

Inventory Management Tracking, Distribution and Delivery

Ben Erickson
Public Health Analyst



Office of Public Health Preparedness and Response
Division of Strategic National Stockpile

Agenda

- ❑ **Inventory Management and Tracking System Need**
- ❑ **Inventory Management and Tracking System Capabilities**

H1N1 Medical Countermeasure Situation Report

MEDICAL COUNTERMEASURE SITUATION REPORT

State/Locality: _____

Date: _____

SHIPMENTS

For this reporting period, provide the number of shipments containing antiviral regimens and/or personal protective equipment distributed to each type of location.

LOCATION	NUMBER OF SHIPMENTS	ANTIVIRALS SHIPPED		PPE SHIPPED	
		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Community Health Centers		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Local Health Departments		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Emergency Medical Services / First Responder Organizations		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Federal (VA, Military Installations, etc)		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Hospitals / Alternate Care Facilities		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Nursing Homes / Assisted Living Facilities		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Retail Pharmacies		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Private Physicians		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Quarantine Stations		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Tribal Governments/IHS		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
VNA/Home Healthcare Agencies		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
(Other please specify)		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Note: Please ensure that healthcare providers/facilities receiving product being used under an Emergency Use Authorization (EUA) are directed to or provided with copies of required documentation / fact sheets.

Notes: _____

INVENTORY

For this reporting period, provide on-hand inventory for each product. If you are unable to specify by each item, please provide an aggregate total. (Please report number of bottles/units):

	STATE ISS	REGIONAL ISS	LOCAL
Antiviral Drugs	Relenza		
	Tamiflu (75mg)		
	Tamiflu (45 mg)		
	Tamiflu (30 mg)		
	Tamiflu suspension		
PPE	N95 respirators		
	Surgical Masks		

General Antiviral Drugs
(If unable to provide by product type)

--	--	--	--

- ❑ **Notify leadership and assist in decision for future deployments**
- ❑ **Data elements provided by:**
 - Biomedical Advance Research and Development Authority (BARDA)
 - Food and Drug Administration (FDA)
 - Assistant Secretary for Preparedness and Response (HHS/ASPR)
 - Strategic National Stockpile (CDC/SNS)

H1N1 Medical Countermeasure Situation Report, continued

■ Sent to:

- White House National Security Staff
- Assistant Secretary for Preparedness and Response (HHS/ASPR)
- Biomedical Advanced Research and Development Authority (BARDA)
- Principal FDA Partners
- Association of State and Territorial Health Officials (ASTHO)
- National Association of County and City Health Officials (NACCHO)
- Division of State and Local Readiness (CDC/DSLRL)
- Hospital Preparedness Program (HPP)

MEDICAL COUNTERMEASURE SITUATION REPORT

State/Locality: _____
 Date: _____

SHIPMENTS

For this reporting period, provide the number of shipments containing antiviral regimens and/or personal protective equipment distributed to each type of location.

LOCATION	NUMBER OF SHIPMENTS	ANTIVIRALS SHIPPED		PPE SHIPPED	
		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Community Health Centers		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Local Health Departments		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Emergency Medical Services / First Responder Organizations		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Federal (VA, Military Installations, etc)		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Hospitals / Alternate Care Facilities		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Nursing Homes / Assisted Living Facilities		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Retail Pharmacies		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Private Physicians		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Quarantine Stations		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Tribal Governments/IHS		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
VNA/Home Healthcare Agencies		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
(Other please specify)		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Note: Please ensure that healthcare providers/facilities receiving product being used under an Emergency Use Authorization (EUA) are directed to or provided with copies of required documentation / fact sheets.

Notes: _____

INVENTORY

For this reporting period, provide on-hand inventory for each product. If you are unable to specify by each item, please provide an aggregate total. (Please report number of bottles/units):

	STATE ISS	REGIONAL ISS	LOCAL
Antiviral Drugs	Relenza		
	Tamiflu (75mg)		
	Tamiflu (45 mg)		
	Tamiflu (30 mg)		
	Tamiflu suspension		
PPE	N95 respirators		
	Surgical Masks		
General Antiviral Drugs <small>(If unable to provide by product type)</small>			

1

Mission

Increase the capacity of all levels of public health to track and manage inventory of medical and non-medical countermeasures during daily operations or an emergency response event

- ❑ Create a line of sight for inventory, i.e. what is available at all levels
- ❑ Identify point of dispensing facilities where product is shipped
- ❑ Determine how much of the product is used/dispensed at the point of dispensing location, therefore extending the line of sight

Inventory Management and Tracking System

- ❑ **Framework Designed by State and Local Partners**
- ❑ **Day to Day Inventory Management**
- ❑ **Visibility to Point of Dispensing Facilities**
- ❑ **Standardized Process to receive Inventory Records
Utilizing existing CDC systems**
- ❑ **Interoperability with Existing Inventory Systems**

Health IT Needs During Influenza Pandemics: Vaccine Administration Tracking Perspective

Samuel B. Graitcer, M.D.
Medical Epidemiologist
Vaccine Task Force

Ulrica Andujar, MPH
Public Health Analyst



Severe Pandemic Preparedness Assumptions

- ❑ **Pandemic disease activity may be more severe and may peak earlier than during 2009 H1N1**
 - Many new vaccine providers may be required for an effective vaccine campaign to deliver vaccine early in a response
- ❑ **All ages may be equally susceptible to infection**
 - Vaccination may need to occur in multiple types of settings in order to reach children and adults
 - Vaccination outside of traditional providers' offices, such as in the workplace, in mass vaccination settings, and at pharmacies will be particularly important
- ❑ **Public demand for vaccination may be high**
 - Especially if disease is severe and if vaccine available early
 - Advances in vaccine development and manufacturing suggest much earlier availability

Severe Pandemic Preparedness Assumptions: Pandemic Vaccine Assumptions

- ❑ **Multiple vaccine types and products may be available**
 - Providers and patients may have multiple options and systems will need to be able to track these different products
- ❑ **Multiple vaccine doses, separated by 21 days, in all ages may be required for adequate immune response**
 - Adjuvant was not used in U.S. for 2009 H1N1
 - For seasonal influenza and 2009 H1N1, multiple doses typically only required for children in first year of vaccination
- ❑ **May need to match vaccine type and adjuvant type between doses**

Preparing for Severe Pandemic: Leveraging Public Health IT

❑ Immunization Information System (IIS)

- Population based systems which track vaccination encounters from enrolled providers
- IIS can provide clinically verified vaccine administration data

❑ IIS as a component of overall response

- Patients may receive dose 1 and dose 2 from different providers, at different settings, using different data collection systems
- Data exchange with EHRs supports correct matching of dose 1 and dose 2 in the IIS and vaccine safety monitoring
- May support public health management (e.g., provider registration)

❑ Considerations

- Current use of IIS among adult vaccine providers
- Vaccinations given outside of traditional setting may use other health information systems

CDC Health IT Activities Related to Improving Pandemic Influenza Preparedness for Vaccine Administration Tracking

- ❑ **CDC supports 64 state and local Section 317 immunization programs**
 - Includes IIS and other preparedness related activities
- ❑ **Recent funding supports IIS to improve pandemic influenza preparedness capacity**
 - Target a select network of high performing IIS; Sentinel Sites
 - Increase adult provider outreach, enrollment, and report to the IIS, including pharmacies
 - Identify and enhance system capabilities to track a vaccine with adjuvant component
 - Identify barriers and challenges to implementation and strategies to mitigate impact

Thank You Questions??

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333

Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

Immunization Services Division

National Center for Immunizations and Respiratory Diseases

