

Health System Utilization and Dissemination in Surge Contexts

Pediatric Challenges and Adaptions During the Tripledemic

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Pediatric Challenges and Adaptions During the Tripledemic

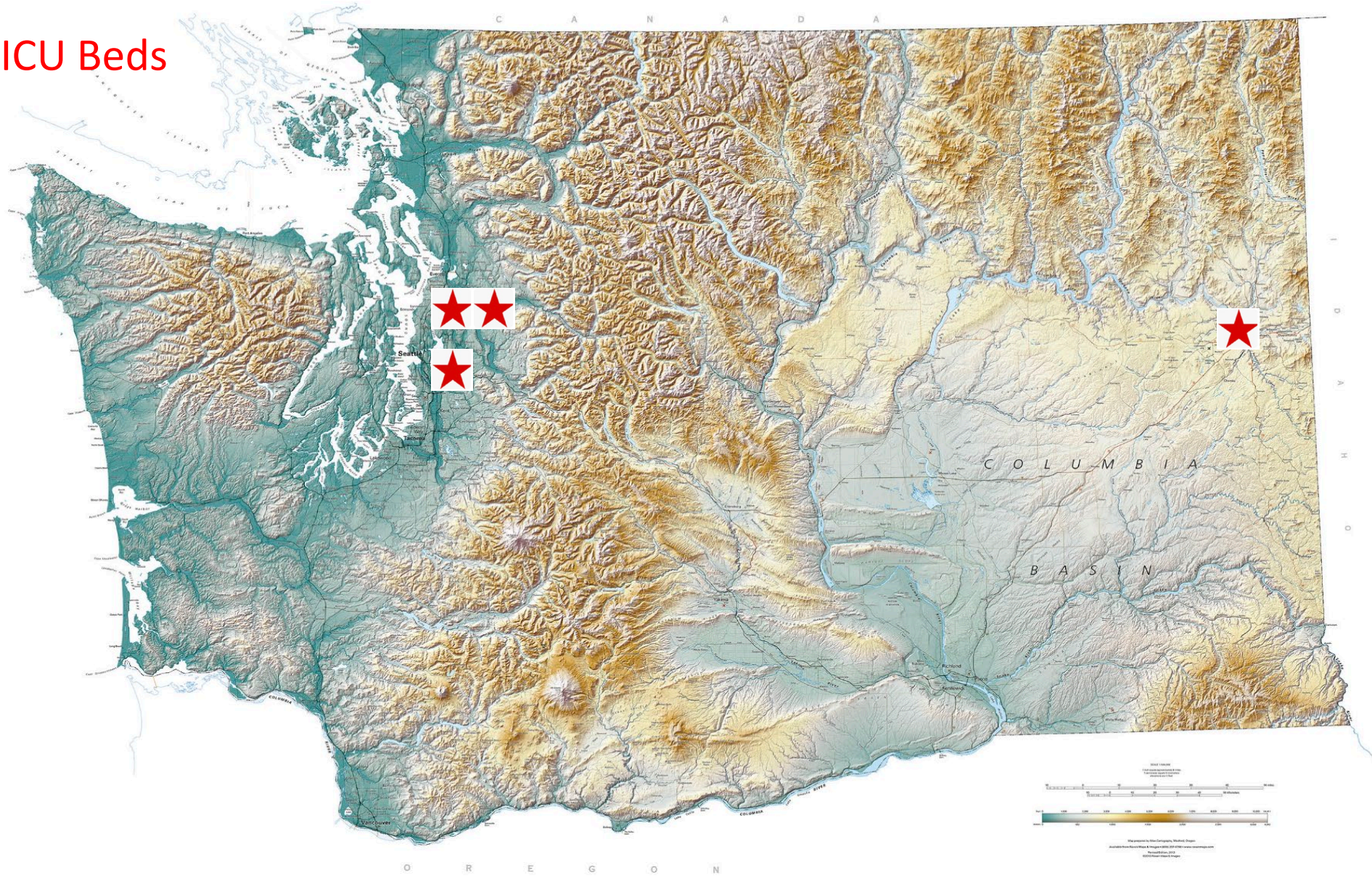
Goals

- Background of the WA Medical Coordination Center
 - WA State Medical Operations Coordination Center
- Background on the “Tripledemic” in Winter of 2022
 - Healthcare Impacts in WA State
- Adaptions to Manage Surge
 - Results



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★ = PICU Beds



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King County LTCF Outbreak

The New York Times

'It's Pure Panic': A Wrenching Wait at Nursing Home Where Coronavirus Took Hold

Cut off from their relatives inside a virus-stricken nursing center, families are frantically searching for help and basic information.

THE WALL STREET JOURNAL.



**One Nursing Home, 35 Coronavirus Deaths:
Inside the Kirkland Disaster**



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Single LTCF – Single Hospital

- Nearly overwhelmed
- No coordination of patients to single facility
- Not isolated occurrence

Characteristics and Outcomes of 21 Critically Ill Patients With COVID-19 in Washington State

Matt Arentz, MD¹; Eric Yim, MD²; Lindy Klaff, MD²; [et al](#)

[□ Author Affiliations](#) | [Article Information](#)

JAMA. Published online March 19, 2020. doi:10.1001/jama.2020.4326



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Early Challenges

- Lack of coordination
 - Across geographic regions
 - Between health-systems

Hospitals surveyed by the Houston-area council on seven days during July had an average of 190 patients combined who needed a bed somewhere else, with dozens waiting for an intensive-care opening.

THE WALL STREET JOURNAL.

Why Hospitals Can't Handle Covid Surges: They're Flying Blind

During a pandemic, officials need real-time data to make sure resources go where they're needed; attempts to build a system this year have failed

El Centro Regional Medical Center was overrun with dozens of Covid-19 patients in May, with nowhere to send the critically ill. The only other hospital in Imperial County, Calif., also was swamped.

Chief Executive Adolphe Edward called the state's emergency medical services director, asking him to intervene. "Please, please help us," he pleaded.

Doctors and nurses at El Centro swapped text messages and made phone calls, blindly searching for openings at other hospitals.

In the emergency room, coronavirus patient Jose Manuel Abundis Gomez waited. It took 20 hours to find another hospital with a bed for the 71-year-old retired state administrator, said Alidad Zadeh, his primary care physician.



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When Every Health System Under Stress

- Take care of patients or the staffing challenges in front of you
 - “I’m sorry, we have 100 kids in the waiting room waiting for beds”
 - “We are really short on staff”
- “We are in worse shape than everybody else”
- “We have accepted more transfers than anybody else”
 - Communicated at the level of the transfer center call receiver



Regional Coordination Center

Disaster Medical Coordination Center (DMCC)



Regional COVID Coordination Center (RC3)
Harborview Medical Center/King County
Northwest Health Response Network



→ **Washington Medical
Coordination Center (WMCC)**



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State Coordination Strategies

- **Coordination across all aspects of Washington hospital leadership**
- **Governmental/regulatory**
 - Governor, DOH, Sec of Health, WA State Health Officer
- **Hospitals**
 - WA Hospital Association (WSHA), Health System Executive Leadership
- **Healthcare coalitions**
 - Northwest Healthcare Response Network, REDI Network



WMCC – Who is the WMCC?

- 1 RN on duty
 - Assisted by Operations Manager (RN)
- Physician backup (medical director)
- Medical director/Director of Operations/Operations Manager
 - Routine briefings > regional and state
 - Routine regional update sessions
 - Strategy, operations



The Original RC3 Team



Pediatric “Tripledemic”

Medical News & Perspectives

November 11, 2022

“This Is Our COVID” — What Physicians Need to Know About the Pediatric RSV Surge

Jennifer Abbasi

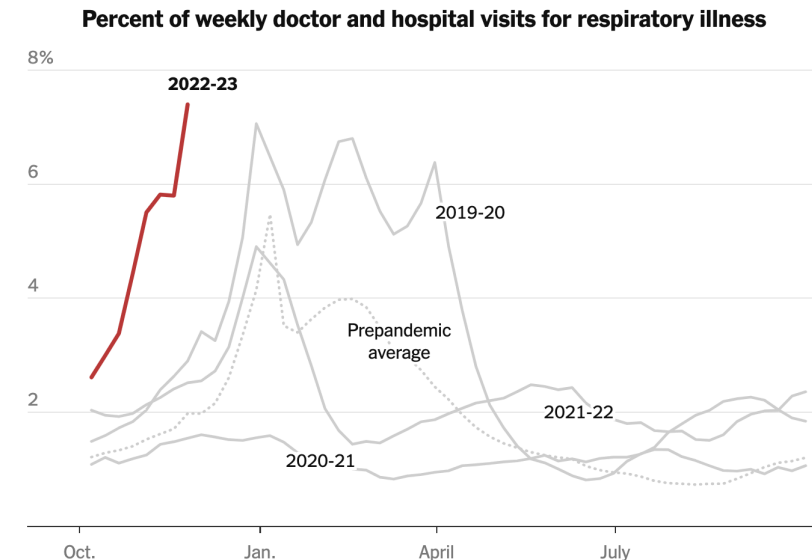
Article Information

JAMA. 2022;328(21):2096-2098. doi:10.1001/jama.2022.21638

The New York Times

Just How Bad Is the ‘Tripledemic’?

By Amy Schoenfeld Walker Dec. 16, 2022



Source: Centers for Disease Control and Prevention • Note: The data includes people infected with influenza, R.S.V., the coronavirus and other respiratory viruses but is not a complete measure of the scope of these infections. The most recent weeks of data generally lag while reports come in. The weeks ending Dec. 3 and Dec. 10 are excluded because of this underreporting.



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Pediatric ICU Capabilities in WA

Characteristics	Washington
Pediatric population, <i>n</i>	1,689,515 ^a
PICU beds, <i>n</i>	115 beds in four hospitals
MOCC evolution	
Patient populations served	All adult acute care and ICU → pediatric acute care and ICU
MOCC participants	All hospitals within the State of Washington
Communication structure	Centralized, state-supported coordination center

➤ [Pediatr Crit Care Med.](#) 2023 Sep 1;24(9):775-781. doi: 10.1097/PCC.0000000000003301.
Epub 2023 Jun 1.

Pediatric Data

HCC-led Pediatric Data gathering

1. NWHRN Pediatric Workgroup shared situational awareness regularly since COVID
2. Collected peds hospital bed data via:
 1. Excel spreadsheet 2x/week
 2. Data validated with weekly call with peds clinical leaders throughout state



Pediatric Planning

HCC-led Pediatric Planning informed by Data

1. Pediatric surge planning efforts over spring/summer 2022 in anticipation for back to school without masks, included initial discussions with WMCC
2. Data clearly indicated increase in admissions and decrease in capacity Sept 2022
3. Engagement with Pediatric Center of Excellence (WRAP-EM) validated regional and national trends
4. WMCC discussions between Pediatric leaders from NWHRN Pediatric Workgroup, WMCC, pediatric hospital leaders
5. Universal ask by pediatric centers for Pediatric WMCC support



3 Major Challenges

1. Rapidly Expand Pediatric Health System
2. Pediatric triage support for WMCC RN's (Adult Critical Care RN's)
 - Stay in place with support
 - Acute care bed at hospital with no PICU
 - Send to tertiary hospital with a PICU
3. Provide expert “support” for hospitals requesting assistance



Solutions: Pediatric Bed Expansion

1. Rapidly expanded use of acute care peds beds in community hospitals

1. “OK to take transfers”
2. Expanded acute care areas and stretched staff ratios

2. PICU in the MICU

1. Primarily teens with overdose

3. Neonatal ICU Expansion

1. Some limited success
2. Major resistance from community groups (Academic Med Centers more malleable)

4. Support in Place

1. Required Pediatric Subject Matter Experts (SMEs)
2. Fine line between “support and consultation”



Solutions: Subject Matter Experts

1. Utilized “On-call” PICU Attendings as Pediatric SMEs

- Trauma PICU Faculty from Harborview > during their “off-season”
 1. Small group of 10 PICU faculty that worked at both Harborview and Seattle Children’s
 2. Under-deployed when on Harborview duty during late fall and winter
 3. Smaller group, easier to become familiar with WMCC systems



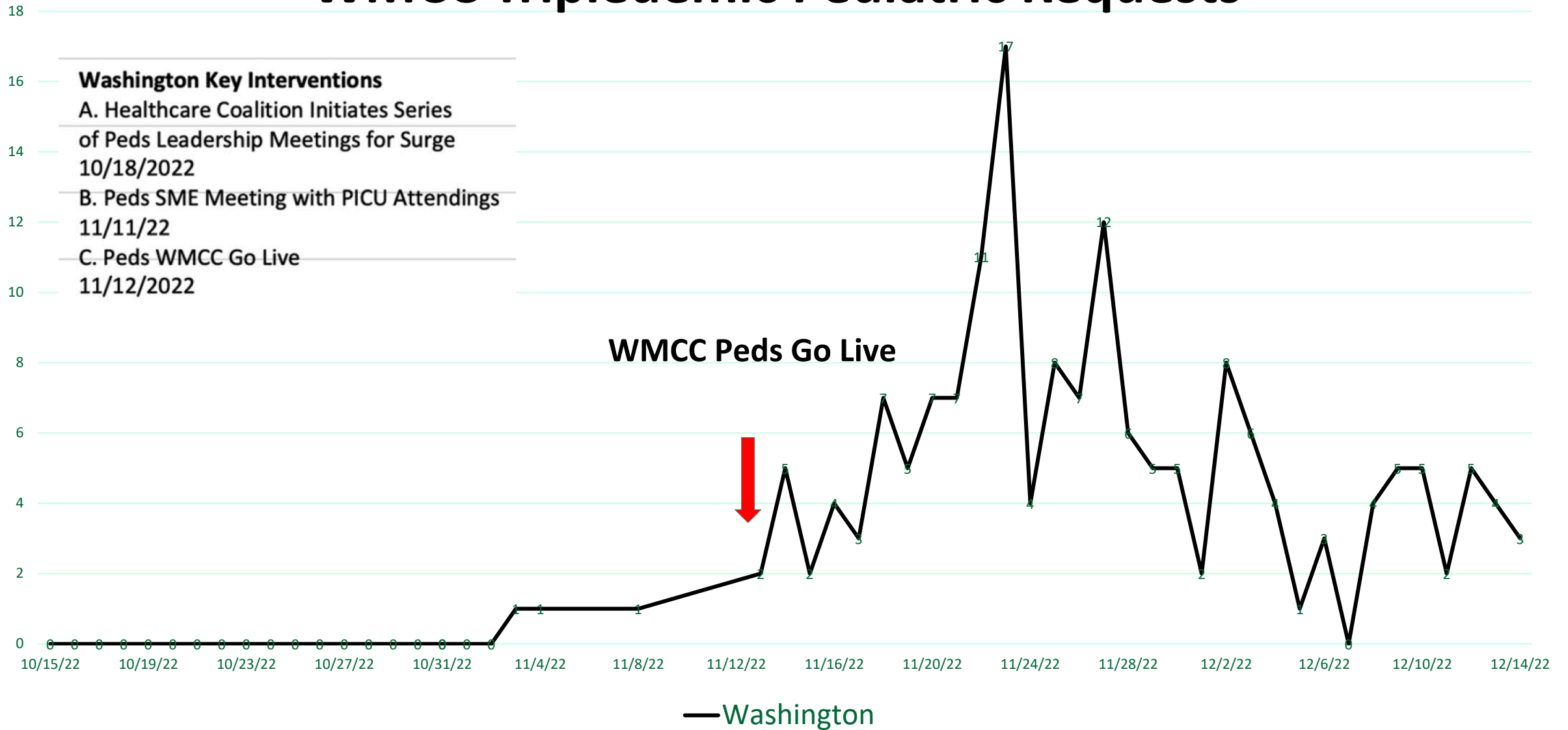
Solutions: Subject Matter Experts

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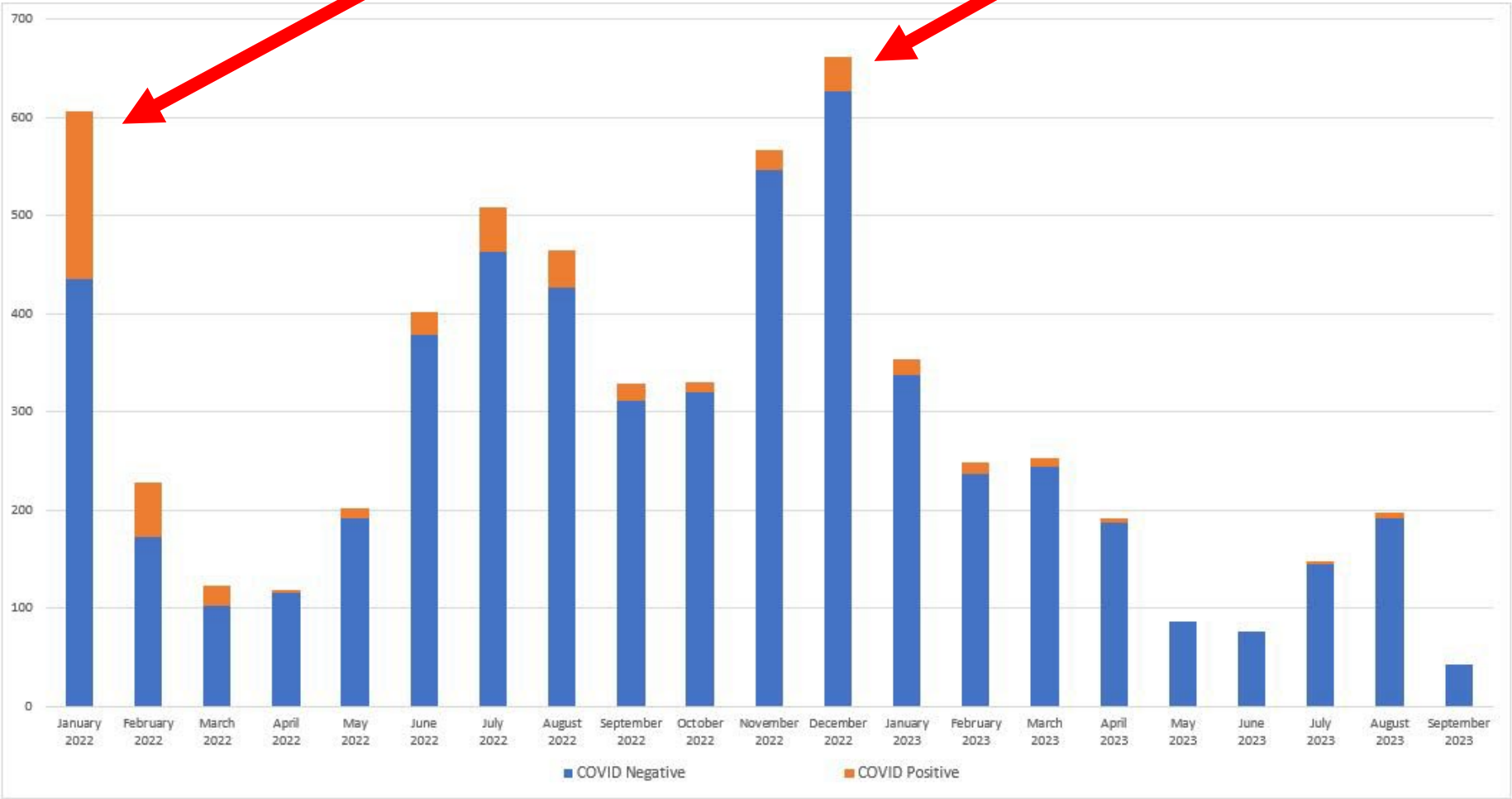
- Provided WMCC triage RN support in decision-making (when matching patient to an available bed)
 1. Became trusted resource for referral hospitals, receiving hospitals, AND WMCC RNs.
 2. Primary pediatric referral hospital was designated to provide ongoing clinical support while WMCC worked to find a bed.
 3. WMCC Peds SME was a clinical support backstop for referring ERs if primary pediatric referral hospital was overwhelmed or unable.



WMCC Tripledemic Pediatric Requests



Total WMCC Call Volume by Month



Prepared by NWHRN

Results S

November 1, 2022 - December 14, 2022

- All pediatric acute and critical care beds over capacity (~135-150%)
- WMCC Managed:
 - 171 pediatric requests
 - 16% for ≤ 3 months old
 - 37% <1 one year old
 - 17% from Critical Access Hospitals
 - 58% were for critically ill children
 - 100% “accepted” with mean time of acceptance 3 hours in WA

> [Pediatr Crit Care Med](#). 2023 Sep 1;24(9):775-781. doi: 10.1097/PCC.0000000000003301.
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Thank You

Look forward to hearing from others and our discussion.