferred.

**Metro Region Alternate Care Site –
Operations/Medical Care Branch/Laboratory
Runner**

Mission: Provides Laboratory support services as needed.
Minimum requirements: None-medical background preferred.

Date: _____ Start: _____ End: _____ Position Assigned to: _____ Initial: _____

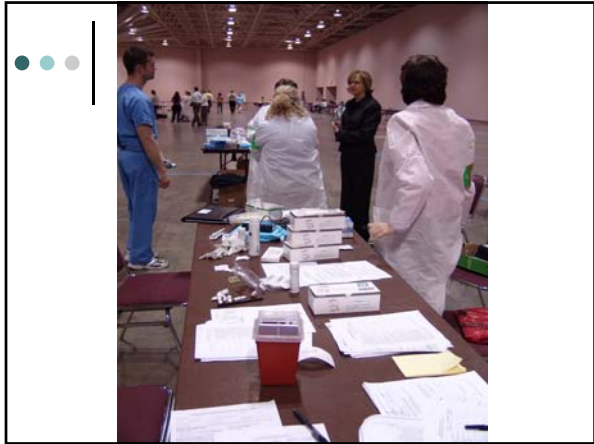
Position Reports to: **Laboratory Unit leader** Signature: _____

Alternate Care Site Location: _____ Telephone: _____

**After-Action Report
Summary**

- SOP
- Job Roles
- ➔ ○ Physical space
- ➔ ○ Supplies
- Communication
- Role of Public Health












Rolling travel cases

- Lockable, self-contained supply and testing station
- Two cases for ACS lab materials
- Detachable work table, no on-site table or counter space needed
- Hanging file storage drawer for on-board records and forms storage




● ● ● **After-Action Report Summary**

- SOP
- Job Roles
- Physical space
- Supplies
- ○ Communication
- Role of Public Health



- o Minnesota Laboratory System (MLS)
 - MDH program linking all labs in MN
 - Private/public partnership
 - Outbreak detection & surveillance
 - E-mail notifications (MLS Lab Alert)
 - Survey capability
 - Response tracking



- o **MN** system for **T**racking **R**esources, **A**lerts, and **C**ommunication
- o Online, real-time, state-wide resource (bed) tracking, document sharing, and communication
 - Real-time alerts via pager, text, email
 - Secondary ACS Lab Manual backup (download/upload)
 - Status updates, supply requests, procedural questions
- o Administered by MDH



MNTRAC
Tracking resources, alerts and communications for a better Minnesota

Users Login Here
Username: _____
Password: _____
Login
"Pager your password!"

MDH
MINNESOTA DEPARTMENT OF HEALTH

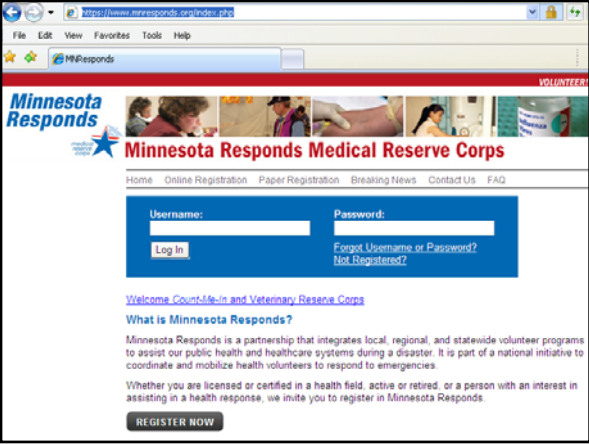
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The system provides:

- Hospital diversion status.
- Resource tracking (beds, pharmaceuticals, and other resources).
- Emergency alert notifications and contingency planning.
- The aggregation of information from all facilities and the possibility of sharing this with other systems and agencies.
- Unique views to facilitate system and data access for all users throughout the state.
- Electronic reporting and transport of information to other systems and agencies to improve communications and to share pertinent information.
- Standard and ad hoc reporting to turn data into useful information.
- The application is scalable to conform to the needs of small, medium and large facilities as required.
- Easy expansion through its open architecture as needs grow and evolve.

- ● ● **LPW Goal: Coordination & Communication**
- Variety of testing methods and instrumentation in member labs
- Regional Lab Alert exercise including online survey
- Regional testing capability database
 - Goal: real-time updates on MNTrac
 - ACS could use this for requesting supplies or referring send-out tests

- ● ● **After-Action Report Summary**
- SOP
- Job Roles
- Physical space
- Supplies
- Communication
- ○ Role of Public Health





MNResponds MRC ESAR-VHP

- Before:
 - <20 lab personnel
 - No lab-specific registration category
- After:
 - 72 lab personnel
 - Lab category with specific qualifications
- All future requests through MNResponds/MRC
- Goal: Lab-specific training modules
- Goal: Regional Laboratory Response Template
- Goal: 200% increase in lab registrations



LPW Mission

- Identify actionable items
- Laboratory coordination & communication
- Training
- Increase awareness & involvement





LPW Goal: Increase Lab Awareness

- A two-way street: laboratory staff vs. emergency planning
- Previous events emphasized need for lab advanced planning (LPW)
 - Goal: Increase participation in MDH regional laboratory conferences & workshops
 - Goal: Lab issues at Preparedness Practicum
 - Goal: Webinar series



LPW Mission

- o Identify actionable items
- o Laboratory coordination & communication
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Ongoing



The Republican National Convention



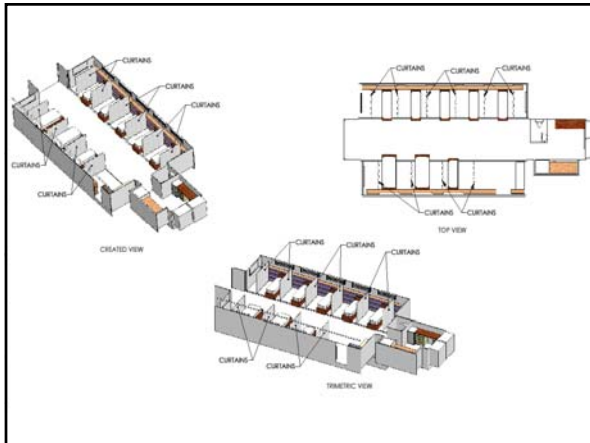


Minnesota Mobile Medical Unit (MMU)

- o Modified tractor trailer with 8 beds, including 3 acute stabilization suites
- o Rapid forward deployment before a known event or immediately after a disaster event
- o Onboard lab and pharmacy, wireless telemetry, and oxygen systems
- o Destination must provide utility connections

● ● ● **Minnesota Mobile Medical Unit (MMU)**

- Trailer stocked in advance
- Remainder of stock loaded in chase vehicle
- Deployment typically <1 week
- First deployment: 2008 RNC, St. Paul













- Similar format to ACS lab supplies (different scale)
- Supplies loaded in two rolling carts
- i-STAT instruments (more panels), other POC testing
- Uses modified ACS Lab protocols

● ● ● **MMU Challenges**

- **Supplies**—who's paying for this?
- **Staffing**—who will perform the testing?
- **Logistics**—where do we store everything, how does it get from here to there?
- **Training**—what level of experience will people have?
- **Communication**—how do we coordinate all the pieces?

● ● ● **MMU Supplies**

- Supply lists based on ACS model
- Initial purchase with federal grant funding through RHRC at HCMC.
- In transition to state ownership with joint powers among regional hospital partners
- Replenishment funding and inventory management options still being discussed



MMU Logistics

- Storage and transport were significant challenges prior to RNC deployment
 - Staging & loading
 - On-site set up
- Supplies to be stored on carts at Compact hospitals
 - Inventory control
 - Stock rotation
- MMU stored in temp controlled shop at bus company in north Metro



MMU Staffing

- Initial plans were for local volunteers through MNResponds/MRC
- For security purposes, federal agencies determined that DMAT teams were preferred for this mission.
- MRC volunteers and state-wide hospital response teams for future missions



MMU Training

- Different qualifications than working in ACS setting (all-in-one)
- “Just in time” training module
- Streamlined lab manual
- Goal: MNResponds/MRC training module for “alternate laboratory site”



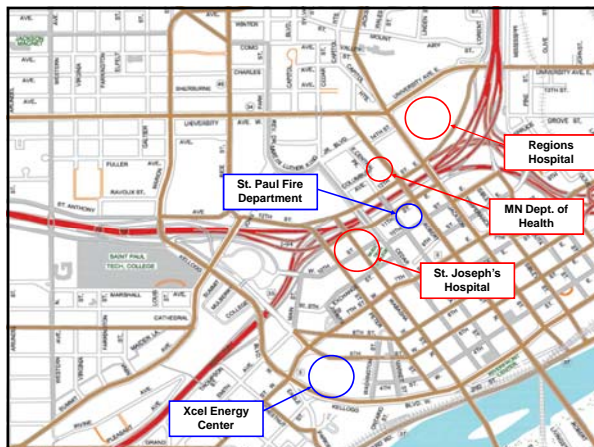
MMU Communication

- o Federalized mission with State & Local resources
- o Initial request for volunteers by MLS Lab Alert
- o Future missions: MNResponds/MRC, MNTrac
- o Up-to-date contact information
- o Familiarity with communication tools



MMU Deployment—RNC

- o Set up outside federal security perimeter at St. Paul Fire Dept.
- o Staffed by DMAT teams from Ohio and Michigan.
- o Mainly treated local law enforcement and EMS
- o Limited security meant at least 2 evacuations.







● ● ● | **Summary & Questions**

- The impact of laboratory medicine on health care systems makes it critically essential to emergency planning.
- Cooperative, proactive partnerships are essential for developing laboratory response plans.
- Establishing a cooperative network will make activating and implementing our plans that much easier in the future.



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