

U.S. Strategic National Stockpile: Strategies for Influenza Mitigation



Steven A. Adams, MPH
Deputy Director
Division of Strategic National Stockpile
Centers for Disease Control and Prevention

Influenza A (H1N1) Update Meeting – July 2, 2009



SAFER • HEALTHIER • PEOPLE™



Presentation Overview

- Background on SNS
- SNS Influenza Formulary
- SNS Influenza Materiel Response Planning
- 2009 Influenza A (H1N1) Materiel Response
- SNS Lessons Learned



SAFER • HEALTHIER • PEOPLE™



Strategic National Stockpile Mission:

Deliver critical medical assets to the site of a national emergency

- Work within a cabinet level (PHEMCE) requirements process to assure we have the most appropriate countermeasures
- Create pathways to move the materiel to the area of need in the timeframe that is clinically relevant
- As initial US medical response is local, assure integration with local planning
- Provide technical assistance to assure that state/local partners who receive SNS assets are ready to effectively use them
- Maintain materiel in a manner that assures long term viability



SAFER • HEALTHIER • PEOPLE™



Background

- Program created in 1999
- >\$3.5 Billion portfolio of antibiotics, medical supplies, antidotes, antitoxins, antivirals, vaccines and other pharmaceuticals
- Network of strategically located repositories
- Commercial partnerships for storage, maintenance, and rapid transport
- Federal partnerships for purchasing and security
- Provides extensive training and technical assistance to local officials
- Integrated into broader national Public Health preparedness effort



SAFER • HEALTHIER • PEOPLE™



Formulary Priorities

■ CBRNE*

- Biological - Smallpox, anthrax, botulism, viral hemorrhagic fevers, plague & tularemia
- Chemical – Nerve Agent
- Radiological/Nuclear

■ Non CBRNE

- Pandemic Influenza

*Chemical, Biological, Radiological, Nuclear, Explosive



SAFER • HEALTHIER • PEOPLE™



SNS Pandemic Influenza Formulary



SAFER • HEALTHIER • PEOPLE™



National Antiviral Strategy

Total Antiviral Procurement Goal : 81M - 5 Day Treatment Regimens

- Treatment for 25% of US population (75M regimens)
- Containment reserve (6M regimens)

Joint Federal/State Strategy

- 31M antiviral regimens in state level stockpiles
- 50M antiviral regimens in SNS



SAFER • HEALTHIER • PEOPLE™



Antivirals in SNS

- Prior to Influenza A (H1N1) Response:
 - 50M antiviral regimens in SNS
 - 6M regimens - Strategic Reserve (containment)
 - Up to 2.5M for International Containment
 - Domestic Containment
 - 44M regimens for distribution to 62 project areas*
 - 80:20 ratio - oseltamivir: zanamivir

*50 States, 6 Territories, New York, Los Angeles, Chicago, Washington DC.



SAFER • HEALTHIER • PEOPLE™



Additional Influenza Materiel in SNS

- Respiratory Protective Devices
 - ~100M N95 Respirators
 - ~50M Surgical Masks
- Other PPE
 - Gloves
 - Gowns
 - Face shields
- IV antibiotics: Vancomycin, Levaquin
- Ventilators
- Syringes/Needles



SAFER • HEALTHIER • PEOPLE™



SNS Influenza Response Planning



SAFER • HEALTHIER • PEOPLE™



Organizational Roles

- Public Health Agencies Lead US Government Effort
- Division of Responsibilities
 - Federal (HHS, CDC)
 - Acquisition, Storage, and Deployment of Stockpile
 - Strategic Planning, Guidance, and Direction
 - State
 - Tactical Prioritization
 - Distribution
 - Local
 - Distribution and Dispensing

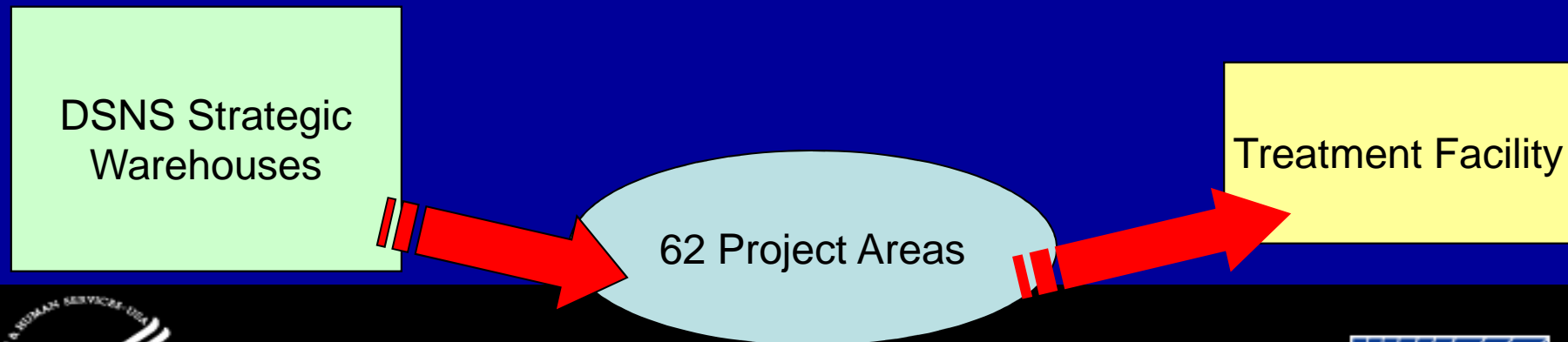


SAFER • HEALTHIER • PEOPLE™



Planning Assumptions

- Intended for Pandemic Influenza Only, Not Seasonal Use
- Intended for Treatment, Not Prophylaxis
- National Response Will Supplement But Not Replace Commercial Supply and Distribution
- Assets Will Deploy Prior to Need (Symptomatic Patients)
- “Push” to 62 Project Areas vs Need Based Ordering
- Allocation Based on Population
- Commercial Transport (Air and Ground)
- 4 Week Delivery Window



SAFER • HEALTHIER • PEOPLE™



Countermeasure Deployment

- Primary Strategy - Metered Package *Pro Rata* Countermeasure Deployment
 - Part 1: 25% of allocated quantities
 - Part 2: Additional 25% of allocated quantities
 - Part 3: Remaining 50% of allocated quantities
- Alternative Strategies – Sequential or Partial Deployment



SAFER • HEALTHIER • PEOPLE™



Countermeasure Deployment Variables

- Antiviral drugs
 - If Indications of Resistance, Have the Flexibility to Hold in SNS
- Ventilators
 - Very Limited Resource with Limited Manufacturing Surge Capacity
 - Maintain Flexibility to Hold From Initial Shipments



SAFER • HEALTHIER • PEOPLE™



SNS Pandemic Planning Challenges

- Federal Challenges
 - Large Physical Quantity of Product (>40,000 pallets)
 - Multiple Strategic Storage Locations
 - Delivery of Assets to 62 Project Areas Simultaneously
 - Coordination of Potentially Scarce Transport Resources
 - Potential Impact of Absenteeism or State Border Closings



SAFER • HEALTHIER • PEOPLE™



SNS Pandemic Planning Challenges

State Challenges

- Intrastate Distribution to Local Facilities
- Push vs Pull strategies
- “Just In Time” Infrastructure
 - States must have RSS (Receive, Stage, and Store) sites available to accept SNS assets
- Adapting All Hazards Framework of Existing SNS Plans and Systems
- Support to Hospitals and Medical Care Facilities Rather Than Ad-Hoc “POD” Based Dispensing



SAFER • HEALTHIER • PEOPLE™



Assistance to State/Local Health Authorities

Guidance provided on:

- State/Local Stockpiling – identify items
- Storage Space Requirements
- Planning for Countermeasure Distribution
 - Formal planning guidance (Version 10)
 - Model commercial contracts for storage and distribution
 - SNS training courses
 - Exercise planning guidance (flu specific) + update
 - State and local technical assistance
 - Surveys/discussions with States regarding distribution plans



SAFER • HEALTHIER • PEOPLE™



2009 Influenza A(H1N1) Materiel Response



SAFER • HEALTHIER • PEOPLE™



Influenza A (H1N1)

SNS Response

- Decision Made to Deploy 25% of SNS Flu Assets
- >10,000 Pallets Shipped to 62 Project Areas Over 7 days
 - ~11M regimens antivirals
 - ~25M N-95 respirators
 - ~12.5M surgical masks
 - gloves, gowns, and face shields
- Support to Mexico
 - Antivirals
 - Logistics Consultation



SAFER • HEALTHIER • PEOPLE™



2009 Influenza A(H1N1) Materiel Response – Lessons Learned



SAFER • HEALTHIER • PEOPLE™



Lessons Learned

- Nature Didn't Follow the Plan
 - Assumptions around expected lead time optimistic
 - Modest overall use of deployed materiel created unanticipated State/Local storage requirement
- The Plan Worked Anyway
 - Successful 7 day “push” to 62 Project Areas
 - Successful sub-distribution to local hospitals and health authorities
 - Years of Federal/State/Local public health response planning and exercising paid off



SAFER • HEALTHIER • PEOPLE™



Ongoing Preparations

- SNS Continues to Procure Critical Assets
- Continue to Refine and Improve Distribution Strategies to Support Domestic and International Needs
- SNS Continues to Provide Guidance and Technical Assistance to States
- Collaboration with FDA to Address Extended Expiration Dating Where Appropriate
- Expanded CDC Grant Support to Project Areas to Enhance Capabilities
- Enhance Visibility of State/Local Use Rates



SAFER • HEALTHIER • PEOPLE™



Questions?

<http://emergency.cdc.gov/bioterrorism/>

<http://emergency.cdc.gov/stockpile/>



SAFER • HEALTHIER • PEOPLE™

