2016 Florida Chemical Exposure Exercise
Another Great Experience

Faith McInnis
Chemist III, Chemical Threat Coordinator
Florida Department of Health
Bureau of Public Health Laboratories

Division of Disease Control and Health Protection
To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.
Objectives

- Exercise Overview
  - Details
  - Planning Team
  - Participating Organizations

- Exercise Design
  - Purpose
  - Capabilities
  - Scenario

- Exercise Planning

- Review of Capabilities
  - Areas for Improvement
  - Major Strengths

- Questions and Answers
Exercise Overview

Details

- Full scale exercise
- February 22 – 26, 2016

Capabilities
- Information Sharing
- Public Health Laboratory Testing
Exercise Overview

Planning Team

- Remarkable level of participation
- Representatives from participating agencies
To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.

Division of Disease Control and Health Protection

To protect, promote and improve the health of all people in Florida through integrated state, county, and community effort.
Exercise Overview

Participants

- Federal
  - Centers for Disease Control and Prevention (CDC)

- State
  - Florida Department of Health
    - Various Bureaus
  - Florida Poison Information Centers
Exercise Overview

Participants

- Local
  - Local Health Offices
  - 30 Hospitals
- Number of Participants
  - Over 100
Exercise Design

Purpose

- Establish learning environment for participants
- Provide opportunity to partner agencies to evaluate response capabilities
- Fulfill Public Health Emergency Preparedness requirements
- Measure and validate performance of target capabilities

Division of Disease Control and Health Protection
To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.
Exercise Design

Target Capabilities

- CDC Public Health Preparedness Capabilities: National Standards for State and Local Planning (2011)
  - Information Sharing (Capability 6)
  - Public Health Laboratory Testing (Capability 12)
Exercise Design

Scenario

- Chemical exposure
- National Movie and Theater Day
- Moviegoers exposed using improvised cyanide-producing device (Mubtukkar)
- Moviegoers present to hospitals with array of symptoms consistent with chemical exposure
Exercise Design

(U//FOUO) Hydrochloric Acid (HCl) or Sulfuric Acid (H2SO4)
– strong acrid odor, may resemble water or be in a commercial container

(U//FOUO) Potassium Permanganate (KMnO4)
– dark purple solid or powder

(U//FOUO) Potassium Cyanide (KCN) or Sodium Cyanide (NaCN)
– white to pale yellow powder, tablets, or briquettes

(U//FOUO) Container
– with holes in the top or sides

(U//FOUO) Detonator

Division of Disease Control and Health Protection

To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.
Exercise Design

(U//FOUO) Mubtakkar Use Indicators

(U//FOUO) Violent spewing of white gas or dark liquid from a container

(U//FOUO) A bitter almond smell from cyanide gas (not all can detect this odor)

(U//FOUO) An acrid choking odor or burning of victim’s eyes from cyanogen chloride
Exercise Planning

- Invitation – August 2015
- Planning Meetings
  - Concepts & Objectives – September 2015
  - Initial Planning Meeting – October 2015
  - Mid-term Planning Meeting – November/December 2015
  - Final Planning Meeting – January 2016
- Side Meetings

Division of Disease Control and Health Protection

To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.
Exercise Planning

Tier 1 and 2 Exercise Review Process

- Developed to ensure that exercises are
  - Homeland Security Exercise and Evaluation Program (HSEEP) compliant
  - Consistent with Florida’s Multi-Year Training and Exercise Plan (MYTEP) and Public Health and Healthcare Preparedness (PHHP) Strategic Plan Objectives
Exercise Planning

Tier 1 and 2 Exercise Review Process

■ Tier 1
  ◦ Review submitted documents
  ◦ Make recommendations and submit to Tier 2

■ Tier 2
  ◦ Final evaluation and approval
Exercise Planning

Tier Review Documents

- Exercise Plan (ExPlan)
- Controller/Evaluator Handbook
- Exercise Evaluation Guide (EEG)
- Master Scenario Events List (MSEL)
## Exercise Planning

<table>
<thead>
<tr>
<th>MSEL #</th>
<th>Inject Date &amp; Time (EST)</th>
<th>Originator</th>
<th>Receiver</th>
<th>Subject</th>
<th>Inject Mode</th>
<th>Event Description</th>
<th>Expected Player Action(s)</th>
<th>Implementer (Long Description)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Exercise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Thursday 02/16/2016</td>
<td>BPHL Chemical Threat Lab</td>
<td>Participant Hospital Labs</td>
<td>Sample staging</td>
<td>Process</td>
<td>Shipment of exercise shipping supplies</td>
<td>BPHL Chemical Threat Lab ships specimens to participating hospitals</td>
<td>The Chemical Threat Lab will ship supplies via FedEx to participating laboratories prior to exercise start. Hospitals will send confirmation of receipt to Faith McInnis.</td>
</tr>
<tr>
<td>2</td>
<td>Thursday 02/18/2016</td>
<td>CDC</td>
<td>Participant Hospital Labs</td>
<td>Sample staging</td>
<td>Process</td>
<td>Confirm shipment and receipt</td>
<td>CDC ships specimens to participating hospitals</td>
<td>The CDC will ship specimens via FedEx to participating laboratories prior to exercise start. Hospitals will send confirmation of receipt to Chariety Sapp, CDC and Faith McInnis, regional CT Coordinator.</td>
</tr>
<tr>
<td>3</td>
<td>Thursday 02/18/2016</td>
<td>All Hospital Labs</td>
<td>Hospitals</td>
<td>Sample staging</td>
<td>Process</td>
<td>Confirm receipt of exercise shipping supplies</td>
<td>Hospital laboratories receiving packaging and shipping supplies must confirm receipt with Faith McInnis, CT Coordinator.</td>
<td>Hospital laboratories receive packaging and shipping supplies from Faith McInnis, CT Coordinator.</td>
</tr>
<tr>
<td>4</td>
<td>Friday 02/19/2016</td>
<td>All Hospital Labs</td>
<td>Hospitals</td>
<td>Sample staging</td>
<td>Process</td>
<td>Confirm shipment and receipt of samples</td>
<td>Hospital laboratories receiving specimens must confirm receipt</td>
<td>Hospital laboratories receive spiked specimens and supplies from CDC; specimens must be stored as directed by Chariety Sapp.</td>
</tr>
<tr>
<td>5</td>
<td>Friday 02/19/2016</td>
<td>SimCell</td>
<td>All</td>
<td>Background Information</td>
<td>E-mail</td>
<td>Advertisement of Statewide National Movie and Theater Day (NMTD) activities</td>
<td>Participants will receive advertisement flyers via email</td>
<td>Theaters and throughout Florida promote National Movie and Theater Day as the biggest blockbuster event of the decade.</td>
</tr>
</tbody>
</table>

---

### Division of Disease Control and Health Protection

To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.
Exercise Planning

Results

- Total of 30 Participating Hospitals

- Specimen Packaging and Shipping
  - 23 Hospitals
Exercise Planning

Results

- Poison Information Center /Hospital/ Epidemiology Collaboration
  - 12 Hospitals
  - Tampa, Jacksonville, and Miami PIC

- Spin-off
  - Hospital Decon
  - Hospital Training

Division of Disease Control and Health Protection
To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.
Pre-Exercise

Shipment of Supplies

- **CDC**
  - 5 spiked specimens per hospital
  - Specimen packaging & shipping supplies

- **Bureau of Public Health Laboratories**
  - Specimen packaging & shipping supplies
Pre-Exercise Training

- Chemical Threat (CT) Coordinators provided Chemical Terrorism Preparedness training
  - *Chemical Terrorism Awareness*
  - *Collecting Clinical Specimens after a Chemical Terrorism Event*

- Specimen Packaging and Shipping Conference Call
  - Reviewed required supplies
  - Reviewed packaging and shipping protocol
Pre-Exercise

“Paper Patients”

- Poison Information Center developed “Paper Patients”
  - 5 - 25 symptomatic patients for hospitals to report – SimCell inject
## Pre-Exercise

"Paper Patients" – SimCell Inject

*EXERCISE EXERCISE EXERCISE*

<table>
<thead>
<tr>
<th>Patient name</th>
<th>Age</th>
<th>Sex</th>
<th>Vital Signs</th>
<th>Signs &amp; symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danaris Targerian</td>
<td>31</td>
<td>f</td>
<td>88/60-92-32</td>
<td>Pulmonary edema, vomiting, dilated pupils</td>
</tr>
<tr>
<td>Sercy Lannister</td>
<td>22</td>
<td>f</td>
<td>88/60-92-32</td>
<td>Short of breath, headache, confused</td>
</tr>
<tr>
<td>Tyrone Lannister</td>
<td>24</td>
<td>m</td>
<td>88/60-92-32</td>
<td>Pulmonary edema, vomiting, dilated pupils</td>
</tr>
<tr>
<td>Sansa Stark</td>
<td>26</td>
<td>f</td>
<td>90/60-88-28</td>
<td>Short of breath, lung congestion, seizures</td>
</tr>
<tr>
<td>Jon Snow</td>
<td>29</td>
<td>m</td>
<td>None available</td>
<td>Covered in powder. c/o skin burning. Wheezing. Almond odor</td>
</tr>
<tr>
<td>Carl Grimes</td>
<td>22</td>
<td>m</td>
<td>88/60-92-32</td>
<td>Unresponsive, seizures, mydriasis</td>
</tr>
<tr>
<td>Glenn Rhee</td>
<td>53</td>
<td>m</td>
<td>88/60-92-32</td>
<td>Pulmonary edema, vomiting, dilated pupils</td>
</tr>
<tr>
<td>Rick Grimes</td>
<td>46</td>
<td>m</td>
<td></td>
<td>Short of breath, lung congestion, seizures</td>
</tr>
<tr>
<td>Maggie Green</td>
<td>39</td>
<td>f</td>
<td>96/60-92-28</td>
<td>Covered in powder. c/o skin burning. Wheezing. Almond odor</td>
</tr>
<tr>
<td>Daryl Dixon</td>
<td>31</td>
<td>m</td>
<td>88/60-92-32</td>
<td>Pulmonary edema, vomiting, dilated pupils</td>
</tr>
</tbody>
</table>
Pre-Exercise

*EXERCISE EXERCISE EXERCISE*

hooray for hollywood!
NATIONAL MOVIE AND THEATER DAY

ENJOY YOUR HOLIDAY...

Monday, February 22nd
Starting at 7:00 am
Check out the latest Blockbuster at your local Theater

ADMISSION
Children 12 and under – FREE!
Adults - $1.00

ALL CONCESSIONS SOLD AT DRASTICALLY REDUCED PRICES

Division of Disease Control and Health Protection
To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.
Exercise – Summary of Events

Day 1

- Hospitals package and ship specimens to regional CT Coordinators
- Poison Information Centers/Hospital/Epidemiology Collaboration
 Exercise – Summary of Events

Day 1

- Spin-off Hospital Decon Exercises
Exercise – Summary of Events

Day 2
- Jacksonville CT Lab receives and begins analyzing specimens
Exercise – Summary of Events

Days 3 – 5

- Jacksonville Chemical Threat Lab analyzes specimens and report results
Analysis of Capabilities

Areas for Improvement

- Laboratory Information Management System - LabWare
  - Patient demographics
  - Final reporting

- Forensic Chain-of-Custody
  - COC process must become routine for sample receipt and management
## Analysis of Capabilities

### Participating Hospitals – Packaging and Shipping Evaluations

<table>
<thead>
<tr>
<th>Hospital (By Number)</th>
<th>Miscellaneous</th>
<th>Outer Container</th>
<th>Temperature</th>
<th>Secondary Packaging</th>
<th>Primary Receptacles</th>
<th>Score Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>40</td>
<td>14</td>
<td>72</td>
<td>87.8</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>40</td>
<td>14</td>
<td>72</td>
<td>87.8</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>40</td>
<td>14</td>
<td>72</td>
<td>87.8</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>38</td>
<td>14</td>
<td>80</td>
<td>97.6</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>40</td>
<td>14</td>
<td>72</td>
<td>87.8</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>40</td>
<td>14</td>
<td>72</td>
<td>87.8</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>40</td>
<td>14</td>
<td>72</td>
<td>87.8</td>
</tr>
<tr>
<td>19</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>20</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>21</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>22</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>23</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>24</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
</tbody>
</table>

**Average Score:** 96.6

---

### Major Strengths

- Specimen packaging and shipping
Analysis of Capabilities

Major Strengths

- Analytical Testing
- Poison Information Center/Hospital/Epidemiology Collaboration
- Exercise Planning/Execution
Conclusion

- Feedback indicate the exercise was a learning environment
- Successful collaboration between partner agencies
- Successful measure and validation of target capabilities
# Acknowledgments

**Florida DOH**
- Richard France
- Mary Ritchie
- Benny St. John
- Redentor Salonga
- Janet Jones
- Jason Palcic
- Andrew Cannons
- Angela Ren
- Sarah Cox
- Scott Bowden
- Lindsay Flagg
- Walter Mock
- Oria Smith
- Susanne Crowe

**CDC**
- Chariety Sapp
- Amy Watson
- Rudolph Johnson
- Hans Cooper
- Christopher Pittman

**All Participating Hospitals**

**APHL**
- Ruhriyyih Degeberg

**Poison Information Centers**

Division of Disease Control and Health Protection

To protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.
Questions?