Through collaborative use of improvement science methods, reduce preterm births & improve perinatal and preterm newborn outcomes in Ohio as quickly as possible.
Today’s presenters:

Mike Marcotte, MD
Tri-Health Good Samaritan
OPQC OB Faculty Lead

Ryan Everett, MPH
The Ohio Hospital Association

James Greenberg, MD
Cradle Cincinnati
Perinatal Institute-CCHMC

Kay Smith, MSN, CNM
ProMedica Toledo
Welcome

• **Goals:**
  • Share practicalities of implementing strategies now
  • Discuss what people are doing in situations where it is unclear and guidance doesn’t exist
  • **ALL TEACH ~ ALL LEARN**

• Over 360 registrants; focused topic and scenarios are regarding Surge Planning

• **Plans:**
  • The slide deck and recording of this webinar will be posted on the OPQC website
  • We will provide shared resource links on the website and update regularly

• The case scenarios are from individual institution responses, not OPQC recommendation
Data Update April 9, 2020
WHO/CDC/ODH: COVID-19 Outbreak

WHO
https://www.who.int/emergencies/diseases/novel-coronavirus-2019

Updated: 6 April 2020
Coronavirus (COVID-19) outbreak
- 1,439,516 Confirmed cases
- 85,711 Confirmed deaths
- 212 Countries, areas or territories with cases

CDC

• Total cases: 427,460
• Total deaths: 14,696
• Jurisdictions reporting cases: 55

(50 states, District of Columbia, Puerto Rico, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands)

ODH
https://coronavirus.ohio.gov/wps/portal/gov/covid-19/

• 5,512 Confirmed Cases in Ohio
• 497 ICU admissions
• 1,612 Hospitalizations in Ohio
• 213 Deaths

State of Ohio | COVID-19 Dashboard

Total Cases
5,512

* Preliminary
Poll #1

Have you made any changes to surge planning based on new modeling data?

- Yes, we have
- No, we have not
- Not sure
- N/A

1. Have you made any changes to surge planning based on new modeling data?

- Yes, we have (31) 26%
- No, we have not (46) 39%
- Not sure (25) 21%
- N/A (17) 14%
Surge Planning

COVID-19 Pandemic: OHA Response

Ohio Perinatal Quality Collaborative
COVID-19 – Quick updates
OHA’s and Ohio’s Response

- Background
- Strategic Workgroups
- ASPR Grant
- Regional Planning
- Testing Updates
COVID-19 Pandemic: OHA Response

Data Collection – Decision Making
OHA Data Collection

<table>
<thead>
<tr>
<th>Resource</th>
<th>Max Surge Capacity</th>
<th>Total Capacity</th>
<th>Number Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med/Surg Beds - Adult:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Med/Surg Beds - Pediatric:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Care Beds - Adult:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Care Beds - Pediatric:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airborne Isolation Beds - Adult:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airborne Isolation Beds - Pediatric:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilators:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECMO:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Select the level that best represents the status of each resource for your facility.

- **N95 Respirators**: Please choose
- **Face/Surgical Masks**: Please choose
- **Gloves**: Please choose
- **Face Shields**: Please choose
- **Gowns**: Please choose
- **Physician Staffing Level**: Please choose
- **Nurse Staffing Level**: Please choose
- **Ancillary Staffing Level**: Please choose

Enter number of patients currently admitted as an inpatient in your facility. For definitions please click here.

- **COVID-19 Suspected Patients - Count:**
- **COVID-19 Positive Patients - Count:**
- **COVID-19 Positive Patient In ICU - Count:**
- **COVID-19 Positive Patient On Ventilator - Count:**

Submit Your Information
OHA Data Dashboard - Resources

OHIO RESOURCE TRACKER: RESOURCE CAPACITY SUMMARY

<table>
<thead>
<tr>
<th>Capacity Measure</th>
<th>Region</th>
<th>County Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>All</td>
<td>All</td>
</tr>
</tbody>
</table>

OVERALL RESOURCE UTILIZATION

<table>
<thead>
<tr>
<th>Capacity Measure</th>
<th>Number Available</th>
<th>Total Capacity</th>
<th>Utilization Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airborne Isolation-Adult</td>
<td></td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Airborne Isolation-Pediatric</td>
<td></td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Critical Care-Adult</td>
<td></td>
<td>62%</td>
<td></td>
</tr>
<tr>
<td>Critical Care-Pediatric</td>
<td></td>
<td>58%</td>
<td></td>
</tr>
<tr>
<td>ECMO</td>
<td></td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Med/Surg-Adult</td>
<td></td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>Med/Surg-Pediatric</td>
<td></td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>Ventilators</td>
<td></td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Utilization Percent = percent of resources currently in use.

OHIO HOSPITALS BY REGION

RESOURCE UTILIZATION, BY MEASURE AND REGION

Region 1
Region 2
Region 3
Region 4
Region 5
Region 6
Region 7
Region 8
OHA Data Dashboard - Resources

**Ohio Resource Tracker: Resource Status Summary**

**Overall Resource Status**

- 1 - Adequate
- 2 - Strained
- 3 - Critical

<table>
<thead>
<tr>
<th>Resource Measure</th>
<th>1 - Adequate</th>
<th>2 - Strained</th>
<th>3 - Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancillary Staffing Level</td>
<td>85%</td>
<td>27%</td>
<td>8%</td>
</tr>
<tr>
<td>Face Shields</td>
<td>38%</td>
<td>38%</td>
<td>11%</td>
</tr>
<tr>
<td>Face/Surgical Masks</td>
<td>36%</td>
<td>32%</td>
<td>13%</td>
</tr>
<tr>
<td>Gloves</td>
<td>30%</td>
<td>30%</td>
<td>19%</td>
</tr>
<tr>
<td>Gowns</td>
<td>35%</td>
<td>34%</td>
<td>21%</td>
</tr>
<tr>
<td>N95 Respirators</td>
<td>39%</td>
<td>37%</td>
<td>24%</td>
</tr>
<tr>
<td>Nurse Staffing Level</td>
<td>81%</td>
<td>89%</td>
<td>6%</td>
</tr>
<tr>
<td>Physician Staffing Level</td>
<td>98%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Overall Resource Status, by Measure and Region**

<table>
<thead>
<tr>
<th>Resource Measure</th>
<th>1 - Adequate</th>
<th>2 - Strained</th>
<th>3 - Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancillary Staffing Level</td>
<td>199</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Face Shields</td>
<td>64</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>Face/Surgical Masks</td>
<td>70</td>
<td>88</td>
<td>76</td>
</tr>
<tr>
<td>Gloves</td>
<td>126</td>
<td>82</td>
<td>26</td>
</tr>
<tr>
<td>Gowns</td>
<td>83</td>
<td>80</td>
<td>71</td>
</tr>
<tr>
<td>N95 Respirators</td>
<td>67</td>
<td>92</td>
<td>75</td>
</tr>
<tr>
<td>Nurse Staffing Level</td>
<td>189</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Physician Staffing Level</td>
<td>208</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>213</strong></td>
<td><strong>157</strong></td>
<td><strong>121</strong></td>
</tr>
</tbody>
</table>

**Data Not Current!**

Note: Count represents the number of facilities at each value level.

**Ohio Hospitals by Region**

Map showing hospital locations by region.
Modeling – Surge Planning
Statewide Modeling - Surge Planning

The data model driving this visualization is provided by Quantitative Epidemiologists at the Infectious Diseases Institute at the Ohio State University.

The Mitigated curve factors in the preventative measures taken by all Ohioans, while the Unmitigated curve does not.

Projections current as of 04/05
OHA Data Dashboard - Surge Planning

HOSPITAL SURGE PLANNING, BY REGION

The estimated hospital occupancy represents an estimate for all hospitalized COVID-19 patients. The number shown for Beds Available includes all bed types submitted to OHA through the OHA Hospital Resource Tracker.

PEAK OCCUPANCY

Max Surge, Low
Max Surge, Mean
Max Surge, High

ESTIMATED HOSPITAL OCCUPANCY, BY DATE

Beds Available
ValueLow
ValueMean
ValueHigh

CITY SUMMARY

Region
Beds Available
Bed Total Capacity
Current Utilization %

Region 1
53%
59%
45%
48%
52%
49%
43%
54%
52%

Region 2

Region 3

Region 4

Region 5

Region 6

Region 7

Region 8

Total

ESTIMATED BEDS NEEDED, AT PEAK OCCUPANCY

Beds Needed, Emergency Region

Beds Needed, Non-Emergency Region

NOTES

Beds Needed estimated by OHA (displayed in the above graph) are shown. Occupancy estimates and bed calculation methods are based on data from OHA through the OHA Hospital Resource Tracker.

Region 1
Region 2
Region 3
Region 4
Region 5
Region 6
Region 7
Region 8

Total
# Alternative Care Sites

<table>
<thead>
<tr>
<th>Site</th>
<th>Status</th>
<th>HPP Region</th>
<th>County</th>
<th>Type</th>
<th>Planned Activation Date</th>
<th>Bed Capacity</th>
<th>Beds Available</th>
<th>Bed Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seagate Convention Center</td>
<td>Selected</td>
<td>1</td>
<td>Lucas</td>
<td>Non COVID-19 Patients</td>
<td>4/22/2020</td>
<td>415</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Case Health Education Campus</td>
<td>Selected</td>
<td>2</td>
<td>Cuyahoga</td>
<td>Non-acute, COVID-19 patients</td>
<td>4/15/2020</td>
<td>1,030</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dayton Convention Center</td>
<td>Selected</td>
<td>3</td>
<td>Montgomery</td>
<td>Low acuity COVID-19 Patients</td>
<td>4/22/2020</td>
<td>460</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Greater Columbus Convention Center</td>
<td>Selected</td>
<td>4</td>
<td>Franklin</td>
<td>Low acuity COVID-19 Patients</td>
<td>4/11/2020</td>
<td>1,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Covelli Convention Center</td>
<td>Selected</td>
<td>5</td>
<td>Mahoning</td>
<td>Non-acute, COVID-19 patients</td>
<td>4/16/2020</td>
<td>280</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Duke Energy Convention Center</td>
<td>Selected</td>
<td>6</td>
<td>Hamilton</td>
<td>Acute &amp; non-acute COVID-19</td>
<td>4/22/2020</td>
<td>529</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total ACS Beds:** 3,714

*Source: ADJ-OH: Updated Daily after 8:00 PM*
OHA collaborates with member hospitals and health systems to ensure a health Ohio

QUESTIONS?

Ryan Everett, MPH
Director, Community and Public Health Programs
Ryan.Everett@ohiohospitals.org

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Columbus, OH 43215-3640

T 614-221-7614
ohiohospitals.org
Surge Planning for COVID-19: A Neonatal Perspective

- More patients
- In non-traditional repurposed settings
- Pediatrics/neonatology less impacted by COVID, but...
  - Mothers
  - Resources

- How is Neonatology affected?
  - PPE conservation
  - Equipment
  - Attractive real estate
  - Re-deployment of hospital personnel

- Personnel
PPE Conservation

• Closure of low volume delivery services (with re-assignment of staff)
• Reduction in use of PPE
Equipment

• Appropriation of ventilators from level II (SCN) settings
• Potential impact:
  – Lower threshold for transfer to higher level of neonatal care
  – Might impact bed capacity at a level II/IV center
Attractive Real Estate, etc.

- Repurpose level II/III space for COVID care
- Headwalls
- Personnel (?)
- Some extant infrastructure, equipment, supplies

- Staffing during transition
- Lead time
- Labor & Delivery services
- Transition to level I
- Transport
  - Capacity
  - Duration (1.5 hours/pt)
Attractive Real Estate

- Creating a new level II or III nursery
  - Staffing: MD, RN, RT, ancillary
  - Space
  - Supplies
  - Families
  - Communication

- Cincinnati
  - One L&D service closed
  - Ventilators and anesthesia machines (C/S rooms) targeted for repurposing
  - One level II location moved to new location
  - Nursery closing: Two false starts
Concepts

• Equipment
• People
• Places
• Collateral impact
• Inter-institutional interactions
Outside of the Hospital

- Disproportionate impact on Black, Latino communities
- Restricted hospital visitation policies
- Masks
- Home deliveries [https://youtu.be/HNELmKmVLRA](https://youtu.be/HNELmKmVLRA)
- Exacerbation of systematic inequities
ProMedica Health System COVID-19 Planning

Featured Locations

- ProMedica Bay Park Hospital
- ProMedica Bixby Hospital
- ProMedica Coldwater Regional Hospital
- ProMedica Defiance Regional Hospital
- ProMedica Flower Hospital
- ProMedica Fostoria Community Hospital
- ProMedica Health and Wellness Center
- ProMedica Herrick Hospital
- ProMedica Memorial Hospital
- ProMedica Monroe Regional Hospital
- ProMedica Toledo Hospital
- ProMedica Russell J. Ebeid Children’s Hospital (Formerly ProMedica Toledo Children's Hospital)
- ProMedica Wildwood Orthopaedic and Spine Hospital
Why designate a “COVID-19” Hospital?

In general
- Centralized location
- Favorable infrastructure
- Maintain “normal” unit function
- Public concerns for exposure
- Limiting/Managing Exposure

Obstetrics
- Could convert whole floor to negative pressure rooms
- Level 2 obstetrical designation
- Non COVID patients diverted to other OB units in the system
- Allow fluid access for COVID-19 positive or PUI
Suspected or positive Covid-19 pregnant patient needing admission

Laboring Patient

Delivery imminent
- Deliver at referring hospital
  - Transfer after postpartum recovery
  - Mom to BPH
  - Newborn to either BPH or TTH
  - NICU as appropriate
  - Can keep newborn if appropriate

Delivery not imminent
- <34 weeks
  - Transfer to Level 3 Center
    - TTH
- >34 weeks
  - Transfer to Designated COVID-19 Hospital
    - BPH

Non-Laboring Patient

Transfer to Designated COVID-19 Hospital
- BPH

CALL ACCESS FOR TRANSFER OF MOM AND/OR BABY

For maternal transport
- Consult MFM, ID, BPH Hospitalist/Intensivist
- Notify on MD/CNM on call at BPH
- Notify TTH if indicated < 34 weeks

For newborn transport
- Notify NICU if newborn transfer requested
- Notify BPH pediatrician if going to BPH

BPH: Bay Park Hospital
TTH: Toledo Hospital
What ProMedica Toledo has done in Obstetrics

- In situ simulations to assess preparedness for COVID-19 patients
- Converted labor rooms and OR to negative pressure
- Screen all scheduled cesareans and induction day before admission
- Stopped use of nitrous in all OB patients
- Stopped use of supplemental O2 for fetal intrauterine resuscitation
- Use of DEROSA Shield for vaginal deliveries
- Stopped postpartum sterilization
- Early discharge for postpartum patients
- N95 and eye protection for all patient encounters
- N95, eye protection, gown, gloves for all COVID-19 positive or PUI
Dena Goffman, MD is currently the Chief of Obstetrics and Associate Professor in Obstetrics and Gynecology at Sloane Hospital for Women at New York-Presbyterian Hospital and Columbia University Medical Center and the Associate Chief Quality Officer for Morgan Stanley Children's Hospital & Sloane Hospital for Women.

COVID-19 - What Maternity and Neonatal Care Providers Are Learning

Friday, April 17th 12N-1pm

Goal: Care of the critically ill COVID+ pregnant patient (case study) including use & benefit of simulation and debriefing
Contact information for today’s presenters

• Dr. Mike Marcotte: michael_marcotte@trihealth.com
• Ryan Everett: Ryan.Everett@ohiohospitals.org
• Dr. Jim Greenberg: James.Greenberg@cchmc.org
• Kay Smith: kay.smith@promedica.org
• Susan Ford: susan.ford@UHhospitals.org
• info@opqc.net
Updated Resources on OPQC Website

The OPQC website has a list of information and resources that will be updated regularly: https://opqc.net/

Contact us: info@opqc.net
Take care out there
It takes a village...

The OPQC QI projects are funded by the Medicaid Technical Assistance and Policy Program (MEDTAPP) and administered by the Ohio Colleges of Medicine Government Resource Center. The views expressed in this meeting are solely those of the authors and do not represent the views of state or federal Medicaid programs.