



Region III Pediatric Town Hall

November 3, 2022

ASPR Region III – Pediatric Town Hall

Agenda

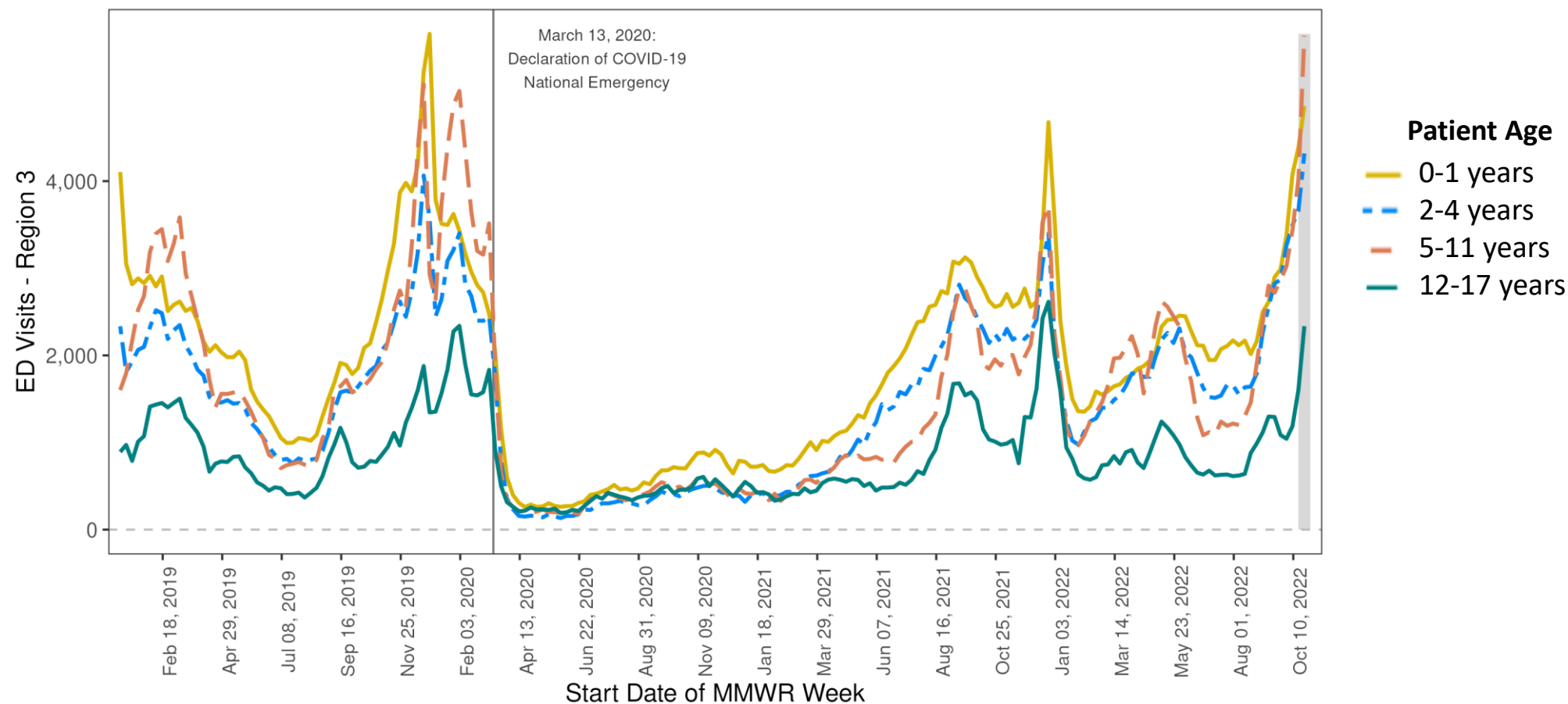
- Welcome
- Opening Remarks
- Facilitated Discussion
 - Current State of Pediatric Capacity
 - Current Local Situation and State of Mitigation Strategies to Support Children
- ASPR Pediatric Tools and Resources
- Path Forward and Closing Remarks

Current State of Pediatric Capacity

Pediatric Respiratory Disease & Healthcare Utilization

Summary of Current Surveillance Data

REGION 3: Weekly Emergency Department (ED) Visits in Patients with Acute Respiratory Illness*, Ages 0-4, 5-11, and 12-17 Years, Dec 30, 2018, to Oct 29, 2022, National Syndromic Surveillance Program



+The most recent week of data may be incomplete

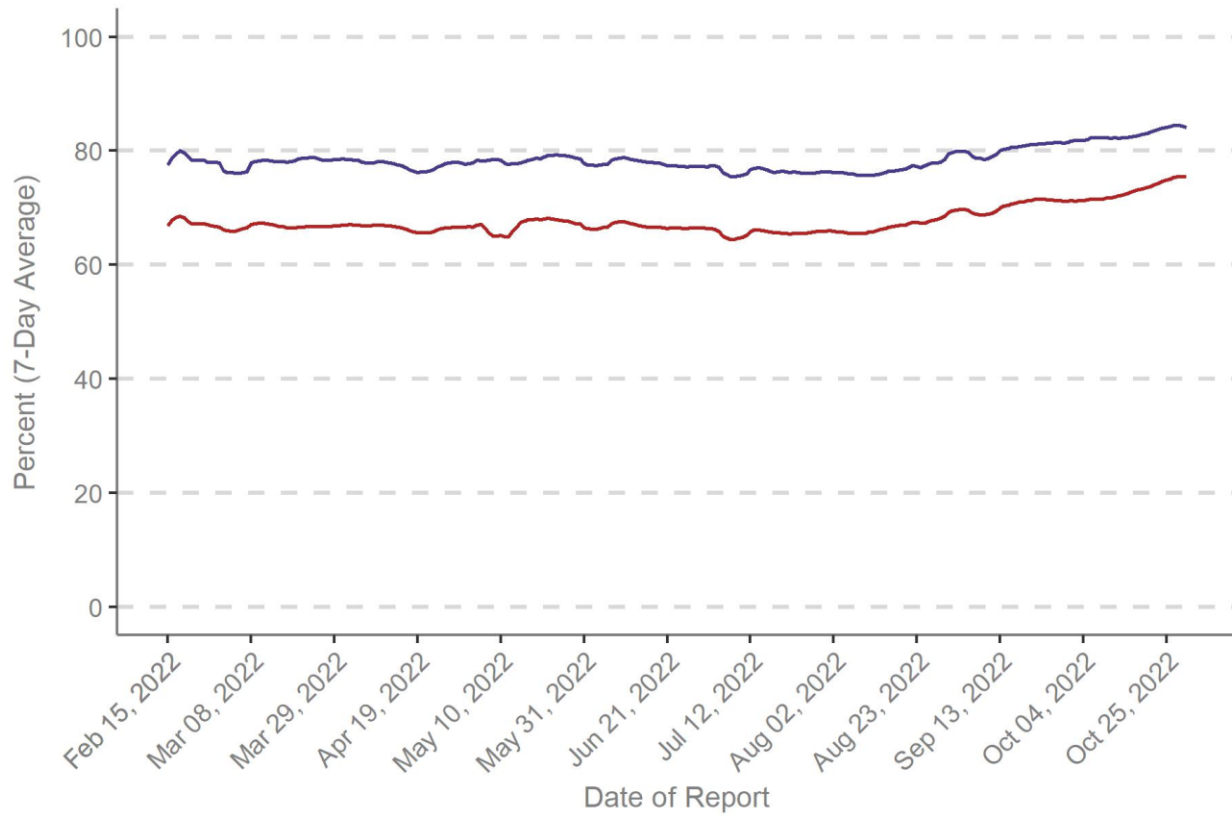
* The CDC Broad Acute Respiratory Discharge Diagnosis (DD) v1 definition identifies ED visits with general respiratory infections (e.g., influenza, respiratory syncytial virus, or COVID-19) as well as general respiratory illness such as cough or pneumonia. These are identified in discharge diagnoses. Counts limited to the subset of NSSP facilities with consistent reporting to NSSP and with high quality diagnosis codes throughout the time period.

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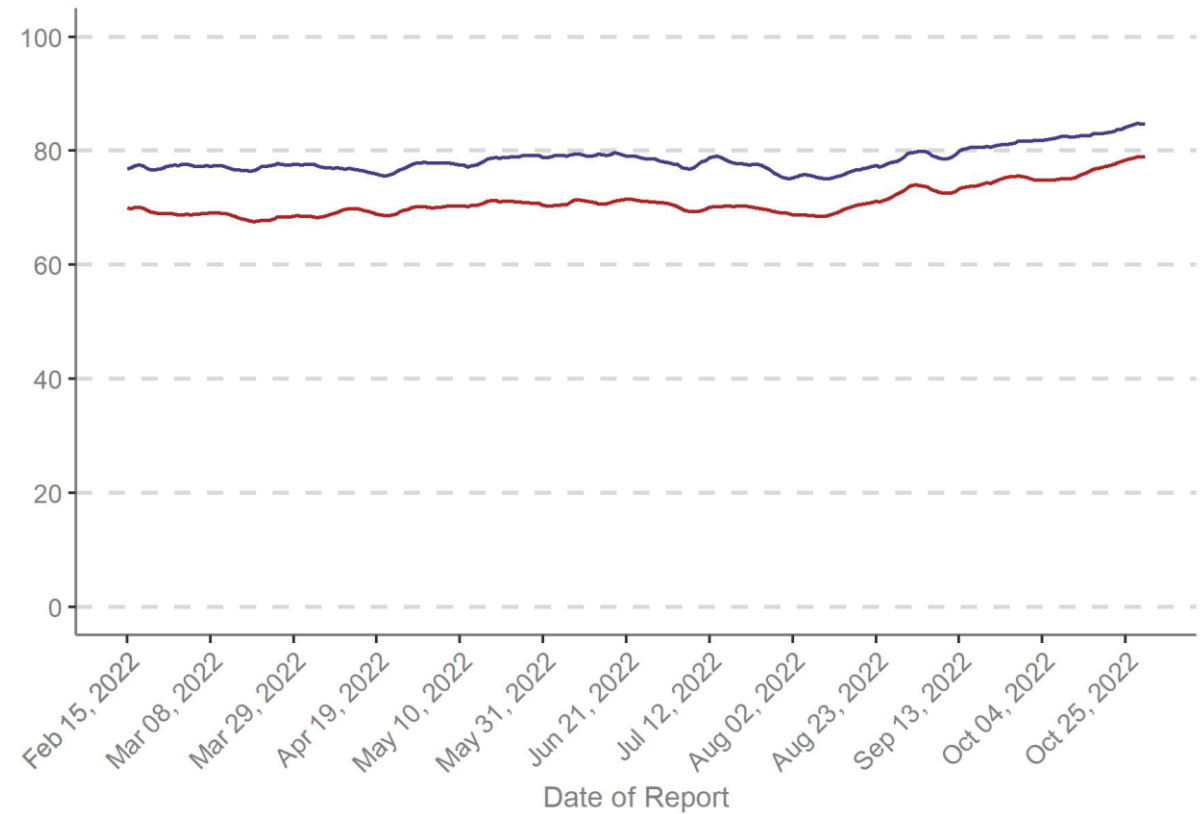
National Percentage of Pediatric Inpatient and ICU Beds Occupied – Unified Hospital Data Surveillance System, August 2020 - October 29, 2022



Inpatient Pediatric Bed Occupancy



ICU Pediatric Bed Occupancy



— All Hospitals — Pediatric Hospitals Only

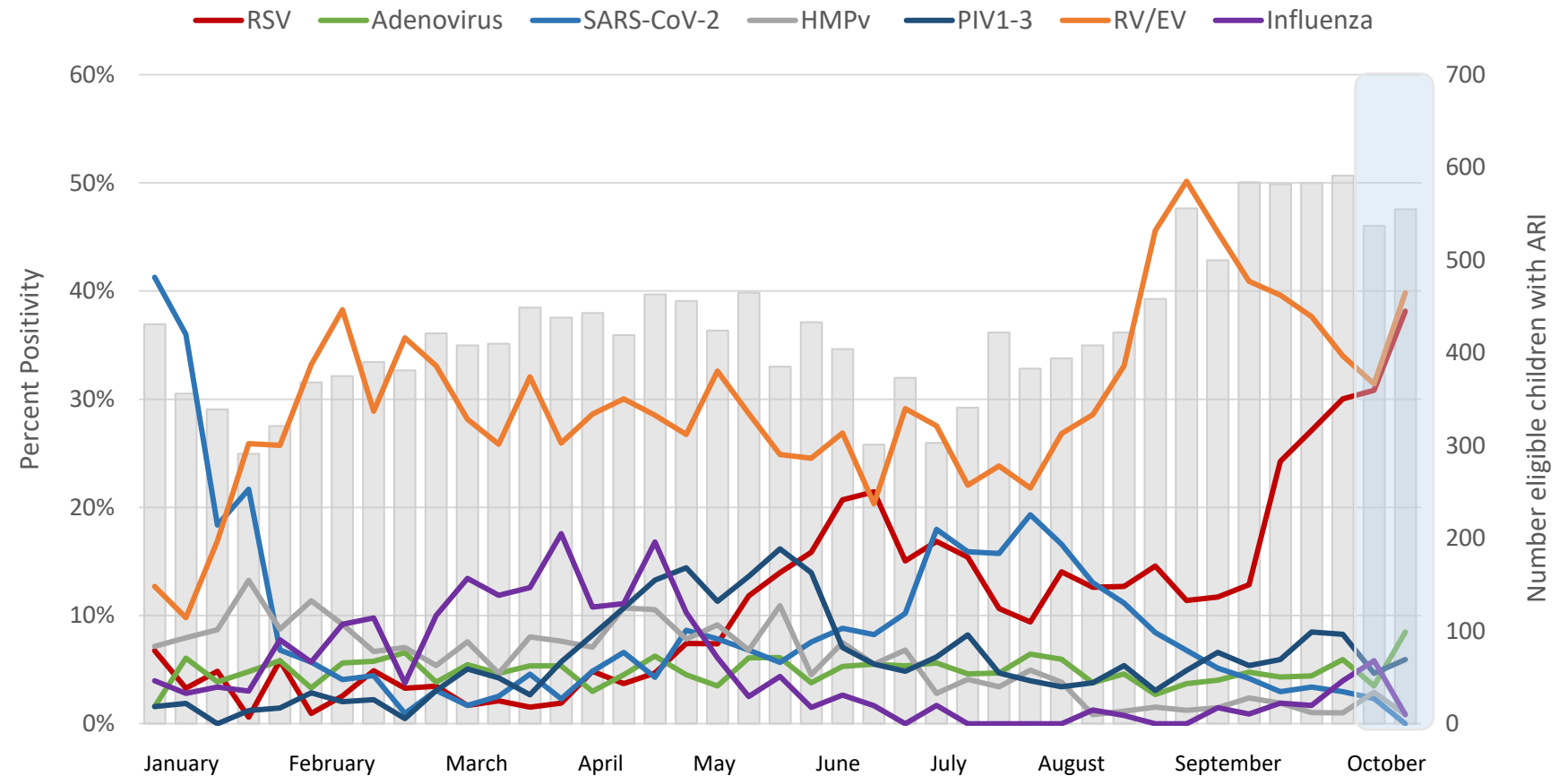
Source: Unified Hospital Data - Analytic Dataset, based on reporting from all hospitals (N = 5,161) and all pediatric hospitals (N = 93).

*Data fields for pediatric inpatient and ICU beds and occupancy are required for reporting as of Feb 2, 2022. Data in this graphic begins on Feb 15, 2022 to account for delays in initial reporting of these fields.

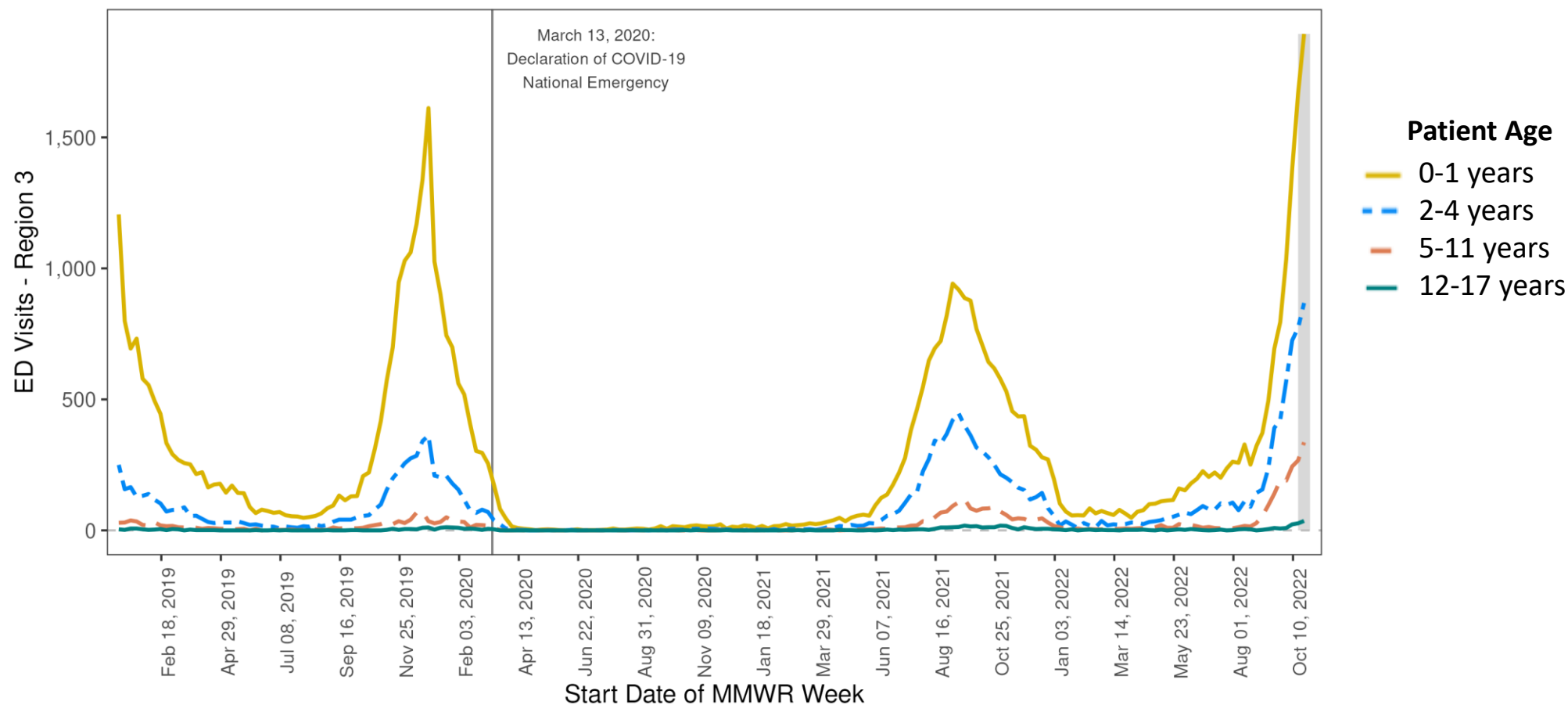
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Weekly test positivity for ED/Inpatient Children in the New Vaccine Surveillance Network (NVSN), January 2022 to present

- Network of 7 pediatric medical centers
- Year-round active surveillance for acute respiratory infection
- All participants tested for multiple respiratory viruses by PCR
- >10,000 children enrolled annually



REGION 3: Weekly Emergency Department (ED) Visits with Diagnosed RSV and RSV-like Illness*, Ages 0-1, 2-4, 5-11, and 12-17 Years, Dec 30, 2018, to Oct 29, 2022, National Syndromic Surveillance Program



+The most recent week of data may be incomplete

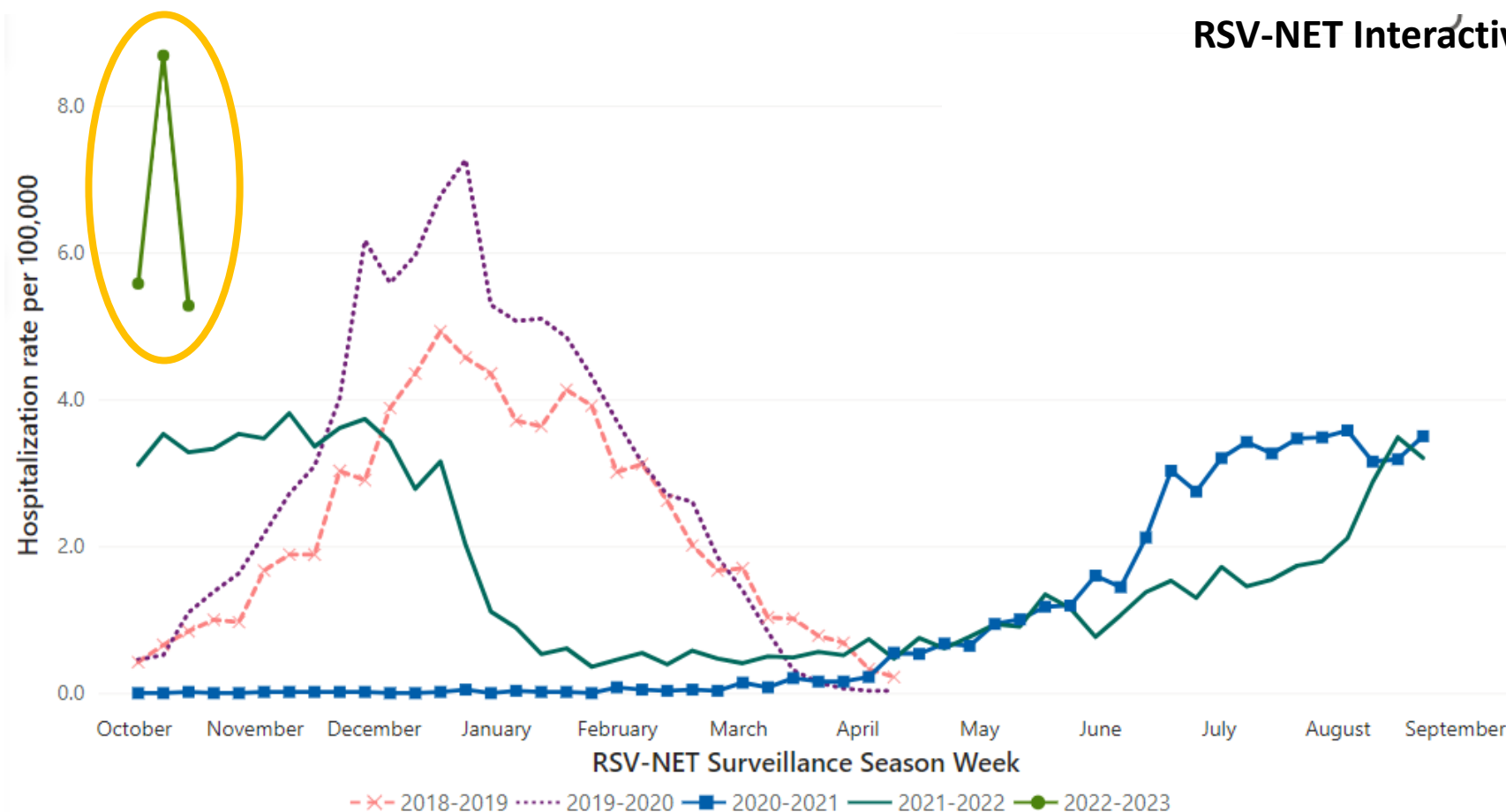
*CDC Respiratory Syncytial Virus v1 definition includes visits with RSV, bronchiolitis, or syncytial virus in the chief complaint and visits with diagnosed RSV. Counts limited to the subset of NSSP facilities with consistent reporting to NSSP and with high quality diagnosis codes throughout the time period.

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Weekly Rates of RSV-Associated Hospitalizations among Children Ages <18 years by Surveillance Season – RSV-NET, 2018-2022



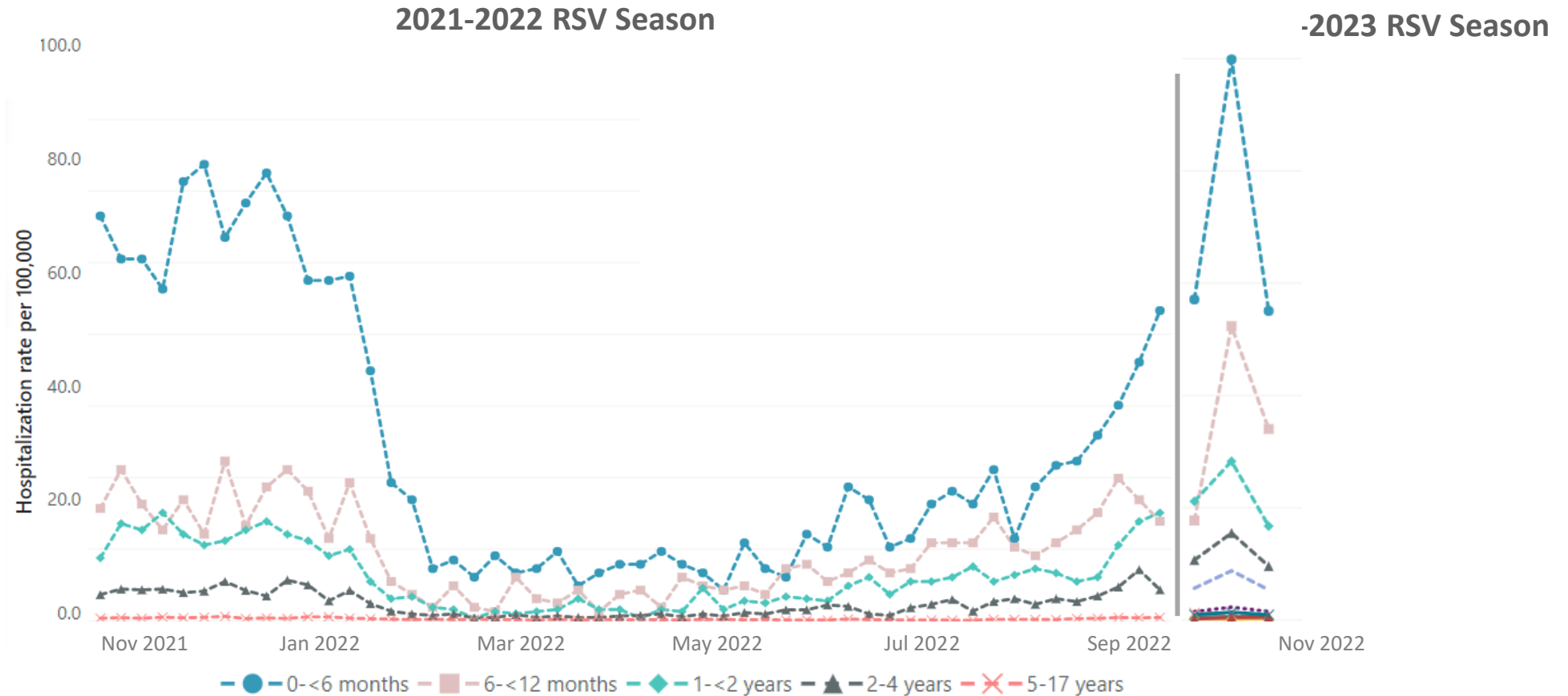
RSV-NET Interactive Dashboard



Date are subject to reporting lag. Rates presented likely underestimate actual rates of RSV hospitalization as cases are defined as those with a positive test, and not all patients might be tested for RSV. Rates are unadjusted and do not account for changing testing practices over time. Data for May and June 2022 are incomplete.

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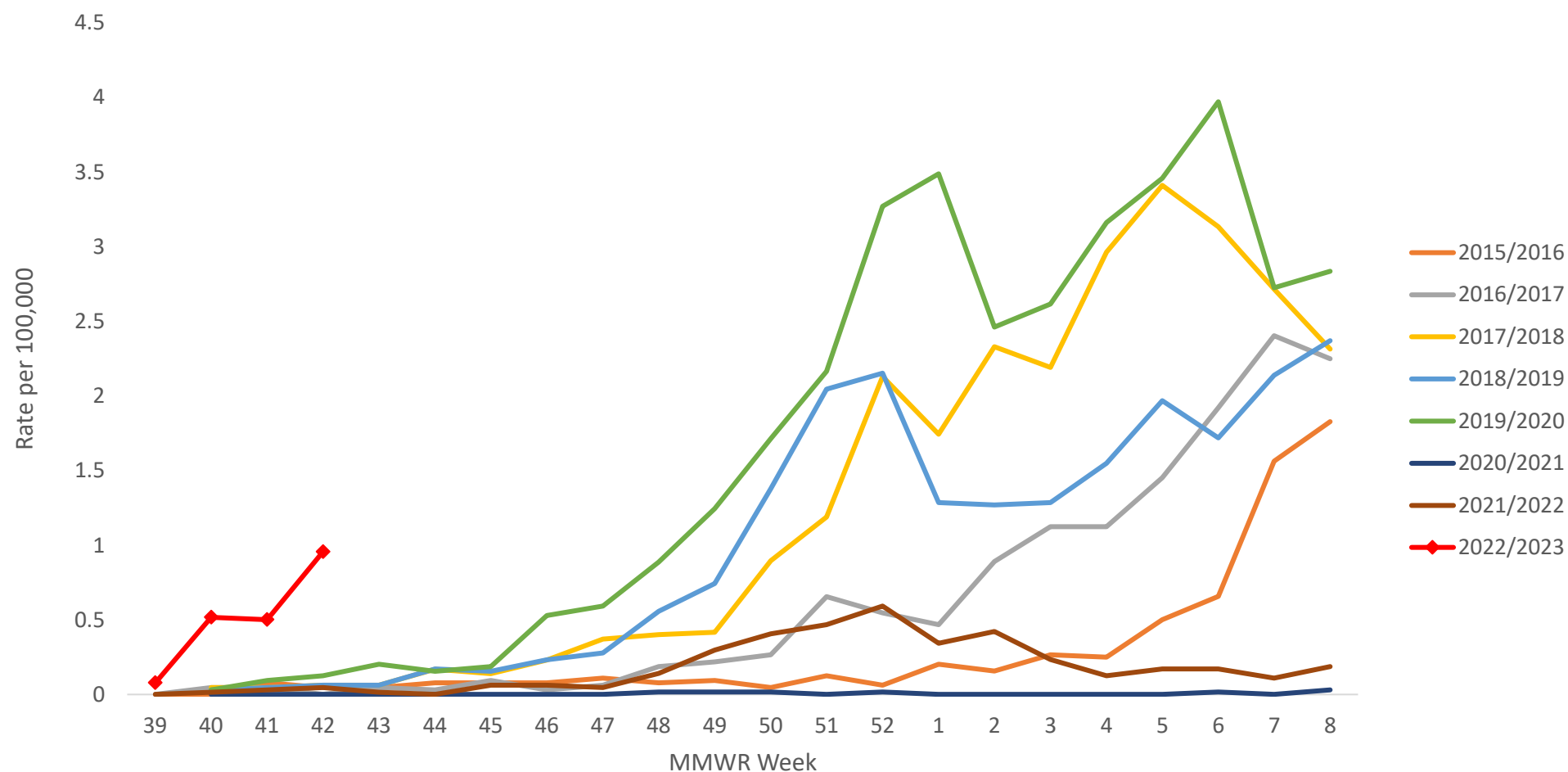
Weekly Rates of RSV-Associated Hospitalizations among Children Ages <18 years by Age Group– RSV-NET, 2021-2022



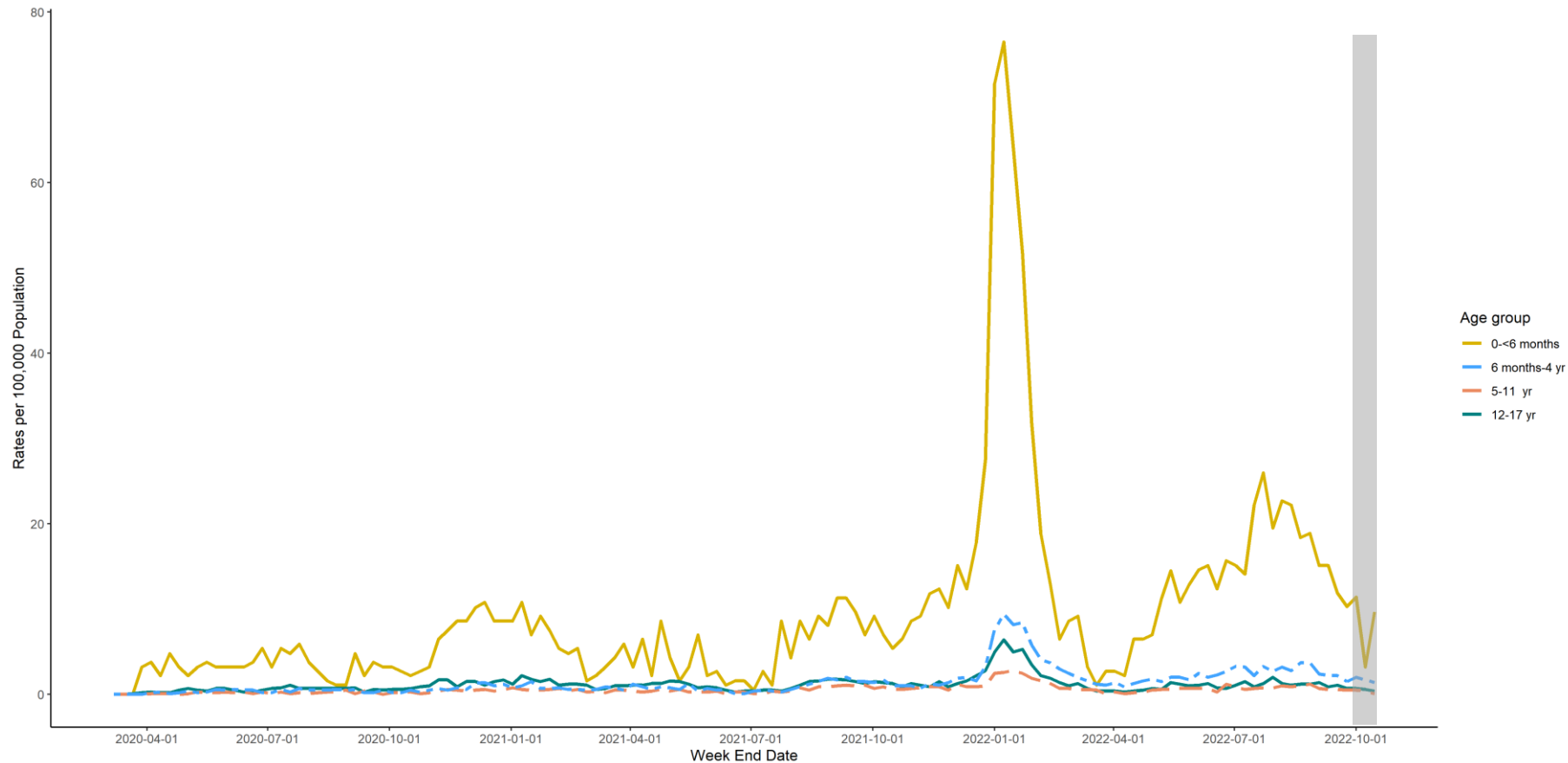
Data are subject to reporting lag. Rates presented likely underestimate actual rates of RSV hospitalization as cases are defined as those with a positive test, and not all patients might be tested for RSV. Rates are unadjusted and do not account for changing testing practices over time. Data for May and June 2022 are incomplete.

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Weekly Rates of Influenza-Associated Hospitalization in Children <18 years by surveillance season - FluSurv-NET, 2014-2022



Weekly Rates of COVID-19-Associated Hospitalization – COVID-NET, March 2020 to October 15, 2022



*Starting the week of May 29, 2022, Iowa data are removed from weekly rate calculations. Source: COVID-NET hospitalization data through October 15, 2022; <https://covid.cdc.gov/covid-data-tracker/#covidnet-hospitalization-network>

The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) conducts population-based surveillance for laboratory-confirmed COVID-19-associated hospitalizations in children (persons younger than 18 years) and adults. The current network covers nearly 100 counties in the 10 Emerging Infections Program states (CA, CO, CT, GA, MD, MN, NM, NY, OR, and TN) and four additional states through the Influenza Hospitalization Project (IA, MI, OH, and UT). The network represents approximately 10% of US population (~32 million people). Cases are identified by reviewing hospitals, laboratory, and admissions databases and infection control logs for patients hospitalized with COVID-19. Laboratory confirmation is dependent on clinician-ordered SARS-CoV-2 testing. Therefore, the unadjusted rates provided are likely to be underestimates as COVID-19-associated hospitalizations can be missed due to test availability and provider or facility testing practices. COVID-NET hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. As data are received each week, prior case counts and rates are updated accordingly. All incidence rates are unadjusted.

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REGION 3 Respiratory Disease Surveillance Summary

- Since July 2022, ED visits and hospitalizations for acute respiratory illness across all pediatric age groups.
- Consistent with national trends, REGION 3 is seeing an early increase in pediatric respiratory illness at or above peak winter levels due to multiple pathogens:
 - Rhinoviruses/Enteroviruses (RV/EV)
 - Respiratory Syncytial Virus (RSV)
 - Influenza viruses
 - COVID-19 and other viral diseases
- Nationally, bed utilization has been increasing since late summer, and is similar to Fall 2021 levels when hospitalizations increased due to the COVID Delta variant wave and an early RSV season aligning.

Data Sources

Unified Hospital Dataset

- Includes all acute care hospitals in United States
- Data are collected as aggregate daily number of admissions among patients 0–17 years that does not allow for finer age disaggregation

Coronavirus Disease 2019-Associated Hospitalization Surveillance Network (COVID-NET)

- Population-based surveillance system that collects data on laboratory-confirmed COVID-19-associated hospitalizations among children and adults
- Network of >250 acute-care hospitals in 14 states
- Updated weekly (Wednesdays, with data posted publicly every Thursday)

Respiratory Syncytial Virus (RSV) Hospitalization Surveillance Network (RSV-NET)

- Population-based surveillance system that collects data on laboratory-confirmed COVID-19-associated hospitalizations among children and adults
- Collects and reports data from acute-care hospitals across 75 counties in 12 states
- Typical surveillance season is October 1–April 30. Surveillance extended into summer 2021 and 2022 due to atypical increases in rates of hospitalization

Data Sources - Continued

New Vaccine Surveillance Network (NVSN)

- Active, population-based surveillance network at 7 pediatric medical centers
- Year-round acute respiratory illness surveillance in inpatients, ED, and outpatient clinics
- Participants tested for multiple respiratory viruses by multiplex PCR assays

National Syndromic Surveillance Program (NSSP)

- Electronic patient encounter data received from emergency departments, urgent and ambulatory care centers, and laboratories
- Tracks symptoms, signs and clinical diagnoses of emergency department patients in near real-time
- ARI definition pulls only from discharge diagnoses, including diagnosed RSV. RSV definition pulls from both chief complaint text direct mentions of RSV (included if the record says "RSV," "bronchiolitis" or "syncytial virus.") and the diagnosis.

Influenza Hospitalization Surveillance Network (FluSurv-NET)

- Population-based surveillance system that collects data on laboratory-confirmed influenza-associated hospitalizations among children and adults through a network of acute care hospitals in 14 states.
- FluSurv-NET also provides demographic and clinical information including age, sex and underlying medical conditions among persons hospitalized with flu. Data gathered are used to estimate age-specific hospitalization rates on a weekly basis and to describe characteristics of persons hospitalized with influenza illness.

Current Local Situation and State of Mitigation Strategies to Support Children



Maryland C4Pediatrics and Viral Respiratory Surge Fall 2022

Jennifer Anders MD

Medical Director, C4Pediatrics, MIEMSS

Pediatric Emergency Medicine, Johns Hopkins University

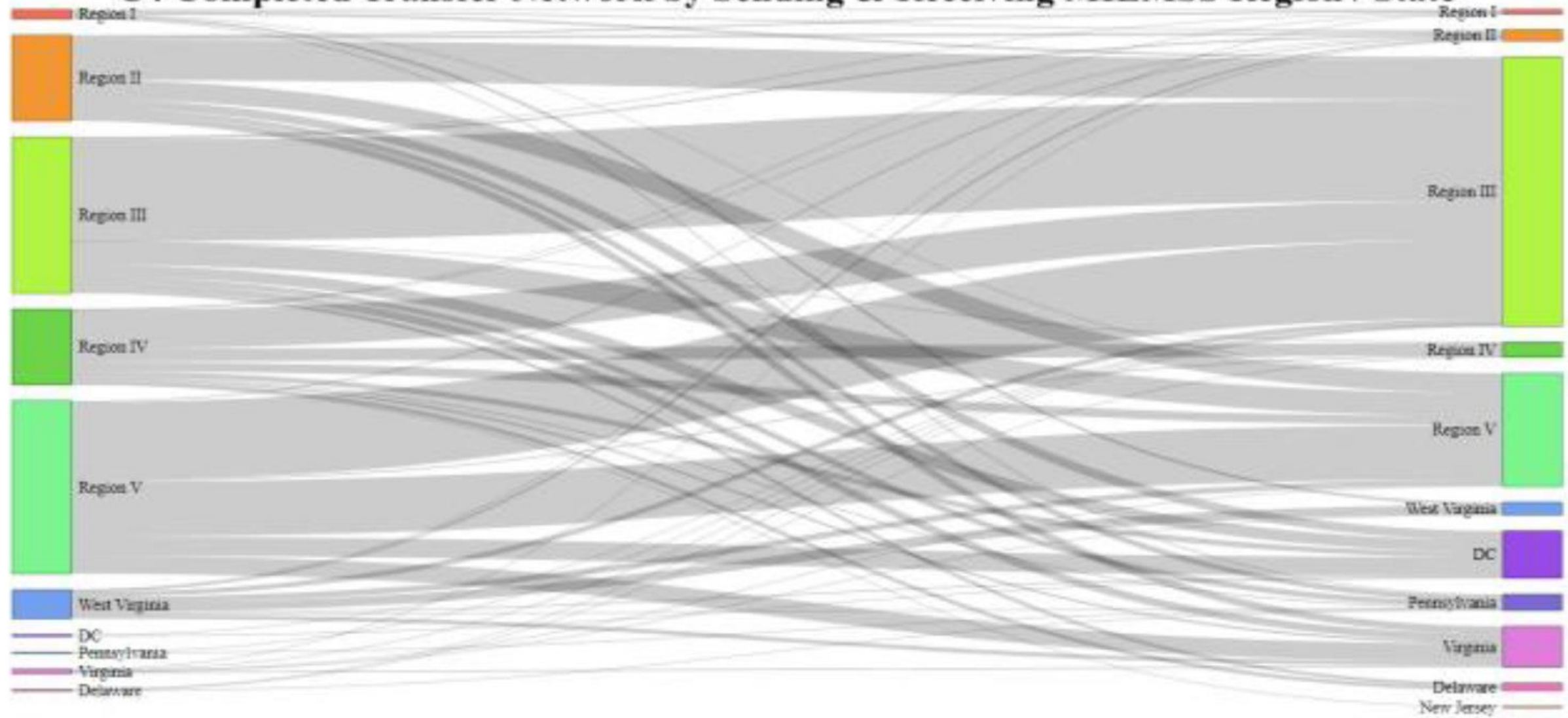


Critical Care Coordination Center (C4)

- Concept from early COVID-19 response
 - Improve access to ICU beds for adult patients
 - Increase utilization of community hospital ICU beds
- Funding from CDC/Maryland Dept of Health
- ICU Physician (CIP)
- Paramedic (Coordinator)



C4 Completed Transfer Network by Sending & Receiving MIEMSS Region / State



The Right Care When It Counts

*Get the patient to the right
center at the right time*



C4 Pediatrics Started Oct 1, 2021

- The Mission:
To aid in finding the most appropriate receiving hospital for children who require interfacility transfer of care.
- “Most Appropriate” includes:
 - Medical needs of the patient
 - Established patterns of care
 - Geographic proximity

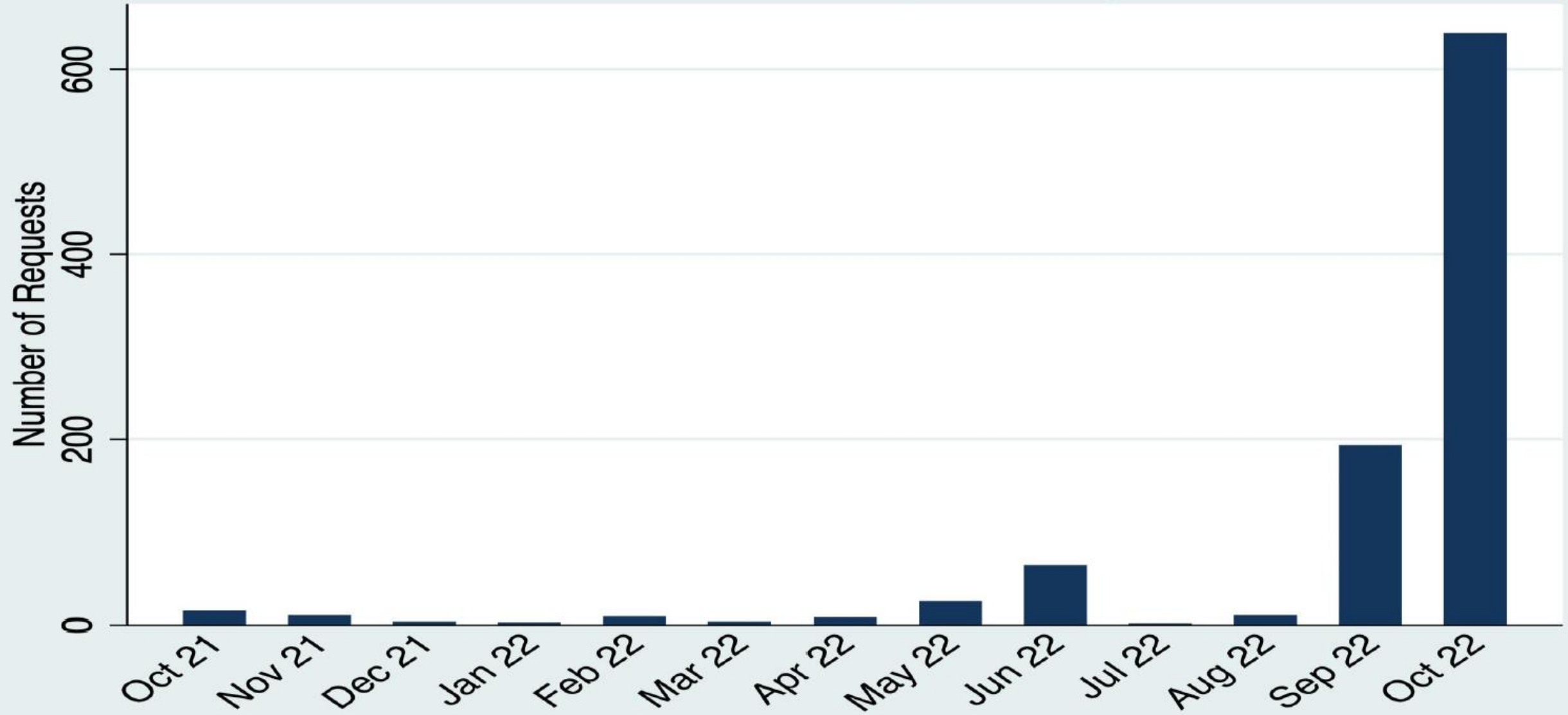


C4 Pediatrics: The Assets

- Phone line: 410-706-7797 (option 2 for pediatrics).
 - All calls are recorded
- C4 Pediatrics Coordinator (Paramedic)
- Central Advisory Pediatric Physician (CAPP)
- Google Drive Information
 - Hospital Resources (Pediatric Capabilities)
 - Smartsheets
 - CRISP



Number of C4P Requests by Month



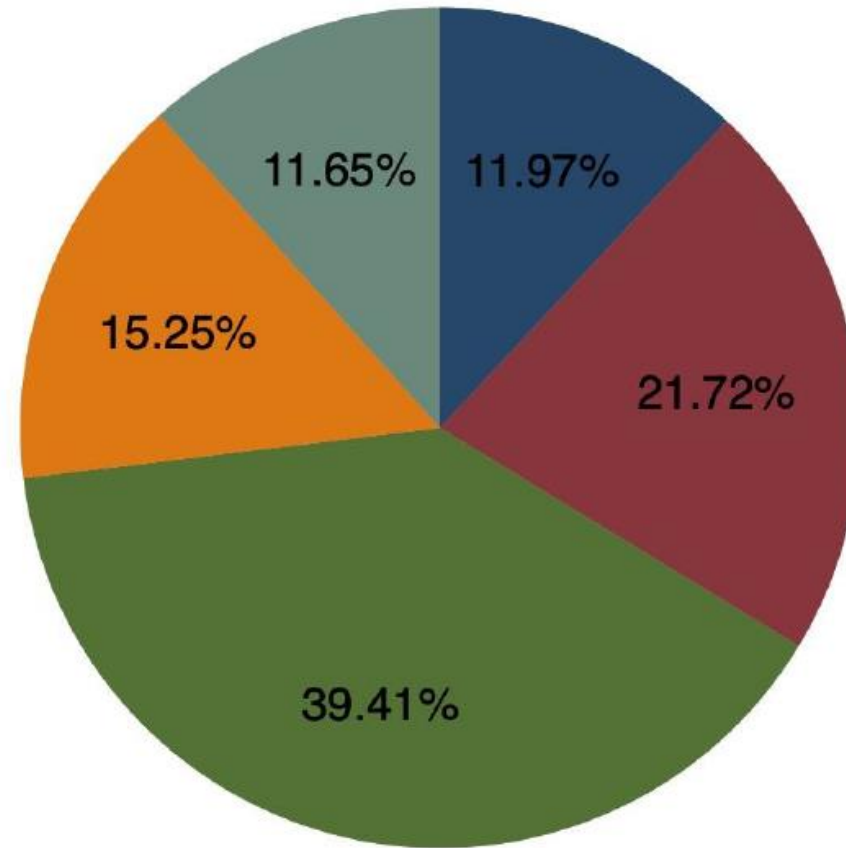
C4P: Initial 13 months

960 Transfer Requests*

670 Transfers to In-patient Pediatric Hospitals	69.8%
515 Direct Result of Assistance by C4	53.6%
149 Found their own placement	16.1%
233 Managed in Place with C4 Assistance	24.3%
Other or Unknown Dispositions	5.9%



C4P Requests by Age Group



C4P: First 13 months

- 694 PICU Requests 72%
- 236 Floor Requests 25%
- Other/Unknown 3%
- 29 Requests for Specialty Services (Neuro,, GI, etc) 3%
- 15 Requests for Pediatric Surgery 1.5%
- 14 Requests for Pediatric Trauma 1.5%



C4P: First 13 months

In State Transfers (Maryland + CNMC)

- 62%
- 85% PICU centers v 15% community peds

Out of state Transfers (DC, DE, PA, VA, WV)

- 38%



Evolution of Process – No Place to Go

- Triage Acuity Level
 - High, Medium, Low
 - Patient needs & Facility Capabilities
- Regular Follow-up Call Plan
 - Video capability (Zoom)



Evolution of Process – HFNC Capabilities

- Use of HFNC far exceeds PICU capacity
- Community sites managing HFNC for hours/days
- Developed HFNC clinical guidance
 - Use by CAPPs
 - Distributed to community sites
 - Request for nursing education
- Increasing capabilities of community hospitals



Evolution of Process – Queue/Open Calls

- Daily Report of Open Calls – Shared Information
 - Number of waiting patients
 - Triage Acuity Level
 - Brief clinical status
- Situational Awareness for Pediatric Centers
- Selective triage when PICU beds open



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Caring for Patients in Inpatient and Outpatient Settings During Episodes of Surge

[Home](#) / [Critical Updates on COVID-19](#) / [COVID-19 Interim Guidance](#) / Caring for Patients in Inpatient and Outpatient Settings During Episodes of Surge



Many Thanks.....

- Governor Larry Hogan
- Dr. Ted Delbridge, MIEMSS Executive Director
- Dr. Sam Galvagno, C4 Medical Director
- C4 Admin/Leads: Dwayne Kitis, Alex Kelly, Todd Bowman, Melissa Kelly
- C4 Coordinators
- C4P Central Advisory Pediatric Physicians
- Maryland EMS for Children (Cyndy Wright-Johnson)



ASPR Pediatric Tools and Resources

Pediatric Surge: Tools from the Pediatric Centers of Disaster Excellence

Presented by

Deanna Dahl Grove, M.D., FAAP

Brent Kaziny, M.D., FAAP

Christopher Newton, M.D.



Objectives to Address Surge

- Strategies/Systems - anticipating surge (alternate care sites, policy changes)
- Staff - what to do for staff, tools and training, creating staff extenders
- Stuff - what is needed for children and training to use
- Space - identifying space, balancing placement, transport



Strategies & Systems

- Review Crisis Standards of Care that include pediatric strategies
 - Avoid reaching crisis
- Review Pediatric Annex (2019) with Healthcare Coalition
 - Alternate care sites (infusion centers, primary care offices)
 - Policy review (elective procedure delay, age restrictions)
 - Regulation expansion of hospital bed capacity/type
- Situational Awareness
 - Sharing data on trends within region
 - Bed capacity within region
 - Consider coordinating center for ease of use by practitioners



Crisis Standards of Care – Pediatric View

- Consider the full spectrum: normal to surge to contingency to crisis
- The best “CSC plans” keep the institution out of the crisis state in the first place
 - Contingency: doing everything possible to accomplish statement above
 - Example: Load balance or EMS adjustments across system/ region
- There is no circumstance of “no care at all”
 - State what you CAN DO, not what you CAN NOT DO
- CSC plans exist to *protect against* inequities, not to justify them
 - Scores (i.e. – PELOD-2) are great optional tools, but are not “the plan”
- Does your command center have a pediatric advisory role?
 - Adult / peds integration

• [Link to resource](#) and [link to recording](#)



Example: Pediatric CSC Template

Contingency

Institutional options

1. Upstaffing with licensed and trained outside support (e.g., locums, travelers, per diem). It's important to compare current staffing contingencies at hospitals within the area to make sure that there's as consistent level of care provided as possible.
2. Restricting elective procedures that are not time sensitive: delay of CHA tier 1 elective surgeries
3. Reverse triage: discharge or ward downgrades wherever clinically safe and appropriate.

System options

1. Institutional load balancing: direct patient transports to like institutions with remaining capacity consistent with EMTALA requirements
2. Activate outpatient resources that may support acute care needs (telemedicine, primary care system, home nursing, etc)
3. Alter standard EMS operations provided acceptable standards of care are maintained (i.e. - 14-18 year old patients treated at adult or pediatric centers as capacity allows, limits on transport of non-urgent patients consistent with EMTALA requirements).



Situational Awareness

- Activities:
 - Enhance state and regional medical pediatric surge capacity
 - Enhance situational awareness of pediatric disaster care across the spectrum
- Weekly RedCap Survey - takes less than 5 minutes and questions can be revised as needed
- Forthcoming DUA to collect actual numbers

ASPR EGL Situational Report for the Region V for Kids

AAA



Please complete the survey below. All comparisons made in this current reporting period should be made to numbers in the previous week.

Thank you!

Hospital Location:	
Reporting Date:	Today M-D-Y
Compared to the previous week, over the past week:	
Is your average ED Volume:	
☐ Increased	
☐ Decreased	
☐ About the Same	
☐ Data N/A	
reset	
Is your average LWBS:	



Bed Availability & Situational Awareness

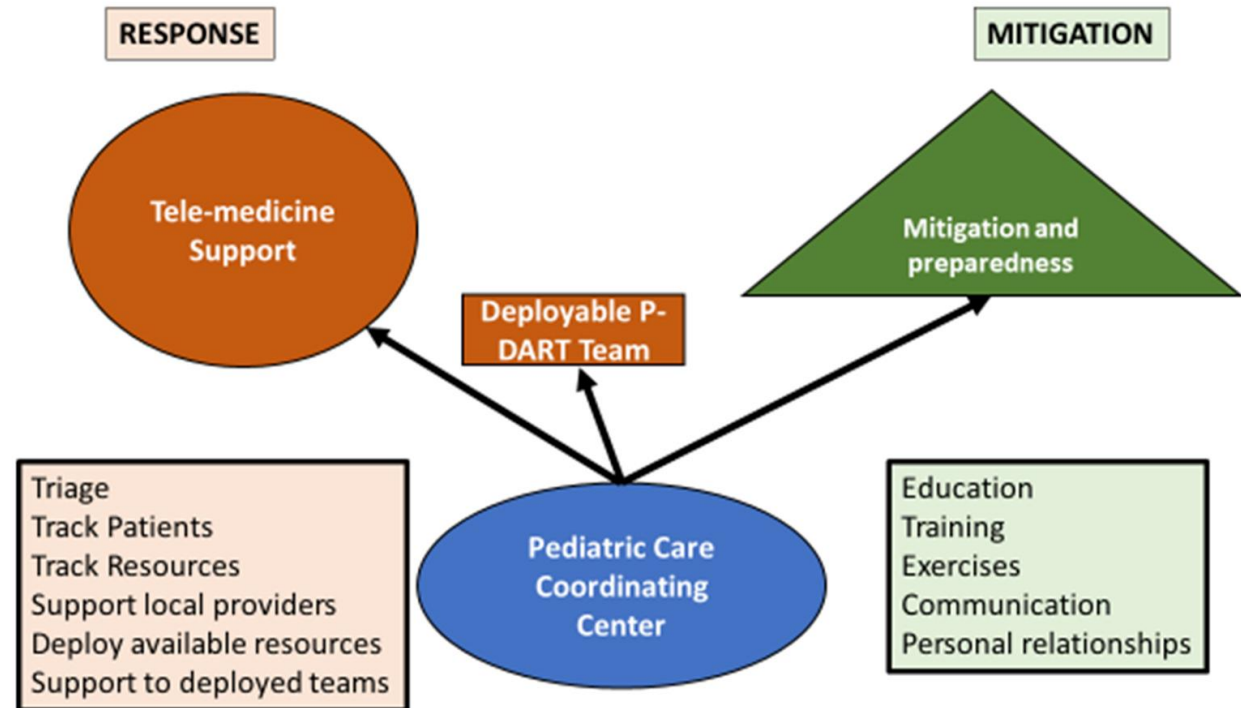
- Coordinated development with Intermountain region (WRAP-EM) and available in 30 states
- Currently used in Michigan and the Intermountain Region

☐	Pediatric Test	FEMA Region	State Region	Partnership Region	Pediatric Trauma Level	Total Pediatric Med-Surg Beds	Open to Peds ED Transfers	Pediatric Med-Surge Beds Available	Total PICU Beds	PICU Beds Available	Total NICU Beds	NICU Beds Available	Pediatric Burn Beds Available	Pediatric Dialysis Available	ECMO Availability	Pediatric Neg Pressure Iso Available	PICU Transfer Capability	NICU Transfer Capability
	Peds Test	Region V	MI Region 1	Great Lakes	Level I	10	No	Yes	12	Yes	4	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Sample Academic Children's Hospital	Region V	MI Region 2N	Great Lakes	Level I	130	Yes	Yes	26	Yes	54	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Sample Community General hospital	Region V	MI Region 2S	Great Lakes	Level II	21	Yes	No	8	Yes	45	Yes	No	No	No	Yes	No	Yes
	Sample General Urban Hospital	Region V	MI Region 3	Great Lakes	Level III	0	Yes	No	0	No	0	No	No	No	No	No	No	No
	Sample General Urban Hospital #2	Region V	MI Region 5	Great Lakes	Level II	20	Yes	Yes	12	Yes	35	No	No	No	No	Yes	No	Yes
	Sample Limited Access Hospital	Region V	MI Region 6	Great Lakes	Level IV	1	Yes	Yes	0	No	0	No	No	No	No	No	No	No
	Sample Rural Hospital	Region V	MI Region 7	Great Lakes	Level IV	4	No	No	0	No	0	No	No	No	No	No	No	No
	Sample Urban Children's Hospital	Region V	MI Region 8	Great Lakes	Level I	89	No	No	36	No	108	No	Yes	Yes	Yes	Yes	Yes	Yes
	Summary	N/A	N/A	N/A	N/A	275	N/A	N/A	94	N/A	246	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Pediatric Medical Operations Coordination Cell - Model

- Integrating telehealth capability and capacity
- Increasing coordination within a region
- Virtual exercise and workshop to share successes and challenges

Pediatric Medical Operations Coordinating Cell (P-MOCC)



Staff

- Make sure that staff well-being is at the top of concern - inadequate support from administration and inadequate tools and knowledge will contribute to burnout
- Increase knowledge regarding child/family behavioral health
 - ED Mental health
 - New England Toolkit
 - Behavioral Health tools for healthcare
 - Tools for Families
- Increase capability - Medical
 - Just in time education (Toolkit link)
 - Telementoring from pediatric specialist
 - Asynchronous education
 - Online resources (Family Centered Care) (Pain in Children)



Stuff – Supplies to Support

- [Critical supplies list](#)
- Emergency Department and Prehospital supplies list
 - [Toolkit](#)
 - [Supplies for ED](#)
- Education on use of supplies
 - PALS
 - PDLS (revision)
 - ENPC
 - TNCC

- Product Shortages: Products of concern for this event include supplies and equipment that are commonly used to treat respiratory illnesses, and that may have limited numbers of manufacturers. Products that should be tracked for disruptions due to increased demand, include:

- Fluids
- Pediatric ventilators
- Treatments like palivizumab
- Oxygen
- Pediatric intubation supplies
- Desitin and diapers
- Pediatric personal protective equipment (PPE), including N95s



Space

- Transport resources
 - [Toolkit for prehospital](#)
- Increase capacity at non-children's hospitals
 - [Use of Pediatric specific HVA to support readiness](#)
 - Facility Recognition
 - Statewide bed tracking and EMS location tools
- Outpatient support
 - Family medicine and Pediatricians with longer hours
 - Staffing for monoclonal outside of ED
- Medical triage by condition/age
 - i.e., age greater than 12 years (and over 40 kg)
 - Tele mentoring support necessary for triage and medical care



Additional Resources

- [Treatment of RSV](#)
- [Training for Adult ICU to care for kids and Fundamentals Course](#)
- [Crisis Standards](#)
- [Prior Town Hall Meetings](#)
- [Just-in-Time Manual](#)



Questions??

Contacts

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G7	Brent Kaziny, M.D., FAAP	bxkaziny@texaschildren.org



Path Forward



THANK YOU
