

Novel Exercise Technology to Improve Incident Response Readiness

Carrie McNeil DVM MPH Sandy Sanzero PhD Todd Noel Kassandra Serna Vibeke Halkjaer-Knudsen PhD

SAND2018-10876 C

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





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

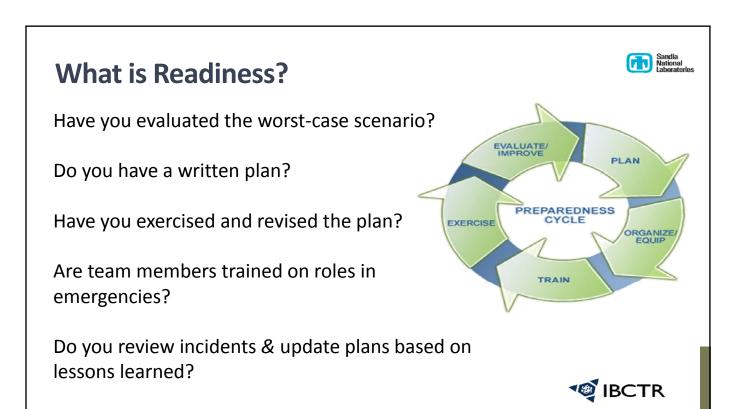
Additional challenges

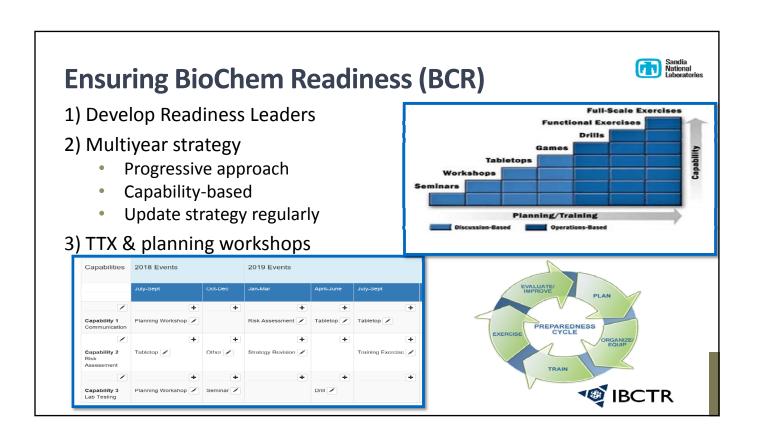
- Risk assessment of release had not been done in advance
- Dutch communities potentially-exposed have <90% vaccine coverage
- Binational impact: Belgium, Netherlands
- IPV used in these countries does not prevent infection, just disease







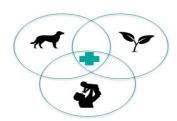




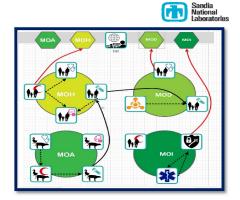
Unique BCR Exercise Approach

Components

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



*HSEEP: Homeland Security Exercise and Evaluation Progra



Applications:

- Facility (SOP validation, drills)
- Institution
- Local government
- **National**
- Multi-national



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

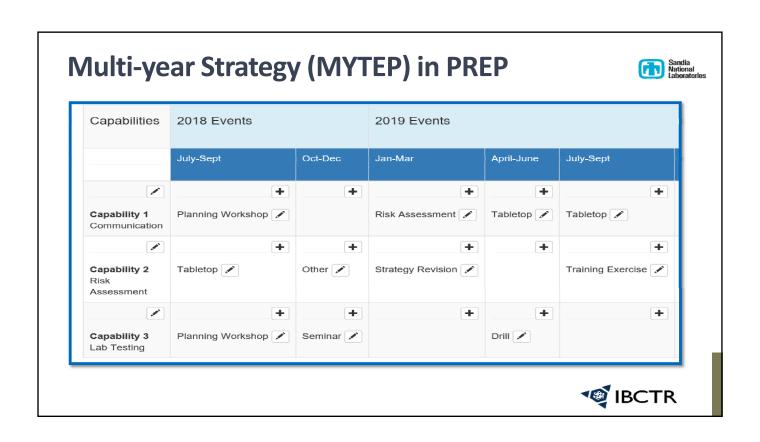
- Immediate After Action Report
- Multiyear Strategy
- Draft plans directly from scenario

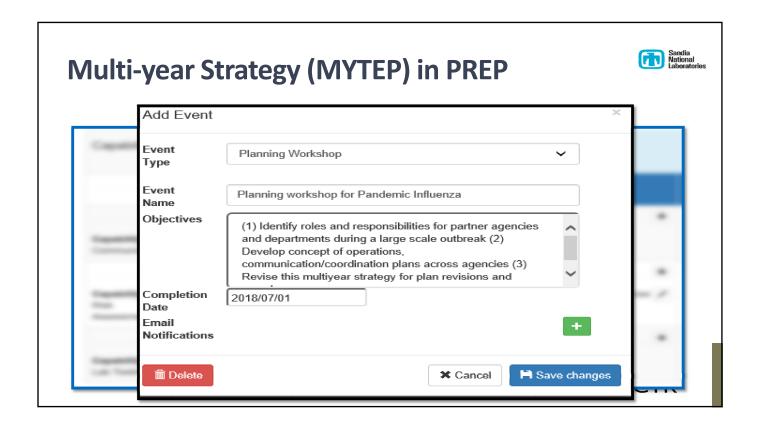
Available at no cost online

https://prep.sandia.gov 19 IBCTR

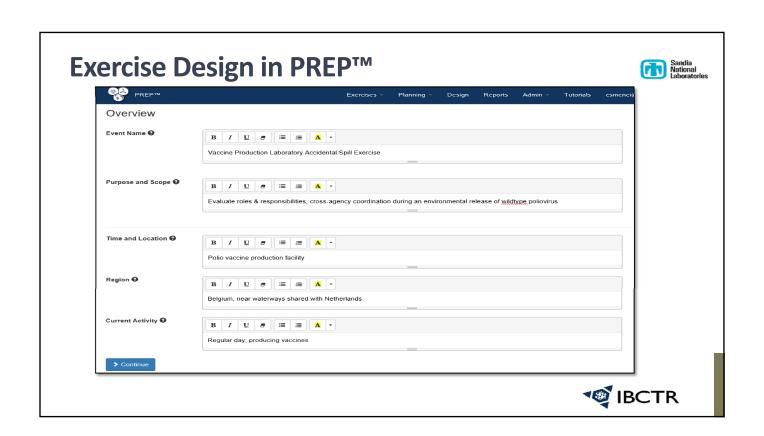






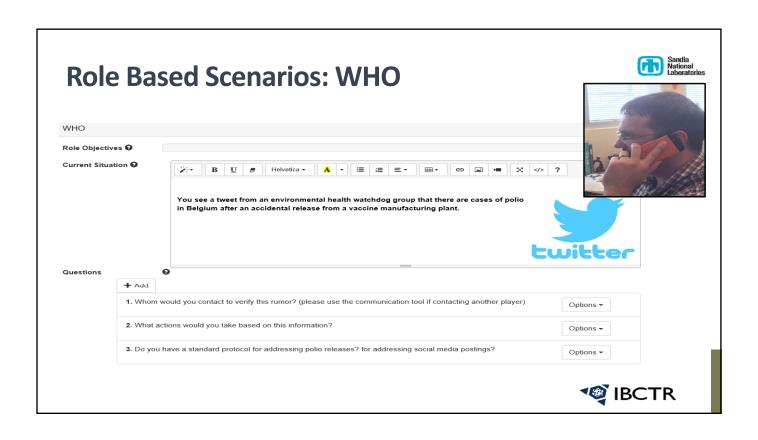


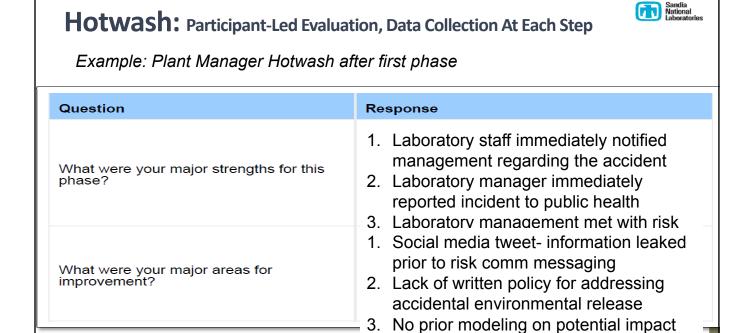
So, how would this have helped in Belgium? FIGURE 1 Timeline showing sampling dates and the risk assessment and risk management process performed in the Netherlands following an accidental release of poliovirus in Belgium, September—November 2014 Accidents Wivy release Reporting of Wivy release Reporting of Wivy release Reporting of Wivy release Reporting of Wivy release Sampling of museels Severage water sampling in Krabbedijke and Stavenisse Severage water sampling in Krabbedijke and Stavenisse Find a management process performed in the Netherlands following and release of poliovirus in Belgium, September—November 2014 Sampling of museels Severage water sampling in Krabbedijke and Stavenisse Find a laboratory result: no Wivy found Addressing conclusion from the paper: "National Polio outbreak preparedness plans need strengthening within the European region.



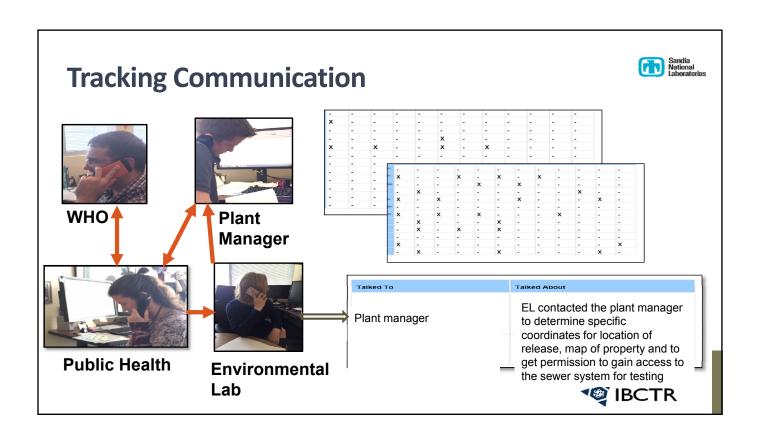


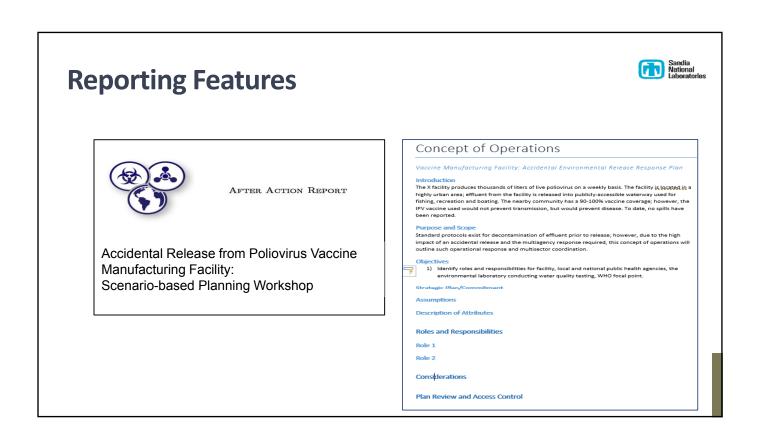






from such a spill





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 🥰 IBCTR







Portal for Readiness Exercises & Planning (PREP™)

Sign up free at https://prep.sandia.gov

Contacts: Sandy Sanzero gsanzer@sandia.gov

Carrie McNeil csmcnei@sandia.gov

Todd Noel tgnoel@sandia.gov

Kassandra Serna kserna@sandia.gov

Special thanks to Vibeke Halkjaer-Knudsen



https://engebbie.files.wordpress.com/2010/08/screwed3.jpg