



United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



# Critical Infrastructure Protection for the Healthcare and Public Health Sector

Nitin Natarajan & Steve Curren

*HHS Critical Infrastructure Protection  
Program*

September 22, 2010



United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Outline

- Brief overview of Critical Infrastructure Protection for the Healthcare and Public Health Sector
- Sector Risk Management Activities (Supply Chain, Cybersecurity, etc.)
- Information Sharing Initiatives (HSIN, Clearance Program, etc.)
- Emergency Response Updates
- Next Steps



## Critical Infrastructure Definitions

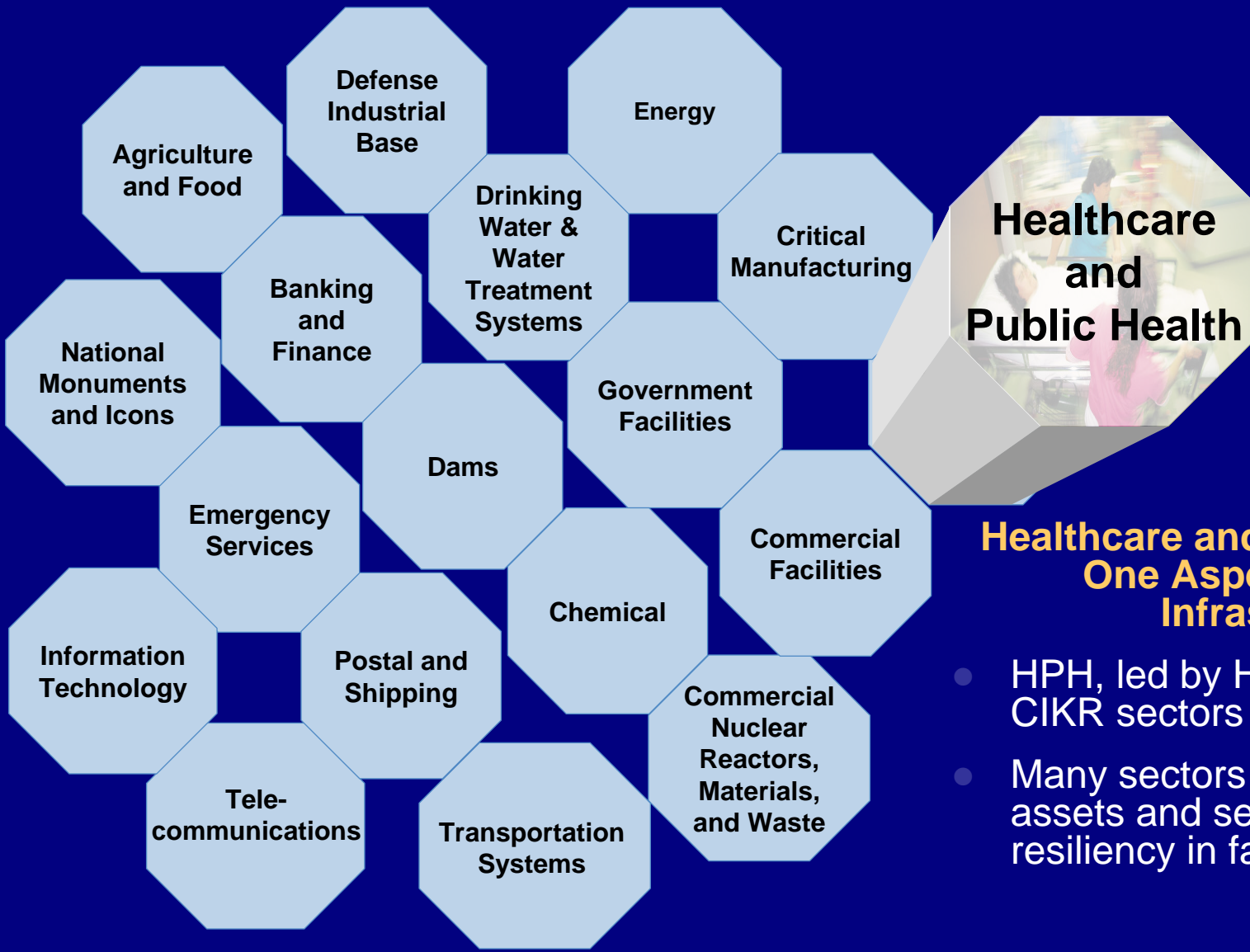
- Critical Infrastructure Protection (CIP) - *the strategies, policies, and preparedness needed to protect, prevent, and when necessary, respond to attacks on these sectors' critical infrastructure and key resources.*
- Critical Infrastructure (CI) and Key Resources (KR) – *the assets, systems, networks, and functions, whether physical or organizational, whose destruction or incapacity would have a **debilitating** impact on the **Nation's** security, the public's health and safety, and/or economic vitality.” These resources are “publicly or privately controlled resources essential to the minimal operations of the economy and government.”*
- Resilience - *the ability of an asset, system, network, function, to maintain its capabilities and functioning during and in the aftermath of an All-Hazards incident.*



United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



### Healthcare and Public Health: One Aspect of Critical Infrastructure

- HPH, led by HHS, one of 18 CIKR sectors
- Many sectors rely on HPH assets and services to ensure resiliency in face of threats



United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Healthcare and Public Health: A Diverse Sector

- Geographically dispersed
- Impacts every part of the economy
- Encompasses more than:
  - 13 million healthcare personnel
  - 5,000 hospitals
  - 40,000 retail pharmacies
  - 3,000 health departments
  - 1,000 pharmaceutical manufacturers
  - 2,500 medical device and supply companies
  - 1,000 blood and organ banks
  - 1,000 insurers and other payers



## Sector Coordinating Council and Sub-Councils

### Healthcare Sector Coordinating Council (HSCC)

The HSCC is comprised of representatives and alternates from each sub-council. Issues will be identified by Subcouncils. Coordination across Subcouncils and with the HPHGCC will be organized through the HSCC.

Cross-cutting Work Groups will be established to address priority issues that cut across sub-councils

Direct Health  
Care

Health Plans  
and Payers

Pharma-  
ceuticals,  
Laboratories,  
and Blood

Medical  
Materials

Mass Fatality  
Management

Health  
Information  
and Medical  
Technology

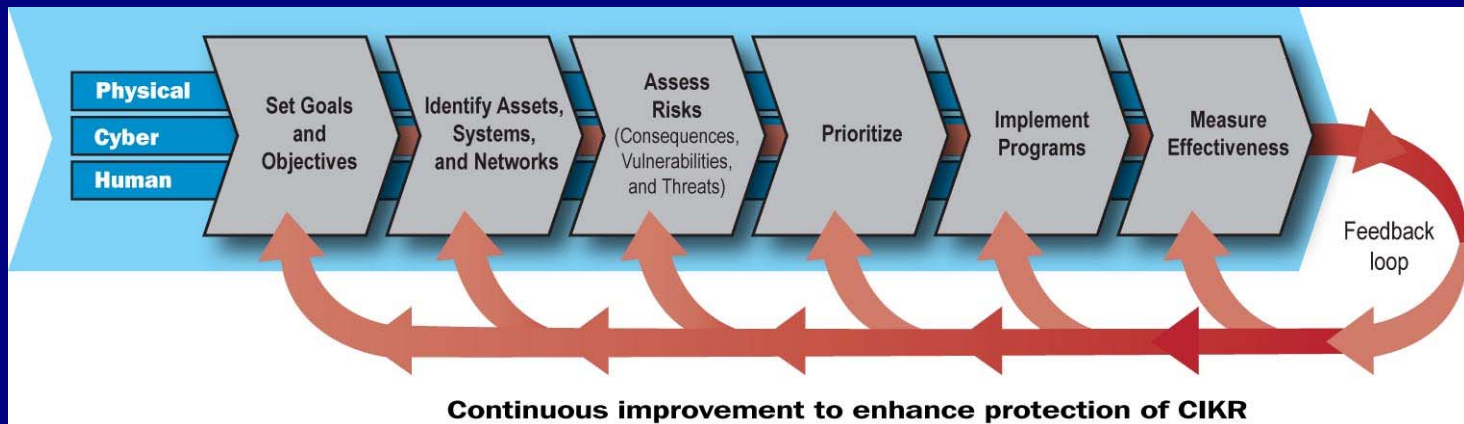
*Each sub-council is responsible for organizing itself*

**Sample Priority Issues for Sub-Councils:** Emergency Preparedness, Emergency Response; Vulnerability Assessment / Prioritization; Communication & Information Sharing among members, with HHS and DHS, and with other sectors



## Risk Management Framework

- The NIPP describes processes to:
  - Set Goals and Objectives
  - Identify Assets, Systems, and Networks
  - Assess Risk (Consequences, Vulnerabilities, and Threats)
  - Prioritize
  - Implement Protective Programs & Resiliency Strategies
  - Measure Effectiveness
- DHS develops methodologies with and for its partners for risk assessment, risk prioritization, and performance measurement
- The Sector-Specific Plans tailor these processes for each sector and describe sector-specific approaches and methodologies





## Critical Infrastructure Risk Assessment And Site Visits

- Changes to 4 levels of priority assets
  - Level 1: Highest national impact
  - Level 2: High national impact
  - Level 3: Highest sector impact
  - Level 4: Highest state impact
- Some benefits of inclusion on lists
  - Use in DHS grant funding formulas
  - Inclusion on priority infrastructure lists for return of services following emergencies
  - Eligibility for voluntary site assessments
- Site visits performed regularly for priority assets through DHS Protective Security Advisors (PSAs)
- HHS alerts DPHP of upcoming site visits in state





## HPH Sector Critical Infrastructure

### Protection Goals

- **Service Continuity:** Maintain the ability to provide essential health services during and after disasters or disruptions in the availability of supplies or supporting services (e.g., water, power).
- **Workforce Protection:** Protect the sector's workforce from the harmful consequences of all hazards that may compromise their health and safety and limit their ability to carry out their responsibilities.
- **Physical Asset Protection:** Mitigate the risks posed by all hazards to the sector's physical assets.
- **Cybersecurity:** Mitigate the risks to the sector's cyber assets that may result in disruption to or denial of health services.



United States Department of

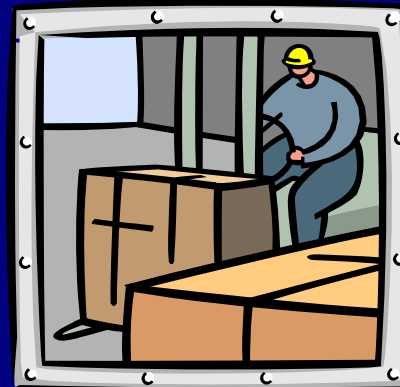
Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Supply Chain

- Little public data available
- Data needed to inform decisions often not available in real time (pandemic data still being collected and evaluated)
- CIP program accesses data from multiple sources, including national calls with manufacturers, distributors, and consumers
- Several agencies monitor supply issues in the sector
  - FDA (Drug, Device, and Biologics Shortage Programs)
  - CDC/DSNS
  - HHS/ASH (Blood Supply)
  - HHS/ASPR (BARDA, ECCC, CIP)





United States Department of

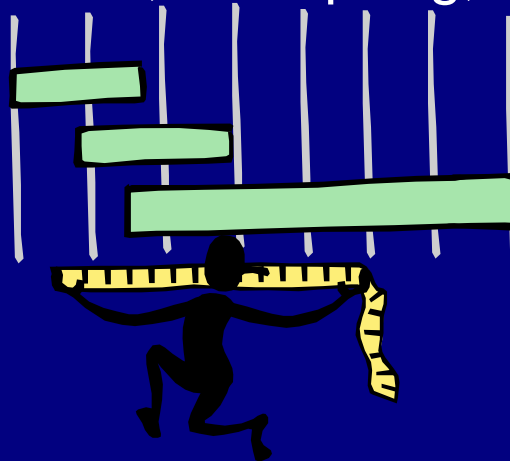
Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Supply Chain: Some Important Measures

- Implementation of Allocation
- Backorder Time
- Production Rate
- Consumption Rate
- Use of Product (Patient Care, Stockpiling, Fit Testing)
- Inventory Levels
  - Manufacturer
  - Distributor
  - Facility





United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Supply Chain Studies

- Joint Advisory Working Group on R&D White Paper
- AHRMM/APIC Survey
- ECCC Ventilator Survey
- CDC Dashboard
- Upcoming CDC Study on PPE Consumption
- Critical Foreign Dependencies Study





## Critical Foreign Dependencies Initiative (CFDI)

- Foreign dependencies in the HPH Sector relate primarily to supply chain
- International supply chain is extremely complex but important to monitor for potential vulnerabilities
- Examples:
  - 2004 Influenza Vaccine
  - 2007 Molybdenum-99
  - 2009 Pandemic H1N1
- Upcoming CFDI Study
  - Conducted by Department of Commerce
  - Based in part on survey of critical HPH product manufacturers/distributors
  - Aggregate results will be publicly available





United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Cybersecurity

A large and growing national concern across all sectors

- Affects the Healthcare and Public Health sector at every level (hospitals, insurers, medical devices, manufacturing, distribution, etc.)
- Sector has established a cybersecurity working group which is developing a new cybersecurity strategic plan
- Sector is sharing information on cyber threats through HSIN and sector classified briefings





## Information Sharing Tools

- Unclassified
  - HHS/CIP Website
  - Sector Partnership (SCC & GCC)
  - Conference Calls
  - Critical Infrastructure Partnership Advisory Council (CIPAC)
- SBU / For Official Use Only
  - Homeland Security Information Network
- Protected Critical Infrastructure Information (PCII)
  - Business proprietary
- Classified
  - Sector Clearance Program
  - Sector Classified Briefings
  - Secure Communications through fusion centers/DHS/NGB



United States Department of

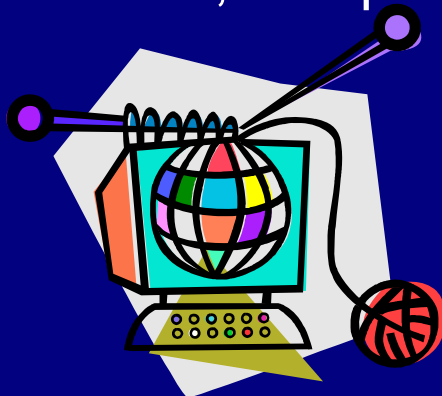
Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Homeland Security Information Network (HSIN)

- Main platform for sharing information up to FOUO level with state, local, tribal, territorial, and private sector partners
- Contains document library, pages for posting incident information, discussion boards, alert and notification tools, etc.
- Requires registration, validation, and password





# HSIN-HPH Revised Home Page

https://cs.hsin.gov/HPH/default.aspx - Windows Internet Explorer

https://cs.hsin.gov/HPH/default.aspx

File Edit View Favorites Tools Help

Links Order Sites Vendors Angel Census FSI Cat Google Google Image Intranet RR Web Mail Sumter Weather Webster HSIN-HPH

https://cs.hsin.gov/HPH/default.aspx

Page Tools

**HSIN-HPH**

HEALTH & PUBLIC HEALTH SECTOR PORTAL PILOT

My Site Help Logout

CS Home Sectors DHS Document Highlights Daily OSIR Cyber Information User Information Connect!

Current Location CS Home > Sectors > Healthcare and Public Health

This topic

Current Location

CS Home

Sectors

Healthcare and Public Health

Sector Contacts

Federal and State Contacts

Administration

NICC RFI

Actions

Add Listing

Add Person

Upload Document

Manage Content

Add to My Links

Alert Me

Edit Page

Health and Public Health Sector Announcements

New Website to Register In-Kind Donations for Haiti Disaster Relief

by Lisa Hormann

1/21/2010 3:00 PM

Many of you have expressed interest in donating to disaster relief efforts in Haiti. We are working to ensure that all offers of donations are coordinated through appropriate channels so that they may be put to most effective use by responding organizations. ...

Add new announcement

Sector Orientation

Recently Posted Documents

Name	Modified By	Modified
NBSB MCM Review Where are MCMs 2010-03-26.pdf	Erin Mullen	3/29/2010 11:14 AM
NRF Partner Guide - Private Sector (2010-02-01).pdf	Lisa Hormann	3/15/2010 5:59 PM
NRF Partner Guide - Local (2010-02-01).pdf	Lisa Hormann	3/15/2010 5:58 PM
NRF Partner Guide - State (2010-02-01).pdf	Lisa Hormann	3/15/2010 5:56 PM
NRF Partner Guide - Federal (2010-02-01).pdf	Lisa Hormann	3/15/2010 5:55 PM
TFAH - Shortchanging America's Health (2010-03-01).pdf	Lisa Hormann	3/3/2010 1:37 PM
Active Shooter Booklet (2008-10-01).pdf	Janusz Wasiolek	3/1/2010 12:48 PM
Active Shooter Poster (2008-10-01).pdf	Janusz Wasiolek	3/1/2010 12:46 PM

Incident Sites

Document Library

Councils and Work Groups (members only)

Contact Information

Discussion Forum

Resources and Links

Webinars



United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



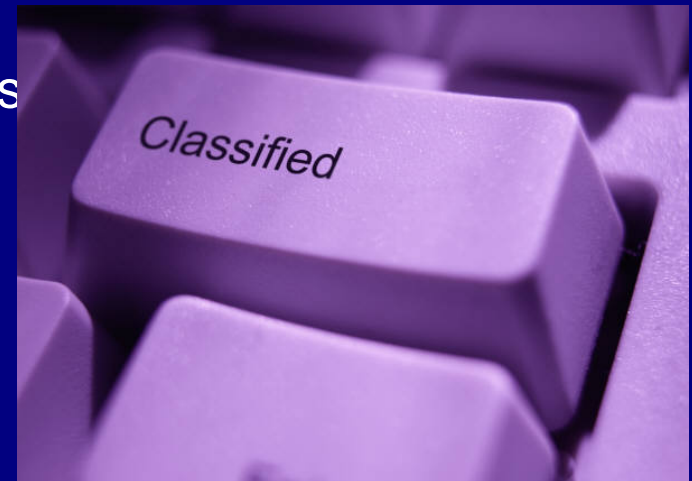
## HSIN-HPH Roll-Out

- Performing outreach through ASTHO, NACCHO, and industry association partners
- Users have increased 250%, to more than 1,200
- Usage has increased 530% to more than 1,700 views/month
- New users may register at  
<https://connect.hsin.gov/hph/event/registration.html>
- Once you have a user name and password, visit  
<https://cs.hsin.gov/hph>



## State Security Clearance Program

- Threat information can be very helpful to state health agencies
  - Plan development
  - Resource allocation
- Much specific threat information is classified
- Sharing classified information with states presents challenges
  - Funding and obtaining clearances
  - High turnover of personnel
  - Requirements for communication of clas
- 3 Phase Solution
  - Clearances
  - Secure communications capability
  - Information sharing





## State Clearance Program (cont)

- Eligibility
  - 62 States, Territories, and Directly Funded Jurisdictions
  - 3 Individuals Per Jurisdiction
    - ✓ State Health Official (or equivalent)
    - ✓ Director of Public Health Preparedness
    - ✓ Third individual with planning/operations responsibilities
- Requirements
  - ✓ United States Citizenship
  - ✓ Need to know
  - ✓ Expect to remain in position 2-3 years





## State Clearance Program (cont)

- Current Status
  - Letter sent to jurisdictions July 14 / follow-up Q&A telecon July 21
  - Receiving information and requests from jurisdictions
  - “Perm certified” over 75 clearances for SLTT PH personnel from DHS/FBI
- Next Steps
  - Security investigations
  - COMSEC, Fusion Centers, HSDN, etc.
  - Continuing briefings
  - Consolidation of clearance information
  - Ongoing Maintenance
    - ✓ Periodic re-investigations
    - ✓ Renewal of one-year perm certs





United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## GIS Mapping for Emergency Response

- Focus: Regional/National-level infrastructure impacts
- Collaborative Effort
  - Modeling Products (NISAC, NOAA, National Labs, HHS, etc.)
  - Critical Asset Lists (HHS/CIP)
  - Mapping and Analysis (HHS/Fusion)
- Maps developed for several levels of assets
  - Level 1, 2, 3 healthcare and public health assets
  - HHS assets
  - Other sector critical assets





United States Department of

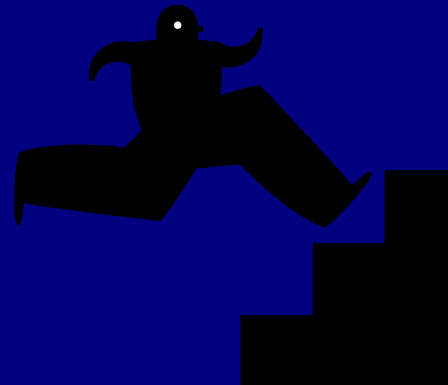
Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Next Steps

- Continue to process and track security clearance applications from states
- Expand roll-out of HSIN-HPH and develop additional content for posting
- Finalize and begin to implement cybersecurity strategic plan
- Finalize and disseminate sector products
  - Supply chain white paper
  - Healthcare facility security tool
  - Workforce white paper





United States Department of

Health & Human Services

Office of the Assistant Secretary for Preparedness and Response (ASPR)



## Questions?

Nitin Natarajan

Coordinating Director

202-260-2002 Office

Nitin.Natarajan@hhs.gov

Steve Curren

Deputy Program Manager, CIP

202-260-1241 Office

Stephen.Curren@hhs.gov

## HSIN Registration:

<https://connect.hsin.gov/hph/event/registration.html>

## CIP Website:

<http://www.phe.gov/preparedness/planning/cip/>