NY State Health Commerce System

Integrated Information Systems for Public Health Preparedness, Response and Recovery
The Role of Integrated Health Information Infrastructure in Supporting Planning and Preparedness for a Key Regional Public Health Event. The Republican National Convention (RNC).

By

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New York State Department of Health, Albany NY
RNC Event Planning

- NY City (Special Security Event)
- Regional Health Preparedness
  - NY City (lead)
  - NY State (supportive)
  - County Health Departments
    - Nearest Neighbor: Nassau, Suffolk, Westchester, Rockland
    - Region: Orange, Putnam, Dutchess, Ulster, Sullivan
  - Federal Government (DHHS –Region II)
  - Other States (New Jersey, Connecticut)
Health Preparedness
Functions/Information Required

- Health Alerting/Communications Directory
- Epidemiological Surveillance (Disease reporting / syndromic)
- Health Facility Assets
  - Attributes, equipment, supplies, pharmaceuticals, antidotes
  - Capacity (surge)
  - Current patient traffic status, admission trends
  - Patient/victim tracking
- Provider/Practitioner Assets
  - Volunteers by specialty
  - Regional practicing physician specialties
- Laboratory capacity/attributes
Supportive Requirements

- Live data feeds

- Integrated functionality and data summarized and available across systems

- Provide high level situational awareness to Executive Decision makers using data visualization

- Regional access by state, local, regional, Federal health/response agencies

- Leverage Existing Infrastructure
Existing Commerce Infrastructure Used by Analytical and Program Staff During RNC

- Secure Health Commerce System
- Health Alerting
  - Integrated Health Alerting and Notification System
  - Communications Directory
- Public Health Preparedness Information Systems
  - Health Emergency Response Data System
  - Disease Surveillance and ELC Systems
  - Medical Volunteer tracking
NYSDOH Health Commerce System
Routine Information Interchange & Public Health Preparedness

Health Facilities/Providers/Other

Health Provider Network (HPN)
- Hospitals – 250 (all)
- Nursing Homes – 690 (All)
- Home Health/Personal Care – (600)
- Diagnostic & Treatment Ctrs. – (500)
- Physicians (20-30K in process)
- Managed Care Orgs. (70)
- Clinical, Env. Labs – (1805)
- Pharmacies (200)
- EMS, Emergency Managers, Fire, law enforcement

Local Public Health

Health Information Network (HIN)
- All County Health Depts. – (57)
- NY City DOH

NYSDOH Health Alert Network

New Organizations
Federal: DHHS
NYState: DHS, CSCIC (CyberSecurity Critical Infrastructure), Dept. of Agriculture & Markets, State Police, OEM, Insurance Dept., OMH, DEC
NYC: FDNY
Other States: NJ DOH; CT DOH

25,000 accounts
8,000 Organizations
2,800 User logins /day
450,000 access hits/day
150 mission critical applications
Commerce Health Alerting

• Communications Directory (ComDir)
  – Central Repository for Role and Contact Information for all Organizations
  – Place contacts (e.g. Business Office 24/7 contact)
  – Role/Person contacts (e-mail, fax, pager, cell)
  – Roles customized by organization type
  – Updated by Organizations

• Integrated Health Alerting and Notification System
  – Uses role/contact information from ComDir
  – Multiple contact methods: voice-phone/cell, pager, e-mail, fax, secure web posting
  – Multiple notification priorities: alert, advisory, update, informational
  – Contact methods determined by the level of notification priority
  – Predefined or user-customized lists
  – Web-based tool usable by state and local health within jurisdictions
Public Health Preparedness Information Systems

• Epidemiological and Lab Capacity
  – Statewide Disease Reporting System
  – Statewide Electronic Clinical Lab Reporting System
  – Statewide Arbovirus surveillance (Human, Animal, Vector)
  – ED and Syndromic Surveillance
  – Lab Response Network
  – Suspect case Photo Submission

• Health Care and Provider Capacity
  – Health Emergency Response Data System
  – Medical Volunteer database
Disease Surveillance, Detection and Response

New York State DOH Central and Regional Offices

NYSDOH Health Commerce System
- Alerting and Communications Directory
- Analysts and Health Responders
  - Program Specific Surveillance data
  - Facility and provider asset and capacity data
- Executive Decision makers
  - Executive Dashboard

Surveillance Data
- Health Alerts, Lab Test Results
- Community Disease Case Reporting
- Animal, Vector, Bird Surveillance (Arbovirus WNV)

Local Health Departments

HL7, LOINC

Lab Test Results

Commercial Clinical Labs
- LabCorp, Quest, etc.

Surveillance data
- Health Alerts
- Lab Test Results
- Hospital Disease Reporting
- Syndromic Surveillance
- Facility Resource Information

NYS PH Response Partners
- DHS, CSCIC, OMH, Ag. Markets, SEMO

Federal Agencies (CDC, DHHS), Other states

Hospitals
Health Emergency Response Data System (HERDS)

- Live Statewide information flow between Health Facilities and State, local health response partners for:
  - Planning (Capacity, Drills, Preparedness)
  - Surveillance (on-going monitoring of capacity or events)
  - Incident Response (reporting, monitoring of resources, needs)
  - Inventory Facility Assets
  - Tracking patients and victims

- Multi-tasking - Multiple simultaneous events in separate geographic regions.

- Real-time surveillance and incidents
  - Flexible, adapting to changes in the event as it evolves
  - Surveillance forms, incidents created/deployed on-the-fly without programming
  - Targeted deployment from individual facilities, to county, region, statewide

- Facilities/Affected Jurisdictions alerted on activation

- Advanced Data Visualization: GIS, charts, graphs

- Used by NYS State/Local Health, NYC (HMH, OEM, GNYHA), Hospitals in CT, NJ
Example HERDS Detail Data on from Health Facilities

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<table>
<thead>
<tr>
<th>Version: 1.1</th>
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<tbody>
<tr>
<td>Health Emergency Data Reporting</td>
</tr>
<tr>
<td>Date: 2/3/2005</td>
</tr>
<tr>
<td>Time: 10:01:37 PM</td>
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</tbody>
</table>

## Bed Surge Capacity

**Adult ICU Unit**
- Does your facility have an Adult ICU Unit(s)?
  - Yes
  - No
- If Yes:
  - Certified Adult ICU Beds
  - Certified Staffed Adult ICU Beds
- How many additional ICU level patients could you care for beyond your certified bed capacity?

**Pediatric ICU Unit**
- Does your facility have a Pediatric ICU Unit(s)?
  - Yes
  - No
- If Yes:
  - Certified Pediatric ICU Beds
  - Certified Staffed Pediatric ICU Beds
- How many additional Pediatric ICU level patients could you care for beyond your certified bed capacity?

**NeoNatal ICU Unit**
- Does your facility have a Neonatal ICU Unit(s)?
  - Yes
  - No
- If Yes:
  - Certified Neonatal ICU Beds
  - Certified Staffed Neonatal ICU Beds
- How many additional NeoNatal ICU level patients could you care for beyond your certified bed capacity?

**Adult Med/Surg Unit**
- Does your facility have an Adult Med/Surg Unit(s)?
  - Yes
  - No
- If Yes:
  - Certified Adult Med/Surg Beds - excluding ICU
  - Certified Staffed Adult Med/Surg Beds - excluding ICU
- How many additional Adult Med/Surg level patients could you care for beyond your certified bed capacity?

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<table>
<thead>
<tr>
<th>Bed Surge Capacity</th>
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</thead>
<tbody>
<tr>
<td>Report Numbers as of Yesterday at Midnight</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Observatory Unit/Beds</th>
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</thead>
<tbody>
<tr>
<td>Does your facility have an Observatory Unit/Beds?</td>
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<td>Yes:</td>
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<td>No:</td>
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<table>
<thead>
<tr>
<th>Labor/Delivery Unit/Beds</th>
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<td>Does your facility have a Labor/Delivery Unit/Beds?</td>
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<td>Yes:</td>
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<td>No:</td>
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<thead>
<tr>
<th>Post-Delivery Unit/Beds</th>
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<td>Yes:</td>
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<tr>
<td>No:</td>
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</table>

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<thead>
<tr>
<th>Well-Baby Nursery Unit/Beds</th>
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<tbody>
<tr>
<td>Does your facility have a Well-Baby Nursery Unit/Beds?</td>
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<tr>
<td>Yes:</td>
</tr>
<tr>
<td>No:</td>
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HERDS GIS Hospitals within 5 miles of convention site
RNC Preparedness

- Develop Executive Dash Board (EDB) with role-based access on Commerce, integrating functions and data feeds for:
  - Alerting
  - Cross Jurisdictional Communications Directory across affected Region
  - Epi. Surveillance (Disease Reporting, Syndromic Surveillance)
    - ED disease cluster Surveillance: Statewide, with focus within Region
    - OTC Medications, Medicaid Scripts Surveillance: Statewide, with focus within Region
    - Syndromic ED surveillance: within Region
  - Hospital capacity (HERDS)
    - Statewide Critical Assets and bed availability - 250 hospitals
    - Event patients, patient traffic, event patient symptoms – 150 hospitals within region
  - Physician Assets: within region
  - Licensed Professional Volunteer Tracking: within region
  - Lab Capacity: within region
RNC Preparedness

• Enable access to EDB for Cross Jurisdictional Use. Providing key Executive staff with high level of situational awareness during RNC.
  - Other states: Connecticut DOH, New Jersey DOH
  - Federal Agency DHHS Region II
  - NYSDOH and Local Health Executive Staff (9 counties and NYCith DOH)

• Summarize and integrate information from multiple data feeds
  - Graphical displays
  - GIS Data Visualization.
Executive Dashboard Portal

EVENT HOMEPAGE

- Contact Information
- Alerts
- Discussion Forum
- Protocols, Procedures, Plans
- Resources (SNS/Chempak)
- What's New

Preparedness Event: RNC
Region Affected: NY Metro Area
Event Status:

Counties Affected: Dutchess, Nassau, NY City, Orange, Putnam, Rockland, Suffolk, Sullivan, Ulster, Westchester

Total Event Related Patients Region Summary by Hospital

Time Series for Emergency Room Traffic

Time Series for Adult ED Event Patients

Time Series for Pediatric ED Event Patients

Cross Jurisdiction Directory
Alerting
Secure Collaboration
Procedures
Event Information
Training materials

Tutorial now available with overview of dashboard and tips on navigating; where to find what (Power Point)

Any Comments or Questions?