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BEST PRACTICE

Strategic National Stockpile Distribution Planning: Transporting Materials from the Receipt, Store, and Stage Site

PURPOSE

Provides information on the transportation of Strategic National Stockpile (SNS) materials from a state's pre-selected receipt, store, and stage (RSS) location to operating dispensing sites, hospitals, and/or treatment sites.

SUMMARY

States are responsible for transporting the materials between the RSS location(s) to operating dispensing sites, hospitals, and/or treatment sites. States can use state government-owned assets and personnel or outsource this function to a private delivery company. This Best Practice provides state SNS planners with information resources to aid them in developing transportation plans.

DESCRIPTION

Transporting SNS materials from an RSS location to dispensing sites is a complex logistical operation. It requires the movement of tons of material over hundreds of miles to multiple dispensing sites, and the ability to track the movement of these materials throughout the delivery process. State SNS distribution plans must address a range of transportation topics, including: network design issues; driver requirements; pre-planned travel routes; do-not-drive orders; secondary transportation options; transportation management; and outsourcing options.

Transportation Network Design Considerations

The design of the transportation network will affect the number and types of transportation assets needed to deliver SNS materials to dispensing sites. The simplest transportation network involves a single RSS location delivering SNS materials directly to dispensing sites and treatment centers. Some jurisdictions plan to incorporate intermediate distribution sites when moving SNS materials from RSS locations to dispensing sites. Consequently, state's transportation network design and structure will impact transportation plans.

Driver Requirements

State SNS planners should establish basic driver qualifications for transporting SNS materials. At a minimum, planners must ensure drivers have valid driver's licenses, including valid commercial driver's licenses, if appropriate. Planners should consider conducting checks for suspended licenses or warrants for outstanding tickets. Planners should also determine that drivers are familiar with the roadways between the RSS locations and the dispensing sites. If contracting with a private company, state planners should still verify that private company drivers meet these criteria before entering into a formal contract with the company.

The state of Wyoming uses the following to screen potential SNS drivers:

- Extended background check—including address, accident record, traffic convictions, medical examination, and employment history;
- Criminal record check;
- Random drug and alcohol testing;
- Driver compliance with all [Transportation Security Administration](#) (TSA) requirements on Commercial Driver’s License (CDL) [hazard endorsements](#); and
- Successful completion of a skills evaluation for tractor-trailer drivers with less than six months’ experience.

Planning for Ground Delivery

The rapid distribution of the SNS depends on minimizing transit time for pharmaceuticals from the RSS location to the distribution site. To achieve this, state SNS planners develop transportation plans that include:

- Pre-planned travel routes between possible RSS sites and individual dispensing sites;
- Established procedures to implement do-not-drive orders on certain roadways or zones; and
- Secondary transportation options if ground transport becomes impossible.

Several state SNS planners are working with other agencies to utilize their state’s transportation assets:

- Wyoming will use its own transportation assets to move SNS materials to dispensing sites. Its state SNS plan lists how many trucks will be required for SNS distribution and where they are located.
- The Oregon Department of Human Services is working with the Oregon Department of Transportation (ODOT) to establish a SNS delivery system. This system uses ODOT vehicles, drivers, and dispatch centers to deliver materials from the RSS site to dispensing sites.

Pre-Planning Travel Routes

State SNS planners can map out pre-planned routes for ground travel between possible RSS locations and dispensing sites. Planners should identify:

- Primary and secondary routes of travel;
- Key transportation nodes (e.g., bridges, roads, and tunnels); and
- Possible vulnerabilities and choke points along routes and transportation nodes.

In its state plan, the Missouri Department of Health and Senior Services created a map featuring the location of possible RSS and dispensing sites throughout in the state as well as the major US routes and interstate highways connecting them.

Routes should be chosen to optimize distance and travel times. Alternatives should account for and overcome traffic and poor weather conditions.

Identification of primary and secondary travel routes allows officials to adjust plans to conditions at the start of distribution and dispensing operations. Planners could also work with state and local police agencies to arrange for use of high-occupancy vehicle lanes and emergency lanes and roadways.

Once state planners have determined optimum routes between RSS sites and dispensing sites, the appropriate maps, diagrams, and other information can be printed in advance to dispatchers, delivery drivers, and other SNS operations managers.

For security reasons, travel routes between the RSS sites and individual dispensing sites must be held confidential. If states are outsourcing to a private company for pharmaceutical transportation, state SNS planners must coordinate these details with the selected company.

Implementing Do-Not-Drive Orders

Experts suggest that states be prepared to institute do-not-drive orders during the ground transportation of SNS assets to alleviate potential problems caused by traffic and road congestion during distribution. Such orders can be instituted along specific transport routes, or on a region or statewide basis. State planners will need to conduct significant planning with relevant agencies and jurisdictions before an incident occurs in order to implement this option.

State SNS planners will need to work with law enforcement agencies to identify the easiest routes to secure. They must work with public safety officials to develop procedures and guidelines for implementing such an order, including reviews of manpower requirements, reviews of associated legal issues, and stipulation of specific enforcement tools (e.g., fines for violators). Once developed, SNS planners need to exercise implementation of do-not-drive procedures with public safety agencies and government transportation agencies.

If a do-not-drive order is available during SNS operations and SNS plans call for use of private companies to transport materials, representatives of these companies should be included the planning and exercising of this option.

Secondary Transportation Options

State SNS planners will need to develop secondary transportation options in the event roads become so congested that ground transportation to dispensing sites is impossible. Alternate SNS transportation modes will need to be pre-identified.

The National Capital Region's Council of Governments has considered the use of the Washington, DC, [METRO](#) system as a secondary transportation option for SNS.

Under such circumstances, planners may consider the use of helicopters, aircraft, [Amtrak](#), commuter buses and trains, and local mass transit buses and subway systems. In order to use mass transit systems, state and local SNS planners must consider special security considerations, legal issues, and issues of liability.

Managing Transportation Operations

State SNS planners will need to identify procedures and systems for tracking and managing deliveries to dispensing sites. The simplest tracking method is a dispatcher at the RSS location or an operations and a wall chart to record status information on individual deliveries. Planners should pre-identify options for communications between dispatched vehicles and a dispatcher. If radio networks are utilized, planners need to pre-identify frequencies for use by SNS delivery drivers.

The **Wyoming Department of Health** has identified a Transportation Plan Operator (TPO) to track the status of shipments from RSS sites to dispensing sites. The TPO is the equivalent of the dispatcher for shipments to dispensing sites. Planners may wish to provide the TPO with a small staff to provide assistance. Planners can locate the TPO function within a state or local emergency operations center or at the RSS site. Once

dispatched, SNS drivers should provide periodic situational updates and notifications of completed deliveries to the TPO function.

If a private company is used to deliver materials, the TPO position can serve as the primary liaison between the state and the transportation company. In this capacity, the TPO will oversee the company's delivery operations and pass on-going status updates from the company back to state and local officials.

Outsourcing Transportation Operations

Many state planners will find the process of organizing an SNS transportation and delivery system based on government-owned and operated vehicles both difficult and time-consuming. Some states have arranged for the use of private sector assets to augment existing government capabilities, while other jurisdictions have outsourced transport and delivery of SNS assets to dispensing sites entirely.

The use of private delivery companies can reduce the burden of organizing and implementing a delivery system using only government vehicles, drivers, and other assets. At the same time, outsourcing delivery to a private company can be the more expensive option. The decision will ultimately depend upon available resources. Planners choosing to organize and implement a transportation system using government assets and employees can make arrangements with other state and local agencies—such as departments of transportation and/or public works—to use their trucks and drivers in the event of SNS deployment.

Considerations When Using Private Companies

Delivery and logistics companies offer SNS planners multiple advantages over the use of government vehicles and drivers to transport materials to dispensing sites. These include:

- Use of real-time, “off the shelf” inventory management and tracking systems with electronic signatures;
- Familiarity with local transportation routes;
- Capability to transport all types and sizes of cargo;
- Use of personnel licensed to drive commercial transportation vehicles;
- 24-hour a day, 365 days a year operations;
- Maintenance of contracts with air carriers; and
- Applied and tested trucking experience.

Outsourcing delivery also has the advantage of keeping state and local government vehicles and drivers available for other duties during response operations.

Engaging the Private Sector

State SNS planners need to identify and then approach companies capable of meeting the requirements of delivery to dispensing sites. SNS planners can work with state or national trucking associations to identify and engage transport companies. Associations may be able to identify companies that have expertise in delivery of pharmaceuticals, have performed well under previous government contracts, or who are more economical. Many state trucking associations also have contacts in companies and are willing to facilitate contract negotiations with private companies.

Some state SNS planners have also considered using other national delivery companies, as well as smaller, local transportation and pharmaceutical companies for SNS distribution. Any company selected should have experience

The Virginia Department of Health has contracted with [United Parcel Service](#) to distribute SNS materials to dispensing sites and treatment centers.

with the special requirements of pharmaceutical transport (e.g. knowledge about refrigeration requirements).

Contracting for SNS Distribution with the Private Sector

Once a suitable transportation company is identified, state SNS planners will have to negotiate contracts or agreements with the company for activation during an emergency. Such contracts must include special provisions that account for the emergency nature of SNS distribution, including personnel reliability and legal liability. To increase reliability of private company personnel, appropriate officials within state government may agree in the contract to take measures to reduce the risk to contracted employees during SNS distribution operations. Establishing government liability for private drivers injured during SNS operations may require special legislation or funding authorization to implement. This option will be complicated to implement.

State planners may wish to consider such measures as providing personnel with personal protective equipment and medical supplies (including vaccines) before an incident occurs. Without such provisions, drivers may choose to stay home from work as a way of reducing risk to themselves and their families in the wake of a disaster. Workers may request the government provide financial and healthcare benefits to those who become injured or ill as a result of their participation in SNS distribution operations. Preventing injuries or illness by providing protective medications and equipment will be less expensive than the long-term expenses of medical care and liability of workers injured or sickened during dispensing operations. States will need to review contracts periodically as per the provisions of the formal agreement or in response to changing resource availability or circumstances.

Integrating the Private Sector into SNS Operations

States that use private companies for SNS distribution must have personnel designated to communicate and coordinate with companies throughout the entire distribution process. The SNS Operations Management Team or the RSS Site Management Team should include a manager overseeing all aspects of delivery operations. The transportation operations manager will be responsible for receiving information from company managers about SNS asset arrival, communication and coordination with the transportation company upon time of arrival, unloading requirements, delivery locations, and conflict resolution.

RESOURCES

- Centers for Disease Control and Prevention. *Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, Version 10 (Draft)*. June 2005.
([LLIS.gov ID# 14197](#))
- Centers for Disease Control and Prevention. *Strategic National Stockpile Preparedness Course*. 12-16 January 2004.
- Metropolitan Washington Council of Governments. *Regional Emergency Coordination Plan: National Pharmaceutical Stockpile Annex*. 11 Sep 2002.
([LLIS.gov ID# 13493](#))
- Missouri Department of Health and Senior Services. *Missouri's Planning Guide For Local Mass Prophylaxis: Distributing and Dispensing the Strategic National Stockpile: A Guide for Local Planning: Version 2 – DRAFT*. Oct 2003.
http://www.dhss.mo.gov/BT_Response/Redacted_of_K_1_7_Mass_Prophylaxis.doc.
- Wyoming Department of Health. *Strategic National Stockpile Plan*. 1 Jul 2003.

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