




Disaster Planning & Response: Public Health Laboratories in Action

Wednesday, July 9, 2014

3:00-4:30 pm EDT

APHL ASSOCIATION OF PUBLIC HEALTH LABORATORIES

Agenda

- The Big Game Comes to the Big Apple
  - Jennifer Rakeman, PhD
    New York City Department of Health and Mental Hygiene
- Minnesota Public Health Laboratory Freeze and Flood
  - Moe Sullivan, MPH
    Minnesota Department of Health
- Continuing an Essential Public Health Service During Hurricane Sandy
  - Scott Shone, PhD
    New Jersey Department of Health

APHL ASSOCIATION OF PUBLIC HEALTH LABORATORIES

THE BIG GAME COMES TO THE BIG APPLE

Jennifer Rakeman, PhD
Assistant Commissioner
Laboratory Director
NYC Public Health Laboratory


"Upstate NY"
Bronx
Football Stadium
PHL
Manhattan
"Not New York"
"Long Island"
Queens
Brooklyn
Staten Island

“WHITE POWDER JOB”

The New York Times

May 29, 2013

Letters Threatening Mayor Tested Positive for Ricin

By JOSEPH GOLDSTEIN

Two letters that contained threats to Mayor Michael R. Bloomberg — one addressed to him, the other to a lobbyist who works on his gun control campaign — have tested positive for the deadly poison ricin, the authorities said on Wednesday.

LOCAL

White powder scare at Public School 234 and school for gifted, NEST+M

Police say neither envelope contained toxins

BY BEN CHAPMAN AND ROCCO PARASCANDOLA / NEW YORK DAILY NEWS

THURSDAY, MAY 10, 2012, 10:16 PM

SAM COSTANZA FOR THE NEW YORK DAILY NEWS

Emergency personnel respond to a "suspicious substance" report at Public School 234 in Tribeca.

MAIL ROOM TO LABORATORY

Victim opens mail and calls 911

Local Precinct responds to call

Emergency Service Unit called in

MAIL ROOM TO LABORATORY

ESU responds:

Decon victims; FDNY transports to hospital

Sample collection

Field screening for chem, rad and explosives

FBI notified and responds

PHL notified

DOHMH notified

THREAT ASSESSMENT

+/- overt threat in letter

+/- visible powder or substance

Other intel, including origin of letter (ie: frequent fliers and “jail mail”)

Sample assessed for immediacy of testing:

immediate, next morning, next business day

deviantart.com

AT THE LAB…

Sample collected, packaged, and deconned in the field and then transported to PHL by NYPD

Arrives with Chain of Custody

Received by DOHMH Health Police

Transferred to Select Agent Program- approved PHL staff

WHAT HAPPENS IN THE LABORATORY?

Chain of custody

First responder PPE

Evidence and other items stored (clothing, etc.)

PHOTOGRAPHS of letter, envelope

WHAT HAPPENS IN THE LABORATORY?

Molecular Testing

- PCR Detects nucleic acid of live and dead organisms
- Immunoassay (TRF) used to detect ricin toxin
- Rapid (hours)
- Preliminary

Microbiological Testing

- Detects live organisms
- Slower (18 hrs – 5 days)
- Definitive – Not Finalized as negative until 5 days

MANY PARTNERS, MULTIPLE PRIORITIES

Laboratory Response Network

CDC and FBI

Other Federal partners

New York City partners and NYS partners

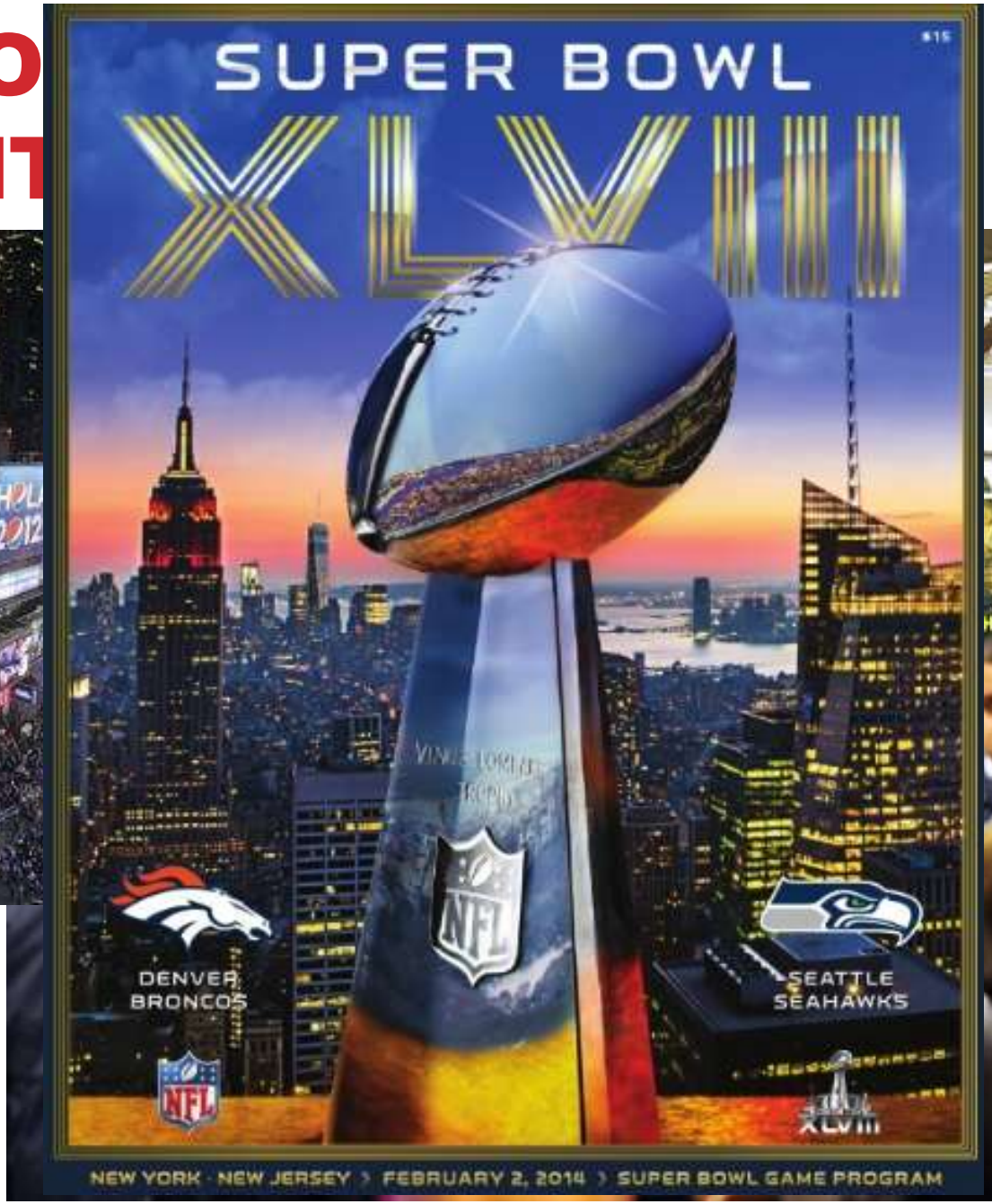
DOHMH partners

Jurisdictional issues

Communication!!!

NATIONAL SECURITY EVENTS

NATIO
EVENT


SUPER BOWL
XLVIII
DENVER BRONCOS
SEATTLE SEAHAWKS
NEW YORK · NEW JERSEY › FEBRUARY 2, 2014 › SUPER BOWL GAME PROGRAM

SUPER BOWL XLVIII (48)

Big football game on Feb. 2, 2014

Held at MetLife Stadium in East Rutherford, NJ

Home of the NY Jets and the NY Giants


FINAL SCORE
BRONCOS-19
SEAHAWKS-14

A GAME OF FIRSTS

-First outdoor game in a cold weather city (but 3rd coldest game)

-First Super Bowl with 2 host teams

-First Super Bowl with 2 host states

-First major Super Bowl kickoff event line-up

-Super Bowl Boulevard

-First mass transit

Super Bowl

UNIQUE CHALLENGES

Planning – involved NYC (many agencies including Health), New Jersey, Denver and Seattle, Federal partners

Weather contingencies – Super Bowl Monday???!?!?!

Transit – no parking near stadium. 2.5 miles of fence around stadium

SUPER BOWL BOULEVARD

January 29th through February 1st

Broadway from 34th St. to 47th St.

400,000 people expected

“Bud Light hotel”


SUPER BOWL
BOULEVARD
XLVIII
NFL


SUPER BOWL
02546
02478


NFL


DRIVE FOR THE CHAMPIONSHIP
SUPER BOWL BOULEVARD OPENS TODAY
TIMES SQUARE TRANSFORMED INTO FAN EXPERIENCE


OPENS TODAY
TO FAN EXPERIENCE


THAN ORIGINAL

NYC AND DOHMH PLANNING

Syndromic surveillance – before, during and after

NYC, Seattle, Denver

Cold, alcohol, etc.

Terrorism: BioWatch sampling, Rad Van, etc.

DOHMH daily Super Bowl calls

PHL PLANNING

BioWatch – staffing, testing

BioThreat Response Lab - ?????

- **Prepared to receive samples**
- **Staff on hand – no Super Bowl partying!!**

DOHMH daily Super Bowl calls

WHAT HAPPENED…

NJ hotels near the stadium

Communication!!!

IN NYC…

Several letters - some high priority, some not.

WHAT WAS IMPORTANT?

Existing relationships with partners.

Coordination with partners.

Planning and constant communication.

THANK YOU!

NYC Health

APHL Disaster Planning & Response Webinar

Planning First

- Goal of planning is to make sure you have systems in place to respond to any disaster event
  - MDH Agency All-Hazards Plan
  - PHLD Section of AHP
  - MDH COOP planning
  - APHL COOP Tabletop

APHL PHL Continuity Tabletop Exercise - October 15, 2012

- Scenario
  - St. Paul has had a large amount of snowfall
  - An arctic front accompanied by freezing rain and heavy snow moves in
  - Conditions deteriorate and there are power outages and employee absences

- And then...

- In the middle of the night, the Laboratory roof, damaged by high winds and saturated with rain water, leaks heavily – electrical power is completely lost and all laboratory services must be moved or suspended.

Now What?!

What laboratory functions are critical and must continue?

What arrangements are in place for transferring testing responsibilities to other facilities?

Do the alternates have the required certifications?

How will the specimens/samples be transported to the laboratory?

Will additional staff be needed at the alternates?

Strengths

- Significant planning has occurred
  - specific contingency plans already developed
  - EMAC exercises done in Newborn Screening
- Knowledgeable employees
  - know what should or could be done to respond to and recover from an emergency

Areas for Improvement

- Incident Assessment
- Plan Activation
- Communication
- Coordination of PHL leadership/ department partners
- Alternate Facilities
- Backup Power
- Outsourcing Agreements
- Response and Recovery Coordination
- Administrative Services (IT, HRM)

Minnesota's Temperature Extremes

- **Highest Recorded Temperature**

  114º F
- **Lowest Recorded Temperature**

  -60º F
- **Largest Single Day Change**

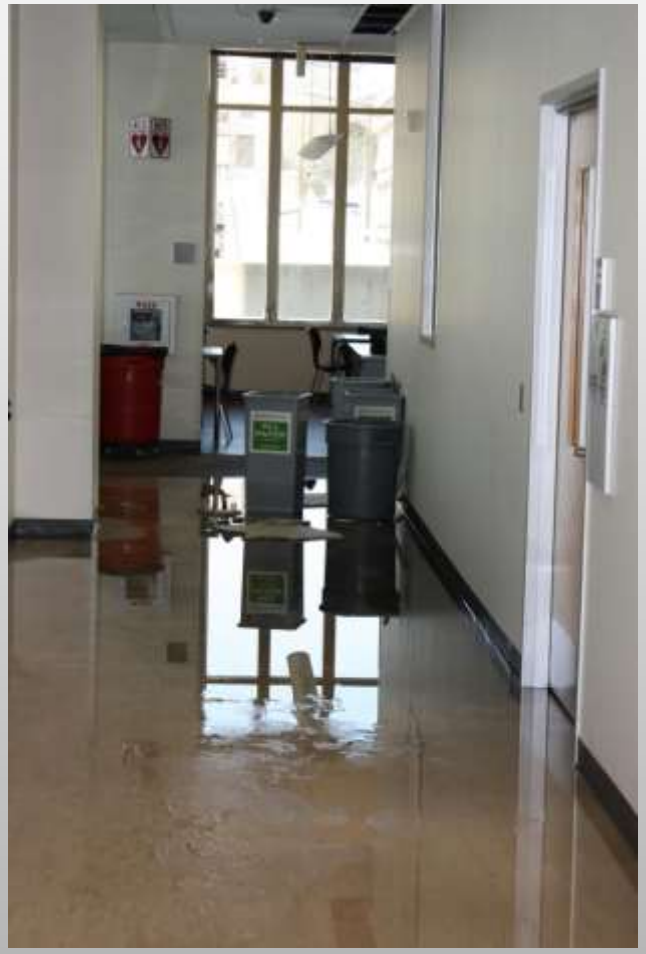
  71º Drop

The Incident, January 6, 2014

- Overnight temperature drops to -24º F
- Laboratory air handlers and heat wheels go down allowing cold air into the system
- Air handlers restarted in a.m. and building warms up
- Frozen heating system coils thaw and burst
  - Multiple (20) additional heating coil leaks throughout the day
  - Fire sprinkler in clean metals lab

Quick to Action

Could have been a lot worse!



Day 1: Response

- **Laboratory staff scramble**
- **Plant Management personnel work to assess situation and shut off water to damaged coils**
- **Administration gives approval to send staff home!!!**
- **Testing suspended and partners contacted**
- **Newborn Screening samples**

Day 1: Response (cont'd)

- ICS established
  - 2x daily briefings
- Emergency contract and procurement documents
- PIO issues press release, media express interest
- Leaks contained at 7 pm, clean-up begins

Day 2: Recovery, Plant Management

- Clean-up in progress
- No additional water leaks
- Coil repairs under way
  - 1st floor labs completed
- Five of six air handlers restarted
- Exhaust fans still off
  - building positively pressured
- Additional building security personnel

Day 2: Recovery, Lab Operations

- Contact WI and IA labs for help if needed
- Rabies testing relocated to University of Minnesota VDL
- Newborn Screening continues
- All environmental testing suspended
- Most infectious disease testing suspended
  - no loss of power, so sample integrity maintained
- Operations holds tactical meeting

And then...

The FBI Calls

- Powder letter delivered to Capitol Complex building
- FBI wants to know if we can test letter or if it needs to go elsewhere
- Facilities Branch determines exhaust fans can be turned back on for BSL-3 labs and glove box room (remember it was + pressure)
- Powder from letter is tested, mercifully negative

Unknown sample processing

- Glovebox room
- BSL3 Suite
- Staffing
- All-hazards screen
  - Bio and chem
- PCR
- TRF

Day 3: Recovery

- All lab staff back at work
- Continuing to clean lab spaces and equipment
- Complete damage assessment list
- Exhaust fans turned on
- Resumed newborn screening in-house
- Preparations to resume ID testing

Day 4: Recovery

- Coil repair complete
- Clean-up nearly complete
- ID testing resumes
- Environmental testing
  - Drinking water testing back online
  - Some environmental testing subcontracted out
- Staff with damaged cubes relocated

Follow-up Activities

- **After Action Report**
  - **Hotwash Conducted 01/13/2014**
  - **Follow-up scheduled**
- **Root Cause Analysis and Preventive Action**
  - **3rd party review undertaken**
  - **Results will be presented to MDH on June 10, 2014**

A Few Takeaway Messages

- **Safety first!!!**
- **Deal with immediate crisis first**
  - **Continually assess and communicate situation**
- **ICS was critical**
  - **Assign and train staff in relevant ICS roles**
- **COOP**
  - **Maintain a prioritized list of laboratory services**
  - **Maintain a list of alternate providers for critical services and contact information**
  - **Have a list of key questions to assess situation**

Disaster Planning & Response for Newborn Screening

Continuing an Essential Public Health Service During Hurricane Sandy

Scott M. Shone, PhD

Program Manager

July 9, 2014

50 YEARS OF NEWBORN SCREENING

baby's first test

Did you know...

Children should be **SCREENED SHORTLY AFTER 24 HOURS** of being born

MOST STATES SCREEN FOR **29** out of **31** RECOMMENDED HEALTH CONDITIONS

More than **1 IN 300 NEWBORNS** have a condition detectable through Newborn Screening

Most babies with serious but treatable conditions caught by Newborn Screening **GROW UP HEALTHY** with expected development

In **1963** Newborn Screening begins with a **HEEL STICK**

In **1999** **HEARING SCREENING** is recommended for newborns

In **2012** the **PULSE OXIMETRY** test becomes a part of Newborn Screening

In **2013** Newborn Screening celebrates its **50TH** Anniversary

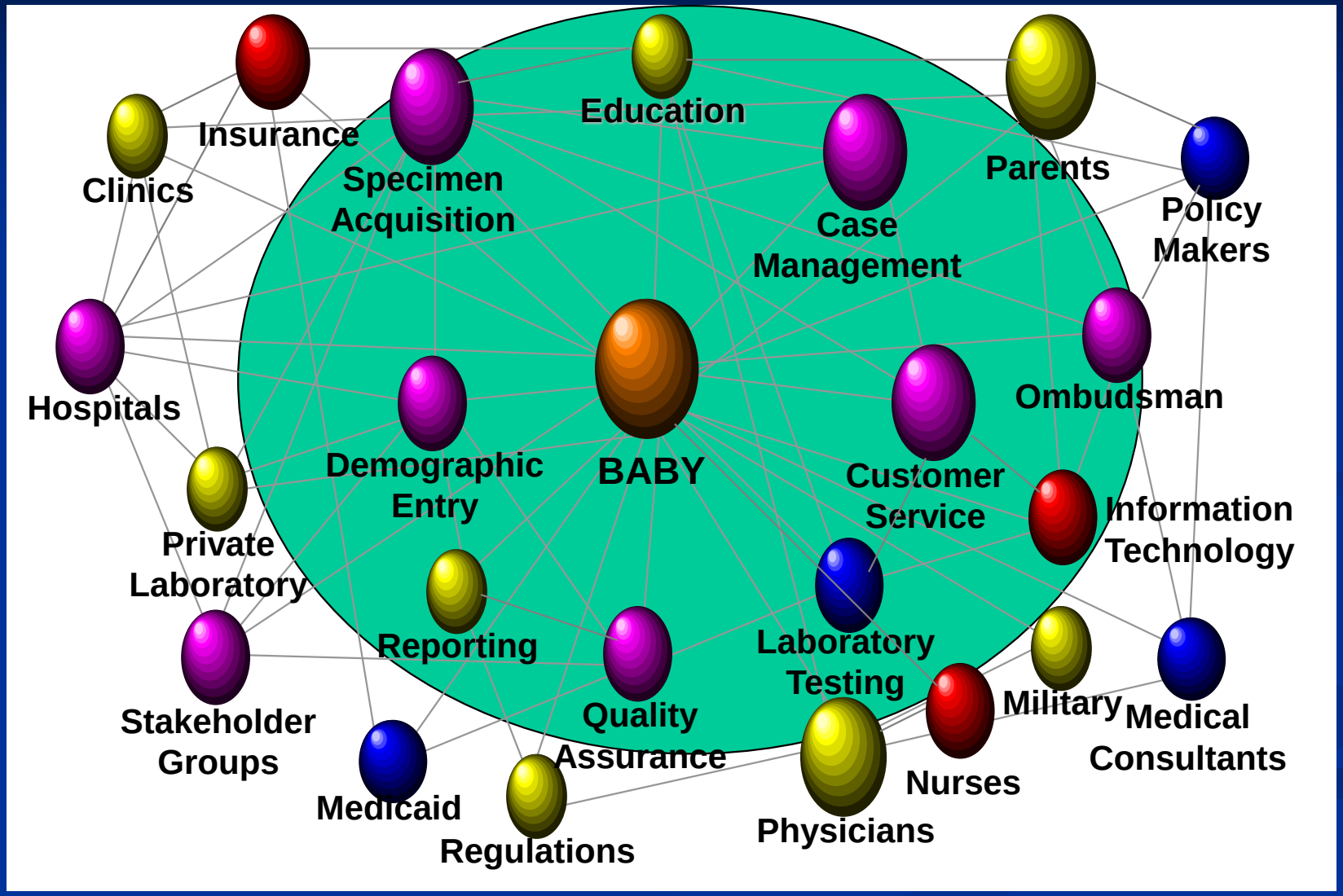
Source: BabysFirstTest.org

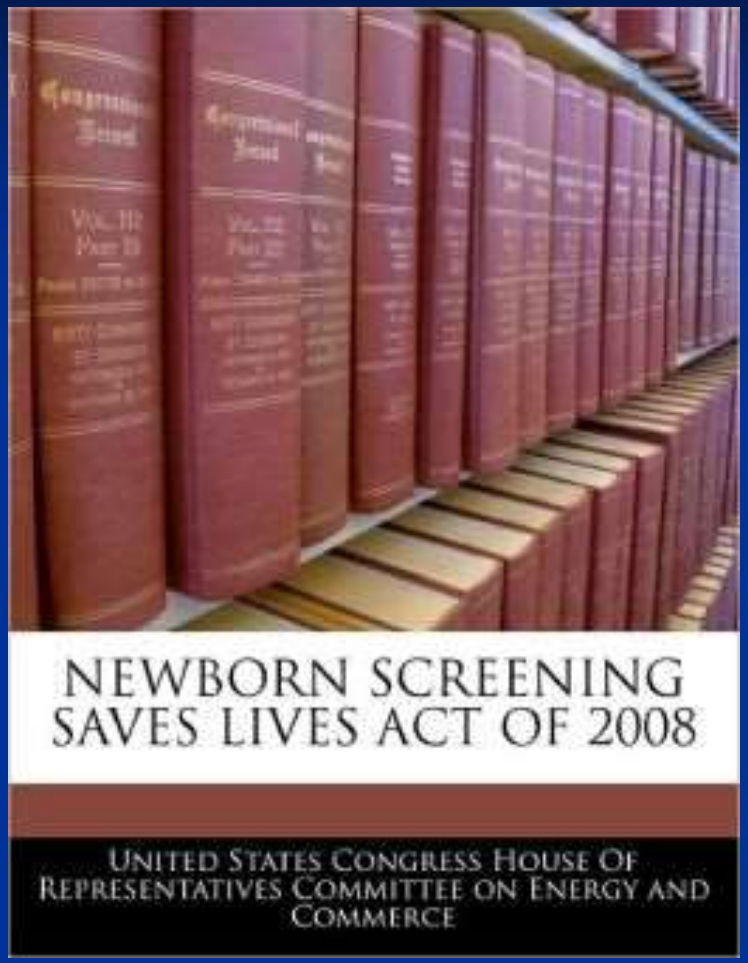
This project is funded by the Maternal and Child Health Bureau, Health Resources and Services Administration (HRSA), Grant No. U36MC16509

NJ Health New Jersey Department of Health

State of New Jersey NEWBORN SCREENING

Newborn Screening System



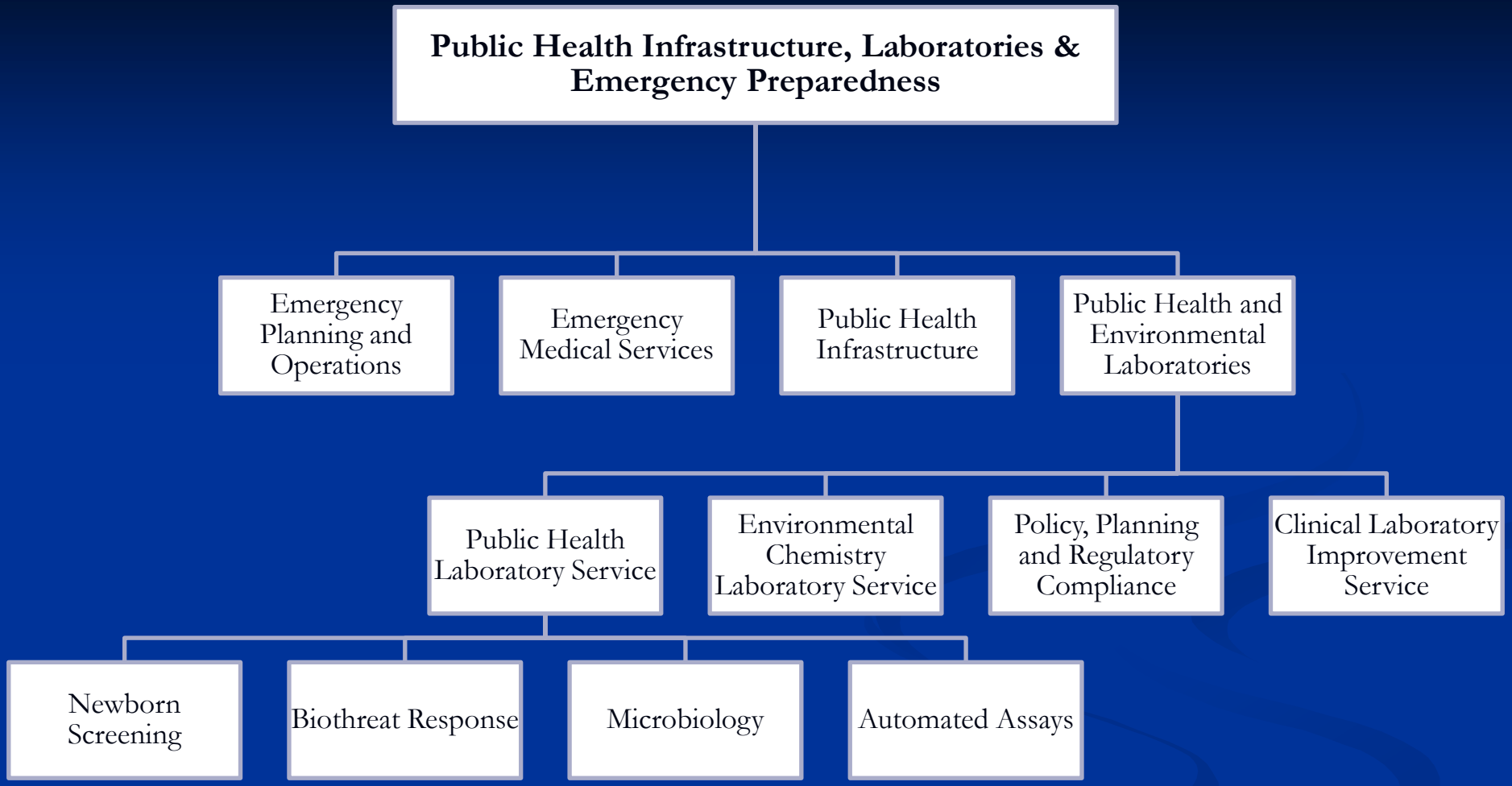


- National contingency plan for newborn screening for use by a State, region, or consortia of States in the event of a public health emergency
  - the collection and transport of specimens;
  - the shipment of specimens to State newborn screening laboratories;
  - the processing of specimens;
  - the reporting of screening results to physicians and families;
  - the diagnostic confirmation of positive screening results;
  - ensuring the availability of treatment and management resources;
  - educating families about newborn screening; and
  - carrying out other activities determined appropriate by the Secretary.
  - updated as needed or at least every 5 years

PHEP

Capability 12: Public Health Laboratory Testing

- Function 3: Conduct testing and analysis for routine and surge capacity
  - Priority 1: Written plans should include the following considerations for surge capacity:
    - Options to optimize procedures based on regular and surge personnel, equipment, and facility resources for short-term (e.g., days) and long-term (e.g., weeks to months) response efforts. Options should also be based on best practices and models available on the LRN website or other sources.
    - Triage policies that address how the laboratory will manage surge testing, that may include:
      - Referral of samples to other jurisdictional laboratories
      - Prioritization of testing based upon sample type
      - Prioritization of testing based upon risk or threat assessment
      - Contingencies to assure newborn screening in a surge situation.
        - Newborn screening can be assured by memoranda of agreement or contracts with commercial vendors


Public Health Infrastructure, Laboratories & Emergency Preparedness
Emergency Planning and Operations
Emergency Medical Services
Public Health Infrastructure
Public Health and Environmental Laboratories
Public Health Laboratory Service
Environmental Chemistry Laboratory Service
Policy, Planning and Regulatory Compliance
Clinical Laboratory Improvement Service
Newborn Screening
Biothreat Response
Microbiology
Automated Assays

Continuity of Operations Planning

- Essential Functions
- Function Priority
- Essential Employees
- Risk Assessment
- Vulnerability Assessment
- Order of Succession
- Delegation of Authority
- Alternate Facilities
- Vital Records

NJ Health
New Jersey Department of Health

State of New Jersey
NEWBORN SCREENING

Preparedness, Luck, and Serendipity

EMAC
Emergency Management Assistance Compact

NYMAC
NEW YORK-MID-ATLANTIC CONSORTIUM
FOR GENETIC AND NEWBORN SCREENING SERVICES

PHILEP
Public Health Infrastructure, Laboratories and Emergency Preparedness
NJ Health

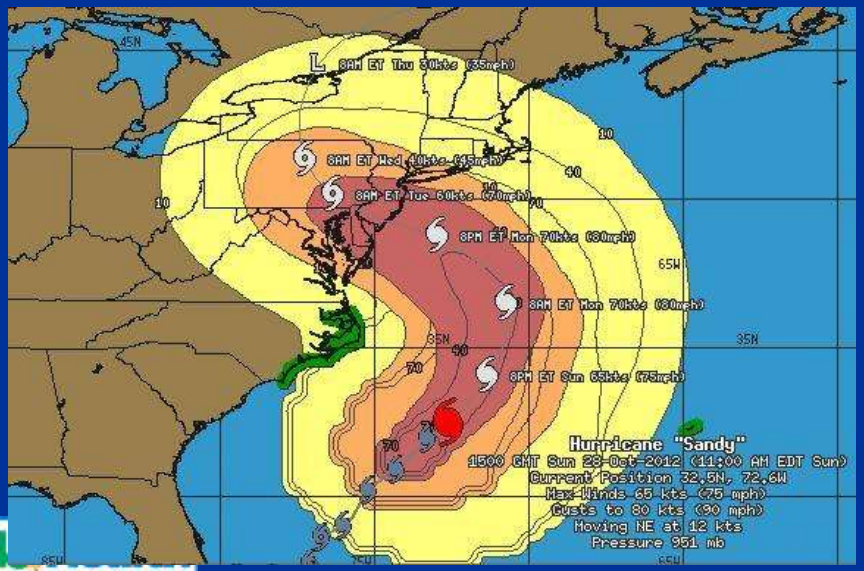
HONOR
STATE POLICE
NJ
DUTY FIDELITY

ups

NJ Health
New Jersey Department of Health

NEWBORN SCREENING

October 25 - 29



New Jersey Department of Health

State of New Jersey NEWBORN SCREENING

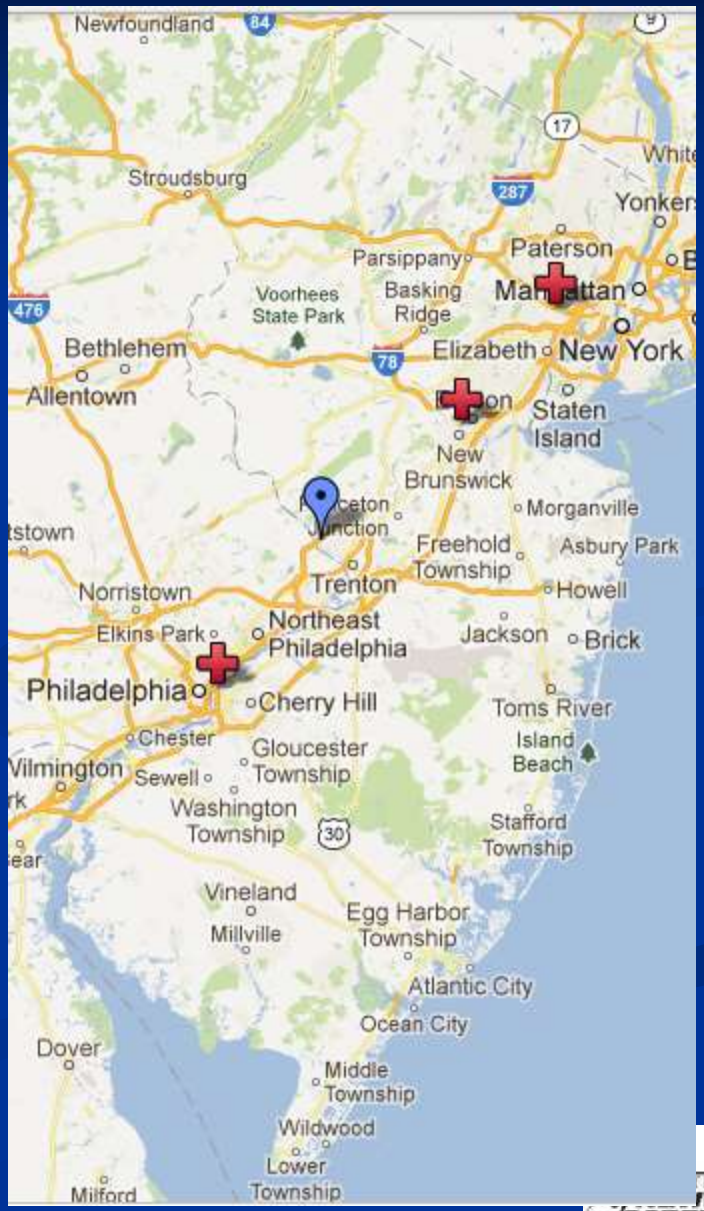
October 29

- UPS delivered ONLY to NBS Laboratory
- Wrapped up Saturday specimens
- 19 staff
- Began to plan alternate specimen delivery options

October 30

October 30

- Use of NJSP for NBS specimen transport approved
- Transport specimens to regional MCCs by 2p
- Message communicated through NJHA
- NJSP transport specimens to laboratory at 4p
- 7 NBS Staff



NJ Health
New Jersey Department of Health

State of New Jersey
NEWBORN SCREENING

Rest of the Week

October 31

- 32 NBS Lab staff
- 2 Follow-up Staff
- 2 Medical Directors
- Lab took over communication
- USPS

November 1

- Resumed UPS except for 14 hospitals
- Used courier rather than NJSP

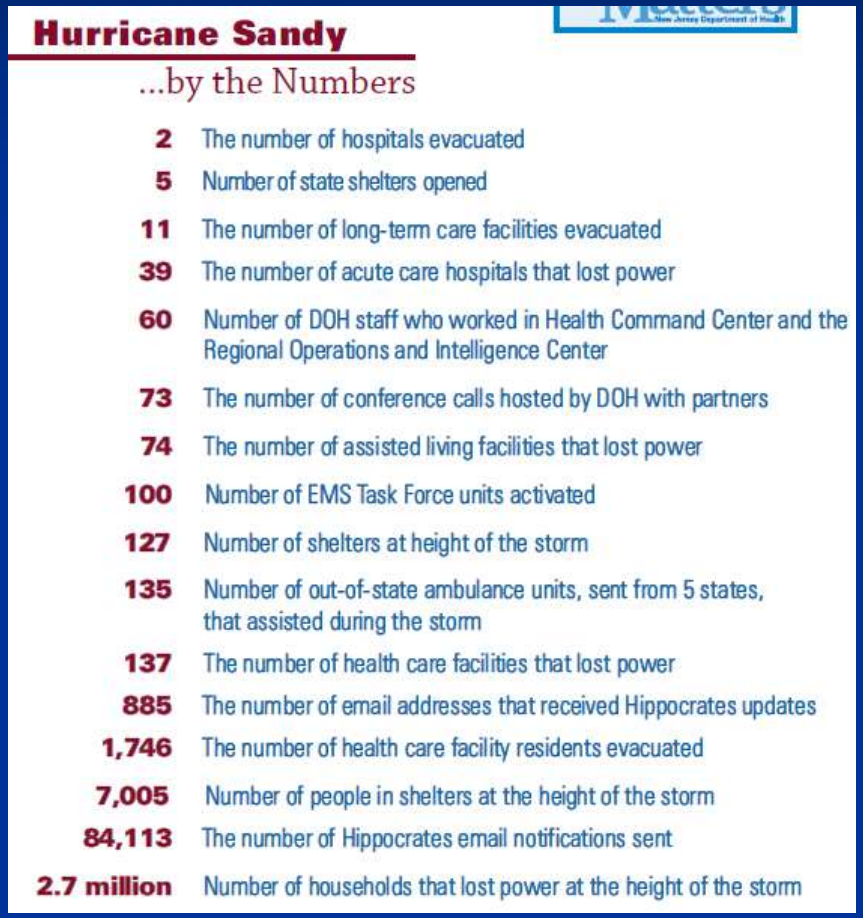
November 2

- Only 2 hospitals remained affected
- "Normalcy" returned to lab

NJ Health New Jersey Department of Health

State of New Jersey NEWBORN SCREENING

Epilogue: After Action Report



Hurricane Sandy

...by the Numbers

2	The number of hospitals evacuated
5	Number of state shelters opened
11	The number of long-term care facilities evacuated
39	The number of acute care hospitals that lost power
60	Number of DOH staff who worked in Health Command Center and the Regional Operations and Intelligence Center
73	The number of conference calls hosted by DOH with partners
74	The number of assisted living facilities that lost power
100	Number of EMS Task Force units activated
127	Number of shelters at height of the storm
135	Number of out-of-state ambulance units, sent from 5 states, that assisted during the storm
137	The number of health care facilities that lost power
885	The number of email addresses that received Hippocrates updates
1,746	The number of health care facility residents evacuated
7,005	Number of people in shelters at the height of the storm
84,113	The number of Hippocrates email notifications sent
2.7 million	Number of households that lost power at the height of the storm

- Communication
  - One phone number
  - NJHA, Program, Agency, Vendors
  - Hospital contact list
  - Cell phone/email
- Saturday before
- 7 staff on Tuesday
- MCC/NJSP
- Follow-up
  - Power
    - Supplies
    - Remote access
  - Workload
- Capital Post Office
- Family needs
- Essential employee needs

NJ Health New Jersey Department of Health

State of New Jersey NEWBORN SCREENING

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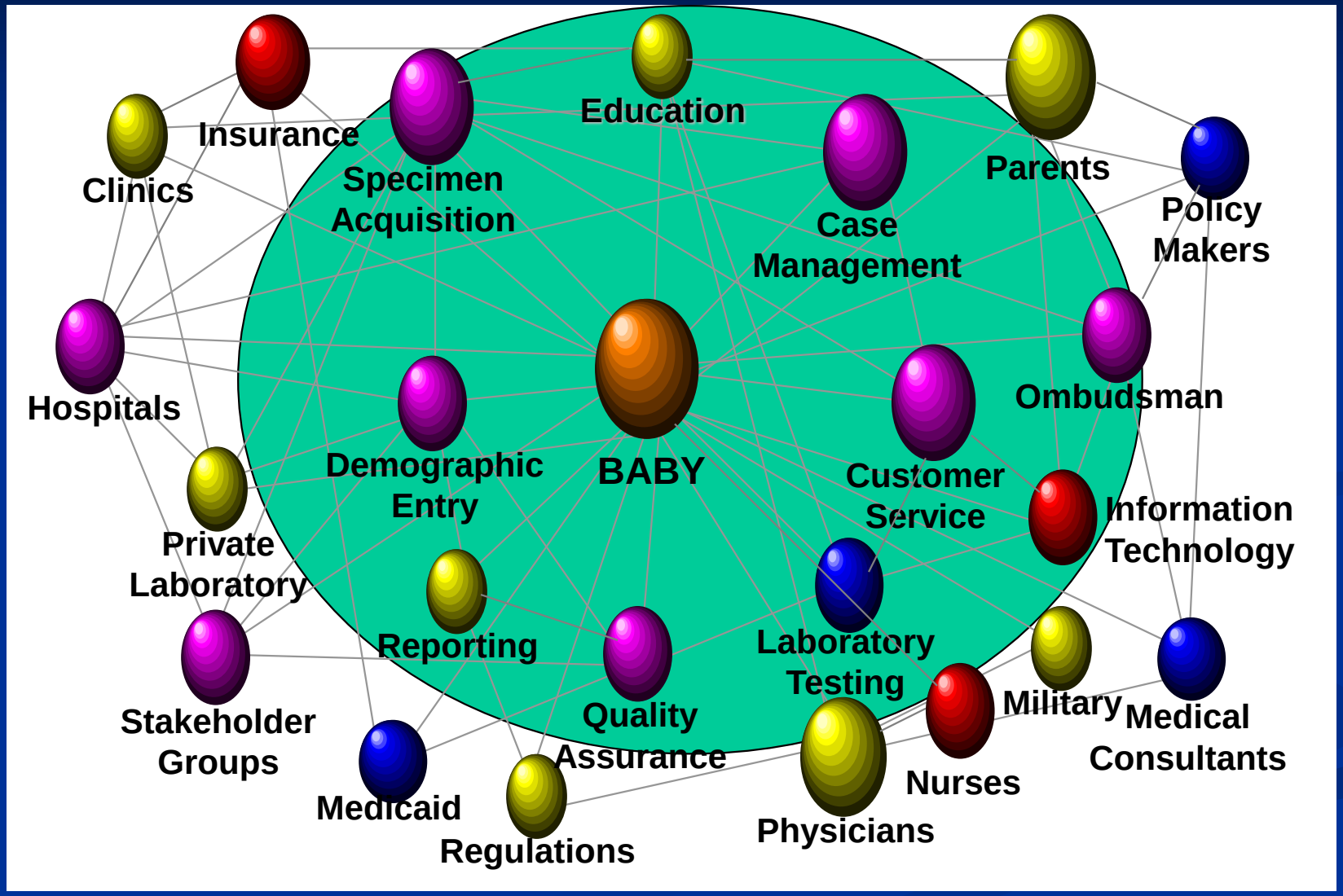
State of New Jersey
NEWBORN
SCREENING

Newborn Screening System



newborn screening

50 years of saving babies' lives

www.50yearssavingbabies.org

Saving Babies for 50 Years
1964 — 2014
State of New Jersey
NEWBORN SCREENING

NJ Health
New Jersey Department of Health

State of New Jersey NEWBORN SCREENING

Team Effort

- NJDOH PHILEP Colleagues
- UPS
  - Lauren Gokhale
  - Sean Pender
- NBS Community

NJ Health
New Jersey Department of Health

State of New Jersey
NEWBORN SCREENING

Resources for Crisis Management

- APHL
  - Guidelines for the Public Health Laboratory Continuity of Operations Plan (COOP)
  - Emerging Infectious Diseases Planning and Response Framework
  - Newborn Screening Preparedness/Contingency Planning Framework
  - Algorithm and Guidelines for Responding to an Incident Involving a Suspicious Non-clinical Sample
  - www.aphl.org/phpr
- Federal Emergency Management Agency (FEMA)
  - www.fema.gov/resource-management
- Emergency Management Assistance Compact (EMAC)
  - www.emacweb.org

APHL ASSOCIATION OF PUBLIC HEALTH LABORATORIES

- Environmental Health
- Food Safety
- Global Health
- Infectious Diseases
- Informatics
- Laboratory Systems and Standards
- Newborn Screening and Genetics
- Public Health Preparedness and Response
  - Crisis Management
  - Laboratory Response Network
  - Biological Threats
  - Chemical Threats
  - Radiological Threats
  - Partnerships and Outreach
- Research

TEXT SIZE T T T

Crisis Management

Resources for Lab Crisis Response

Updated October 2012

SAVED TOPICS: Disaster Resources, Public Health Preparedness and Response, Terrorism

SAVE PRINT SEND ShareThis

CDC Report - Public Health Preparedness

- *Public Health Preparedness: 2012 State-By-State Report on Laboratory, Emergency Operations Coordination and Emergency Public Information and Warning Capabilities*
- *Key Messages*

Emergency Management Action Compact (EMAC)

The Emergency Management Action Compact (EMAC) is a national mutual aid system that enables states to assist each other during governor-declared states of emergency. Under EMAC, states can send personnel, equipment and supplies to other affected states and also transfer responsibility for services. For example, after Hurricane Katrina, newborn screening for the state of Louisiana was transferred to the State Hygienic Laboratory at the University of Iowa via EMAC.

Understanding and Use of EMAC

Videos to assist medical and public health professionals in using EMAC:

- EMAC: A Basic Understanding and Use of the System by Public Health and Medical Professionals (47 minutes)
- Use of the EMAC System by Public Health & Medical Professionals: A Discussion (57 minutes)

Forms and Information

- Developing Your Response-Specific Mission Ready Package
- REQ-A, Form to Apply for Assistance

Other Federal Resources for Emergency Response

- FEMA Resource Management Overview
- National Emergency Responders Credentialing System, Medical and Public Health

CONTACT

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Questions

- The Big Game Comes to the Big Apple
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    New York City Department of Health and Mental Hygiene
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For More Information…

Please contact APHL's Public Health Preparedness and Response Program at emergency.preparedness@aphl.org

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