



Mass General Brigham

Surging Hospital ICU Capacities: Lessons Learned from COVID and RSV

Kathryn A. Hibbert, MD

Kimberly Whalen, RN, MS, CCRN

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March 30, 2023

SMS Code, Disclosure Summary, & Accreditation Statement

SMS Code for Attendance: QAQROX to 857-214-2277

Disclosure Summary of Relevant Financial Relationships

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- Compounding pharmacies that manufacture proprietary compounds
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- Growers, distributors, manufacturers or sellers of medical foods and dietary supplements
- Manufacturers of health-related wearable products
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Eileen Searle, PhD, RN	Charles Hardin, MD, PhD	Aileen Patel, MS, RN	James Leeber, MS
Paul Biddinger, MD	Erica S. Shenoy, MD, PhD	Stefanie Lane, MPH, MS	Jacky Nally, MA, RN

The following speakers reported no relevant financial relationships with an ineligible company:

Kathryn A. Hibbert, MD Kimberly Whalen, RN, MS, CCRN Phoebe H. Yager, MD



MGH Center for Disaster Medicine Series 2022-2023

Surging Hospital ICU Capacities: Lessons Learned from COVID and RSV

March 30, 2023 | 9 – 10am

Learning Objectives

Upon completion of this activity, participants will be able to:

1. Identify key planning issues and successful strategies in creating medical surge space for both adult and pediatric populations
2. Understand the differences between current capacity challenges and acute surge events
3. Identify shared planning components that may strengthen Regional capabilities

Target Audience

Clinical Unit Leaders, MDs, APPs, RNs, RTs, and Administrators

Course Director

Eileen Searle, PhD, RN

Director of Funded Projects, Center for Disaster Medicine
Massachusetts General Hospital

Faculty

Kathryn A. Hibbert, MD

Director, Medical Intensive Care Unit
Vice Chief, Critical Care
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ACCREDITATION

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This session will broadcast outside of Mass General Brigham 3

Acknowledgement

This webinar is presented by the Regional Emerging Special Pathogens Treatment Center (RESPTC) in collaboration with the Region 1 Disaster Health Response System (RDHRS). We gratefully acknowledge that both programs are funded by the Administration for Strategic Preparedness and Response (ASPR) within the US Department of Health and Human Services.



Disclosures

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- No information provided in this presentation is meant to provide specific medical advice.
- The speakers have no affiliation or financial interests/relationships to disclose.



Welcome



Moderator & Speakers

Moderator:

Paul Biddinger, MD

Principal Investigator, Region 1 Emerging Special Pathogens Treatment Center and Region 1 Disaster Health Response System
Center for Disaster Medicine
Massachusetts General Hospital

Speakers:

Kathryn A. Hibbert, MD

Director, Medical Intensive Care Unit
Vice Chair, Critical Care
Massachusetts General Hospital

Kimberly Whalen, RN, MS, CCRN

Nursing Director
Pediatric Intensive Care Unit
Massachusetts General Hospital

Phoebe H. Yager, MD

Chief, Division of Pediatric Critical Care Medicine
Mass General for Children



Learning Objectives

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Surging Hospital ICU Capacities: Lessons Learned from COVID and RSV

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March 30, 2023

Agenda

Managing Surge: Lessons Learned from COVID-19

Kathryn A. Hibbert, MD

Director, Medical ICU

Vice Chief, Critical Care

Massachusetts General Hospital

Incorporating Adult COVID Surge Lessons for Pediatric RSV Surge

Kimberly Whalen, RN, MS, CCRN

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Managing Surge: Lessons Learned from COVID-19

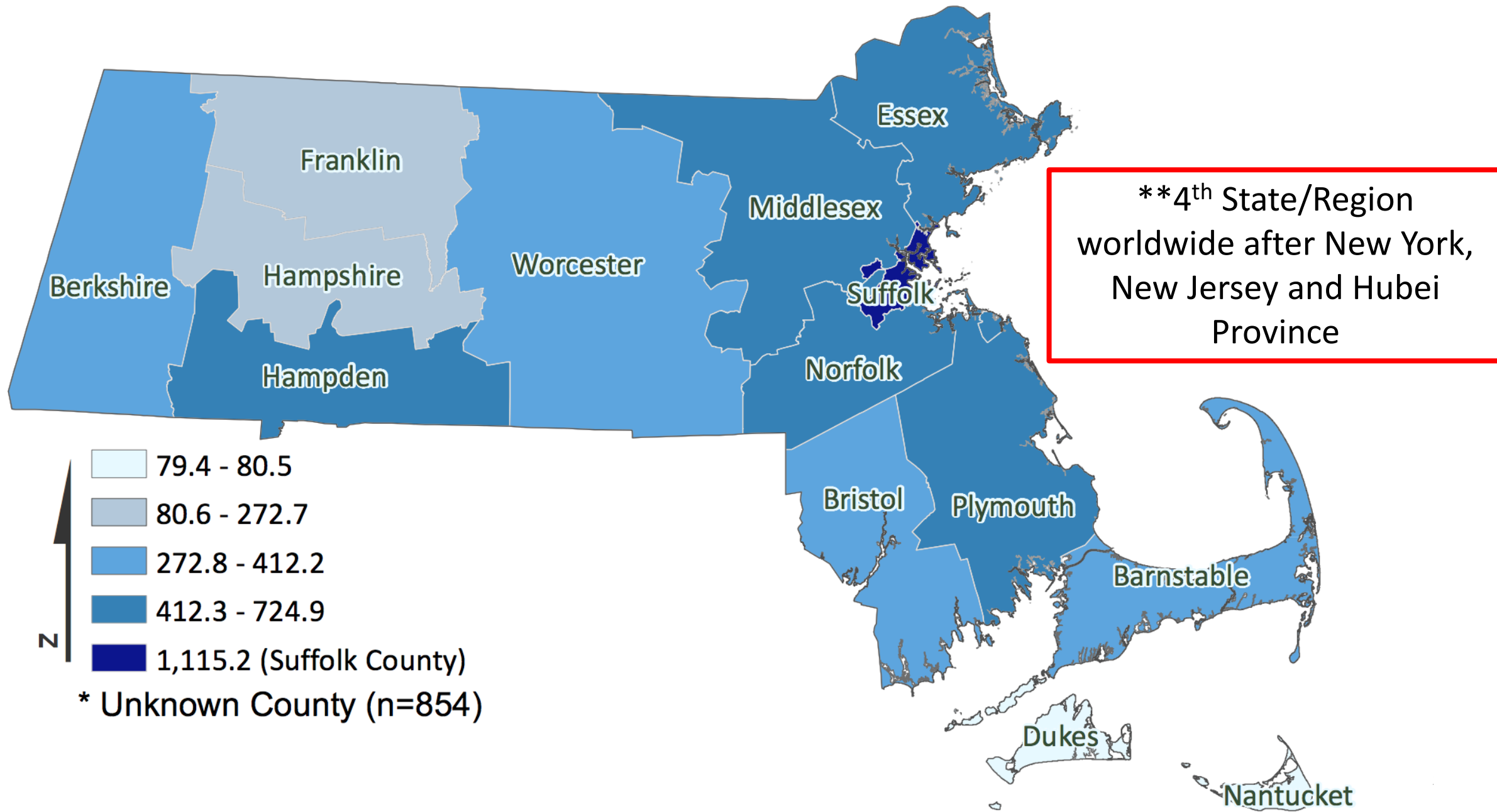
Kathryn A. Hibbert

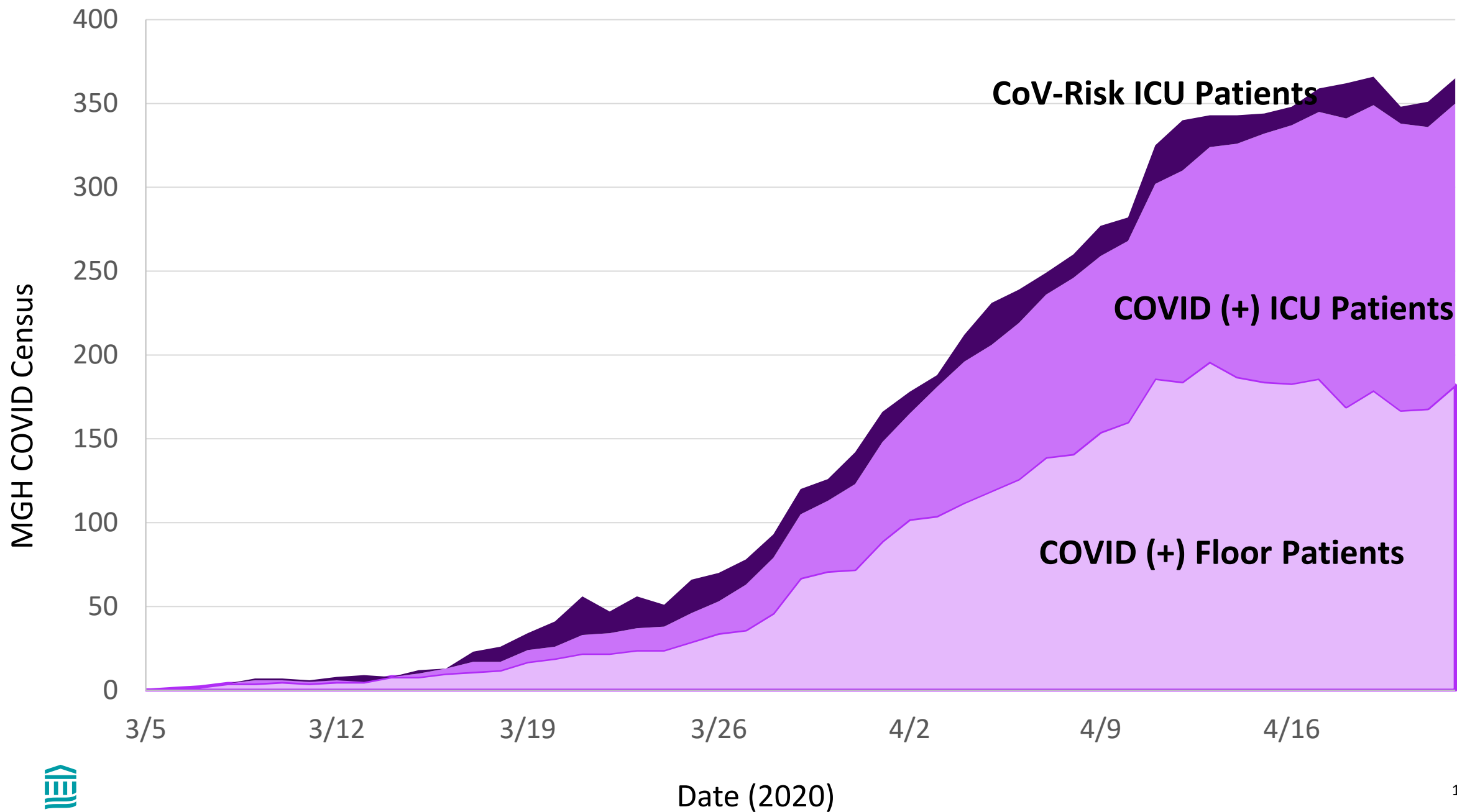
Director, Medical ICU

Vice Chief, Critical Care

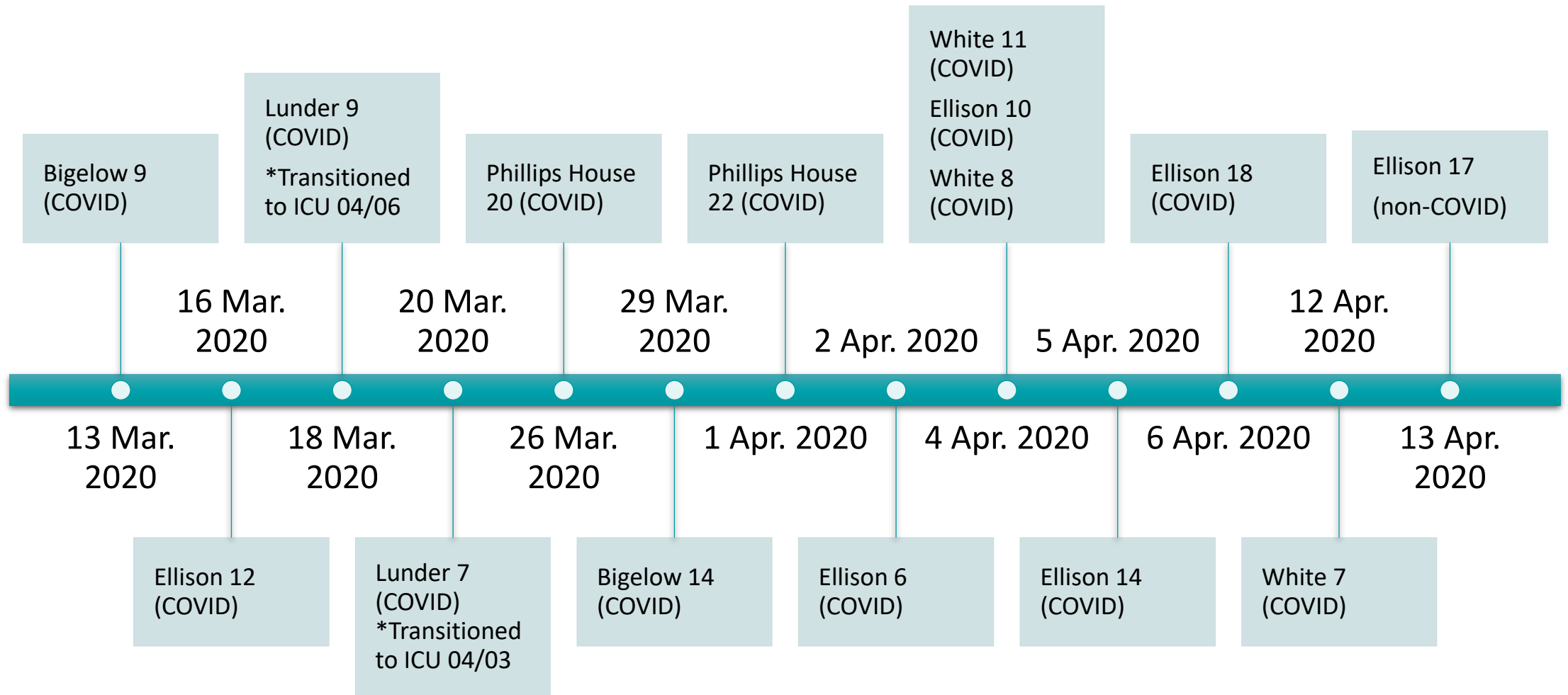
March 30, 2023

Rate (per 100,000) of Confirmed COVID-19 Cases by County (n=42,944)*

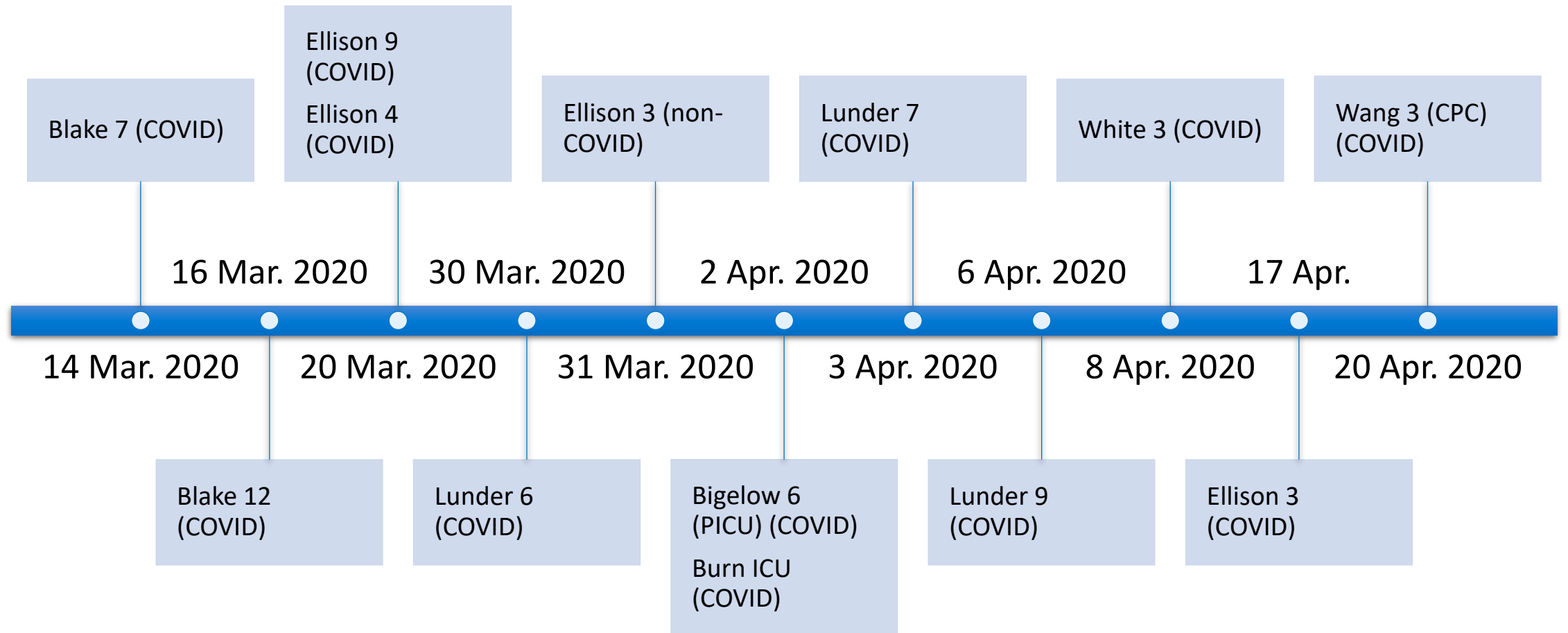




Surge: General Care Conversion



Surge: ICU Unit Conversion



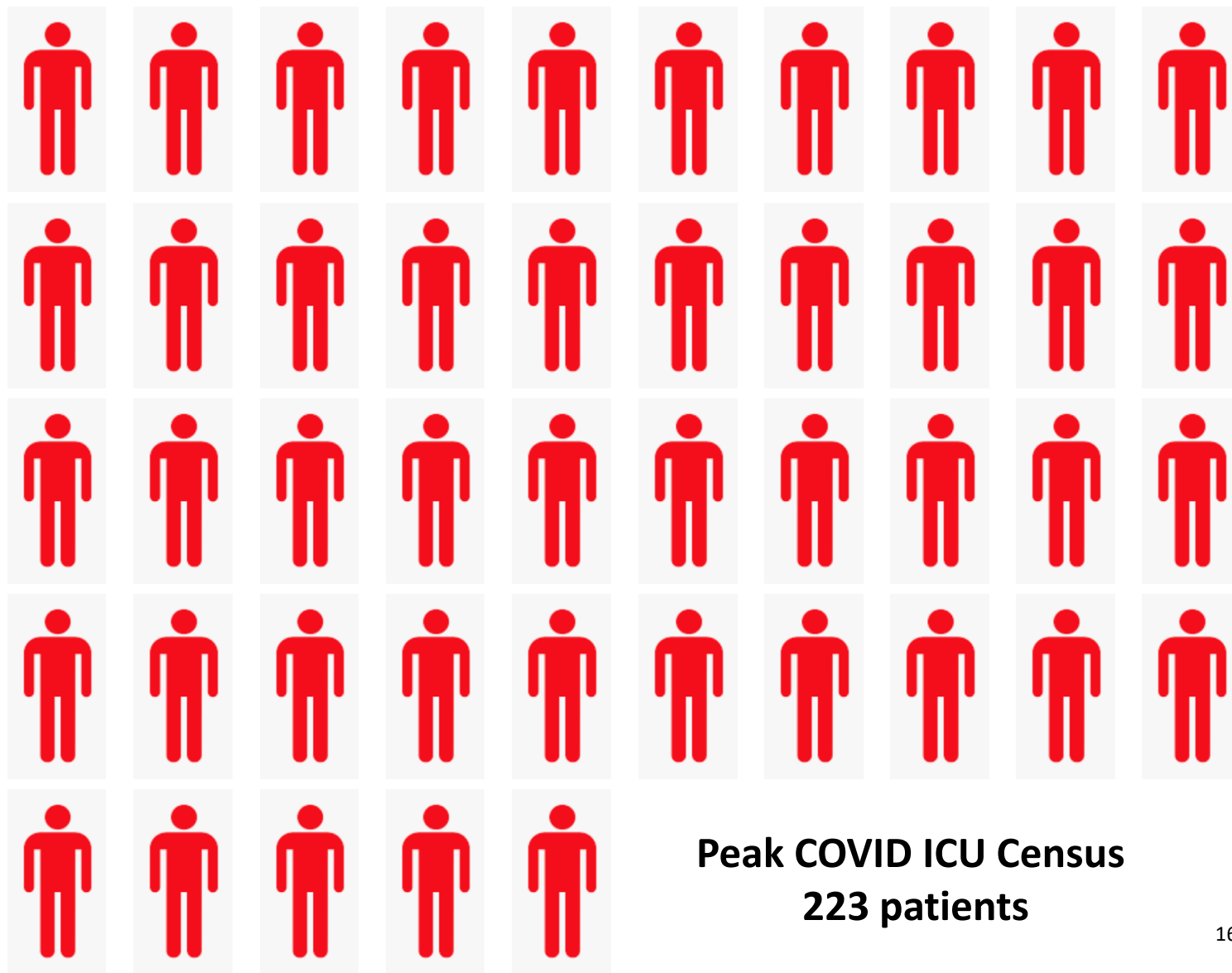
Magnitude of the Challenge



Pre-COVID MICU Census
26 patients (+/- 2)



= 5 patients



Peak COVID ICU Census
223 patients

How to Staff an Acute Surge in Critically Ill Patients

Critical Care Attending
(Pulmonary, Anesthesia, Surgery)

Adult intensivists paired with
pediatrics, embedded med-
surg residents

Responding Clinicians
(Attendings, Fellows, Residents, CRNAs)

Medicine, Neurology,
Oncology, GI, Anesthesia,
Surgery, etc.

Nursing
(1:1 pair ICU and floor nurse with 2 critically ill
patients; >600 nurses redeployed across the hospital)

Perfusionist-supported CVVH
teams, Proning Team

Vent Staffing
(Respiratory Therapists, CRNAs, Anesthesiologists)

Mix of ICU vents, travel vents,
anesthesia vents, etc.



What Does that Volume Really Mean?

Medications

- Propofol
- Hydromorphone
- Ketamine
- MDIs
- Oxygen

Equipment, Testing, PPE, etc

Gowns

Suction catheters

VH machines, filters, dialysate

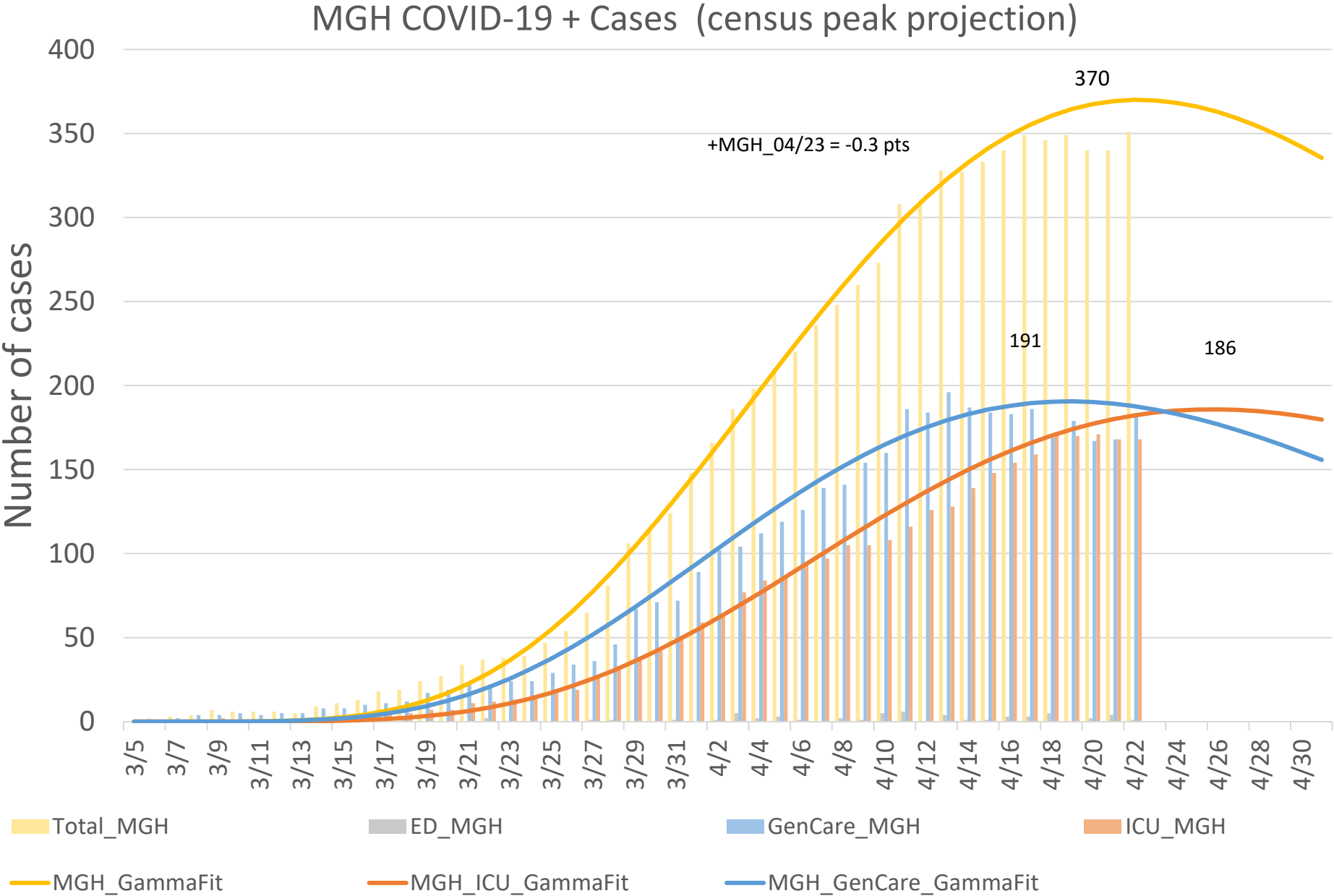
Central venous catheters

- Sterile gowns
- Calstat
- Sani-wipes
- ...

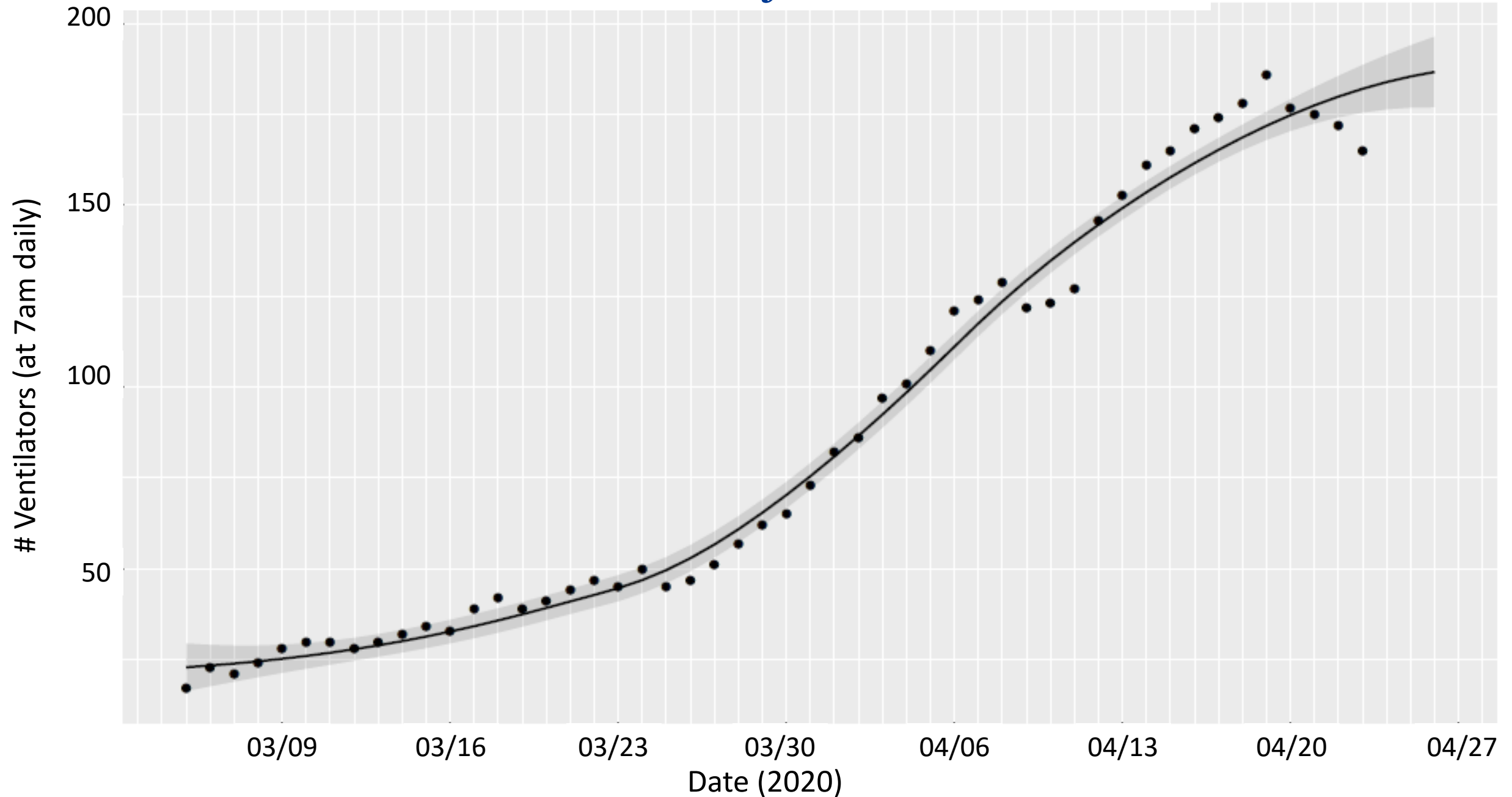
“Supply Chain”



MGH COVID-19 Patients at 7am – Outlook through Apr 26

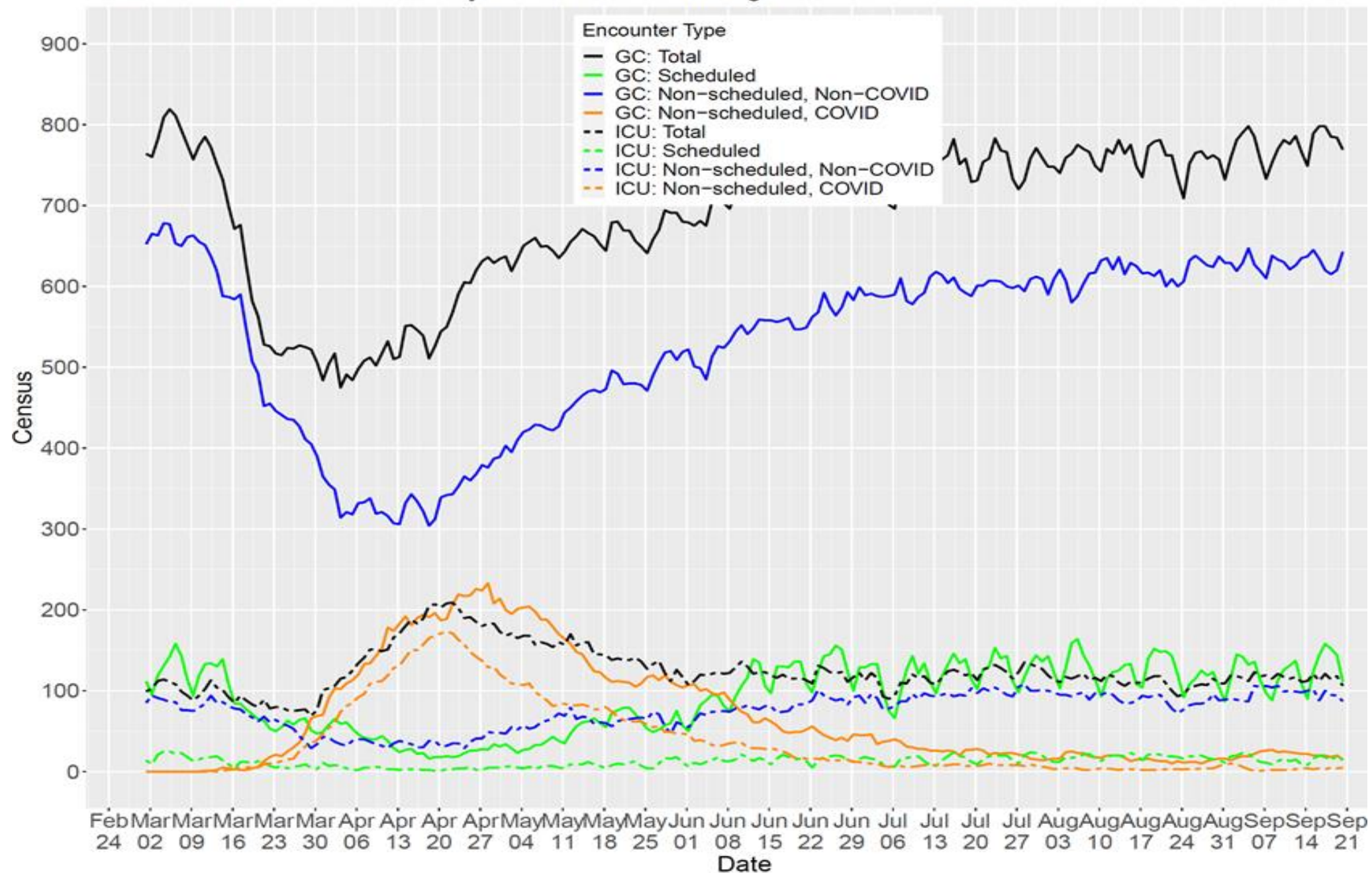


Ventilator Utilization and Projection for MGH



Daily Census Breakdown

Census taken at 7AM each day. Data included through 2020-09-20. Excludes Newborn.



Care Adaptation: Proning Team

- Fully staffed team to complete position changes
- Multidisciplinary team with OR nurses, OR assistants, physical therapist, occupational therapists
- Ensured standard of care delivered in surge ICUs and with less experienced ICU staff (e.g. in non-medical ICUs)

COVID19 Update

Proning Resources

Prone positioning of ARDS patients leads to improved oxygenation and has recently been found to decrease mortality. Recognizing that this is a new therapy for many units, there are multiple resources available to help.

Proning Positioning Protocols available on Apollo:

- [Prone Positioning Protocol: Intubated Patients](#)
- [Prone Positioning Protocol: Non-intubated Patients](#)

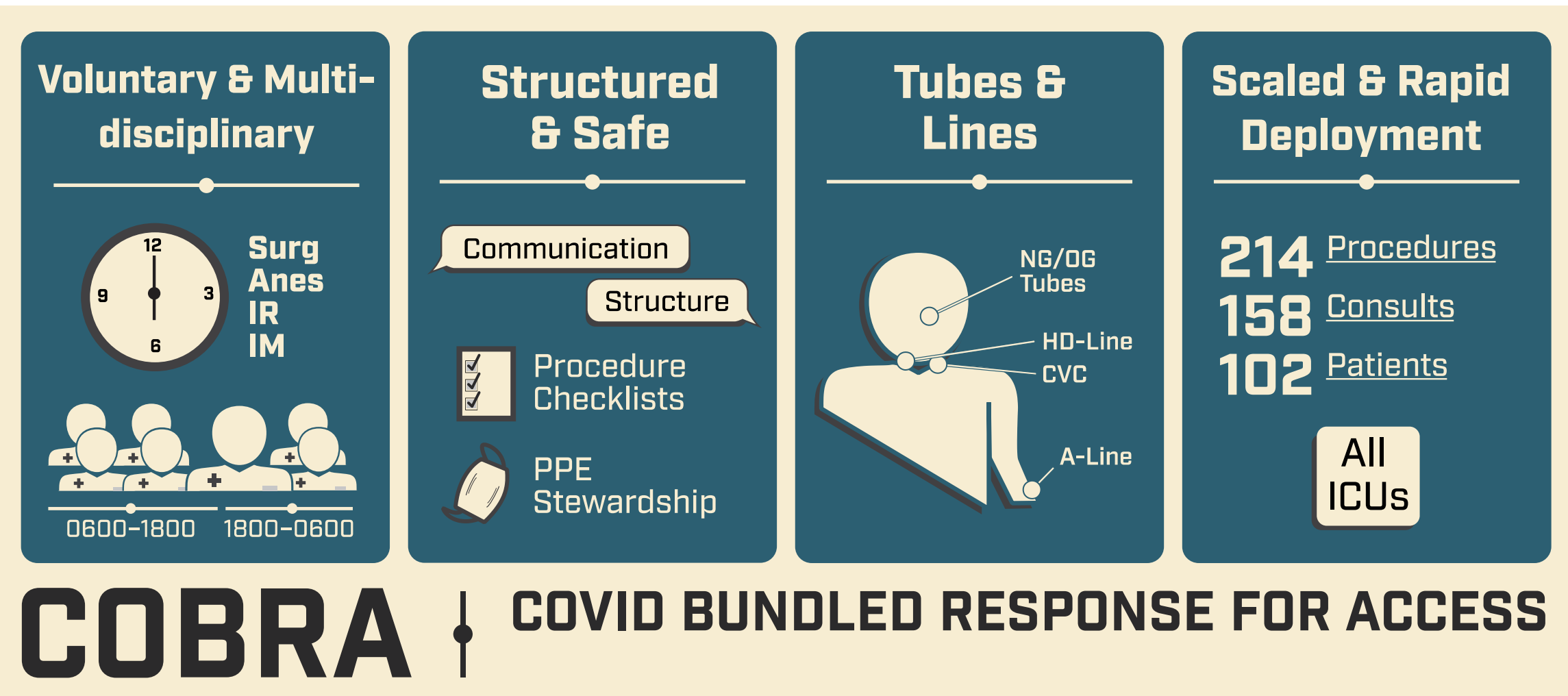
Proning Team *NEW* Starting April 10

- Available support unit staff in proning/supining patients
 - Teams comprised of OR RNs, OR Assistants and Ambulatory PT/OT.
 - Pager number: # 26943
 - When paging please indicate:
 - Unit name
 - Patient name/room number
 - Specify if planned time or urgent proning need
 - Call back number and resources nurse's name

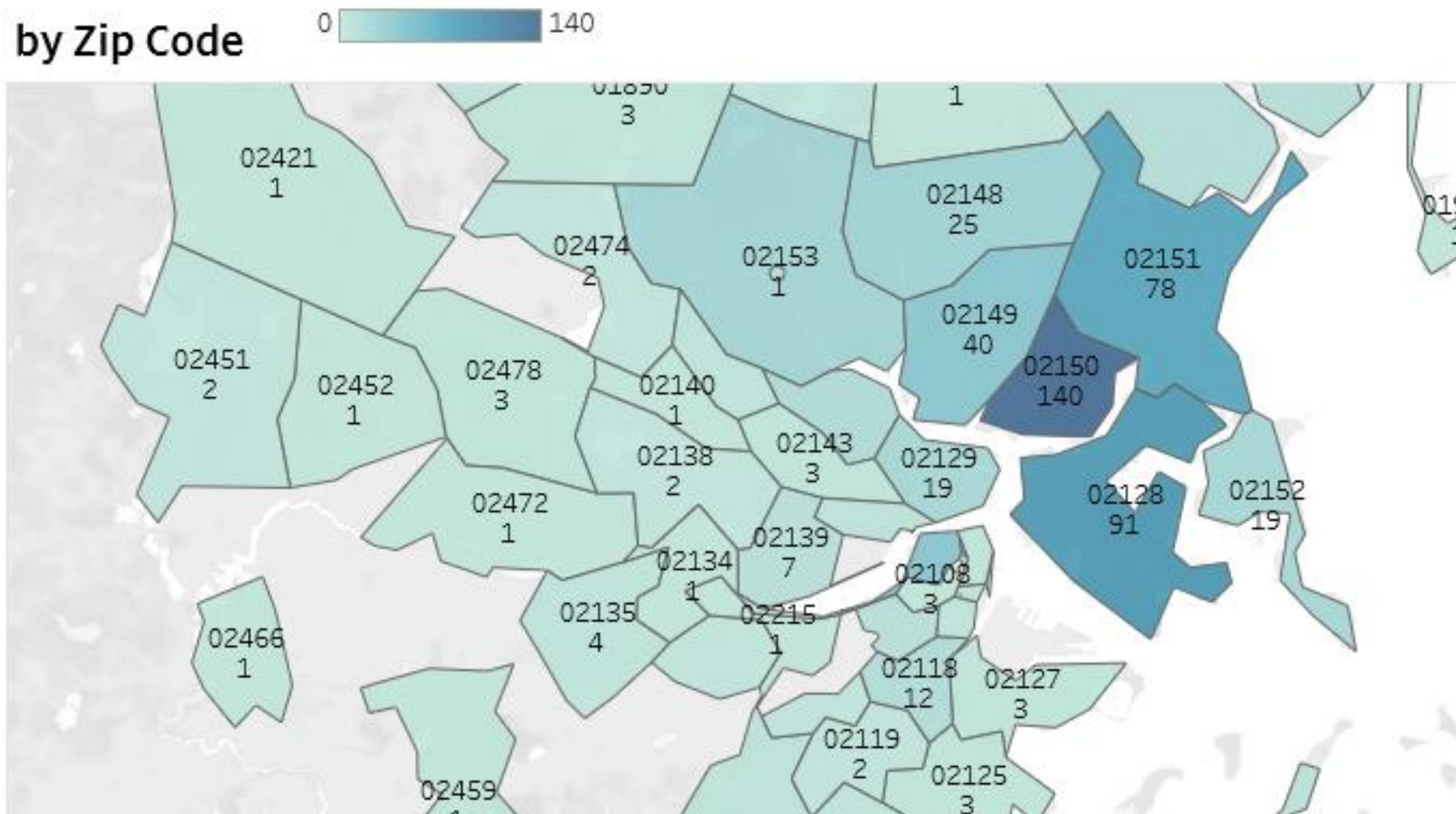
The screenshot shows the 'voalte | messenger' app interface. On the right, a list of departments is visible: Buildings, ICU Radiology, Eileen, Emergency Department, Health Professions, Housewide Services, and Radiology CT. 'Housewide Services' and 'Proning Team' are circled in red. A blue arrow points from 'Housewide Services' down to 'Proning Team'.



Care Adaptation: Procedure Team



Unanticipated Challenges



Chelsea Case rate = 1,890 per
100,000 people

Statewide rate = 488 per
100,000 people

- Large Spanish-speaking only inpatient population, no visitation
- Spanish-speaking physician and Spanish-speaking palliative care teams integrated into care
- Primary interventions in the affected communities to “flatten the curve”

MGH TREATMENT GUIDE FOR CRITICALLY ILL PATIENTS WITH COVID-19

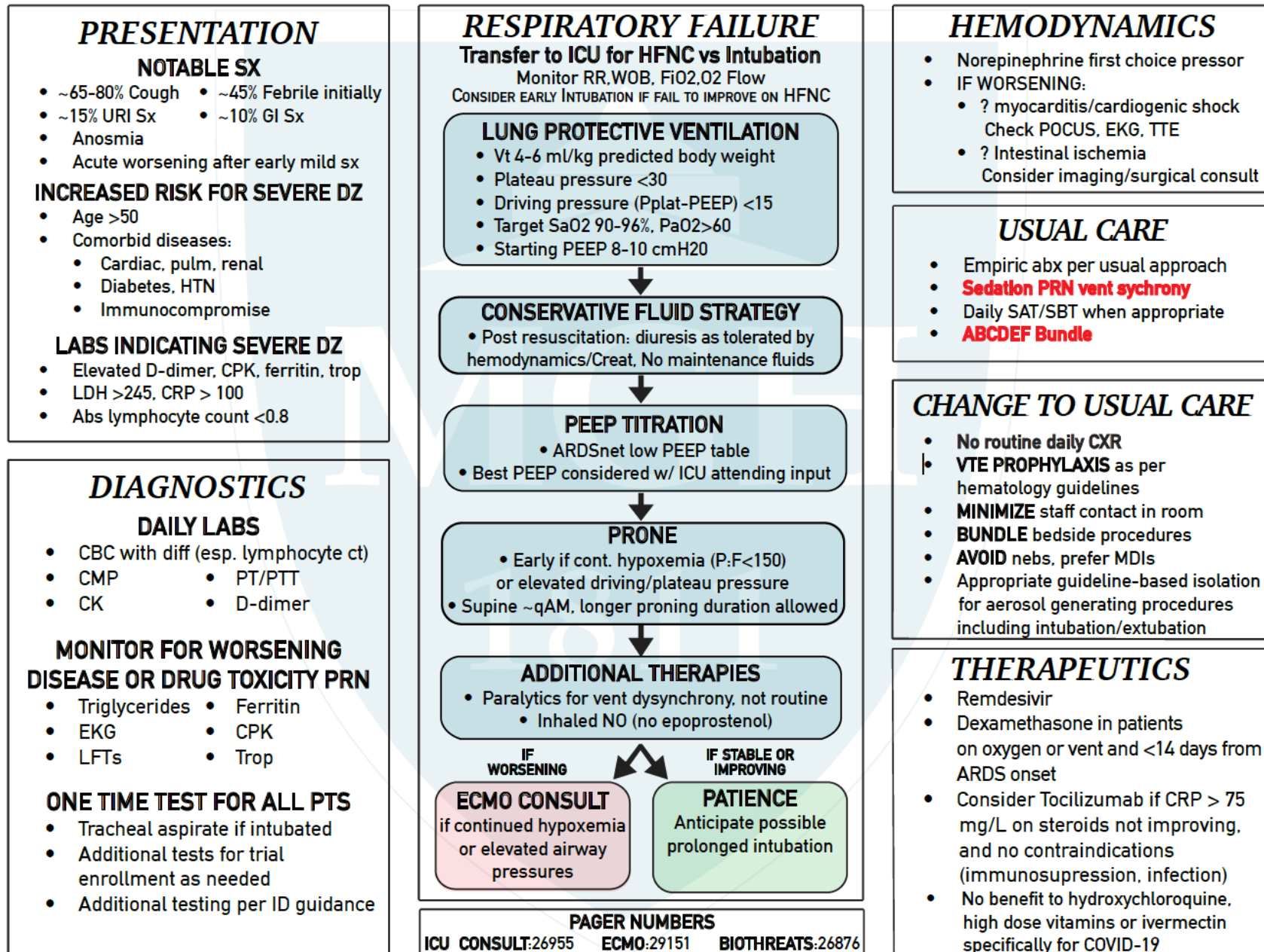
Care Ad

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- Pulm
- Infect
- Anest
- Surgic
- Respi
- Pharr

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LOSS

What Lessons Can Be Learned

COVID-Specific Response Elements

- Single Disease
- Decrease in Other Clinical Volume
- Staff Illnesses and Family Challenges
- Rapidly Evolving Evidence

Generalizable Response Elements

- Use of Modeling / HSE for Strategic Planning
- Expertise Sharing Across Specialties
- Flexible Use of Clinical Space/Teams
- Institution-wide Response to Support Teams
- Regional Capacity Management
- Eye toward Equity Always





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Incorporating Adult COVID Surge Lessons for Pediatric RSV Surge

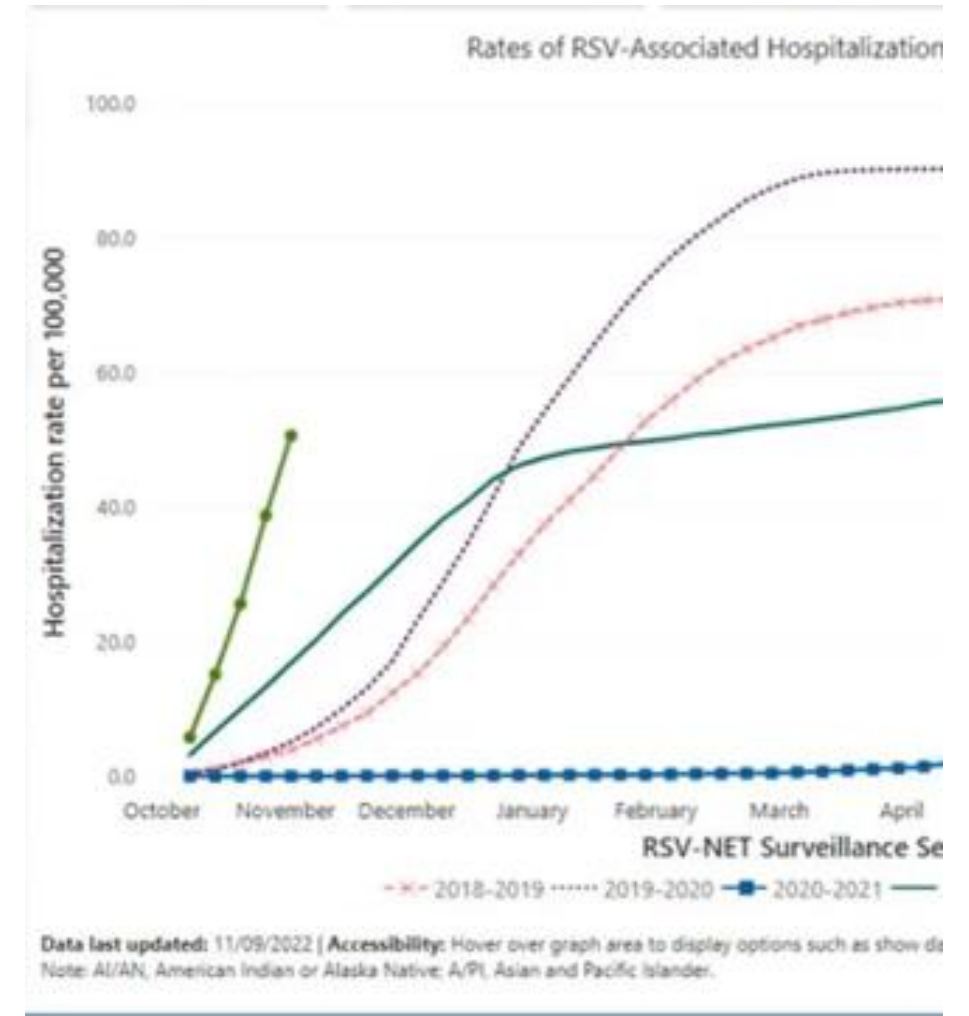
Kimberly Whalen, RN, MS, CCRN
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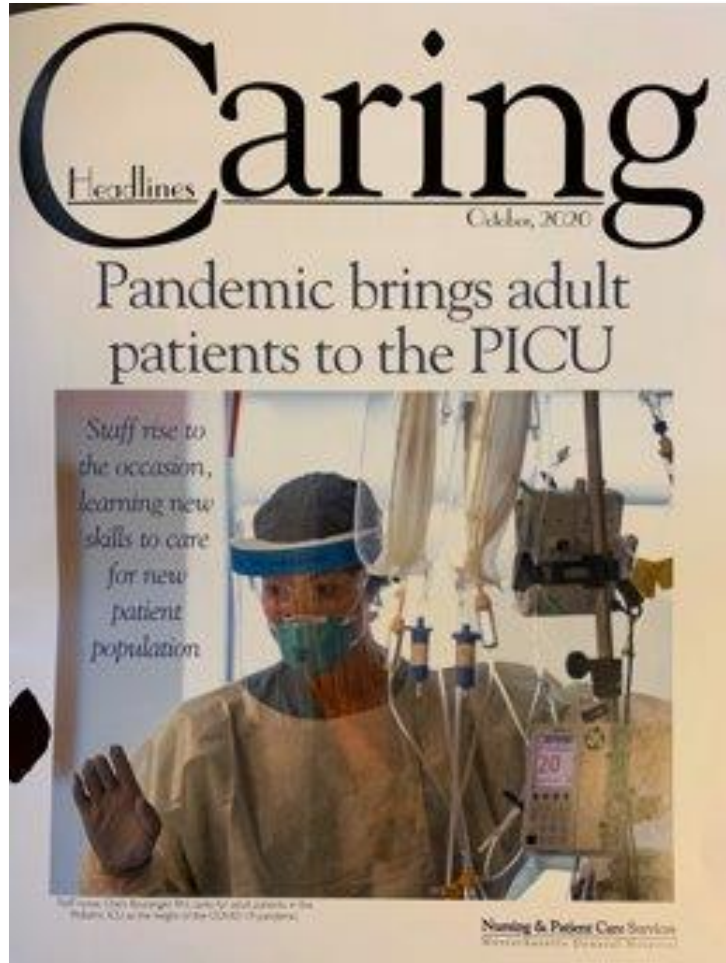
March 30, 2023

Pediatric RSV Surge - A Steep Trajectory

- Pushing pediatric patients from PICU to general floors earlier than usual
- Increased rapid response calls
- Initiating NIV on general floors while trying to make room in PICU
- Prolonged ED stays while awaiting beds with stretched ED resources to care for them
- Prolonged wait times in community EDs for patients awaiting beds and transport
- Increased transport refusals from community



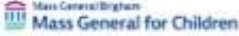
From Adult to Pediatric Capacity Crisis: Building on Lessons Learned



Press Conference and Media Outreach to Alert and Educate the Community



Patient/Family Handouts



Mass General Brigham
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Pediatrics

Respiratory Syncytial Virus (RSV): What You Need to Know

Respiratory syncytial virus (RSV) is a very common illness that affects the airways in babies and children. In this handout, learn about RSV, including what it is and the symptoms most commonly seen in babies and children. You will also learn how doctors diagnose and treat RSV, possible complications of RSV and when to call the doctor.

What is respiratory syncytial virus (RSV)?

Respiratory syncytial virus (RSV) is a common illness that affects the airways (nose, throat and lungs). In older children and teenagers, RSV can be mild and causes cold-like symptoms. In babies and children under age 5, though RSV can be mild, it can also be very serious. RSV can cause **bronchiolitis** (inflammation of the lower airways and lungs). RSV is typically most common in the fall and winter months, but doctors have seen cases during other times of the year.

Who is more likely to develop severe RSV?

The following are more likely to develop severe cases of RSV:

- Premature babies born well before their due date
- Very young babies, especially those age 6 months or younger
- Children under age 2 years with chronic (long-term) lung conditions or **congenital heart disease** (heart disease that is present at birth)
- Children with weakened **immune systems** (systems in the body that help fight germs and illness)
- Children with **neuromuscular disorders** (disorders that affect how the nervous system and muscles work together), including children who have trouble swallowing or clearing mucus (phlegm, sticky liquid that lines the lungs, throat, mouth and nose) on their own


How is RSV spread?

RSV is spread in the following ways:

- If a person with RSV coughs, sneezes or blows their nose near you
- Touching, kissing or shaking hands with someone who has RSV
- Touching shared surfaces or objects that touched by someone with RSV, such as a doorknob or toy.

RSV can spread quickly through enclosed, shared spaces, such as day care centers, schools or crowded households.

Apr. 2022. Mass General for Children and Massachusetts General Hospital do not endorse any of the brands listed on this handout. This handout is intended to provide health information so that you can be better informed. It is not a substitute for medical advice and should not be used to treat any medical conditions.



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Pediatrics: Intensive Care Unit (PICU)

Tips to Prevent Respiratory Syncytial Virus (RSV)

Respiratory syncytial virus (RSV) is a common illness that affects the airways. In older children and teens, RSV is often mild with cold-like symptoms that affect the upper airway (such as runny nose, stuffy nose or cough). In babies and children under age 5, though, RSV can be mild or very serious. RSV can also cause bronchiolitis (inflammation of the lower airways and lungs). In this handout, learn tips on how to prevent RSV.

What is respiratory syncytial virus?

Respiratory syncytial virus (RSV) is a common illness that affects the airways (nose, throat, mouth and lungs). In older children and adults, RSV can be mild and causes cold-like symptoms. In babies and young children, RSV can be very serious. RSV is most common in the fall and winter months.

How is RSV spread?

RSV is spread through droplets from the mouth or nose in the following ways:

- If a person with RSV coughs, sneezes or blows their nose near you
- Touching, kissing or shaking hands with someone who has RSV
- Touching shared surfaces or objects that touched by someone with RSV, such as a doorknob or toy.

RSV can spread quickly through enclosed, shared spaces, such as day care centers, schools or crowded households.

Who is more likely to develop severe RSV?

The following are more likely to develop severe RSV:

- Babies and children who are under age 5
- Babies and children who have weakened **immune systems** (systems in the body that fight germs and illnesses)
- Babies and children who have chronic (long-term) lung conditions or **congenital** (present at birth) heart and/or lung disease
- Premature babies born before their due date

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How can I prevent RSV?

- Wash your hands often with soap and warm water. Scrub your hands with soap for at least 20 seconds before leaving. If soap and water are not available, use alcohol-based hand sanitizer.
- Keep your hands away from your face, nose and mouth.
- Cover coughs and sneezes with a tissue or the inside of your elbow. Wash your hands after you cough or sneeze. Throw the used tissue in the trash.
- Clean high-touch surfaces (surfaces that are touched often and by multiple people). This can include doorknobs, counters and toys.
- Avoid close contact with anyone who has RSV or another illness.
- Limit time spent in crowded or shared spaces, such as day care, grocery shopping or indoor shopping areas.
- If possible, stay home if you or your child are sick.
- Use an at-home (OTC) test. If your baby/child tests positive for RSV, the isolation practices are different from the tips used to prevent and treat RSV.

These tips will help prevent any respiratory illness, not just RSV. These prevention tips are good practice for the entire family.

What is palivizumab?

Palivizumab (Synagis®) is a medication used to lessen the chance of babies and children developing severe RSV. It can also help prevent serious complications (medical concerns that occur during diagnosis or after a procedure or treatment) from RSV. It is typically given as an injection every month between November and April when RSV is most common. It is not a vaccine and does not provide longer-term protection from RSV. **Palivizumab does not treat RSV.**

Who can receive palivizumab to prevent RSV?

Palivizumab is reserved for babies under 5 months of age and children who are at high risk of developing severe RSV. This includes babies and children with any of the following:

- Chronic lung conditions
- Congenital heart condition (lung conditions)
- Weakened immune systems
- Down syndrome

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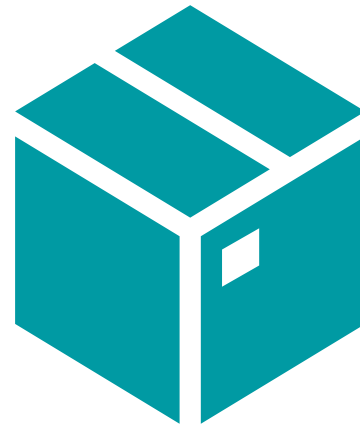
Standing up a Pediatric Intermediate Medical Care Unit (IMCU)



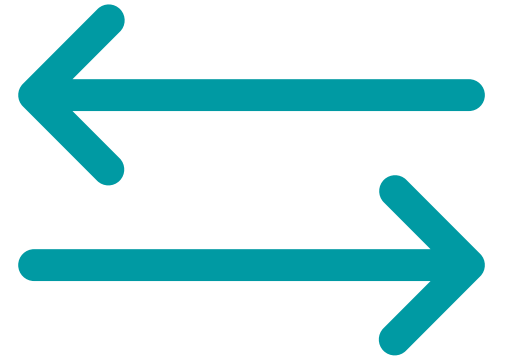
Space



Staff



Supplies



Systems

Best Practices for a Pediatric Surge IMCU

- Cohorting patients
- Criteria for placement in PICU vs IMCU
- Technology integration
 - Vent alarms
 - EHR



Space

Best Practices for a Pediatric Surge IMCU

- Nurse extender role
- PICU RN consult
- Temporary traveler support
- PICU attending overnight coverage on wards
- Respiratory care support
- Educational resources for staff



Staff



Staff Education

- Guidelines for HFNC and NIV in IMCU
- Guidelines for CAB in IMCU
- Educational videos
- Formal in-service education for RNs/MDs
- Didactic lectures on NIV

Respiratory Syncytial Virus (RSV) Educational Video Modules

CPAP Primer

- Module 1A**
Physiology, History, Burden of
Need and Trends Video
- Module 1B**
Application, Operational
Approach, Nursing Points and
Feedings Video
- Module 1C**
CPAP Primer Q&A Video
- Module 2A**
Nursing Implications for Patients
Receiving NIPPV Video
- Module 2B**
Nursing Implications for Patients
Receiving NIPPV Q&A Video
- Module 3A**
CPAP Machine
Demonstration Video
- Module 3B**
CPAP Machine Q&A Video

HiFlo CAB Conference

- Module 1A**
Bronchiolitis Clinical
Pathway
Video
- Module 1B**
Bronchiolitis Clinical
Pathway Q&A
Video
- Module 2**
MGIC Floor HFNC
Weaning Pathway
Video
- Module 3A**
MGH Pediatric General
Care Floor Continuous
Albuterol Video
- Module 3B**
MGH Pediatric General
Care Floor Continuous
Albuterol Q&A Video

**These modules were recorded in November 2022 at
Massachusetts General Hospital.**



PICU Nurse Consult Role

To provide education and support to staff on the pediatric floors, NICU, Adult ICUs, and Community Hospitals to ensure safe and appropriate care was provided to all pediatric patients regardless of location.



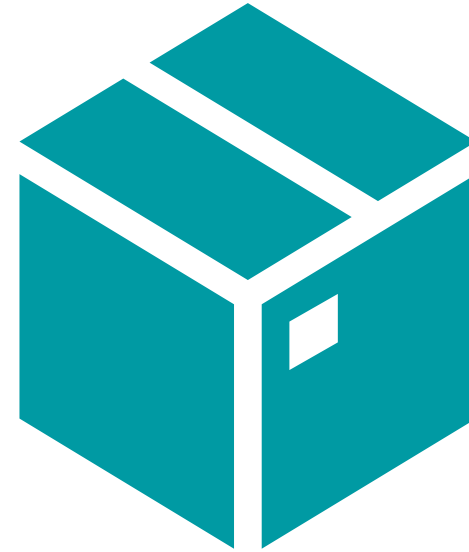
Staff Wellness and Support

- Staff wellbeing rounds
- Inter-unit gestures of appreciation
- Celebrations of success



Best Practices for a Pediatric Surge IMCU

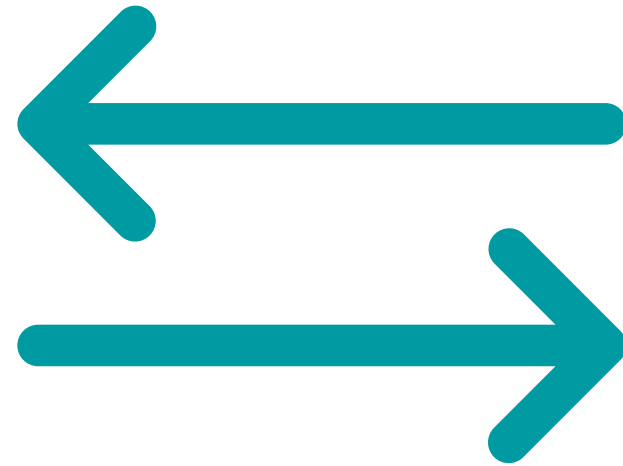
- Fostering close relationships with essential services:
 - Respiratory
 - Pharmacy
 - Materials Management



Supplies

Best Practices for a Pediatric Surge IMCU

- Hospital Incident Management Team (IMT) and activation of Hospital Incident Command System (HICS)
- Communications and consistency of key messages



Systems





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Governor

KARYN E. POLITO
Lieutenant Governor

The Commonwealth of Massachusetts

Executive Office of Health and Human Services
Department of Public Health
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Secretary

MARGRET R. COOKE
Commissioner

Tel: 617-624-6000
www.mass.gov/dph

Memorandum

TO: Hospital Chief Executive Officers
Hospital Chief Medical Officers
Hospital Chief Nursing Officers

FROM: Estevan Garcia MD, DrPH, MPA, FAAP, Chief Medical Officer
Elizabeth Daake Kelley, MPH, MBA, Director, Bureau of Health Care Safety and Quality

SUBJECT: Guidance on Management of Pediatric Respiratory Illness Patients during times of Capacity Constraints

DATE: October 31, 2022

The Massachusetts Department of Public Health (DPH) continues to appreciate the essential role you have in supporting high-quality care amid health care delivery constraints. In recent weeks, Massachusetts has faced significant pediatric inpatient capacity constraints, particularly in pediatric intensive care units (PICUs). DPH has developed this guidance document to provide hospitals with strategies designed to maximize pediatric capacity and to ensure pediatric patients are safely cared for in the most appropriate setting. Hospitals should review the recommendations and work to implement them within their organizations:

- Some **younger pediatric patients may be appropriately admitted to a neonatal intensive care unit (NICU)** for management.
- Hospitals, in accordance with 105 CMR 130.700, may admit patients who are **fifteen years and older to the general med/surgical unit setting** provided that pediatric expertise is available for consult. DPH requests hospitals also **consider admission of these older teens to general ICU settings, when appropriate.**

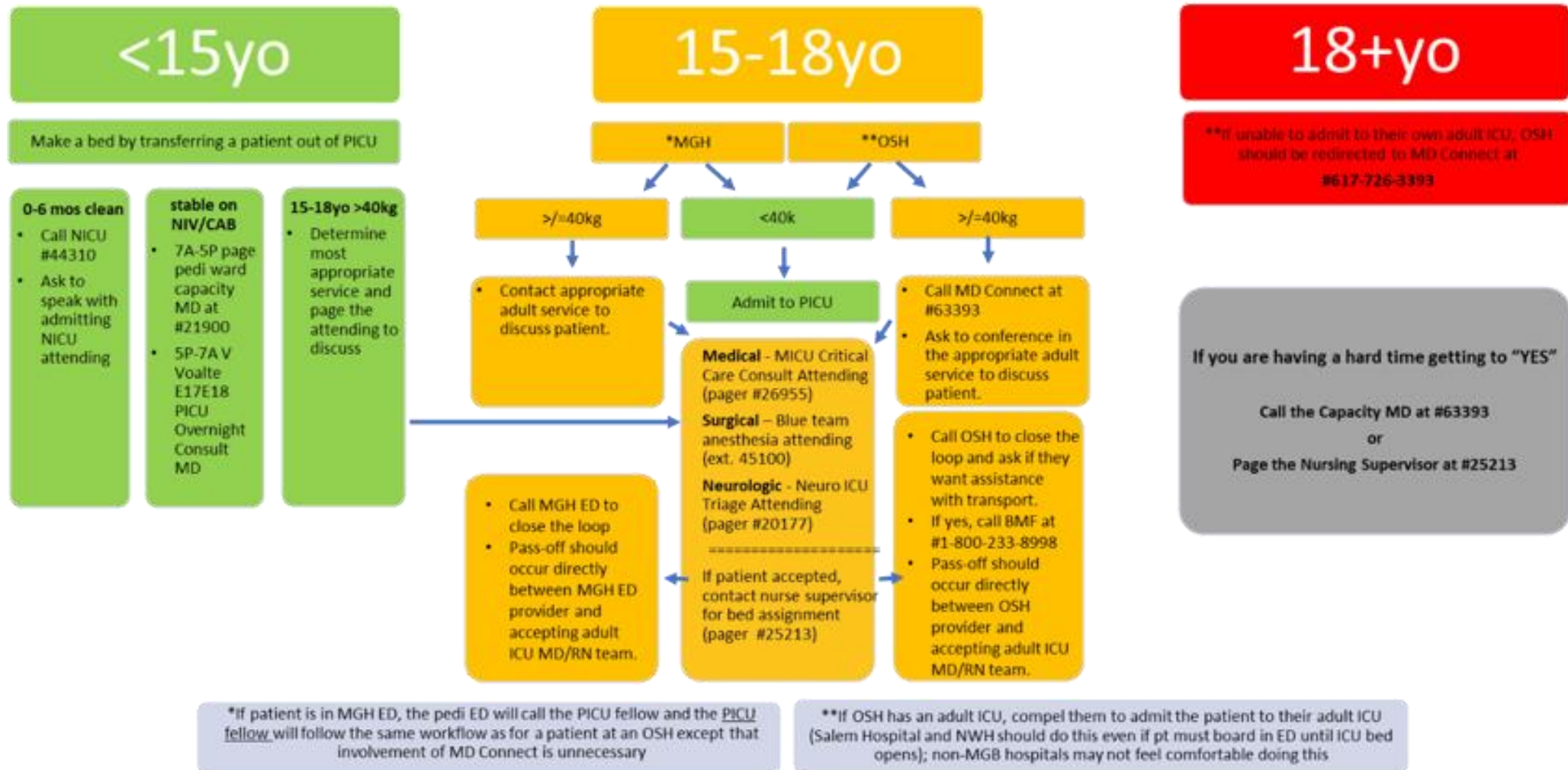


MGB Pediatric Capacity Daily Snapshot

MGB Pediatric* Capacity Daily Morning Snapshot - 11/17/2022												
	Total Licensed Beds	Occupied Beds	Available Beds	Pedi Beds Unavailable due to staffing	Pedi Blocked Beds due to Other	Pts w/ Active RSV Infection	RSV % of Occupied Beds	Pts w/ Active Influenza	Infl % of Occupied Beds	Mech Vents	NPPV	High Flow
Pedi Med-Surg												
MGH	46	39	0	0	7	12	30.77%	0	0.00%	0	5	4
NWH	12	12	0	0	0	8	66.67%	0	0.00%	0	0	0
WDH	4	2	2	0	0	0	0.00%	0	0.00%	0	0	0
Total	62	53	2	0	7	20	37.74%	0	0.00%	0	5	4
Occupancy %**		85%										
PICU												
MGH	14	14	0	0	0	2	14.29%	0	0.00%	6	4	0
Total	14	14	0	0	0	2	14.29%	0	0.00%	6	4	0
Occupancy %		100%										
Pedi ED Boarders	Total											
Med-Surg	0											
ICU	0											
Pedi Transfers												
Transferred out of MGB (last 24 hrs)	1											
Med-Surg	1	Hospitals Transferred to: Maine Medical Center										
ICU	0	Hospitals Transferred to:										
Transferred into MGB (last 24 hrs)	4											
Med-Surg	3											
ICU	1											
Transferred within MGB (last 24 hrs)	0											
Med-Surg	0											
ICU	0											



PICU Bed Request Triage Process



Consistent Pediatric Care Across the System

- Subspecialty consults
- Pharmacy/Child Life/Pediatric Social Work
- Family-based rounding & visitation policy
- Questions re: consent/sharing info with parents
- Code carts/response
- Weight considerations
- Letter to families of pediatric inpatients





The Commonwealth of Massachusetts

Executive Office of Health and Human Services
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Memorandum

TO: Hospital Chief Executive Officers
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FROM: Estevan Garcia MD, DrPH, MPA, FAAP, Chief Medical Officer
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SUBJECT: Guidance on Management of Pediatric Respiratory Illness Patients during times of Capacity Constraints
DATE: October 31, 2022

The Massachusetts Department of Public Health (DPH) continues to appreciate the essential role you have in supporting high-quality care amid health care delivery constraints. In recent weeks, Massachusetts has faced significant pediatric inpatient capacity constraints, particularly in pediatric intensive care units (PICUs). DPH has developed this guidance document to provide hospitals with strategies designed to maximize pediatric capacity and to ensure pediatric patients are safely cared for in the most appropriate setting. Hospitals should review the recommendations and work to implement them within their organizations:

- **...all general emergency departments are expected to develop and implement high flow nasal cannula oxygen capacity for pediatric patients** requiring such support.
- DPH encourages all pediatric hospitals with pediatric expertise to **develop a teleconsulting service to support their referring hospitals** in management of pediatric emergency department and inpatient care. Each hospital should work with their local leadership to review appropriate technology for these consults.





The Hub - Departments - Emergency Preparedness

Respiratory Virus Resources (non-COVID)

As the number of respiratory syncytial virus (RSV) cases in pediatric patients continues to rise, the following resources are available to staff.

Please consult your organization for site specific information.

Patient Resources

RSV: What You Need to Know

- Arabic
- Spanish
- Portuguese

Tips to Prevent RSV Infection

- Arabic
- Spanish
- Portuguese

CDC Resources

View the MGH and
MGHC press
conference

Resources

Initiation of Non-
Invasive Ventilation in
Pediatric Guidelines

MHA Resources to
Address Pediatric
Capacity Constraints

Flow Nasal Cannula
(fFNC) in Bronchiolitis

Recognition and
Management of
Pediatric Respiratory
Distress

Regional Disaster
Health Response
System

RSV Demonstrations

Treating Asthma with MDIs during
respiratory season

- [Nasal Pharyngeal Suctioning](#)
- [Nursing Care of Patient on CPAP](#)
- [CPAP and Airway Clearance](#)
- [CPAP and Feeding](#)



PICU Teleconsult Program to Support Community Hospitals



Space

- Opportunity to keep patients in community (ward and ICU)



Staff

- PICU MD/RN/RT



Supplies

- Existing telecarts
- Loaner telecarts

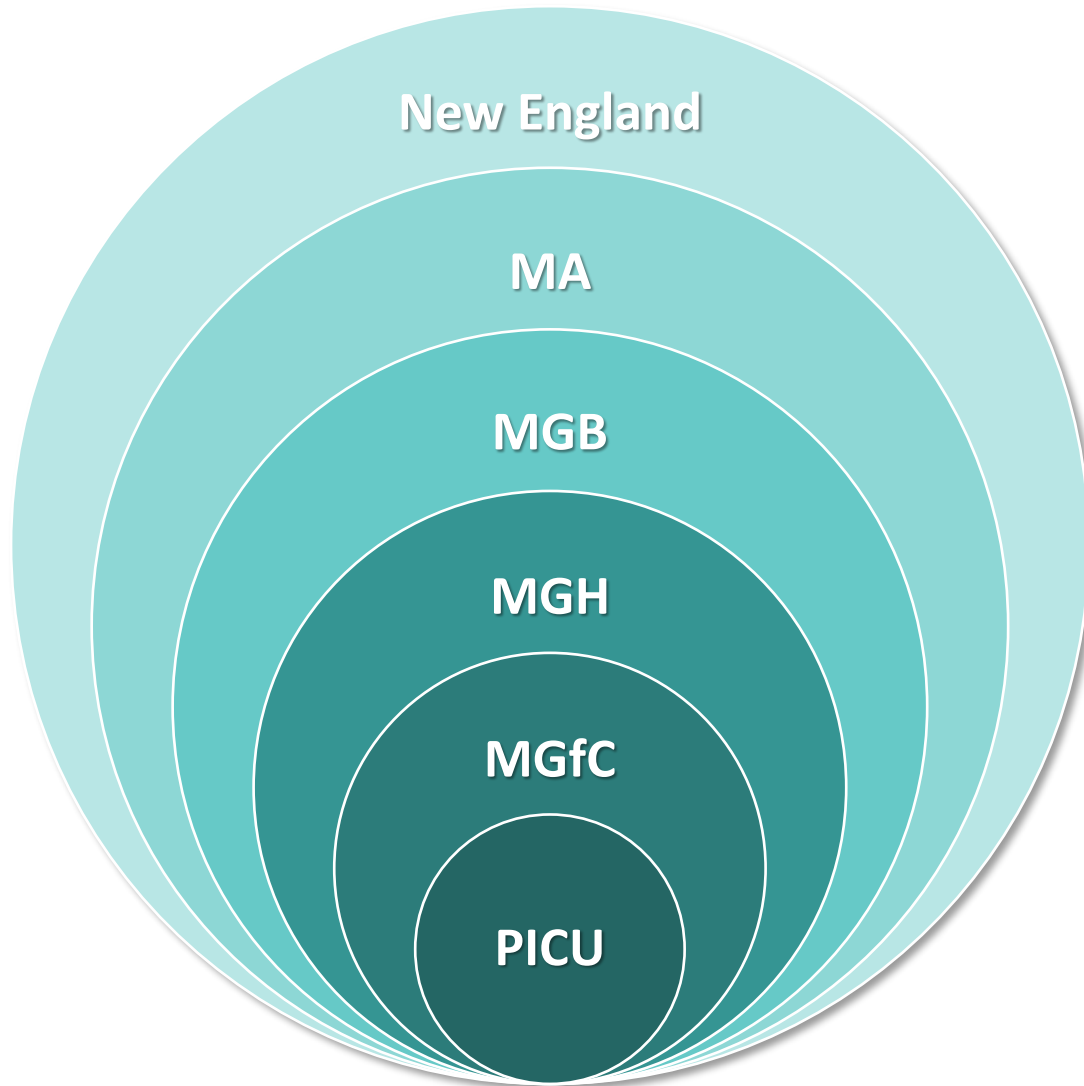


Systems

- Credentialing
- Workflow
- Documentation



Layered Systems Strengthening Regional Capabilities



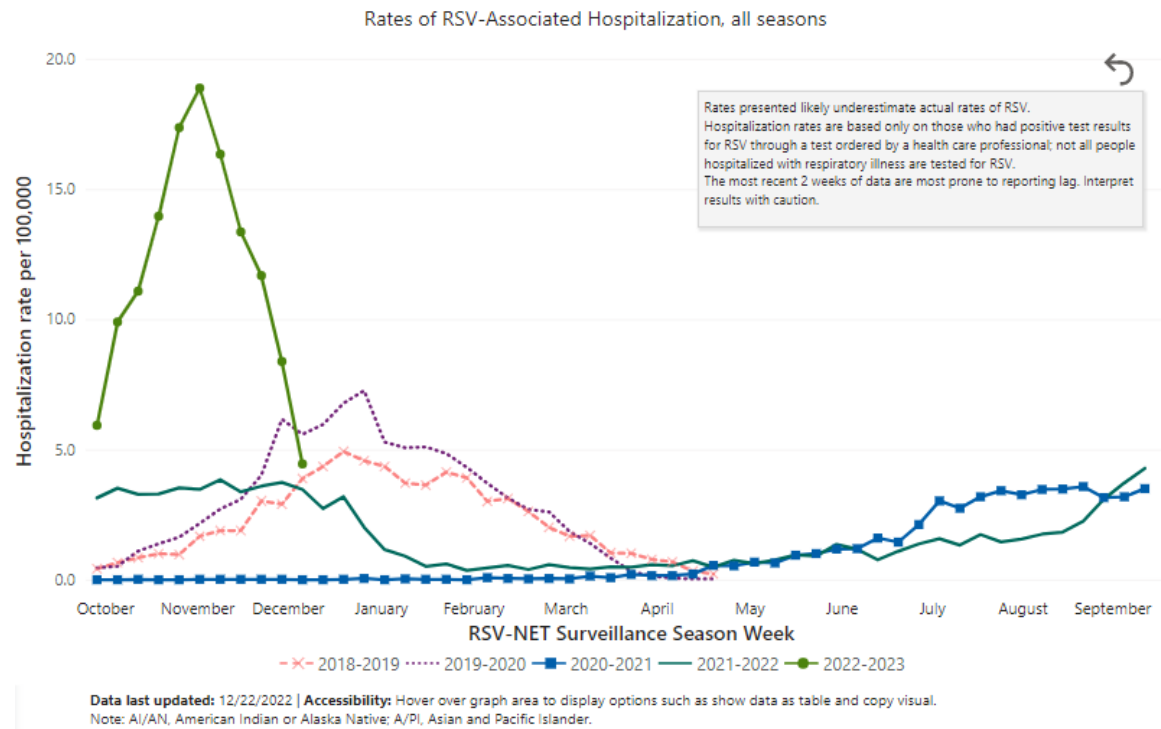
HHS/ASPR* Region 1 Pedi TrAC Status Update

A	D	E	F	G	H	J
Facility Name (bold = updated w/in 24 hours)	Pediatric Boor transfer status	Pediatric ICU transfer status	Transfer Contact	Transfer Phone	Comments	Last Updated [1]
Connecticut Children's Medical Center	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Transfer Line	860-679-5555	Initial data (not updated by referral center yet)	
Danbury Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Administrative House Manager	203-791-9246		Fri 11:59 AM
Greenwich Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	[pending update]		Initial data (not updated by referral center yet)	
Lawrence + Memorial Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	[pending update]		Initial data (not updated by referral center yet)	
Yale New Haven Children's Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Y-Access Transfer Center	888-964-4233	Initial data (not updated by referral center yet)	
Barbara Bush Children's Hospital at Maine Medical Center	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	One Call Transfer Center	207-662-6632		Fri 11:29 AM
Northern Light Eastern Maine Medical Center	Not Accepting Transfers (Red)	Not Accepting Transfers (Red)	Integrated Transfer Center	207-973-9000		Tue 8:27 AM
Baystate Children's Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Transfer Center	877-790-2345	Initial data (not updated by referral center yet)	
Berkshire Medical Center	Not Accepting Transfers (Red)	Not applicable (Grey) - no PICU at this facility	EM Ops Specialist	413-447-2257		Tue 7:57 AM
Beverly Hospital	Not Accepting Transfers (Red)	Not applicable (Grey) - no PICU at this facility	M-F 9a-7p Bed Mgr; other times Nursing Supv	Bed Mgr 978-816-2760; Nursing Supv 978-922-3000		Tue 4:31 PM
Boston Children's Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Transfer Center	617-355-2170	Initial data (not updated by referral center yet)	
Boston Medical Center	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Bed Control Nurse	857-225-1499	Initial data (not updated by referral center yet)	
Brockton Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Day: Barbie Malacaria, (AVP of Nursing), Night: Day: 508-941-7497, Nig	Initial data (not updated by referral center yet)		
Cape Cod Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Access Line	844-275-2242	Initial data (not updated by referral center yet)	
Emerson Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Admin Supervisor	978-580-0228		Tue 11:03 AM
Lawrence General Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Hospital Operations Center/Nursing Supervisor	978-683-4000 x 2899		Tue 8:38 AM
Lowell General Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Bed Coordinator	978-788-7578		Tue 7:50 PM
Massachusetts General Hospital for Children	Possibly Accepting Transfers - Please Call (Yellow)	Not Accepting Transfers (Red)	Floor: call 617-726-2000 and page #21900 with c	PICU: call 617-724-4350 and ask to speak with PICU fellow		Tue 4:34 PM
Newton-Wellesley Hospital	Accepting Transfers (Green)	Not applicable (Grey) - no PICU at this facility	Transfer Center	617-243-5500		Tue 3:30 PM
South Shore Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	South Shore Hospital Patient Flow Facilitator or	5781-624-5125		Tue 12:44 PM
St. Luke's Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Transfer Center	508-985-8520	Initial data (not updated by referral center yet)	
UMass Memorial Children's Medical Center	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Transfer Center	508-334-0111	Initial data (not updated by referral center yet)	
Winchester Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Transfer Center	781-729-9000	Initial data (not updated by referral center yet)	
Cheshire Medical Center	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	[pending update]		Initial data (not updated by referral center yet)	
Concord Hospital - Concord	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Transfer Center	800-992-9399		Mon 7:28 PM
Dartmouth Health Children's	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Transfer Center	603-650-5000		Mon 7:58 AM
Elliot Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Dr. Marjan Makatam-Abrams (Pediatric Medical E	603-663-5437		Tue 1:55 PM
Exeter Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	CRN (Clinical Resource Nurse)	603-778-7311		Tue 2:28 PM
Portsmouth Regional Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	[pending update]		Initial data (not updated by referral center yet)	
Southern New Hampshire Medical Center	Accepting Transfers (Green)	Not applicable (Grey) - no PICU at this facility	Supervisor	603-921-1748		Tue 6:47 AM
St Joseph Hospital	Not Accepting Transfers (Red)	Not applicable (Grey) - no PICU at this facility	Amy Carter	603-884-8812	Not accepting Pedi transfers into facility	Fri 12:12 PM
Wentworth Douglass Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Not applicable (Grey) - no PICU at this facility	Sadie Nason, Transfer Coordinator. & Kelly Hold	603-740-2841 (Sadie) 6	Initial data (not updated by referral center yet)	
Hasbro Children's Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Transfer Center	401-444-3000		Tue 11:44 AM
University of Vermont Children's Hospital	Possibly Accepting Transfers - Please Call (Yellow)	Possibly Accepting Transfers - Please Call (Yellow)	Transfer Center	866-648-4866		Mon 9:47 AM

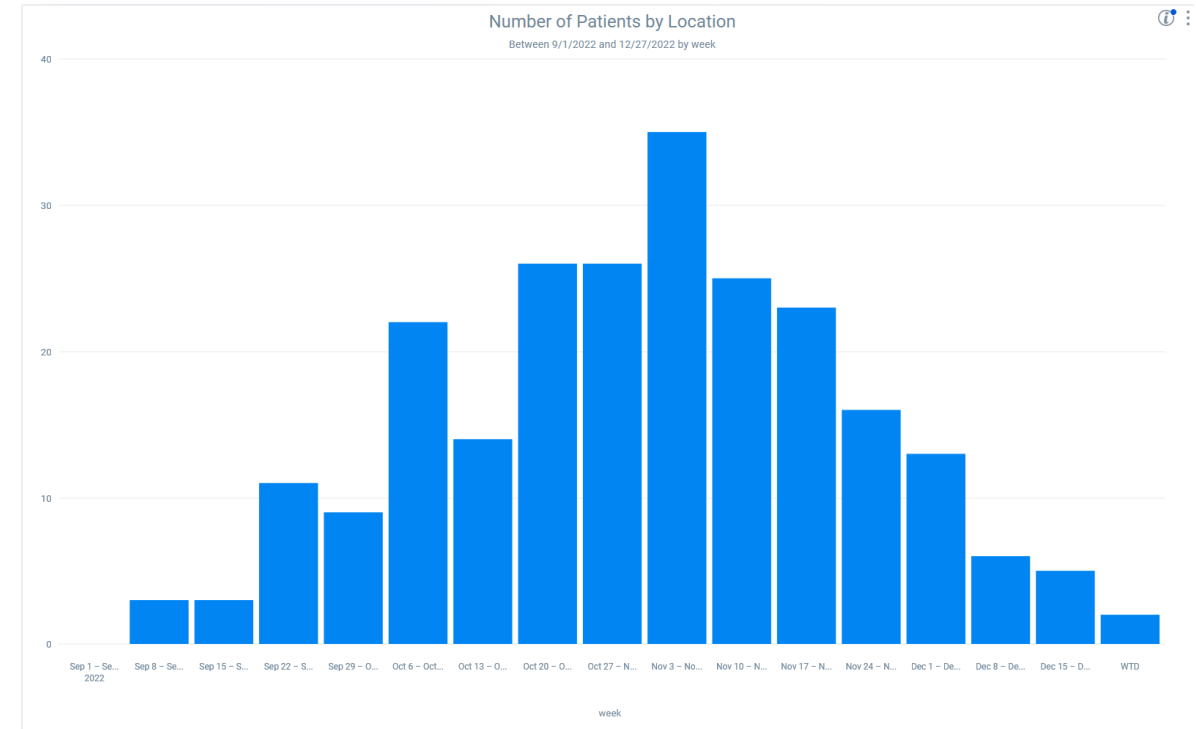


RSV Trends

National CDC RSV-Net (Peaked in early Nov.)



MGH: RSV+ Admissions (Sept. 1 - Dec.)

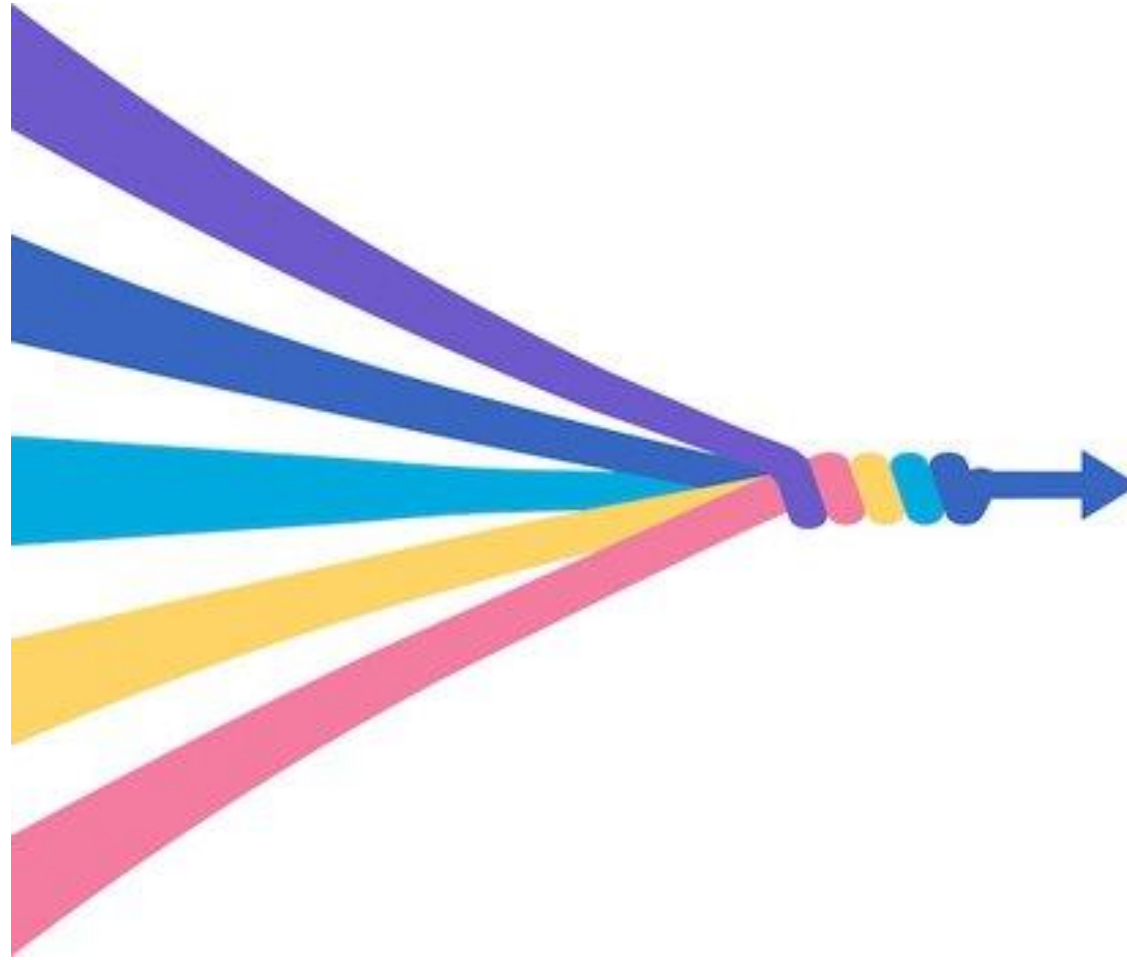


For Pts <18yo at MGH since Sept 1st

- 1141 RSV+ Tests
- 268 RSV+ Admissions
- 180 <1yo



Ongoing Adult and Pediatric Capacity Crisis





Questions



SMS Code, Disclosure Summary, & Accreditation Statement

SMS Code for Attendance: QAQROX to 857-214-2277

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Companies that are ineligible to be accredited in the ACCME System (ineligible companies) are those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. Examples of such organizations include:

- Advertising, marketing, or communication firms whose clients are ineligible companies
- Bio-medical startups that have begun a governmental regulatory approval process
- Compounding pharmacies that manufacture proprietary compounds
- Device manufacturers or distributors
- Diagnostic labs that sell proprietary products
- Growers, distributors, manufacturers or sellers of medical foods and dietary supplements
- Manufacturers of health-related wearable products
- Pharmaceutical companies or distributors
- Pharmacy benefit managers
- Reagent manufacturers or sellers

For more information: <https://accme.org/faq/what-accmes-definition-ineligible-company>

MITIGATION STRATEGIES

Mass General Brigham has implemented a process to mitigate relevant financial relationships for this continuing education (CE) activity to help ensure content objectivity, independence, fair balance and ensure that the content is aligned with the interest of the public.

The following planners reported no relevant financial relationship with an ineligible company:

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Paul Biddinger, MD	Erica S. Shenoy, MD, PhD	Stefanie Lane, MPH, MS	Jacky Nally, MA, RN

The following speakers reported no relevant financial relationships with an ineligible company:

Kathryn A. Hibbert, MD Kimberly Whalen, RN, MS, CCRN Phoebe H. Yager, MD

