Learning Objectives

1: Understand value of exercises in incident response

2: Learn how PREP platform allows for in-person, remote exercises

3: Review how role-based participant exercises improve simulation realism
Are you ready for?

45 L live wild poliovirus accidental released

Risks and Challenges

At Risk

- Public health:
  - Unvaccinated groups directly exposed -> potential silent carriers
  - Ingestion risk of contaminated water in Belgium (swimming)
  - Ingestion of contaminated seafood
- Policy: Europe’s polio-free status (2002)
  Polio Eradication campaign endpoint
- Economy: Impact to company, impact to Polio eradication budget

Additional challenges

- Risk assessment of release had not been done in advance
- Dutch communities potentially-exposed have <90% vaccine coverage
- Binational impact: Belgium, Netherlands
- IPV used in these countries does not prevent infection, just disease
Are you ready for?

What is Readiness?
What is Readiness?

Have you evaluated the worst-case scenario?

Do you have a written plan?

Have you exercised and revised the plan?

Are team members trained on roles in emergencies?

Do you review incidents & update plans based on lessons learned?

Ensuring BioChem Readiness (BCR)

1) Develop Readiness Leaders

2) Multiyear strategy
   • Progressive approach
   • Capability-based
   • Update strategy regularly

3) TTX & planning workshops

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<tr>
<th>Capabilities</th>
<th>2018 Events</th>
<th>2019 Events</th>
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<td>January</td>
<td>February</td>
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<tr>
<td>Communication</td>
<td>Planning Workshop</td>
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<td>Risk Assessment</td>
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<td>Strategy Review</td>
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<td>Training Exercise</td>
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Unique BCR Exercise Approach

Components
• HSEEP* Consistent
• Role-based, realistic scenarios
• Map communication
• Participant-led evaluation
• Real-time After Action Reporting

Applications:
• Facility (SOP validation, drills)
• Institution
• Local government
• National
• Multi-national

*HSEEP: Homeland Security Exercise and Evaluation Program

Portal for Readiness Exercises & Planning (PREP™)

Verified, Validated TTX Recording Tool
• Role-based, multi-person
• Data driven
• Remote & in-person
• Secure data collection
• Communication mapping

Report Development
• Immediate After Action Report
• Multiyear Strategy
• Draft plans directly from scenario

Available at no cost online
https://prep.sandia.gov
Multi-year Strategy (MYTEP) in PREP

### Capabilities

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<td>Planning Workshop</td>
<td>Seminar</td>
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### Add Event

- **Event Type:** Planning Workshop
- **Event Name:** Planning workshop for Pandemic Influenza
- **Objectives:**
  1. Identify roles and responsibilities for partner agencies and departments during a large scale outbreak
  2. Develop concept of operations, communication/coordination plans across agencies
  3. Revise this multiyear strategy for plan revisions
- **Completion Date:** 2018/07/01
- **Email Notifications:**
  - [ ] Delete
  - [ ] Cancel
  - [ ] Save changes
So, how would this have helped in Belgium?

Addressing conclusion from the paper:
“National Polio outbreak preparedness plans need strengthening within the European region.
Role Based Scenarios: Public Health

Role Objectives
Current Situation

You have been notified by a local vaccine manufacturer that 45L of concentrated wild type poliovirus was accidentally released into the sewage system earlier today. The waterways impacted are frequently used by the community for swimming, boating and fishing.

Questions

1. What is your role in this situation?
2. At what point in time would you make a statement to the public?
3. Is there a protocol to handle situations like this?
4. Who would you contact at this time? Would you contact any international organizations?

Role Based Scenarios: Plant Manager

Role Objectives
Current Situation

One of your employees calls you and says: “Some infectious wild type poliovirus particles were accidentally released into the sewage system while cleaning some used vials. Could you please come to the laboratory?”

Questions

1. What actions do you take upon receiving this information?
2. Is there a protocol to handle accidental viral releases?
3. Would you contact any government agencies at this point in time?
Role Based Scenarios: WHO

WHO
Role Objectives
Current Situation

You see a tweet from an environmental health watchdog group that there are cases of polio in Belgium after an accidental release from a vaccine manufacturing plant.

Questions

1. Whom would you contact to verify this rumor? (please use the communication tool if contacting another player)

2. What actions would you take based on this information?

3. Do you have a standard protocol for addressing polio releases? for addressing social media postings?

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Hotwash: Participant-Led Evaluation, Data Collection At Each Step

Example: Plant Manager Hotwash after first phase

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tr>
<td>What were your major strengths for this phase?</td>
<td>1. Laboratory staff immediately notified management regarding the accident</td>
</tr>
<tr>
<td>What were your major areas for improvement?</td>
<td>2. Laboratory manager immediately reported incident to public health</td>
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<td>3. Laboratory management met with risk</td>
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<tr>
<td></td>
<td>1. Social media tweet- information leaked prior to risk comm messaging</td>
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<td>2. Lack of written policy for addressing accidental environmental release</td>
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<td>3. No prior modeling on potential impact from such a spill</td>
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</table>
Tracking Communication

WHO

Plant Manager

Public Health

Environmental Lab

EL contacted the plant manager to determine specific coordinates for location of release, map of property and to get permission to gain access to the sewer system for testing.

Reporting Features

Accidental Release from Poliovirus Vaccine Manufacturing Facility: Scenario-based Planning Workshop

Concept of Operations

Vaccine Manufacturing Facility: Accidental Environmental Release Response Plan

Introduction
The facility produces thousands of liters of live poliovirus on a weekly basis. The facility is located in a highly urban area, adjacent to the facility is released into publicly accessible wastewater used for fishing, recreation and feeding. The nearby community has a high vaccination coverage, however, this effort would not prevent transmission, but would prevent disease. To date, no spills have been reported.

Purpose and Scope
Standard protocol calls for dilution of effluent prior to release; however, due to the high impact of an accidental release and the multiplicity of effective water systems, this concept of operations will outline operational response and containment strategies.

Objectives
1. Identify roles and responsibilities for facility, local and national public health agencies, the environmental laboratory coordinating water quality testing, WHO focal point

Assumptions

Description of Attributes

Roles and Responsibilities

Rule 1

Rule 2

Considerations

Plan Review and Access Control
How unique approach would improve readiness for this scenario

Participant Driven Evaluation
- Problems identified & Solutions would be geographically, culturally appropriate and work within the restrictions of the facility, locale

Data Based
- Assessment based on qualitative Data collection throughout event
- Systems-level mapping tool will help improve coordination planning

Reporting Features
- Could be done remotely or in-person
- If TTX, After Action available for all to take back to agencies/facility for immediate follow-up on gaps identified
- If Scenario-Based planning workshop, would have draft CONOPs ready

Take home

Not a matter of if...it is a matter of when.

Drills, plans and exercises are not about checking boxes on what is required or expected; they are about saving lives.

BCR approach and PREP™ provide a structured, easy-to-use and scalable method for developing a systematic readiness program.

https://prep.sandia.gov
Questions and Comments

This just arrived from the exercise evaluation team.

Portal for Readiness Exercises & Planning (PREP™)
Sign up free at https://prep.sandia.gov

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