

Mass Dispensing in a Suburban County

Lessons in a Full-Scale Bioterrorism Exercise



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In May 2005, hypothetically thousands of Southwest Washington residents were exposed to tularemia, a bacterial pathogen considered by CDC to be a “Category A” agent (posing the maximum risk to public health and welfare). In this scenario for a bioterrorism exercise, terrorists had used a primitive dispersal device on a boat to cause sickness and death in people across four counties sharing a common waterway.

The mock terrorist activity was part of a full-scale bioterrorism exercise known as the Washington State Annual Bioterrorism Exercise (WASABE) undertaken in Clark, Cowlitz, Skamania, and Wahkiakum counties. The exercise focused on the coordinated response, decision-making process, and integration and communication among local and state public health agencies, emergency management, local hospitals, first responders, and law enforcement. This exercise also tested the use of the Strategic National Stockpile (SNS) and mass prophylaxis dispensing clinics in an emergency response. The SNS program coordinates the rapid shipment of large quantities of medicine, vaccine, and other supplies to states facing a catastrophic emergency and at risk of exhausting local and state supplies.

During the exercise, the Clark County Health Department discovered that activating and operating a mass prophylaxis dispensing clinic presented different challenges than running a traditional public health clinic, such

as a flu vaccination clinic, due to the difference in numbers of people prophylaxed, need for collaboration with state partners and law enforcement, time dependence, and unfamiliarity with the agent at play.

POD selection and organization

As part of emergency preparedness activities, each local health jurisdiction identified and selected the appropriate number of “point of distribution” (POD) sites. A county with a large population will

have multiple sites, whereas a less populated county may require only one POD. In Clark County, the sites were selected in collaboration with local fire department and law enforcement, and memorandums of agreement (MOA) with the various POD locations were obtained. For the WASABE exercise, the Clark County Health Department tested only one POD for the general public mass dispensing clinic. A local hospital and emergency responders also established their individual sites to test their medication dispensing plans for their staff. The POD site used by public health was the gymnasium of a centrally located public high school in the city of Vancouver. More than fifty health department personnel and a few volunteers staffed this mass dispensing clinic.

Job action sheets and just-in-time training instructions, both components of the health department’s emergency response plan, served to quickly train POD staff about their job responsibilities and duties at the clinic.

To simulate prophylaxis with antibiotics, M&M candies were used to represent doxycycline or ciprofloxacin, with the choice depending on age, risk factors, and contraindications. Prior to receiving the “medication,” patients filled out a form that collected their name, demographic information, contact information, and a brief health history. Local law enforcement provided site security at the POD.

POD operation and challenges

As health department staff set up the POD, hundreds of student volunteers playing the role of the general public lined up outside the school gymnasium. The students were recruited with help from the school principal; an incentive, provided by the school, was offered if they chose to volunteer. A few students were preselected to display signs and symptoms of illness, while others from a college mass media class played reporters, demanding interviews and answers. The sense of urgency generated by these conditions coupled with a lack of preparatory time for the POD staff to thoroughly read the job action sheet details prior to the start of the clinic fueled a sense of frustration and disorganization early in the process. As a result, staff became confused as to their specific duties, while the POD manager struggled to untangle the confusion as it escalated.

What is a POD?

A “point of distribution” (POD) site is a centralized location to distribute medicine to large numbers of asymptomatic people who may be at risk for illness during a large-scale public health emergency. Medicines or other health-protecting supplies are dispensed from one or more PODs. By establishing various POD sites throughout a community, healthy people can efficiently access preventive treatments while freeing hospitals to treat the injured and ill. Potential POD sites include community centers, schools, and churches.

Another stressor facing POD staff was the artificially compressed time frame of the exercise to quickly set up tables, place signage, and direct traffic flow in order to efficiently and quickly move people through the dispensing process (Figure 1).

When the only cell phone available at the clinic quit working, communication with the departmental operations center (DOC) became impossible. One should therefore not depend on cell phones, as under the best of circumstances they often fail, and planning should expect this to happen. Fortunately, a volunteer team of short-wave radio operators located at the POD and the Department Operation Center (DOC) restored communication. This example of a communication breakdown emphasizes the importance of redundant communication systems between the POD and DOC.

During a large-scale public health emergency, law enforcement will face a particular challenge in protecting POD staff, equipment, and supplies. The public's fear and frustration may incite rioting or excessive traffic congestion at the POD. The establishment and management of multiple POD sites across a community, including operating them for 24 hours a day over several days, further complicates law enforcement and POD management duties.

Key lessons learned

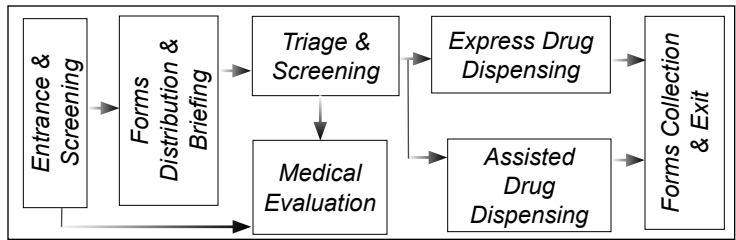
This exercise provided three key lessons learned. The first is that all staff need to understand and be proficient in the basic incident command system (ICS). Without applied practice, classroom or Web learning of ICS is inadequate preparation for applying ICS during a real event. Communication breakdowns and uncertain lines of authority created problems in the clinic operations. At times, staff was uncertain about their specific duties, and this led to second-guessing established protocols.

Second, individuals designated as POD managers should have applied and advanced training and experience with ICS and possess the ability to delegate responsibilities within this system, including having individuals monitor the medicine inventory, anticipating staffing needs, and maintaining communication with the DOC. Essential POD manager duties during the exercise include: site set-up, staff management and just-in-time-training, traffic management, security coordination, communication coordination, and inventory management. Frequent communication with the DOC is critical in order to stay informed about new developments, monitor clinic inventory, redeploy the SNS assets to other locations, and request additional supplies as needed. Had we held more frequent briefings, staff would have better understood the circumstances and, consequently, their response roles. A debrief at the conclusion of the exercise to share lessons learned and recommendations for improvement further highlighted the need for such exchanges throughout the event.

Finally, agencies should institute and exercise a core POD team that is charged with setting up the POD prior to the arrival of the mass clinic staff. This action would allow clinic staff to focus on dispensing preparations,

rather than being stressed about setting up chairs, tables, and signs in the proper sequence. Routine exercises that involve the activation of one or more POD sites would help to increase staff proficiency, while also identifying ways to improve the mass dispensing plan.

Figure 1. Traffic flow in a POD.



Conclusion

What Clark County Health Department learned during its POD activation—the unexpected challenges and lack of anticipation, resource limitations, and staffing needs—is transforming the department's approach to planning for emergency preparedness and response. The discovery of our insufficiencies and the brief experience of the stress evoked during an emergency demonstrated the importance of practicing and revising plans.

The health department's next step is to hold quarterly drills on smaller components of the mass dispensing plan in collaboration with other health departments in the region. The drills may range from as little as ten minutes—such as locating the plan and identifying who to begin contacting, to several hours—which may include reviewing the procedure to set up a POD. These smaller drills will improve on efficiencies and competencies without the enormous time demands of a large event exercise.

Public health has entered a new world of emergency preparedness and response, and we need to make rapid progress in order to meet these challenges and minimize community morbidity and mortality in the event of a natural or intentional disaster. One way to accelerate this process comes from participating in a full-scale exercise. The time devoted to such an event will undoubtedly focus and direct emergency preparedness efforts in productive and useful ways. We may want to consider changing the concept of emergency “planning” to one of emergency “practicing,” as the latter holds the key to moving us significantly further ahead in the process. ■

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Resources

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Strategic National Stockpile. CDC. www.bt.cdc.gov/stockpile/.