U.S. Department of Health and Human Services

ASPR Office of the Assistant Secretary for Preparedness & Response

Improving Shared Healthcare Situation Awareness

Public Health Preparedness Summit (Atlanta, GA)
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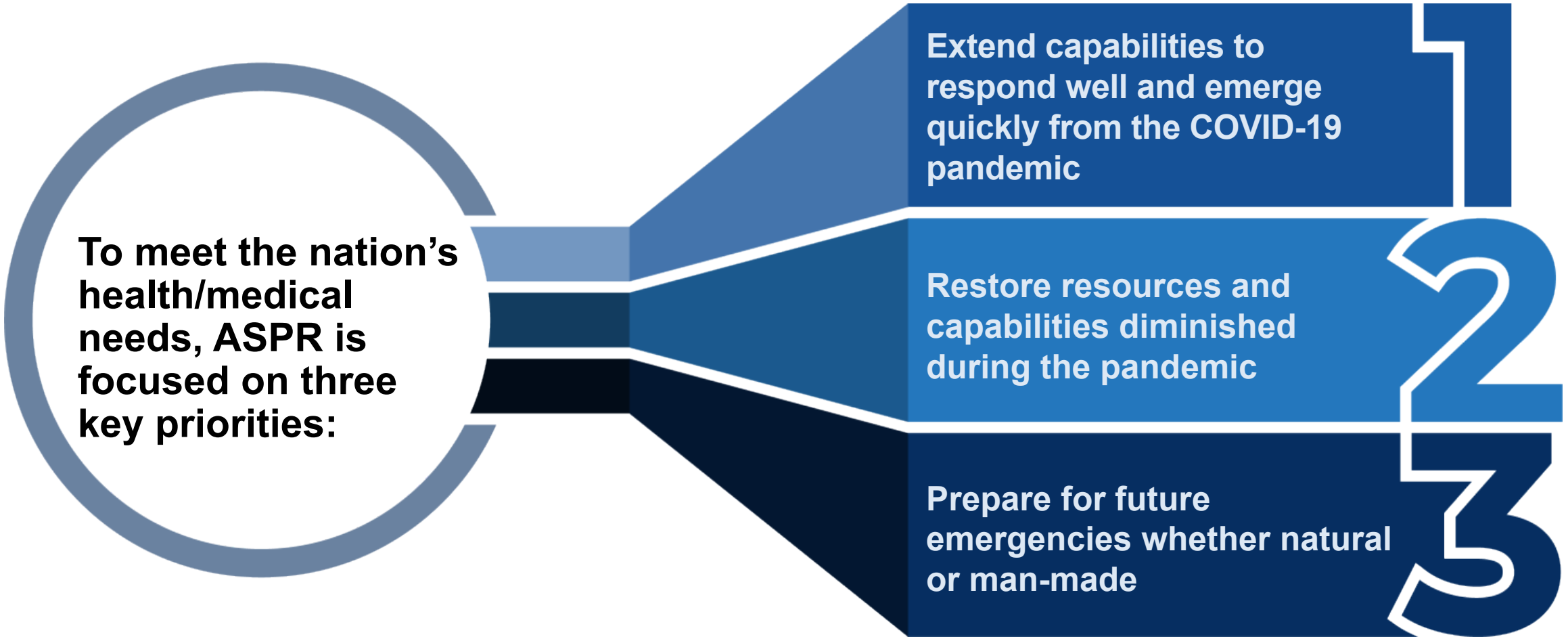
ASPR Key Priorities



Overview

- Background
- Impact on federal COVID-19 response
- Future state
- Questions and discussion

Healthcare Situational Awareness

National Hospital Available Beds for Emergency and Disasters

National Hospital Available Beds for Emergency and Disasters (HAvBED)

- Required through HPP cooperative agreement
- Operational bed tracking, accountability/availability system
- Hospitals required to practice data inputting and sharing using the HAvBED system once per year
- In an emergency, the states were required to input bed data within 4 hours of notification

National Hospital Available Beds for Emergency and Disasters

National Hospital Available Beds for Emergency and Disasters (HAvBED)

- Discontinued 2016
  - States/territories are using their own systems for bed tracking, and we expect this will continue to be performed at your level
  - Hospitals still required by HPP to maintain capability to collect bed availability data and report it to ASPR upon request
- "There will still be times during public health emergencies that HHS will need data and information on bed availability and health care system resources, and ASPR will reach out to you to get this data during those specific times."

HHS Data Needs for COVID-19 Federal Response

Unified Hospital Data Surveillance System

- History
- Data elements and reporting
- System components
- Teams
- Growth and maturation

Unified Hospital Data Surveillance System (UHDSS)

- The HHS COVID hospital data collection (now known as the Unified Hospital Data Surveillance System—UHDSS) began in March of 2020
- Managed as an interagency collaboration (ASPR, CDC, HHS OCIO, CMS)
- All hospitals in the US are required to report data under the authority of CMS Conditions of Participation
  - Tied to CMS reimbursement
- Data elements, reporting processes and systems have evolved with the information needs of the federal pandemic response
  - Reporting guidance has been updated multiple times since March 2020
    - Most recent update January 6, 2022

UHDSS: What Information Is Reported?

- COVID admissions adult age groups, pediatric age groups
- COVID hospitalizations
  - Inpatient: adult and pediatric
  - ICU: adult and pediatric
- Overall inpatient/ICU capacity & occupancy: adult and pediatric
- ED visits
- Supplies (PPE)
- Staffing
- Influenza (seasonal)
- Therapeutics
- Vaccination

The hospital reporting guidance lists all data elements and requirements including reporting status:

- Required
- Optional
- Inactive for federal collection

UHDSS: Who Reports The Hospital Data?

- All hospitals in the US are required to report data
  - Daily cadence: Majority of hospitals
  - Once Weekly (W) cadence: Psychiatric and Rehabilitation hospitals
- Reporting entities
  - Hospitals
  - Hospital systems
  - State organizations
- Many states/jurisdictions (33) report to HHS on behalf of hospitals in their state
  - Some of these states have own data collection with additional requirements
  - Certification process

UHDSS: Relevant Components

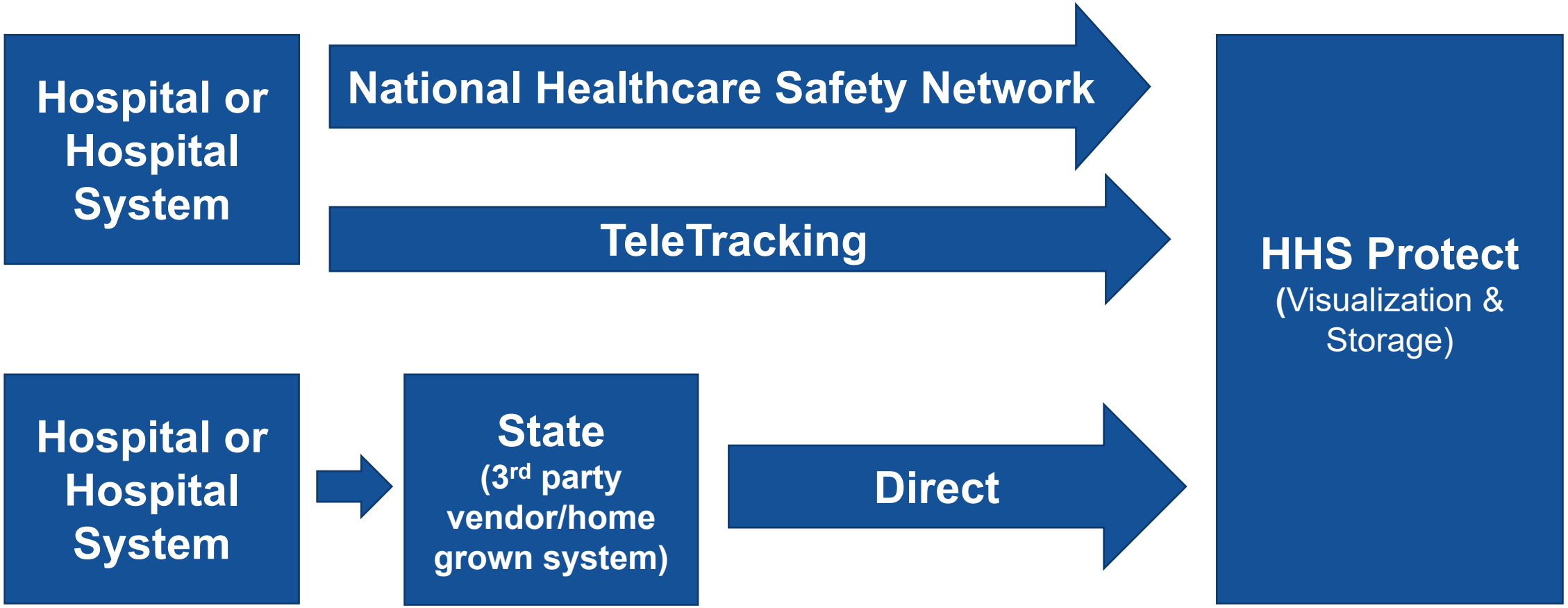
- HHS Protect
  - Palantir platform
  - Managed by CDC (previously by HHS/Office of the Chief Information Officer)
  - Data aggregator
    - Contains data from other streams (case, testing, nursing home, etc.)
  - Storage and visualization
  - Data quality work and analyses for the hospital data are done in this platform
  - Analytic dataset created in this system and is used for report creation
  - States have access to data from their own hospitals
    - Hospitals cannot view their data in this system

UHDSS: Relevant Components

TeleTracking

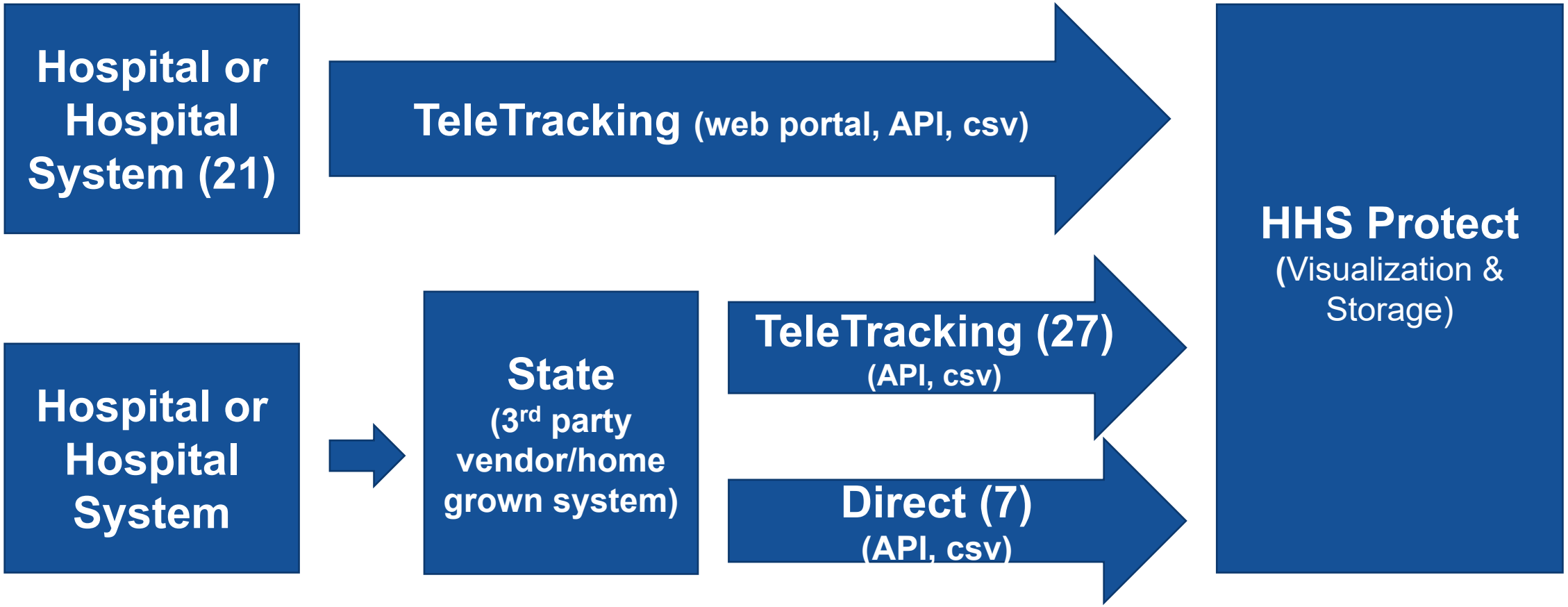
- Managed by ASPR (previously by HHS/Office of the Chief Information Officer)
- Data submission portal
- Hospitals, hospital systems and states entities can submit data via
  - Web portal (hospitals and hospital systems)
  - csv upload
  - API connection
- These data can be accessed by hospitals—download history viewable
- On data entry in the system, high level logic checks are built in including:
  - Maximum values
  - Relationship between variables “logic checks”
- Submitters can also check view compliance with reporting requirements on dashboard
- Also accepts submission of therapeutics data from non-hospital entities (pharmacies)

UHDSS Reporting Pathways Prior to July 15, 2020



Several hospitals report though multiple options (ex. report directly to HHS and report to HHS through their state– in this case state data is prioritized)

Current UHDSS Reporting Pathways



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Breakdown of Reporting Mechanisms by State

TeleTracking

STATE SUBMISSION STATUS

Number	State	Using HHS-Protect		Using HHS COVID-19 Portal			
		Submit to HHS Protect	Considering Transition	State Reporting (API)	State Reporting (CSV Upload)	Juvare Reporting (API)	Facilities Reporting (API, CSV or Portal)
1	Alabama	X					
2	Alaska						X
3	American Samoa						X
4	Arizona						X
5	Arkansas						X
6	California				X		
7	Colorado						X
8	Connecticut				X		
9	Delaware						X
10	District of Columbia					X	
11	Florida						X
12	Georgia	Direct Connection					
13	Guam						X
14	Hawaii						X
15	Idaho					X	
16	Illinois						X
17	Indiana					X	
18	Iowa				X		
19	Kansas						X
20	Kentucky		API Transition in Process				
21	Louisiana		API Transition in Process	API Transition in Process			
22	Maine						X
23	Maryland						X
24	Massachusetts			API Transition in Process	X		
25	Michigan					X	
26	Minnesota				X		
27	Mississippi						X
28	Missouri						X
29	Montana					X	
30	Nebraska			X			
31	Nevada	X					
32	New Hampshire					X	
33	New Jersey			X			
34	New Mexico					X	
35	New York						X
36	North Carolina			X			
37	North Dakota	X					
38	Ohio			X			
39	Oklahoma					X	
40	Oregon					X	
41	Pennsylvania				X	Juvare Transition in Process	
42	Puerto Rico				X		
43	Rhode Island				X		
44	South Carolina						X
45	South Dakota						X
46	Tennessee			X			
47	Texas				X		
48	Utah						X
49	Vermont		Direct Connection				
50	Virgin Islands						X
51	Virginia						X
52	Washington				X		
53	West Virginia				X		
54	Wisconsin					X	
55	Wyoming				X	X	
Total		4	3	7	12	12	21

Relevant Teams

Hospital Data Liaisons

- CDC staffed team stood up August 2020
- Meet regularly with state partners
  - Compliance
  - Reporting guidance
  - Data reporting challenges
- Reports, touchpoints, & other information to states regularly
- Compliance follow-up
  - Compliance reports are disseminated weekly to states/hospital associations
  - Hospitals can be put on “work plans” where they are exempt from reporting while they work on issues
- Guidance update communication
  - involve significant feedback from state/hospital association/other partners

Relevant Teams

Data Quality Team

- CDC, HHS OCIO team
- Other ASPR products (Medical Countermeasures Report, etc.)
- Uses other data systems from HHS Protect to create products

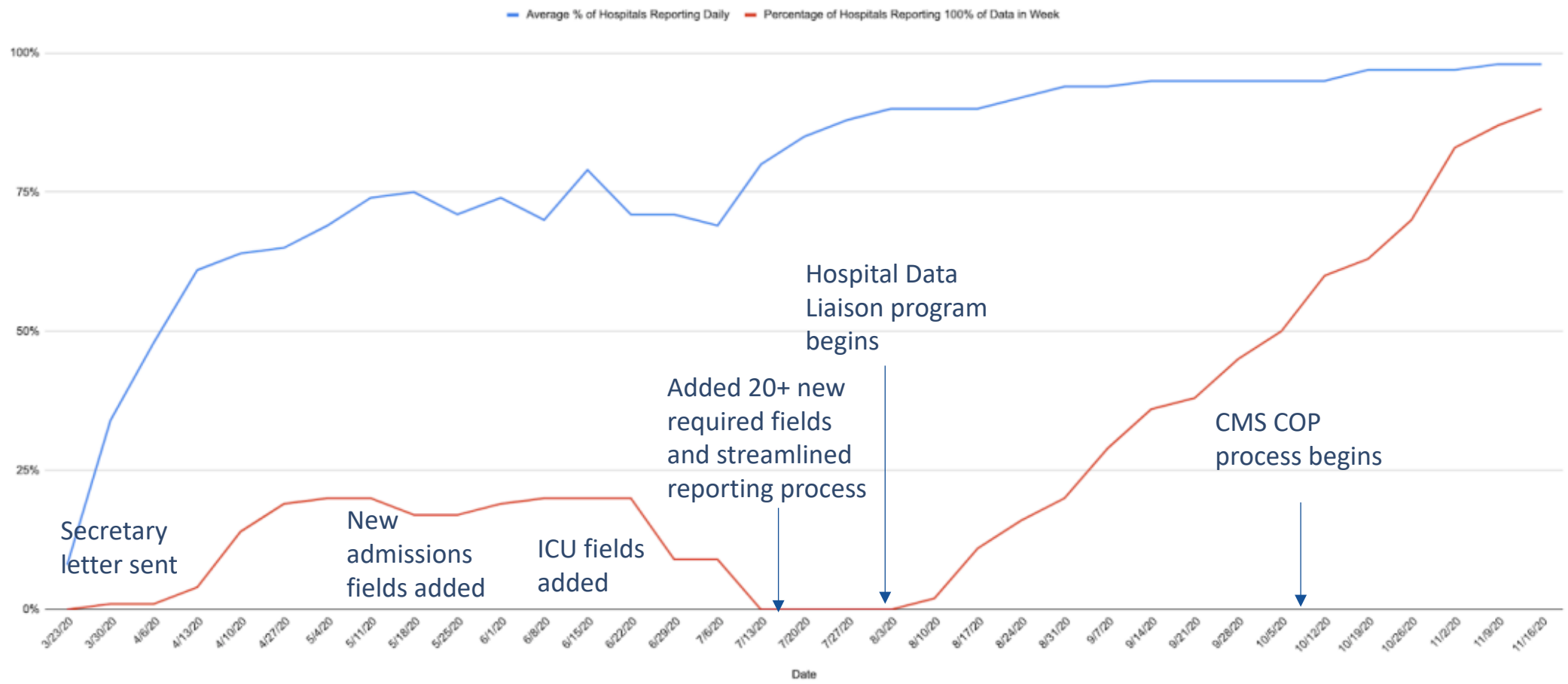
Data Analytics Unit (HDAU)

- CDC team that is also involved in quality assurance work
- Maintain the connection to the CDC's COVID Data Tracker

Compliance Team

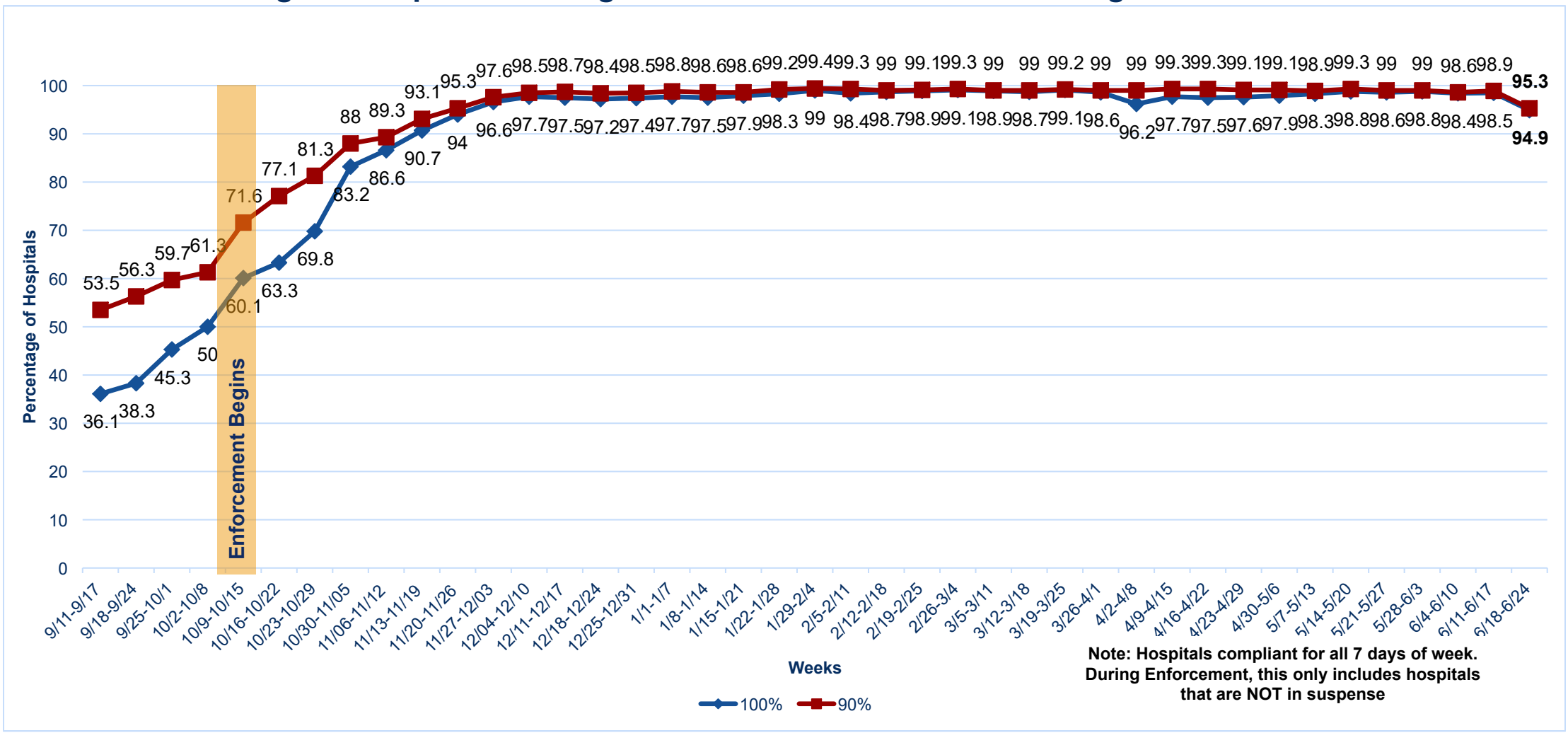
- HHS OCIO, ASPR, CDC, CMS
- Communicate with state/hospitals partners through Hospital Data Liaisons
- Communicate with CMS

UHDSS: Early Timeline



UHDSS: Conditions of Participation Impact on Compliance

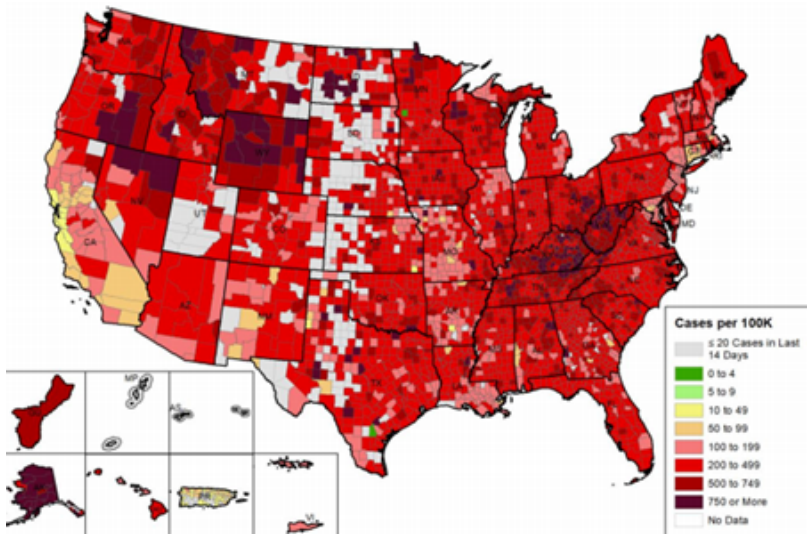
Percentage of Hospitals Passing at 100% and 90% - Before & During Enforcement Period

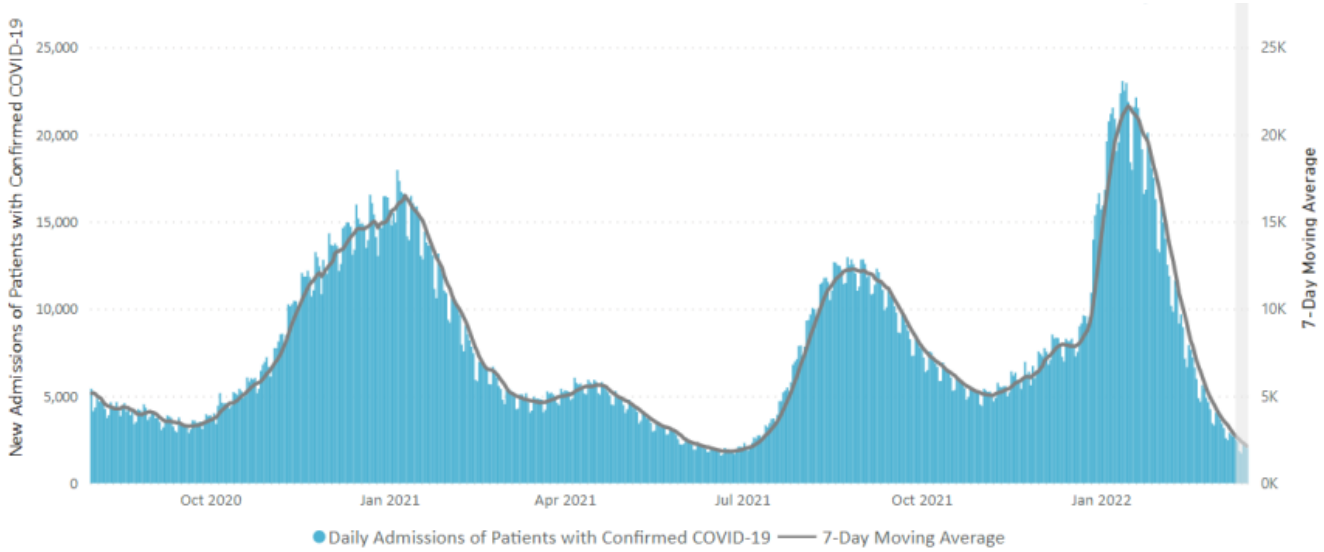


UHDSS Impact on Federal COVID-19 Response

Real World Applications

Requests for Medical Personnel and Hospital Augmentation

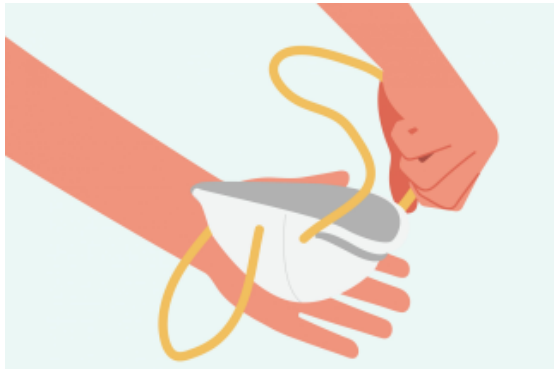




Evaluating Medical Personnel Requests

- Federal medical personnel is a finite resource
- Data reported through the COVID-19 hospital data reporting channels helped paint the picture of state and local hospital capacity. Data elements used in evaluating jurisdictional requests included:
  - Total inpatient beds occupied/Total staffed inpatient beds overall
  - Total adult ICU beds occupied/Total staffed adult ICU beds
  - Total adult ICU beds occupied by COVID-19 patient (% adult ICU beds occupied by COVID-19 patients)
  - Are confirmed COVID-19 hospital admissions increasing, decreasing, or remaining stable?
  - Are the facilities reporting a staffing shortage? What occupations are noted as shortage now or in next week?

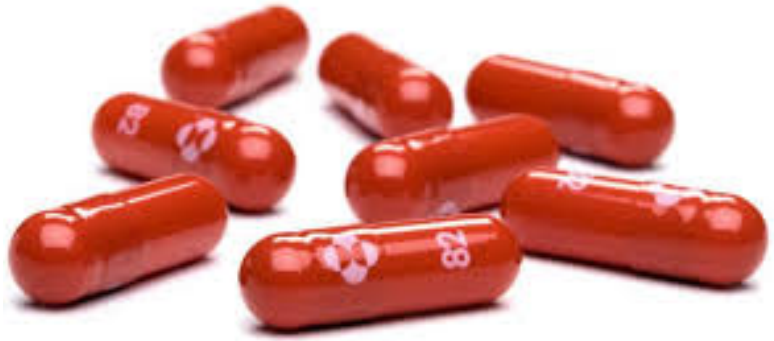
Supply Requests



- Limited federal supply
- Hospital data elements captured:
  - N95 respirators
  - Surgical and procedure masks
  - Eye protection including face shields and goggles
  - Single-use gowns
  - Exam gloves
- National picture aids in informing federal procurement actions and collaboration with industry partners around supply

Therapeutics Allocations

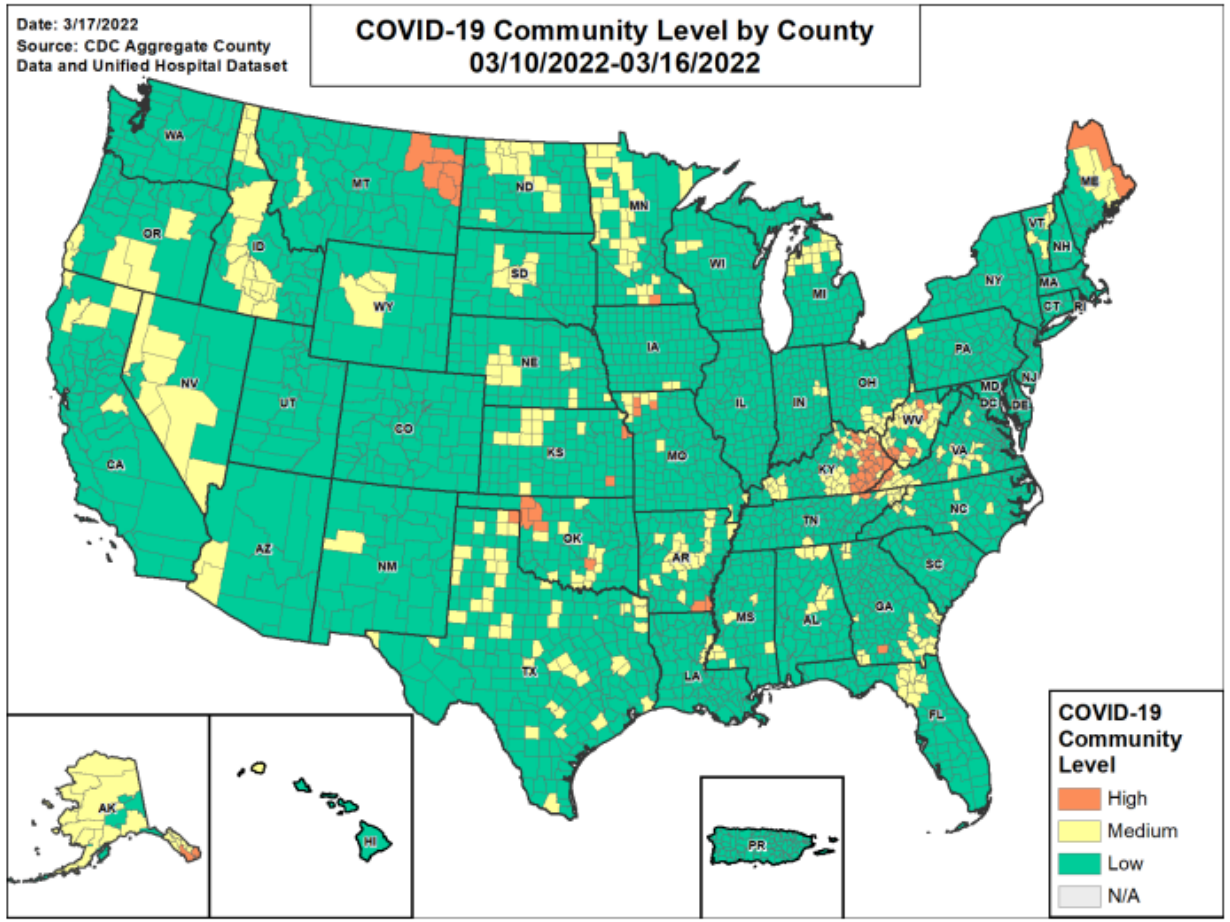
- COVID-19 therapeutics have been a scarce resource requiring federal allocations
- Strategies for allocation have included pro rata and a weighted proportion of cases and hospitalizations
- Hospital data elements that were critical included inventory and administrations
  - Some of the therapeutics included: Bamlanivimab/Etsevimab, Casirivimab/Imdevimab, Sotrovimab



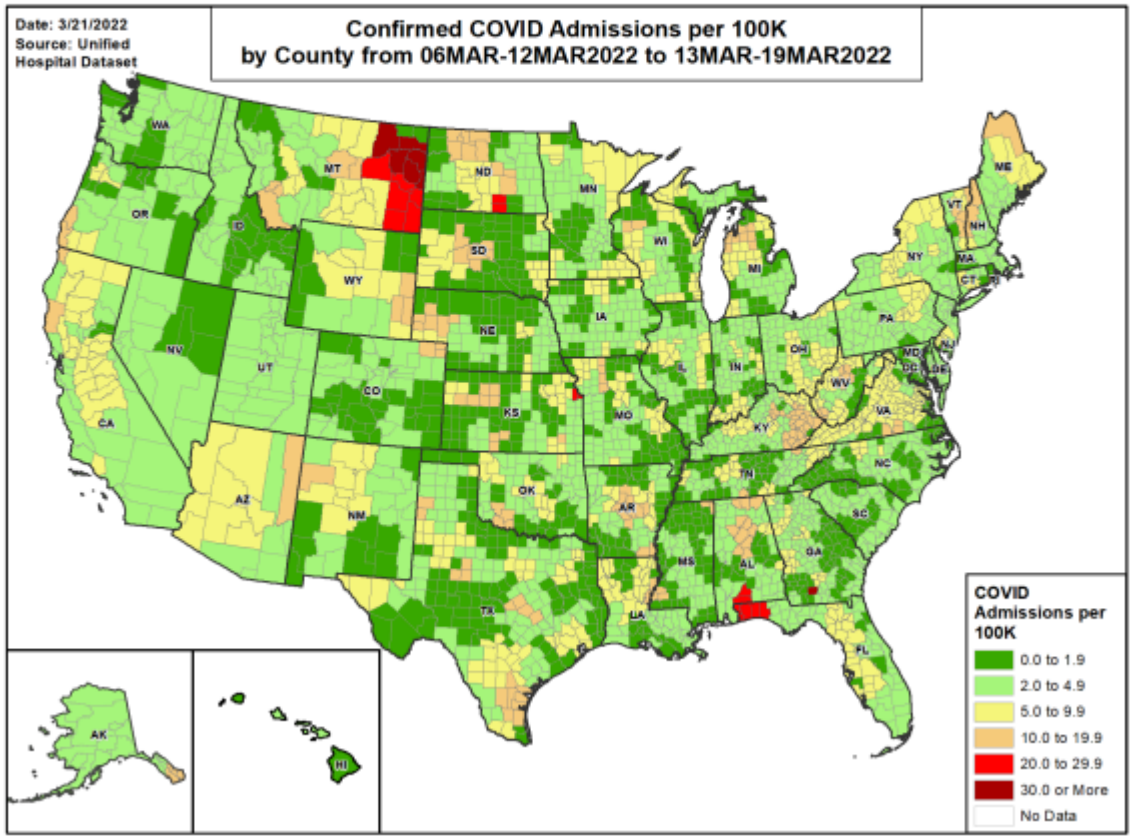
Pediatric Technical Support

- Hospital data pointing towards rising pediatric admissions not seen before
- Key data elements:
  - Pediatric Admissions by age group (0-4, 5-11, 12-17)
  - Pediatric ICU bed usage by COVID-19 patients
- Work with pediatric associations and hospital systems to develop technical guidance

Targeted Outreach and Engagement



Total Confirmed COVID-19 Hospital Admissions in Last 7 Days:
13,273



Questions

- Did you use publicly available hospital data (CDC's COVID Data Tracker or HealthData.gov data products) during COVID-19 response?
  - If yes, for what purpose and did it inform decision-making?

- How does a national hospital situational awareness picture inform your work?

Moving to Towards Nationwide Situational Awareness

Not a Technical Problem…a Systems of Systems Problem

Technical solutions exist to address challenges– but technical solutions alone are not enough.

Core Challenges:

- Agreed upon core EEIs
- System connectivity
- Flexibility
- Sharing & protections

Solutions exist with partnerships across all levels of government, industry, coalitions, and more

A Pivotal Moment

- Policy & programmatic efforts
  - Executive Order
  - Data modernization
- Funding opportunities
  - Public health surveillance
- Interest

How to Start?

Establish guiding principles and validating a shared vision across stakeholders

Goals are to avoid 1) Getting stuck in technology conversations and 2) Prescriptive "must dos" and "must have" systems across stakeholders

- EEI alignment
- Identify components and needs for successful information sharing

Initial Vision – Enabling a Common Operating Picture

- Collaborative effort across partners
- Agreed upon core EEIs and information sharing, accounting for different needs across levels
- Bi-directional
- Information flows up through levels
- Easy on ramp, leveraging information available
- Flexible
- Ability for unique jurisdictional needs
- Protected data
- Accounts for interdependencies
- Ability to share information
- Leverage past efforts & initiatives

What else should be part of the vision?

Core EEIs

Avoid EEIs based on specific disasters, instead focus on shared operational needs based on mission sets

- Healthcare system stress
- Operations
- Infrastructure
- Logistics

What are your core EEIs?

Next Steps

- Validating vision
- Collecting existing EEIs
- Working groups across different levels
- Drafting EEIs and definitions

What are the biggest hurdles you anticipate that we should prepare for?

What is a bed?

Thank you & Questions

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