Shelter Surveillance during Recent Events

• New York’s Response to Hurricane Sandy
  • Approximately 147 shelters established
  • Most common reason for visits were follow-up care, mental health and exacerbation of chronic conditions.
Shelter Surveillance during Recent Events

• New Jersey’s Response to Hurricane Sandy
  • Aggregate morbidity data in 21 shelters
    • 5,189 health service visits
      • 52% acute illness
      • 32% follow-up
        • Wound care, blood pressure, blood glucose checks, medication refills
      • 13% chronic illness exacerbations
      • 3% injury
## Part I. General Information

1. Disaster Operation #
2. Reporting Date:
3. Reporting Time/Date:
4. County:
5. Service Type (circle): Shelter Non-Shelter
6. Worksite Name:

## Part II. Number of Client-Related Interactions

<table>
<thead>
<tr>
<th>Tally</th>
<th>( pf/df/tf )</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total Client-Related Contacts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Total Health-Related Client Visits (in part III):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Part III. Demographics (for Health-related Visits Only)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Tally</th>
<th>( pf/df/tf )</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Tally</th>
<th>( pf/df/tf )</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
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<tr>
<td>2+5</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

## Functional/Access Needs: mark each individual need based on E-MIST model per 24 hours

<table>
<thead>
<tr>
<th>Communication</th>
<th>Tally</th>
<th>( pf/df/tf )</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Services and Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

## Part IV. Reason for Visit: for each client visit, tick reason(s) for visits.

<table>
<thead>
<tr>
<th>Injury</th>
<th>Tally</th>
<th>( pf/df/tf )</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral/Mental Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger/disruptive/psychotic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety/stress/depressed mood</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide/quit (e.g., suicide note)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol withdrawal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other mental health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of machinery/tools/equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstructive pulmonary disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon Monoxide (CO) exposure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other chronic illness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dehydration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart failure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension/high blood pressure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy/postpartum care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain (headache, cutaneous pain)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain in other specified region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, not specified above</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal (GI): diarrhea</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Gl: nausea/vomiting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genitourinary (GU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin (includes all skin conditions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allergic reaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory (includes ALL resp.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physician/dentist/clinic</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pharmacist</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Other (e.g., DMH)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurological, new onset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other illness/symptoms</td>
<td></td>
<td></td>
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</tbody>
</table>

## Part V. Disposition

<table>
<thead>
<tr>
<th>Provided</th>
<th>Tally</th>
<th>( pf/df/tf )</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Cross care</td>
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<td></td>
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</tbody>
</table>

*Complete one form for service location per 24 hours. Submit by 4pm local time.
Shelter Surveillance Workgroup

• Need for a standard shelter surveillance tool
  • Guidance on how to conduct shelter surveillance and tools

• First call on November 20, 2014.
PHP Capabilities

1. Community Preparedness
2. Community Recovery
3. Emergency Operations Coordination
4. Emergency Public Information and Warning
5. Fatality Management
6. Information Sharing
7. Mass Care
8. Medical Countermeasure Dispensing
9. Medical Materiel Management and Distribution
10. Medical Surge
11. Non-Pharmaceutical Interventions
12. Public Health Laboratory Testing
13. Public Health Surveillance and Epidemiological Investigation
14. Responder Safety and Health
15. Volunteer Management
PHP Capabilities and Shelter Surveillance

• Capability 7: Mass Care
  • Function 1 - Determine public health role in mass care operations
  • Function 2 - Determine mass care needs of the impacted population
  • Function 3 - Coordinate public health, medical, and mental health mass care services
  • Function 4 - Monitor mass care population health

PHP Capabilities and Shelter Surveillance

- **Capability 1: Community Preparedness**
  - Function 3 - Engage with community organizations to foster public health, medical, and mental/behavioral health social networks

- **Capability 6: Information Sharing**
  - Function 1 - Identify stakeholders to be incorporated into information flow
  - Function 2 - Identify and develop rules and data elements for sharing
  - Function 3 - Exchange information to determine a common operating picture

- **Capability 13: Public Health Surveillance and Epidemiological Investigation**
  - Function 1 - Conduct public health surveillance and detection
  - Function 2 - Conduct public health and epidemiological investigations
  - Function 3 - Recommend, monitor and analyze mitigation action

Partnerships for Conducting Shelter Surveillance

- Emergency Medical Services
- Healthcare Organizations
- Fire Service
- Hazmat
- Radiation Control Authority
- Environmental Health
- Animal Control
- Board of Animal Health
- American Red Cross
- Federal Emergency Management Agency
Partnerships for Conducting Shelter Surveillance

• Provision of medical services
• Provision of mental/behavioral health services
• Provision of radiological, nuclear and chemical screening and decontamination services
• Conduction of and reporting on human health surveillance
• Assessment of facility accessibility for populations with special needs
• Operation oversight, set-up, and closure of locations
• Registration of shelter users
• Removal of sanitation and waste
• Provision of service animal and pet shelter care
• Provision of environmental health and safety inspections
Goal of the Workgroup

• Guidance document for shelter surveillance
Objectives of the Workgroup

• Description of shelter surveillance and definitions of terms
• Identify existing resources, practices, tools
• Identify existing training resources
• Outreach to other partners and involve them in developing guidance materials

• Create a template protocol
  • Environmental surveillance, health surveillance forms, aggregate morbidity forms, etc.
• How-to-guide for shelter surveillance
  • Mental health surveillance, environmental health assessment, triggers for conducting surveillance
• Make the case for shelter surveillance as an important part of disaster response
Shelter Surveillance Tools Forum

- www.cste.org/group/DisasterEpi
Examples from State and Local HDs

• New Hampshire Department of Health & Human Services
  • Guidance for Conducting Health Surveillance in Shelters
  • FAQ’s for conducting health surveillance in shelters
  • Training for Medical Volunteers Guidance Document
  • Health Shelters training documents

• Kentucky Department of Health
  • Environmental surveillance form for shelters
  • Brief Guidance of Morbidity Shelter Surveillance
  • Disaster Morality Form
  • Natural Disaster Morbidity Report

• American Red Cross
  • Aggregate morbidity form
  • Client Health Record
  • Opening & Closing Inspection

• National Health Security Strategy & Implementation
Description of Shelter Surveillance

• Description #1

“Shelter surveillance is the systematic collection, management, analysis and interpretation of data to prevent and detect illness, injuries and other issues of potential public health concern among the residents and staff in shelters during the period of occupation for the purpose of rapidly implementing control measures and contributing to situational awareness of the response.”
Description of Shelter Surveillance

• Description #2

“Shelter situational awareness is the real time capability to obtain the information necessary to 1) track and share the registration status, referral needs, and medical/behavioral health status of persons temporarily displaced by a local emergency event, 2) track preventative, clinical, behavioral, transportation, referral, and other support services administered, 3) track the health status of shelter staff, 4) monitor the tangible, financial and human resources required for shelter management, and 5) ensure the safety and security of the facility.”
Description of Shelter Surveillance

• Description #3

“Shelter surveillance is the real-time capability to obtain the information necessary to track any or all of the following:
• The health status of shelter residents;
• The environmental health conditions of the shelter to ensure the safety and security of the shelter;
• The registration status, referral needs, and behavioral health status of shelter residents;
• Preventive, clinical, behavioral, transportation, referral, and other support services administered at a shelter;
• The health status of shelter staff;
• The tangible, financial, and human resources required for shelter management, and;
• Any other data involved in monitoring the safety and security of a sheltering facility.”
Biosurveillance vs. Health situational awareness

- **Biosurveillance**
  - Information gathering
  - Disease surveillance, environmental monitoring, gathering intelligence

- **Health situational awareness**
  - Broader scope that includes biosurveillance
  - Gathering, integrating, interpreting and communicating essential information to achieve early detection and warning
  - Contributes to the overall situational awareness of the health aspects of an incident

Description of Shelter Surveillance

• Description #4

“Shelter surveillance is the real-time capability to obtain the information necessary to track any or all of the following:

• The health status of shelter residents;
• The environmental health conditions of the shelter to ensure the safety and security of the shelter;
• The registration status, referral needs, and behavioral health status of shelter residents;
• The health status of shelter staff, and;
• Any other data involved in monitoring the safety and security of a sheltering facility

Overall shelter situational awareness includes the above with the addition other information, such as:

• Preventive, clinical, behavioral, transportation, referral, and other support services administered at a shelter;
• The tangible, financial, and human resources required for shelter management, and;
• Any other data necessary to gaining situational awareness for the safety and security of a sheltered population.”
Discussion

• Input for shelter surveillance description?

• Ideas and recommendations for the workgroup?