PRINTER FRIENDLY...

« Go back

Please contact Kerrigan Media for a reprint of this article.

Military Medical Technology
ONLINE EDITION

National Stockpiling

This is not a test. In the event of an actual emergency, the Strategic National Stockpile is there. The SNS keeps a reserve of drugs and supplies to meet the immediate and near-term needs of states affected by either a manmade or natural disaster.

By Kenya McCullum

Founded in 1999, the Strategic National Stockpile (SNS) was created to augment the resources of states during incidents involving bioterrorism. Then called the National Pharmaceutical Stockpile, the program keeps a reserve of drugs and supplies, such as portable ventilators and ancillary equipment used with vaccines, so that when a state does not have enough assets to meet its needs, the stockpile will be able to fill the gap and deliver what the state is lacking.

The stockpile ran smoothly during its infancy as a relatively small, yet dependable, part of the CDC. Then came the September 11th terrorist attacks and, like many government agencies, the function and mission of the program changed—even down to its name.

"The name change was fairly significant to the Strategic National Stockpile because it really did

highlight our strategic importance," said Curtis Weaver, acting director of the Division of Strategic National Stockpile. "After September 11th—after we actually deployed assets—our funding, our scope and our capabilities dramatically increased."

Since that time, the SNS has expanded significantly in both the amount of supplies it houses and the manpower it uses. In order to handle its increased duties, the SNS is now made up of three branches that work together toward the program's mission.

The logistics branch handles all of the physical management and medical logistics of the agency's assets, including the warehousing details such as how assets should be stored and at what temperature.

The response branch manages all of the chaos that occurs during an actual event and its responsibilities include the development of written emergency plans. This branch is made up of staff members who each have dual job responsibilities—one that they perform on a daily basis and one they perform during an emergency.

The program preparedness branch is what is considered "the face of the stockpile" because staff members work directly with state and local health representatives on a regular basis. In the event of an emergency, members of this branch already know state and local first responders personally and have established a working relationship and rapport with them.

Stocking the Stockpile

The SNS depends on a team of scientists to determine which medications should be included in the stockpile. Based on evaluations provided by the logistics branch—such as warehousing requirements and how many pills should be included in a package—the science team decides the types and quantities of assets that will be stockpiled.

The assets chosen by the science team are dispensed through two methods—the 12-hour push package and the managed inventory. The 12-hour push package, as the name suggests, is delivered to the scene of an emergency within 12 hours of SNS approval. The push package includes 130 aluminum containers with a collection of medications and materials that can be used during a wide variety of events. This is the CDC's first line of defense for when it's unclear about the nature and scope of the emergency, but assets are still needed. In addition to deploying assets, the CDC uses these 12 hours to launch investigations in conjunction with state and local health professionals.

"We're providing a very rudimentary resupply structure to a state that's been overwhelmed, or may have had their infrastructure crippled," said Weaver. "The push package is specifically designed so that if the situation is unclear, but we know we have a significant event, we push out assets very rapidly. It's a pretty good cross section of everything that we have; it's a little bit of just about everything, but not necessarily a lot of anything. When people think about the stockpile, a lot of times all they think about is the 12-hour push package, but that represents a very small percentage of what we have."

Once the CDC and the state involved in the emergency have determined the nature of the event—and what the state needs to address the problem—the SNS sends out assets specific to the event, or managed inventory. It's imperative that the SNS works with the state to ensure that not only the right assets are being deployed, but also the right amount of assets. "We very much know that too many assets, or sending help that not needed, is just as much of a problem during an event as not having the right assets," said Andy Demma of the SNS preparedness branch. "The key to any response is close coordination and communication. We want to be

proactive in a collaborative manner."

State Partnerships

The Strategic National Stockpile deploys assets in both a reactive and proactive manner. For reactive events, the CDC is contacted by the state's governor, or other appointed state official, with a request for help. Because deployment of the SNS is threat-driven and threat-specific, the CDC works with the state and local health officials to determine what the problem is, what resources are needed to address it, and what the state is lacking that prevents it from addressing the problem.

Examples of emergencies when SNS was deployed in a reactive manner include the September 11 terrorist attacks, the anthrax attacks in the fall of 2001 and last year's Hurricanes Katrina and Rita. But the SNS doesn't only respond to large-scale events. Earlier this year, New York sought help from the CDC when drummer and dancer Vado Diomande, who made authentic African drums from animal hides, contracted anthrax through goatskins that he brought into the United States from Africa.

The SNS also strives to be proactive about deploying its assets, and often pushes out supplies before a state has the chance to request them. Examples of how the SNS works proactively include when assets were deployed to prepare for the 2004 Democratic and Republican national conventions.

Washington state also has first-hand experience with how proactive the SNS can be. When there was an alleged incident involving anthrax in Tacoma, after the CDC learned about the incident through the media, the agency was quick to offer assets to state health officials. Although Washington has never had an actual emergency when the stockpile was needed, health officials are confident that if they need the SNS deployed, it will rapidly meet their request.

"We recognize that, especially with anything that has a whiff of terrorism, all the TV sets at the White House are going to be on and the president is going to demand action from his agencies. There's going to be no need for us to call them, they'll be calling us," said Dennis Anderson, director of Washington state's Risk and Emergency Management Office. "Assuming that it's just happening here in Washington, or in the Pacific Northwest, we're pretty confident that they have the horsepower and the resources to get us what we need when we need it."

This level of trust in the SNS only comes through close collaboration with each state. The CDC works closely with states by offering regular training exercises and gathering information about the states' specific needs and how the procedures differ during emergencies.

"The big differences between states are their roles and responsibilities. For the most part, it's where one part of the operation ends and the next begins," said Demma. "That's one of the things that make this both interesting and challenging at times—the response in Rhode Island is probably much different than the response in California."

Because the needs of states are so different, state and local health officials work to find the best practices for handling an emergency in their state. For example, in order to ensure that drugs can be dispensed rapidly in densely populated, urban areas, Washington state will test a new program in November 2006 where postal employees will deliver assets. If this experiment proves successful, during an emergency postal employees traveling with armed guards will be expected to deliver all assets along mail routes within 48 hours. Experiments like this one are how states refine their procedures, making them more efficient.

"States have a choice of approaches on how to get the drugs from the CDC into the hands of the people who'll actually be swallowing them. Our approach, under our state law, is for local health officers to be responsible for protecting the public health in their jurisdiction," said Anderson. "We think that in an emergency, they're going to be so swamped with things to do that they don't need to worry about coming to meet us somewhere and pick up drugs. We have a system where they just place orders and we have a contract with a trucking firm that will deliver the drugs and other supplies to the location specified by that local health department."

Another way that states are able to refine their emergency procedures is with the help of the Association of State and Territorial Health Officials (ASTHO), a nonprofit organization that works with state health departments around the country. ASTHO, which offers members technical support and assistance, as well as advice on how to interface with federal agencies, is currently collecting data from members to determine the best practices for handling emergencies—including both those that require the assistance from the SNS and those that can be handled by state stockpiles. ASTHO also encourages members to regularly share their success stories so that other states can adapt these procedures to meet their needs.

"If they're transferable and applicable, one member can benefit from another member's trials, efforts and successes," said Jim Blumenstock, ASTHO's senior principal director of public health protection and preparedness policy. "What is in a state stockpile is more of a customized stash than you would see at a national level, and it has to do with the threats and risks that states need to prepare for, either as a stock gap until the SNS arrives, or to supplement the SNS upon its arrival."

Military Partnerships

In addition to working closely with states, the CDC has always worked closely with DoD, and even stores assets in its facilities. For example, the SNS is currently receiving advice from the military on a shelf life extension program implemented by the DoD to maintain assets. Because the CDC has benefited so much from partnering with the Defense Department, states are also encouraged to work with local military agencies for help with their emergency needs.

"Nearly all states look at their National Guard as an invaluable resource, and as it relates to SNS, use them as a redundant function in both security and distribution. So if states have to guard a warehouse or guard trucks, then they use the National Guard as a backup," said Demma. "We tell local communities that they need to partner with the DoD installations within them, so county X needs to talk to base Y and make sure their response plans are coordinated."

The Strategic National Stockpile has grown tremendously in a short period of time and Weaver expects the agency to take on more responsibilities as time goes on and would like to see the program become even more proactive.

"I would hope for us that we would be a contributor to stopping or fighting a pandemic influenza as we begin to help stockpile things for the nation to respond to that," said Weaver. "I also hope that we continue to be a positive influence on state and local preparedness. Preparedness is not like flipping a switch. It's a constant; you have to work at it all the time. There are different levels of it and you have to work to keep it where you want it—it'll drop and you have to pick it back up. I hope that in the future we will just keep raising that band it fluctuates in higher and higher."