WHAT IS OUR GREATEST RISK?

USE AND APPLICATION OF THE TEXAS PUBLIC HEALTH RISK ASSESSMENT TOOL

Jennifer M. Griffith, DrPH, MPH
Bruce Clements, MPH
Michael Felan
Jennifer Kiger, MPH
TODAY’S SESSION

- History of the Texas Tool
- Interpretation and Application
  - County Profiles
  - Regional Profiles
  - Mitigation Planning Process
  - Intervention Strategies and Activities Document
- Regional Perspectives
  - Dallas MSA
  - Houston MSA
- Next Steps
Development and Testing

Tool Completion

Mitigation Planning

Evaluation

Interpretation and Application
HISTORY OF THE TEXAS TOOL
PUBLIC HEALTH EMERGENCY PREPAREDNESS PROGRAM (PHEP)
CAPABILITY 1: COMMUNITY PREPAREDNESS

“...the ability of communities to prepare for, withstand, and recover — in both the short and long terms — from public health incidents. By engaging and coordinating...”

- Develop public health, medical and behavioral health system recovery capacity
- Participate in awareness training
- Promote access to health and medical resources
- Support functional needs of at-risk individuals
- Identify populations at higher risk
- Address health needs of displaced populations
PROJECT BACKGROUND

Community Preparedness:
Function 1: Determine risks to the health of the jurisdiction

- Available Risk Assessment Tools did not fully meet needs
  - UCLA Hazard Risk Assessment Instrument
  - Kaiser-Permanente’s Hazard Vulnerability Assessment

- As a result, Texas DSHS and local jurisdictions began developing an expanded, public health oriented, evidenced-based tool to meet CDC requirements and stakeholders’ needs
TXPHRAT DEVELOPMENT TEAM

- **Local Public Health:** City of Houston, Cameron County and Williamson County
- **Regional Public Health:** DSHS HSRs 1, 2/3, and 6/5 South
- **Emergency Management:** Texas Division of Emergency Management
- **Homeland Security:** Texas Department of Public Safety
- **State Public Health:** DSHS Community Preparedness Section
- **Healthcare Systems:** Texas Hospital Association, Southeast Texas Regional Advisory Council
- **Mental Health:** DSHS Disaster Behavioral Health Services
- **Academia:** Texas A&M School of Rural Public Health, University of Texas at Austin
TXPHRAT DEVELOPMENTAL OBJECTIVES

- Includes impact on:
  - Public Health
  - Healthcare
  - Mental Health
- Measures the positive effect of mitigation efforts
- Informed by science
- Minimizes measurement subjectivity
TXPHRAT METHODOLOGY

- **Risk Equation:**
  Residual Risk = Hazard Probability × Severity of Consequences Mitigation

- **Severity** is a product of the population’s vulnerability to the hazard and its impact on health.

- **Mitigation** is the sum of the jurisdiction’s capability to respond, resources available to respond, and resilience of the community.

- **Benefit** as public health mitigation and preparedness interventions are implemented, risk reductions can be tracked over time.
TXPHRAT Pre-Loaded Data

- Annual hazard frequencies to calculate probability
- Social vulnerability indices (e.g. income, age, housing)
- Hazard-related morbidity, mortality, and other health indicators to measure impact

By pre-populating data in the risk assessment tool, user subjectivity, bias, and error is reduced.
JURISDICTIONAL INPUT

- Measures progress towards meeting CDC Public Health Preparedness Capabilities
  - Assess capability status on a Likert scale
  - Scores are then weighted relative to each hazard (e.g. laboratory response capability is more applicable to a food-borne disease outbreak than a tornado)

- Resources available to mitigate/respond
  - Determine what infrastructure is in place (e.g. staff, technology, equipment, etc.)
TPHRAT BENEFITS

- Provides an accurate assessment of relative risk from jurisdiction to jurisdiction
- Demonstrates Texas’ risk as it relates to public health, medical and behavioral health in a compelling fashion
- Tracks progress towards reducing risk over time
- Assign a dollar value to interventions and resources in relation to their effect on mitigating a hazard
TPHRAT PRODUCTS

- Risk Assessment Chart
- Hazard Risk Ranking
- Capabilities Gap Analysis
- Resources Gap Analysis
# Risk Assessment Chart

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Probability Score (0-5)</th>
<th>Social Vulnerability Index (1-4)</th>
<th>Critical Infrastructure and Key Resources Factor (1-2)</th>
<th>Public Health Impact Score (0-4)</th>
<th>Healthcare Impact Score (0-4)</th>
<th>Behavioral Health Impact Score (0-4)</th>
<th>Hazard Risk Index</th>
<th>Capabilities Preparedness Index (1-4)</th>
<th>Resources Available Score (1-4)</th>
<th>Community Resilience Score (1-4)</th>
<th>Residual Risk Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurricane/Tropical Storm</td>
<td>3.00</td>
<td>2.677</td>
<td>1.00</td>
<td>2.0780</td>
<td>0.2804</td>
<td>3.0</td>
<td>4.30</td>
<td>4.07</td>
<td>2.00</td>
<td>1.00</td>
<td>0.61</td>
</tr>
<tr>
<td>Hazardous Materials Incident (Fixed Facility)</td>
<td>4.66</td>
<td>2.677</td>
<td>1.00</td>
<td>1.4300</td>
<td>0.2802</td>
<td>1.2</td>
<td>3.63</td>
<td>4.01</td>
<td>2.00</td>
<td>1.00</td>
<td>0.52</td>
</tr>
<tr>
<td>Pandemic Influenza</td>
<td>1.25</td>
<td>2.677</td>
<td>1.00</td>
<td>2.8357</td>
<td>2.8030</td>
<td>3.5</td>
<td>3.06</td>
<td>3.99</td>
<td>2.00</td>
<td>1.00</td>
<td>0.44</td>
</tr>
<tr>
<td>Tornado</td>
<td>3.00</td>
<td>2.677</td>
<td>1.00</td>
<td>1.2552</td>
<td>0.1954</td>
<td>2.1</td>
<td>2.85</td>
<td>4.08</td>
<td>2.00</td>
<td>1.00</td>
<td>0.40</td>
</tr>
<tr>
<td>Storm Surge</td>
<td>3.00</td>
<td>2.677</td>
<td>1.00</td>
<td>0.1890</td>
<td>0.0001</td>
<td>3.0</td>
<td>2.56</td>
<td>4.00</td>
<td>2.00</td>
<td>1.00</td>
<td>0.37</td>
</tr>
<tr>
<td>Biological Terrorism (Communicable)</td>
<td>0.75</td>
<td>2.677</td>
<td>1.00</td>
<td>2.4054</td>
<td>3.8336</td>
<td>3.8</td>
<td>2.02</td>
<td>3.99</td>
<td>2.00</td>
<td>1.00</td>
<td>0.29</td>
</tr>
<tr>
<td>Biological Terrorism (Non-Communicable)</td>
<td>0.75</td>
<td>2.677</td>
<td>1.00</td>
<td>2.5130</td>
<td>3.4019</td>
<td>3.5</td>
<td>1.89</td>
<td>3.99</td>
<td>1.00</td>
<td>1.00</td>
<td>0.32</td>
</tr>
<tr>
<td>Wildfire</td>
<td>3.00</td>
<td>2.677</td>
<td>1.00</td>
<td>1.1188</td>
<td>0.0471</td>
<td>1.0</td>
<td>1.74</td>
<td>4.08</td>
<td>2.00</td>
<td>1.00</td>
<td>0.25</td>
</tr>
<tr>
<td>Sewer Failure</td>
<td>5.00</td>
<td>2.677</td>
<td>1.00</td>
<td>0.7237</td>
<td>0.0000</td>
<td>0.5</td>
<td>1.64</td>
<td>3.98</td>
<td>2.00</td>
<td>1.00</td>
<td>0.23</td>
</tr>
<tr>
<td>Food Borne Disease</td>
<td>3.00</td>
<td>2.677</td>
<td>1.00</td>
<td>1.3269</td>
<td>0.4662</td>
<td>0.2</td>
<td>1.60</td>
<td>3.99</td>
<td>2.00</td>
<td>1.00</td>
<td>0.23</td>
</tr>
<tr>
<td>Flood</td>
<td>3.00</td>
<td>2.677</td>
<td>1.00</td>
<td>0.6554</td>
<td>0.0049</td>
<td>1.3</td>
<td>1.53</td>
<td>4.01</td>
<td>2.00</td>
<td>1.00</td>
<td>0.22</td>
</tr>
<tr>
<td>Conventional Terrorism</td>
<td>0.75</td>
<td>2.677</td>
<td>1.00</td>
<td>1.6049</td>
<td>1.9375</td>
<td>4.0</td>
<td>1.51</td>
<td>4.00</td>
<td>2.00</td>
<td>1.00</td>
<td>0.22</td>
</tr>
<tr>
<td>Fires (Large-Scale)</td>
<td>5.00</td>
<td>2.677</td>
<td>1.00</td>
<td>0.6035</td>
<td>0.2660</td>
<td>0.3</td>
<td>1.50</td>
<td>4.06</td>
<td>2.00</td>
<td>1.00</td>
<td>0.21</td>
</tr>
<tr>
<td>Chemical Terrorism</td>
<td>0.75</td>
<td>2.677</td>
<td>1.00</td>
<td>1.9185</td>
<td>1.8007</td>
<td>3.5</td>
<td>1.45</td>
<td>4.05</td>
<td>2.00</td>
<td>1.00</td>
<td>0.21</td>
</tr>
</tbody>
</table>
HAZARD RISK RANKING

Hazard Risk Indices:
CAPABILITIES GAP ANALYSIS

Capabilities Gap Analysis

- Hazard Risk Weighted Capability Goal
- Hazard Risk Weighted Capability Assessment
- Gap between Assessment and Goal
Resources Gap Analysis
INTERPRETATION AND APPLICATION
Texas Tool
MITIGATION PLANNING PROCESS

**Inputs**
- TPHRAT Tool
- Capability Data
- Resource Data
- Stakeholders
- Funding

**Activities**
- Complete TPHRAT Tool for each County
- Summary Profiles for each County
- Create Hazard and Residual Risk Summary for MSA/Region
- Complete Intervention and Activities Document
- Risk Scores
- Capability Gaps
- Resource Gaps
- County Profiles
- MSA Summary
- Intervention and Activities Document

**Outputs**
- County profiles ready for discussion and vetting with intervention and activities document.

**Outcomes**
- Short-Term
  - Begin integration of intervention strategies for implementation.
  - Through increased public health awareness and community engagement, improved ability for communities to prepare for, withstand and recover from public health incidents.
- Intermediate Term
  - Improved mitigation plans with targeted and tailored intervention strategies for implementation.
  - Through increased public health awareness and community engagement, improved ability for communities to prepare for, withstand and recover from public health incidents.
- Long-Term
  - Improved infrastructure and resources.
  - Through increased public health awareness and community engagement, improved ability for communities to prepare for, withstand and recover from public health incidents.

**Phase 1**
- County Profile Documents
- Intervention and Activities Document
- Stakeholders

**Phase 2**
- Meeting with Stakeholders to vet profiles and identify intervention and activities.

**Phase 3**
- Identified Intervention Strategies
- Stakeholders
- Implement selected interventions and activities.

- Infrastructure and resources for vulnerabilities and hazards
# Executive Summary

- **Purpose of Document**
- **Overview of Texas Tool Results**
- **Top Public Health Hazards**
- **Public Health Resources**
- **Public Health Capabilities**
- **Overall**

## Table 1: Texas Tool Results Summary Table

<table>
<thead>
<tr>
<th>Hazard Risk Score Rank</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>--</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Risk Score Rank</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>--</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

## Capability Gap Rank

<table>
<thead>
<tr>
<th>Capability</th>
<th>Function 1</th>
<th>Function 2</th>
<th>Function 3</th>
<th>Function 4</th>
<th>Function 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Supply</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mass Care</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Public Health</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Conventional Terrorism</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Chemical Terrorism</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

## Relative Intensity of Engagement

- **Extreme**
- **Very Limited**
- **Limited**
- **Moderate**
- **High**

<table>
<thead>
<tr>
<th>Hazard Risk Score Rank</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>--</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Gap Rank</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

## CPG Score

- **Score= 1**
- **Score= 2**
- **Score= 3**
- **Score= 4**
- **Score= 5**
## TOP PUBLIC HEALTH HAZARDS

### Table 4: Top Hazards for County

<table>
<thead>
<tr>
<th>Top 5 by Hazard Risk Score</th>
<th>Hazard Risk Score</th>
<th>Top 5 by Residual Risk Score</th>
<th>Residual Risk Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Biological Terrorism (Comm.)</td>
<td>2.73</td>
<td>1  Biological Terrorism (Comm.)</td>
<td>0.31</td>
</tr>
<tr>
<td>2  Biological Terrorism (Non-Comm.)</td>
<td>2.56</td>
<td>2  Biological Terrorism (Non-Comm.)</td>
<td>0.29</td>
</tr>
<tr>
<td>3  Biological Disease Outbreak</td>
<td>2.14</td>
<td>3  Conventional Terrorism</td>
<td>0.26</td>
</tr>
<tr>
<td>4  Pandemic Influenza</td>
<td>2.07</td>
<td>4  Chemical Terrorism</td>
<td>0.25</td>
</tr>
<tr>
<td>5  Conventional Terrorism</td>
<td>2.05</td>
<td>5  Biological Disease Outbreak</td>
<td>0.24</td>
</tr>
</tbody>
</table>
# Public Health Resources

## Table 8. Resource Scores by Hazard

<table>
<thead>
<tr>
<th>Hazard List</th>
<th>Needed Resource Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Disease Outbreak</td>
<td>3</td>
</tr>
<tr>
<td>Agroterrorism</td>
<td>2</td>
</tr>
<tr>
<td>Air Quality (ozone/pollution advisories)</td>
<td>3</td>
</tr>
<tr>
<td>Biological Disease Outbreak</td>
<td>4</td>
</tr>
<tr>
<td>Biological Terrorism (Communicable)</td>
<td>4</td>
</tr>
<tr>
<td>Biological Terrorism (Non-Communicable)</td>
<td>4</td>
</tr>
<tr>
<td>Chemical Terrorism</td>
<td>3</td>
</tr>
<tr>
<td>Civil Disorder</td>
<td>4</td>
</tr>
<tr>
<td>Communications Failure</td>
<td>4</td>
</tr>
<tr>
<td>Conventional Terrorism</td>
<td>3</td>
</tr>
<tr>
<td>Cyber/Technical Incident</td>
<td>4</td>
</tr>
<tr>
<td>Dam Failure</td>
<td>2</td>
</tr>
</tbody>
</table>

![Graph showing resource scores for various hazards](image-url)
## Public Health Capabilities Gap Analysis

### Table 7. Capability Gap Rank Table for County

<table>
<thead>
<tr>
<th>Capability Gap Rank</th>
<th>CDC Capabilities</th>
<th>Hazard Risk Weighted Capability Goal</th>
<th>Hazard Risk Weighted Capability Assessment</th>
<th>Gap between Assessment and Goal</th>
<th>Capability Assessment</th>
<th>Hazard Component Weighted Capability Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capability 10. Medical Surge</td>
<td>683.03</td>
<td>273.21</td>
<td>409.82</td>
<td>2.00</td>
<td>0.40</td>
</tr>
<tr>
<td>2</td>
<td>Capability 7. Mass Care</td>
<td>664.51</td>
<td>299.03</td>
<td>365.48</td>
<td>2.25</td>
<td>0.45</td>
</tr>
<tr>
<td>3</td>
<td>Capability 5. Fatality Management</td>
<td>487.62</td>
<td>156.04</td>
<td>331.58</td>
<td>1.60</td>
<td>0.32</td>
</tr>
<tr>
<td>4</td>
<td>Capability 14. Responder Safety &amp; Health</td>
<td>635.16</td>
<td>381.09</td>
<td>254.06</td>
<td>3.00</td>
<td>0.60</td>
</tr>
<tr>
<td>5</td>
<td>Capability 9. Medical Materiel Management &amp; Distribution</td>
<td>599.88</td>
<td>359.95</td>
<td>239.95</td>
<td>3.00</td>
<td>0.60</td>
</tr>
<tr>
<td>6</td>
<td>Capability 1. Community Preparedness</td>
<td>926.99</td>
<td>787.90</td>
<td>139.05</td>
<td>4.25</td>
<td>0.85</td>
</tr>
<tr>
<td>7</td>
<td>Capability 2. Community Recovery</td>
<td>687.64</td>
<td>550.12</td>
<td>137.53</td>
<td>4.00</td>
<td>0.80</td>
</tr>
<tr>
<td>8</td>
<td>Capability 11. Non-Pharmaceutical Interventions</td>
<td>507.61</td>
<td>406.05</td>
<td>101.52</td>
<td>4.00</td>
<td>0.80</td>
</tr>
<tr>
<td>9</td>
<td>Capability 13. Public Health Surveillance &amp; Epidemiological investigation</td>
<td>769.54</td>
<td>731.07</td>
<td>38.48</td>
<td>4.75</td>
<td>0.95</td>
</tr>
<tr>
<td>10</td>
<td>Capability 3. Emergency Operations Coordination</td>
<td>664.98</td>
<td>638.38</td>
<td>26.60</td>
<td>4.80</td>
<td>0.96</td>
</tr>
<tr>
<td>11</td>
<td>Capability 4. Emergency Public Information &amp; Warning</td>
<td>585.21</td>
<td>585.21</td>
<td>0.00</td>
<td>5.00</td>
<td>1.00</td>
</tr>
<tr>
<td>12</td>
<td>Capability 6. Information Sharing</td>
<td>637.12</td>
<td>637.12</td>
<td>0.00</td>
<td>5.00</td>
<td>1.00</td>
</tr>
<tr>
<td>13</td>
<td>Capability 8. Medical Countermeasure Dispensing</td>
<td>599.88</td>
<td>599.88</td>
<td>0.00</td>
<td>5.00</td>
<td>1.00</td>
</tr>
<tr>
<td>14</td>
<td>Capability 12. Public Health Laboratory Testing</td>
<td>507.04</td>
<td>507.04</td>
<td>0.00</td>
<td>5.00</td>
<td>1.00</td>
</tr>
<tr>
<td>15</td>
<td>Capability 15. Volunteer Management</td>
<td>706.61</td>
<td>706.61</td>
<td>0.00</td>
<td>5.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>
COMPARISONS

CAPABILITY PREPAREDNESS INDEX

County's Capability Preparedness Index of 3.91 for Biological Terrorism (Communicable) is more than +0.5 standard deviations of the Region 3 mean of 2.91 ± 0.50 (range 2.65-4.27).
MITIGATION PLANNING PROCESS

AREAS FOR CONSIDERATION IN MITIGATION PLANNING

Data from the Texas Tool and accompanying results have highlighted several areas to consider for mitigation planning. Using the accompanying “Intervention Strategies and Activities” document, the County might consider selecting strategies and activities for its mitigation plan that address the following areas.

TOP HAZARDS

- Biological Terrorism (Communicable)
- Biological Terrorism (Non-Communicable)
- Biological Disease Outbreak
- Pandemic Influenza
- Conventional Terrorism
- Chemical Terrorism

TOP CAPABILITY GAPS

- Medical Surge
- Mass Care
- Fatality Management
- Responder Safety
REGIONAL PROFILES

Top Public Health Capability Gaps

Top Public Health Hazards

Regional Maps

Mitigation Planning Process
TOP PUBLIC HEALTH CAPABILITY GAPS

- Capability 1. Community Preparedness
- Capability 14. Responder Safety & Health

- Capability 4. Emergency Public Information & Warning
# Top Public Health Hazards

<table>
<thead>
<tr>
<th>Rank Based on Hazard Risk Score</th>
<th>Rank Based on Residual Risk Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1    Hurricane/Tropical Storm</td>
<td>1    Hurricane/Tropical Storm</td>
</tr>
<tr>
<td>2    Pandemic Influenza</td>
<td>2    Pandemic Influenza</td>
</tr>
<tr>
<td>3    Biological Terrorism (Communicable)</td>
<td>3    Biological Terrorism (Communicable)</td>
</tr>
<tr>
<td>4    Tornado</td>
<td>4    Tornado</td>
</tr>
<tr>
<td>5    Biological Terrorism (Non-Communicable)</td>
<td>5    Biological Terrorism (Non-Communicable)</td>
</tr>
<tr>
<td>6    Hazardous Materials Incident (Fixed Facility)</td>
<td>6    Hazardous Materials Incident (Fixed Facility)</td>
</tr>
<tr>
<td>7    Wildfire</td>
<td>7    Mass Population Surge</td>
</tr>
<tr>
<td>8    Mass Population Surge</td>
<td>8    Chemical Terrorism</td>
</tr>
<tr>
<td>9    Conventional Terrorism</td>
<td>9    Wildfire</td>
</tr>
<tr>
<td>10   Flood AND Storm Surge</td>
<td>10   Conventional Terrorism</td>
</tr>
</tbody>
</table>
REGIONAL MAPS
MITIGATION PLANNING PROCESS

AREAS FOR CONSIDERATION IN MITIGATION PLANNING

Data from the Texas Tool and accompanying results have highlighted several areas to consider for mitigation planning. Using the accompanying “Intervention Strategies and Activities” document, the Houston MSA-Health Service Region 6/5S might consider selecting strategies and activities for its mitigation plan that address the following areas.

TOP HAZARDS

1. Hurricane/Tropical Storm
2. Pandemic Influenza
3. Biological Terrorism (Communicable)
4. Tornado
5. Biological Terrorism (Non-Communicable)

TOP CAPABILITY GAPS

2. Capability 14. Responder Safety & Health
3. Capability 2. Community Recovery
**Mitigation Planning Process**

**Inputs**
- TPHRAT Tool
- Capability Data
- Resource Data
- Stakeholders
- Funding

**Activities**
- Complete TPHRAT Tool for each County
- Summary Profiles for each County
- Create Hazard and Residual Risk Summary for MSA/Region
- Complete Intervention and Activities Document

**Outputs**
- Risk Scores
- Capability Gaps
- Resource Gaps
- County Profiles
- MSA Summary
- Intervention and Activities Document

**Outcomes**
- County profiles ready for discussion and vetting with intervention and activities document.
- Begin integration of intervention strategies for implementation.

**Phase 1**
- Through increased public health awareness and community engagement, improved ability for communities to prepare for, withstand and recover from public health incidents.

---

**Phase 2**
- County Profile Documents
- Intervention and Activities Document
- Stakeholders

- Meeting with Stakeholders to vet profiles and identify intervention and activities.

- Targeted and tailored interventions and activities identified.

- Improved mitigation plans with targeted and tailored intervention strategies for implementation.

**Short-Term**
- Through increased public health awareness and community engagement, improved ability for communities to prepare for, withstand and recover from public health incidents.

**Intermediate Term**
- Through increased public health awareness and community engagement, improved ability for communities to prepare for, withstand and recover from public health incidents.

**Long-Term**
- Through increased public health awareness and community engagement, improved ability for communities to prepare for, withstand and recover from public health incidents.

---

**Phase 3**
- Identified Intervention Strategies
- Stakeholders

- Implement selected interventions and activities.

- Infrastructure and resources for vulnerabilities and hazards

- Improved infrastructure and resources.
INTERVENTION STRATEGIES AND ACTIVITIES

VERSION 2

PREPARED BY:
OFFICE OF SPECIAL PROGRAMS
MITIGATION PLANNING PROCESS

Phase 1
- **Inputs**
  - TPHRAT Tool
  - Capability Data
  - Resource Data
  - Stakeholders
  - Funding
- **Activities**
  - Complete TPHRAT Tool for each County
  - Summary Profiles for each County
  - Create Hazard and Residual Risk Summary for MSA/Region
  - Complete Intervention and Activities Document
- **Outputs**
  - Risk Scores
  - Capability Gaps
  - Resource Gaps
  - County Profiles
  - MSA Summary
  - Intervention and Activities Document
- **Outcomes**
  - County profiles ready for discussion and vetting with intervention and activities document.

Phase 2
- **Inputs**
- **Activities**
  - Meeting with Stakeholders to vet profiles and identify intervention and activities.
- **Outputs**
  - Targeted and tailored interventions and activities identified.
- **Outcomes**
  - Improved mitigation plans with targeted and tailored intervention strategies for implementation.

Phase 3
- **Inputs**
- **Activities**
  - Implement selected interventions and activities.
  - Infrastructure and resources for vulnerabilities and hazards
- **Outputs**
  - Improved infrastructure and resources.
- **Outcomes**
  - Through increased public health awareness and community engagement, improved ability for communities to prepare for, withstand and recover from public health incidents.
TECS-PERLC COUNTY - 2013
CREATE TEXT MESSAGING ACCOUNT TO COMMUNICATE DURING EMERGENCIES
DESCRIPTION
PERLC County will create a text messaging account that allows citizens to subscribe to receive information during emergencies.

LOGIC MODEL OF ACTIVITY/STRATEGY

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Short Term</th>
<th>Intermediate</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Text message service contract</td>
<td>• Identify and secure a vendor for text messaging service.</td>
<td>• Service contract with vendor</td>
<td>• Improved communication during emergencies and non-emergencies through text messaging</td>
<td></td>
<td>• Decreased hazard related illness, injury and mortality</td>
</tr>
<tr>
<td>• Staff responsible for service management; hazard specific messages</td>
<td>• Create protocol and responsibility chart for use of message service.</td>
<td>• List of phone numbers opting into system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Marketing and promotion materials</td>
<td>• Create a marketing campaign to encourage subscription to service</td>
<td>• Number opting-in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Community stakeholders to encourage and market service</td>
<td>• Send messages to test system during a non-emergent event to accustom community to service.</td>
<td>• Test message results</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Community members to opt-in to program</td>
<td></td>
<td>• Number attending flu shot clinic that learned about it from text message</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Test Message for Flu Shot Clinic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANTICIPATED COSTS   ACTUAL COSTS
Personnel 25,000    Personnel x
Equipment 1,200      Equipment x
Supplies 5,000       Supplies x
Contracts 5,000      Contracts x

SUGGESTED FUNDING SOURCES: Discretionary Funds
LEVERAGED FUNDING SOURCES: Partnering with local school districts

ACTION STEPS NEEDED TO COMPLETE ACTIVITY/STRATEGY
1. Identify and secure a vendor for text messaging service.
2. Create protocol and responsibility chart for use of message service.
HEALTH SERVICE REGIONS 2/3
DALLAS MSA– TOP RISKS

1. Biological Terrorism (Comm.)
2. Biological Disease Outbreak
3. Biological Terrorism (Non-Comm.)
4. Pandemic Influenza
5. Tornado
6. Food Borne Disease
7. Conventional Terrorism
8. Chemical Terrorism
9. Wildfire
10. Mass Population Surge
11. Hazardous Materials Incident (Fixed Facility)
12. Flood
13. Fires (Large-Scale)
14. Hazardous Materials Incident (Transport.)
DALLAS MSA PROCESSES

- Steering Committee Formed
- Contract with Texas A&M
- Texas Public Health Risk Assessment Tool (TPHRAT)
- Profiles
- Mitigation Planning
- Intervention Strategies
Dallas MSA Partnerships

- Local Health Departments
- County Judges
- Emergency Management, Homeland Security
  - Law Enforcement and Fire Services
- Cities Readiness Initiative (CRI/SNS)
- Health Care Systems
- Law Enforcement
- Others
DALLAS MSA FUTURE PROJECTS

- Mitigation and Intervention Strategies Conference
- After Action Review
- Participation in TPHRAT Version 2 Development
- Other Next Steps
**REGION 6/5 SOUTH**

- 16 counties
- MSA: 11 jurisdictions
- Population: > 6 million
REGION 6/5 SOUTH – STEPS TAKEN

- Steering Committee Formed (December 2011)
- Project Charter Developed (February 2012)
- Texas Public Health Risk Assessment Tool (TPHRAT) completed (August 2012)
- Contract with Texas A&M (September 2012)
- Profiles (December 2012)
- Region wide Stakeholder meeting (January 2013)
# REGION 6/5 SOUTH – TOP RISKS

<table>
<thead>
<tr>
<th>Risk Based on Hazard Risk Score</th>
<th>Risk Based on Residual Risk Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hurricane/Tropical Storm</td>
<td>1. Hurricane/Tropical Storm</td>
</tr>
<tr>
<td>2. Pandemic Influenza</td>
<td>2. Pandemic Influenza</td>
</tr>
<tr>
<td>3. Biological Terrorism (Communicable)</td>
<td>3. Biological Terrorism (Communicable)</td>
</tr>
<tr>
<td>4. Tornado</td>
<td>4. Tornado</td>
</tr>
<tr>
<td>5. Biological Terrorism (Non-Communicable)</td>
<td>5. Biological Terrorism (Non-Communicable)</td>
</tr>
<tr>
<td>10. Flood AND Storm Surge</td>
<td>10. Conventional Terrorism</td>
</tr>
</tbody>
</table>
REGION 6/5 SOUTH – STAKEHOLDER MEETING

- January 15, 2013
- Agenda
- Benefits:
  - New partnerships formed
  - Increased awareness of PH’s role
- Online webinar
Mitigation Planning – Ongoing
- Based on Capability gaps more than risks
- Focus on All Hazards approach
- Examples of ideas

Evaluation Plan (May 2013)
- Share lessons learned and outcomes with the rest of the state

TPHRAT Version 2.0
Next Steps
● Continued mitigation planning in Regions and Counties
● Interest by CDC in Texas Tool and related documents and processes
● Revisions and finalizing Version 2.0 of the tool
QUESTIONS?