

**Children's National
and the
Pediatric Health Network
COVID Update
May 12, 2020**

Introduction and Welcome

Denice Cora-Bramble, M.D., MBA, Chief Medical Officer Ambulatory and Community Health Services

Welcome

- Children's National Updates
 - Re-engaging with medical and surgical specialties
 - Safety and ongoing care
 - Friday 5/15 noon Practice Recovery Town Hall
 - Future of Pediatrics going "virtual" – series of webinars
- Today's Agenda
- Send questions/ideas to **PHN@Childrensnational.org**

Agenda

- Infectious Diseases SARS-CoV-2 Update
 - Bud Wiedermann, M.D., Infectious Disease
- COVID Testing
 - Joelle Simpson, M.D. Emergency Preparedness
- Case Studies from Critical Care
 - Michael Bell, M.D., Critical Care
- Distinguishing Allergies from COVID-19
 - Hemant Sharma, M.D., Immunology
- Questions and Answers
 - Ellie Hamburger, M.D., Pediatric Health Network

Infectious Diseases SARS-CoV-2 Update

May 12, 2020

Bud Wiedermann, MD, MA

Division of Infectious Diseases, Children's National
Hospital

Professor of Pediatrics, The George Washington
University School of Medicine and Health Sciences

Pediatric Health Network



Children's National.

Topics for Today's Session

- Overview of Regional COVID-19 Activity
- Kawasaki Disease and COVID-19
- Why You Shouldn't Order Serologic Testing for Patients

Total Overall Tested
29,570

Total Positives
6,272

Total Recovered
880

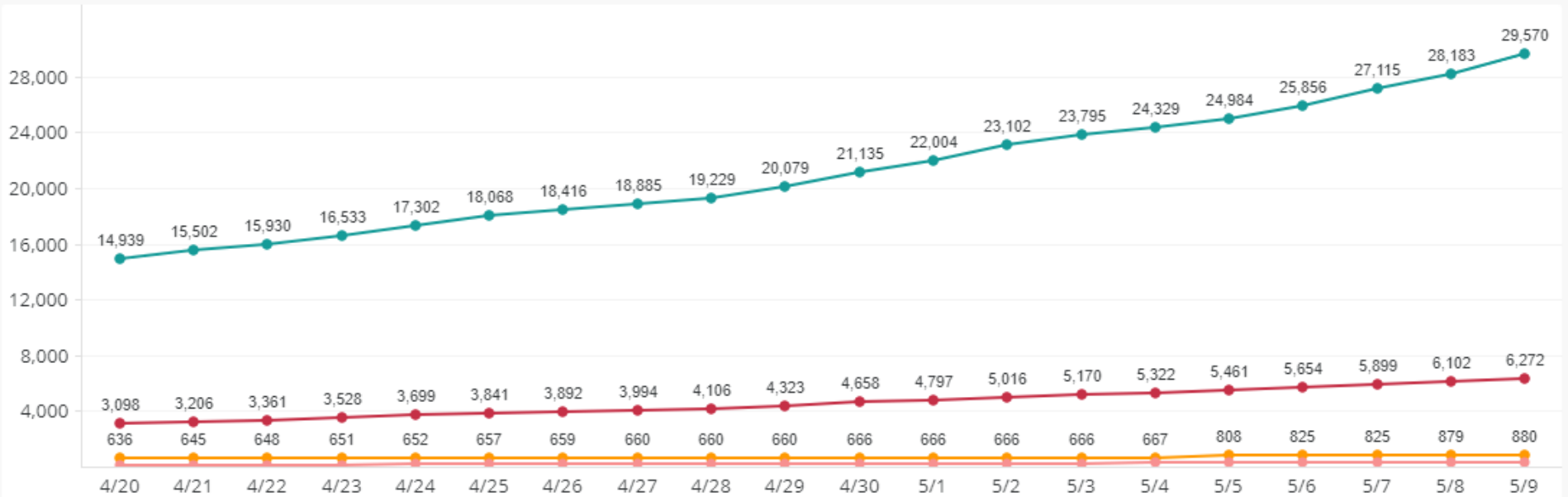
Total Deaths
323

Overall Tested

Positives

Recovered

Deaths



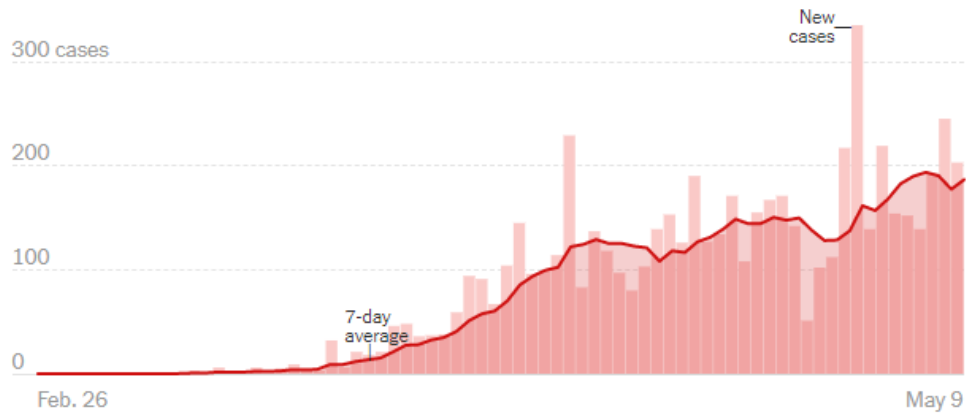
4/20 - 5/9

3/7

5/9

Due to the rapidly evolving nature of this public health crisis, DC is updating this dashboard daily between 8 am - 10 am based on the most recently available data.
*There is no data for "people tested overall" result for 3/20, an averaged number (adjacent days) has been inserted for graphing purposes until the data can be corrected.

New reported cases by day in the District of Columbia



Note: The seven-day average is the average of a day and the previous six days of data.

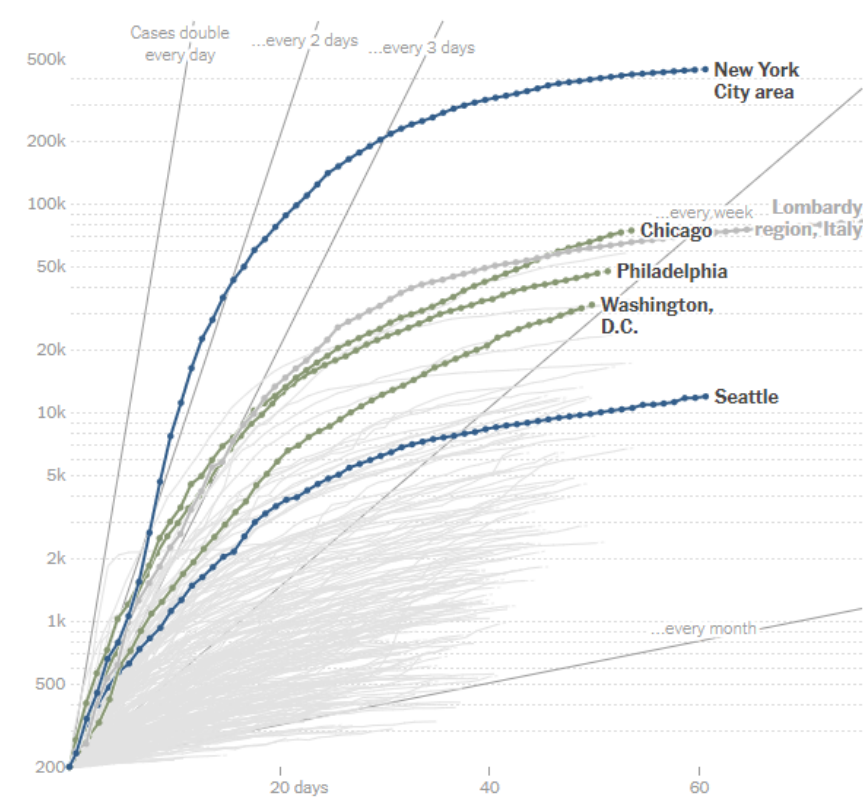
New reported deaths by day in the District of Columbia



Confirmed cases by metro area

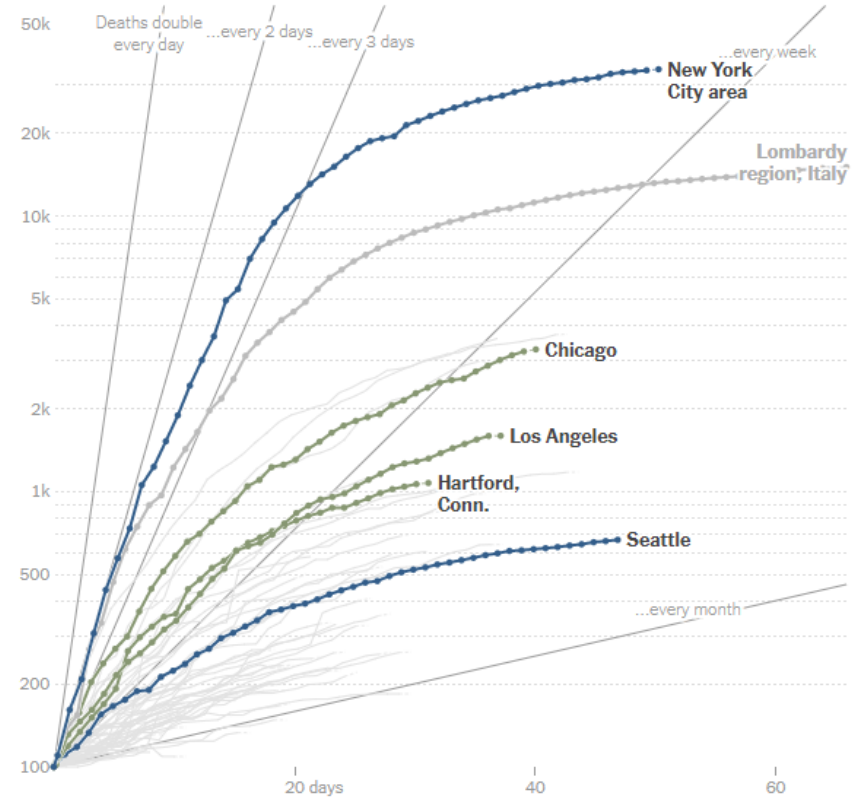
for places with at least 200 cases

— Reported ····· Partial (today)



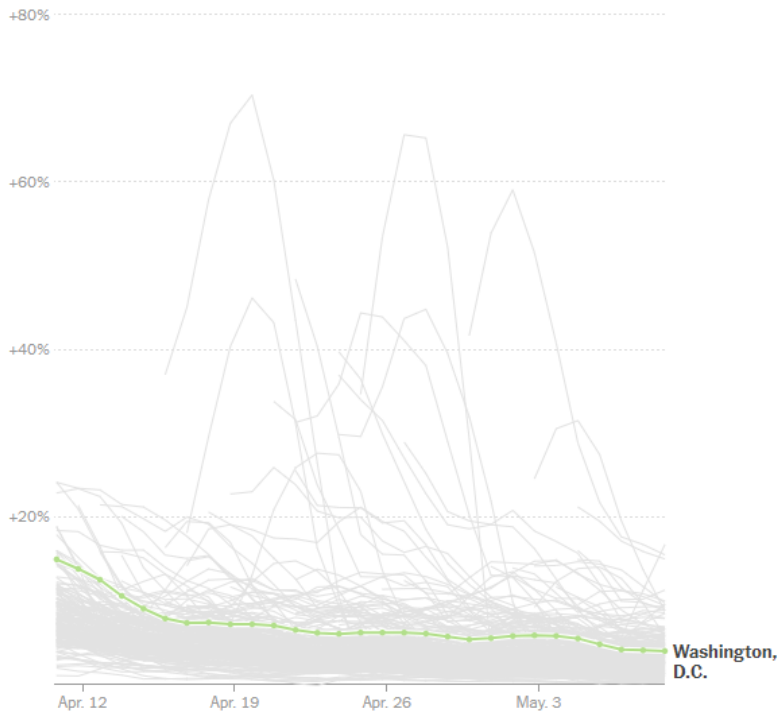
Deaths by metro area

for places with at least 100 deaths

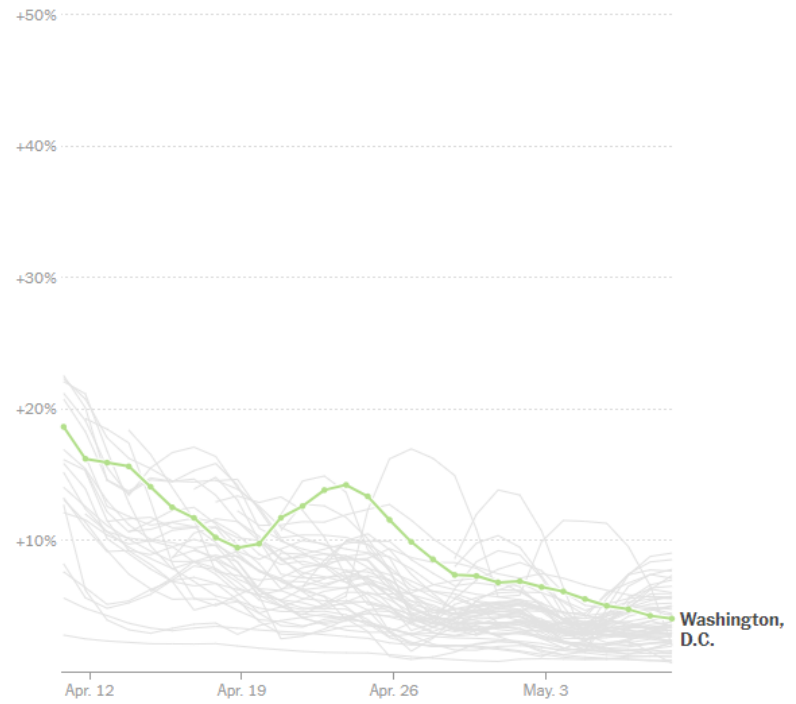


Notes: Cases and deaths are plotted on a log scale. Doubling times are based on growth rates averaged over the previous week. Some data points are interpolated to account for missing values.

Daily growth rate of confirmed cases
once reaching 200 cases



Daily growth rate of deaths
once reaching 100 deaths

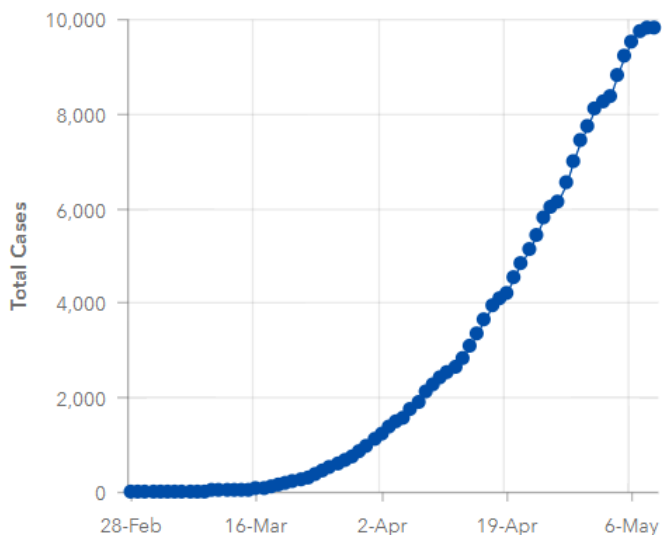


than four days.

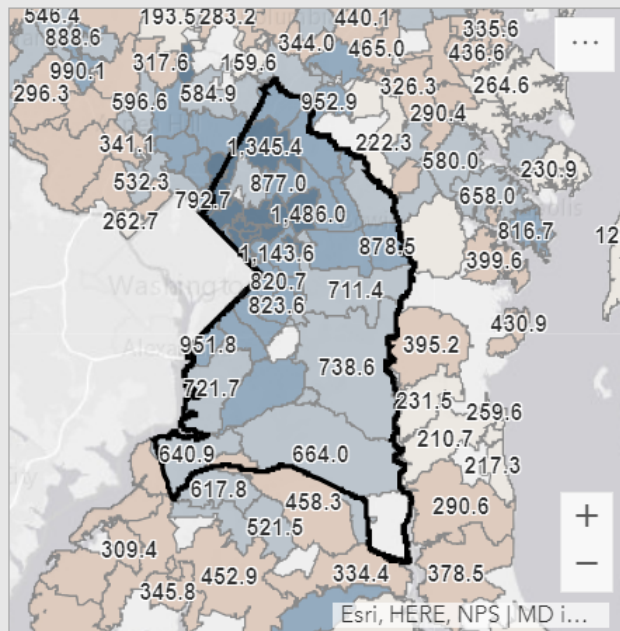
<https://princegeorges.maps.arcgis.com/apps/opstdashboard/index.html#/9491556559cb4bba8ead3aa72ac3edcf>

Prince George's County COVID19 Dashboard

Total Cases Over Time



Total Cases by Day



Cases per 100,000 Residents by Zip Code

Prince George's County
Cases per 100,000
Residents by Zip Code (Based
on 2014-2018 ACS
Pop. Estimates)

- 20783 (Hyattsville): 2,517.6
- 20737 (Riverdale): 1,891
- 20784 (Hyattsville): 1,805.6
- 20903 (Silver Spring): 1,694.3
- 20722 (Brentwood): 1,693.8
- 20782 (Hyattsville): 1,560.5
- 20706 (Lanham): 1,486

Confirmed Cases

9,811

Deaths

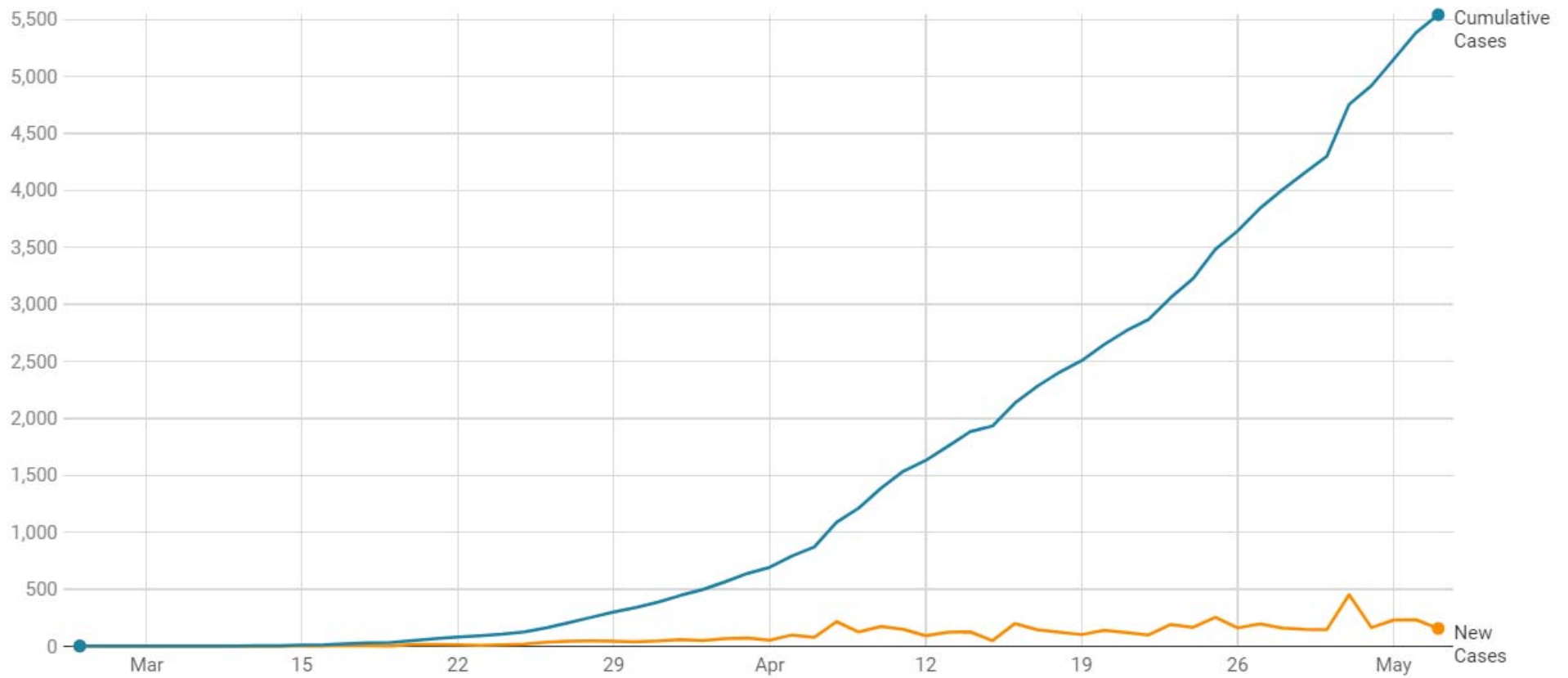
327

Hospitalizations

1,797

Montgomery County COVID-19 Cases by the Numbers

Confirmed & New Cases Over Time





COVID-19 Cases in Virginia



Dashboard Updated: 5/10/2020, Data entered by 5:00 PM the prior day.

Testing Encounters[^] 157,957	Total Cases*		Total Hospitalizations**		Total Deaths	
Unique People Tested[^] 141,936	24,081		3,211		839	
	Confirmed†	Probable†	Confirmed†	Probable†	Confirmed†	Probable†
	22,962	1,119	3,190	21	813	26

Select Measure
(Affects Map and Bar Chart)

- Cases
- Hospitalizations
- Deaths

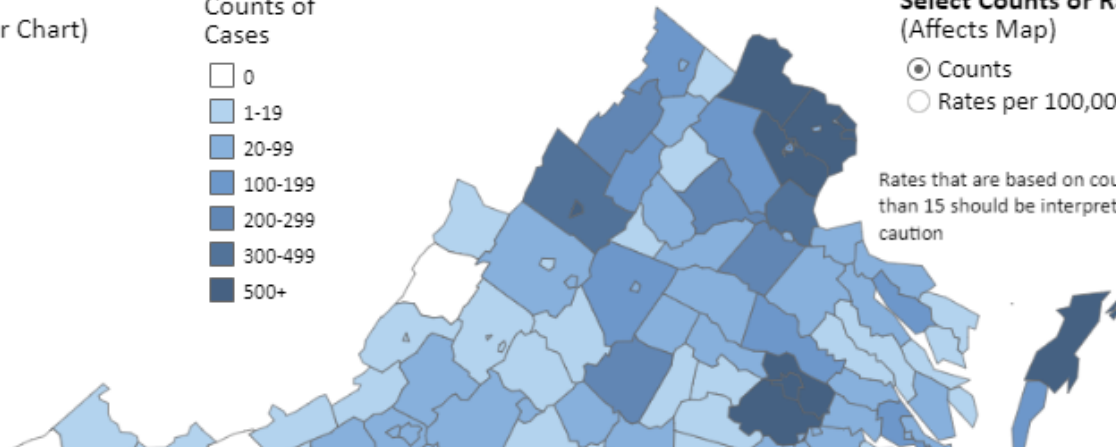
Counts of Cases

- 0
- 1-19
- 20-99
- 100-199
- 200-299
- 300-499
- 500+

Select Counts or Rates
(Affects Map)

- Counts
- Rates per 100,000

Rates that are based on counts less than 15 should be interpreted with caution



CNH Numbers 5/11/20 – Symptomatic Patients

- 267 SARS-CoV-2 + (excludes Trinity site)
 - 70 hospitalized (26%)
 - 52 Acute Care (Special Isolation Unit (SIU) or NICU)
 - 18 Critical Care (26%)
- Current census 8 acute care, 5 in critical care (2 adults)
- Daily COVID census 13–17 in past several days

Kawasaki and COVID for the PCP

- Still a rare condition
 - Seems to be on rise once new COVID-19 cases are falling
- ?Roles of minor viral strain variation, patient genetic predisposition
 - Inflammatory fingerprint may differ from “regular” KD
- Mix of types
 - Typical and incomplete KD
 - Kawasaki Shock Syndrome
 - May or may not have positive SARS-CoV-2 tests
 - Atypical clinical presentations

Action Items for PCPs and "PIMS"

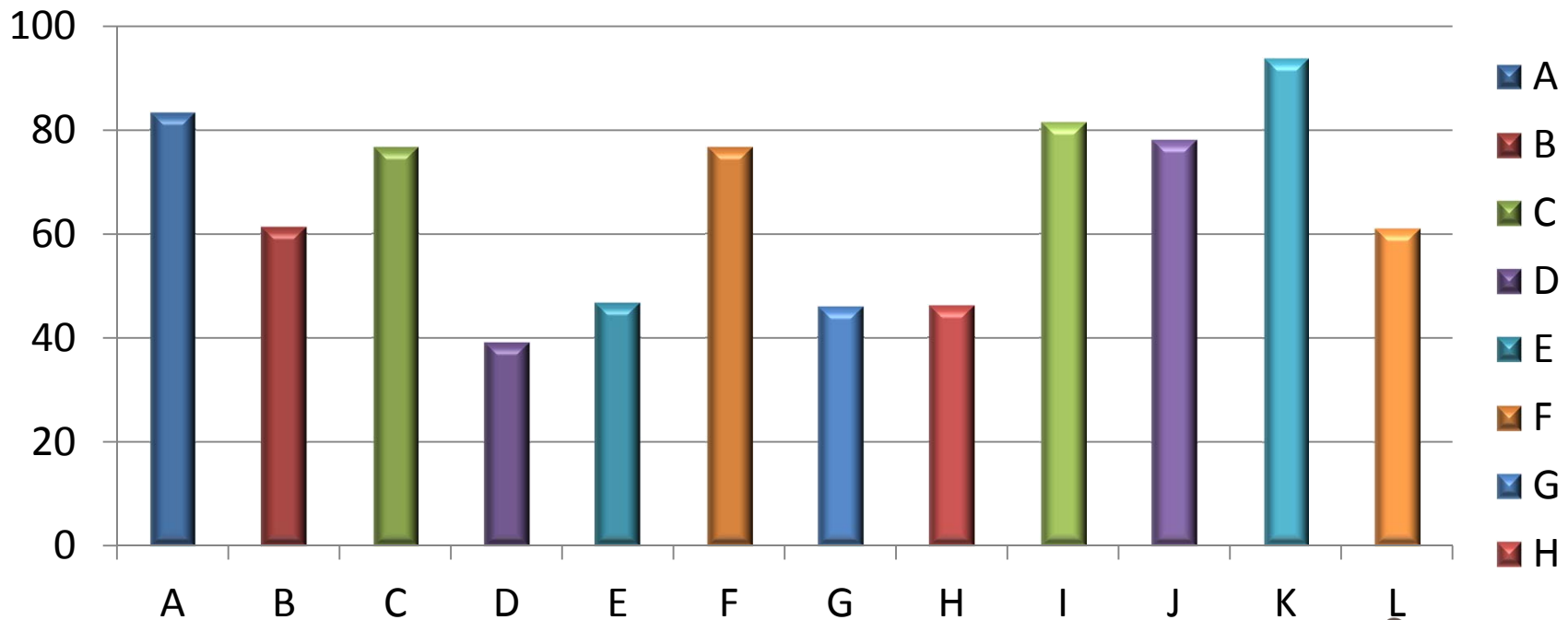
- Review key features of typical and incomplete KD
 - AAP Red Book
- Look out for unusual presentations that may be more common in these patients
 - GI features – severe abdominal pain, vomiting/diarrhea
- Consider for any child with fever ≥ 5 days

Why Send COVID-19 Serologic Testing on Individual Patients?

- Curiosity if past infection (“have-I-had-it-itis”)
- “Immunity Passport”
- As of today, no assay can answer either question

Positive Predictive Values of 12 COVID-19 Antibody Tests (NPVs all 98-99.8%)

Lower limits of CI, assumes disease prevalence of 5%



A Closer Look at Test Kit K (PPV 93.9%)

- Sensitivity determined by testing of 204 samples from 69 patients with confirmed SARS-CoV-2 infection
 - Sensitivity 65 (56-74) days 0-6 post PCR test (unknown disease duration); 88 (77-95) days 7-13, 100 (88-100) at ≥ 14 days
 - Tested 26 samples from 5 patients after recovery from infection, up to 40 days after positive PCR (for 2 patients)
- No information about severity of disease in patient samples
- No pediatric patients tested

What About the New Antigen Test?

- Rapid, in office
- Tests for viral proteins
- Sensitivity much less than most PCRs
 - Might not be a bad thing?
- Extreme caution in interpreting results due to minimal data so far
 - For now would not use negative test to determine quarantine duration

Immunize: Now ^{Much} More Than Ever

National Infant Immunization Week (NIIW) is a yearly observance highlighting the importance of protecting children two years and younger from vaccine-preventable diseases (VPDs). It's also a time to showcase the achievements of immunization programs and their partners in promoting healthy communities.



National Infant
Immunization Week

For over 25 years, hundreds of communities across the U.S. have joined forces to highlight the critical role vaccination plays in protecting our children, communities, and the nation's public health.

NIIW 2020 is April 25 – May 2, 2020.

[Learn more about NIIW.](#)

Pediatric Health Network



Children's National.

COVID Testing Update

Joelle Simpson, M.D.

Pediatric **Health** Network

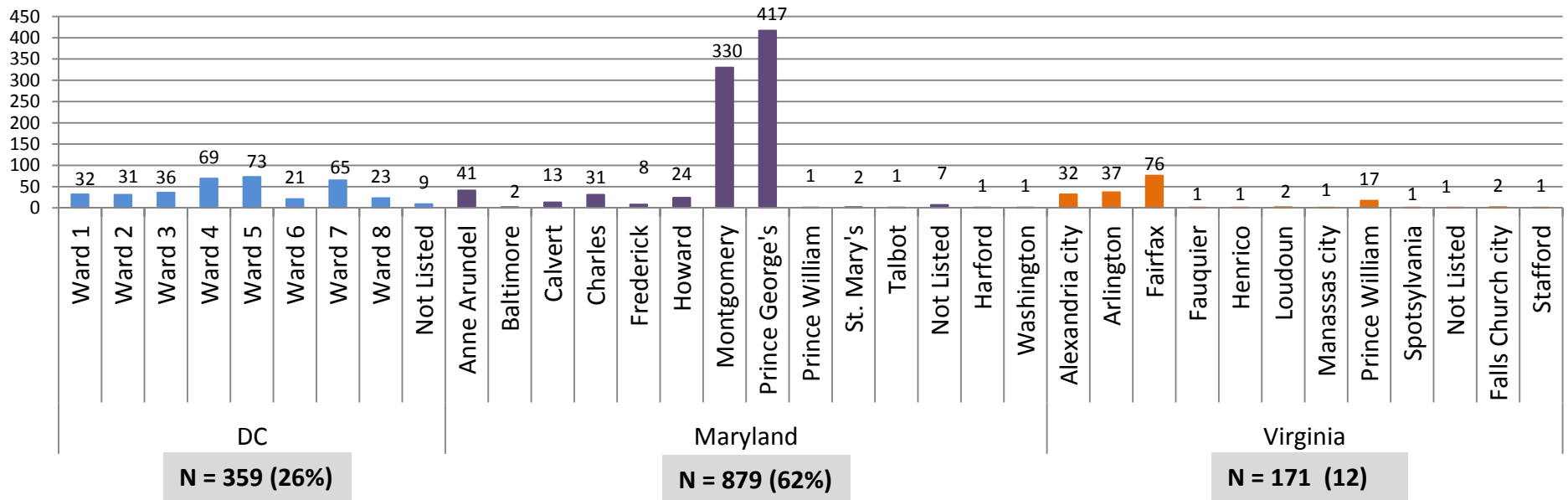


Children's National.

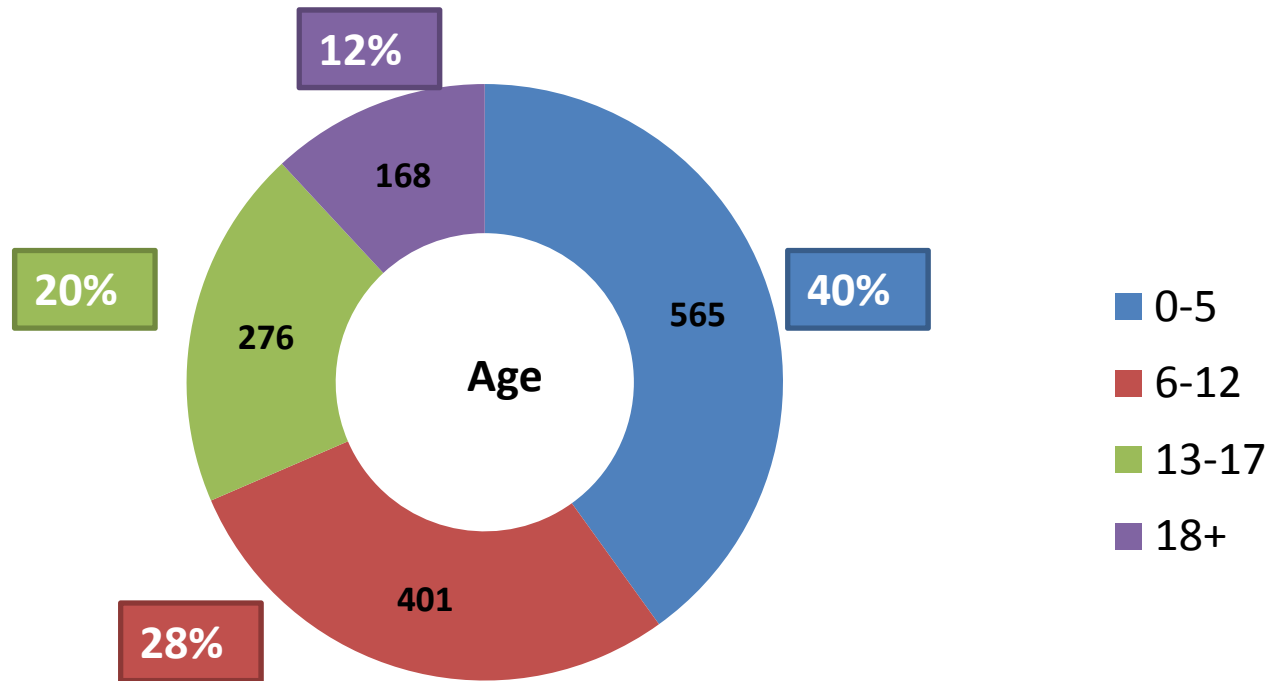
Regional COVID-19 Drive Through Specimen Collection

1,410 Collections to Date

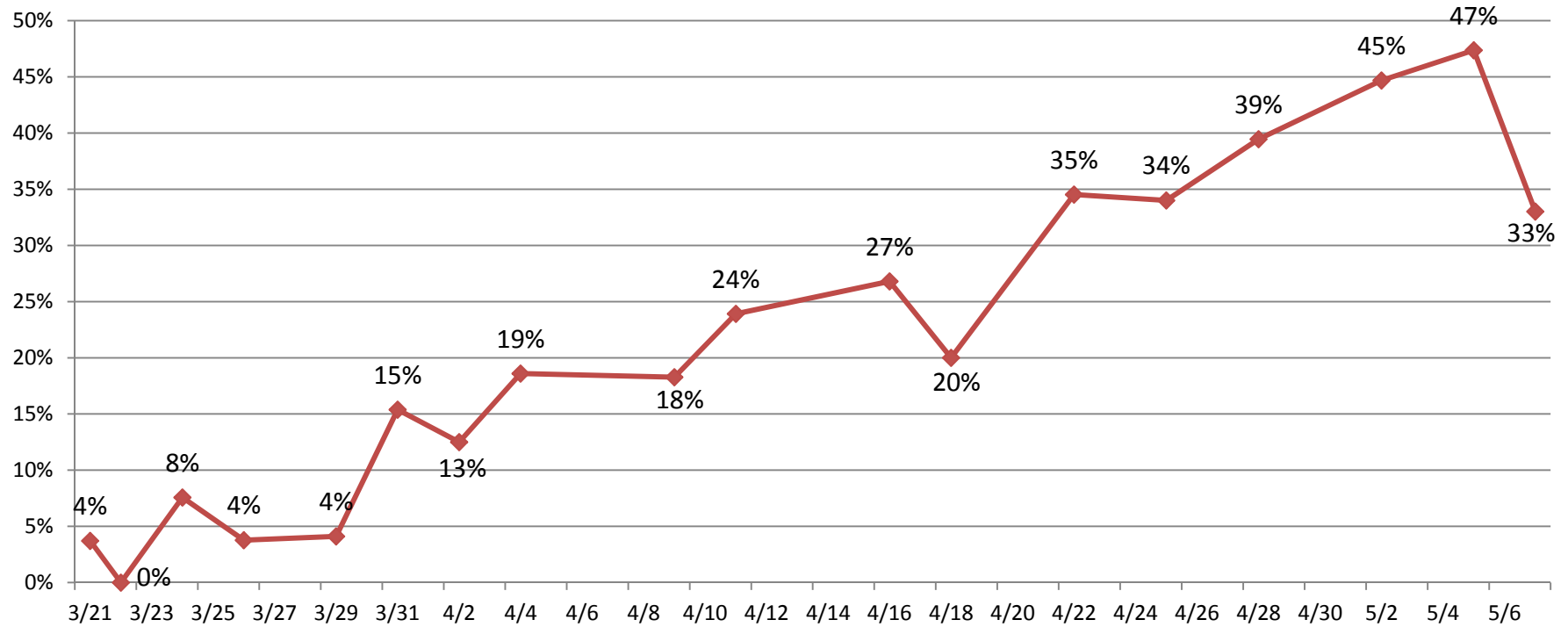
25% Positive to Date



Age distribution of patients tested at Drive Through



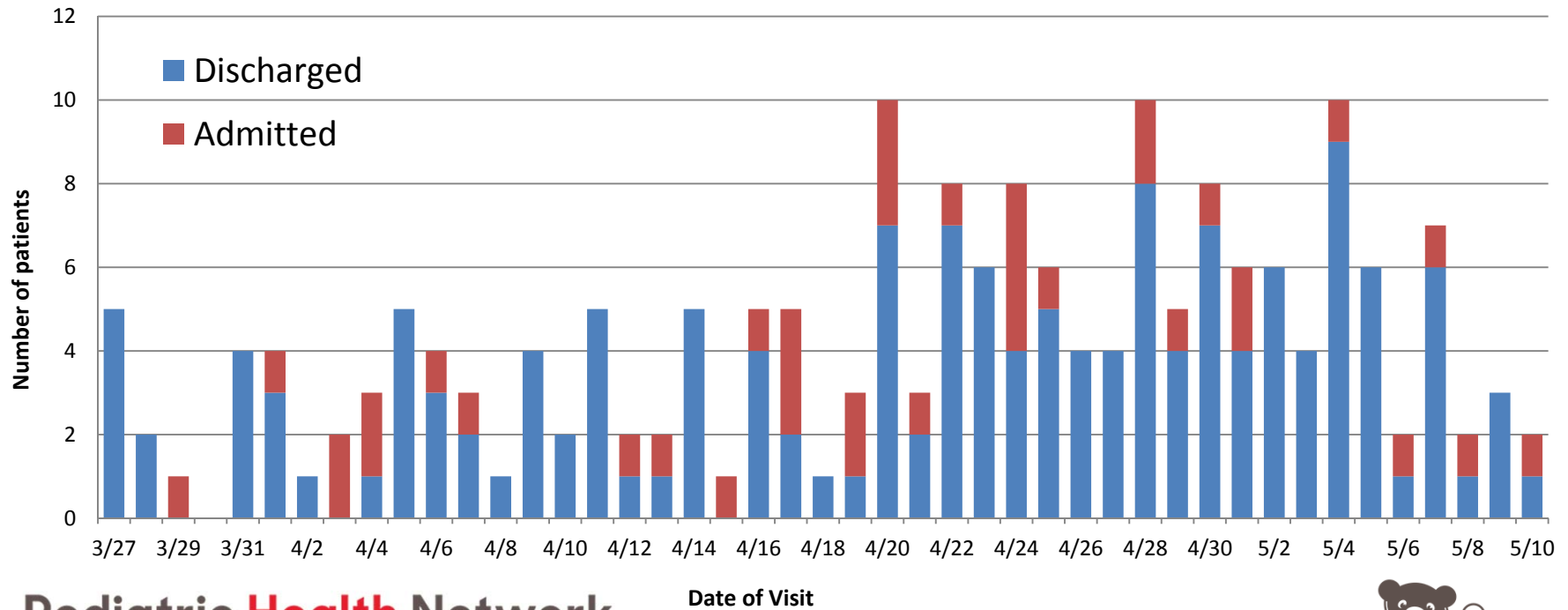
% Positive COVID-19 Test Results per Testing Day



On average 27% no show rate

Emergency Department COVID + patients

On average 80% of COVID + patients have been discharged

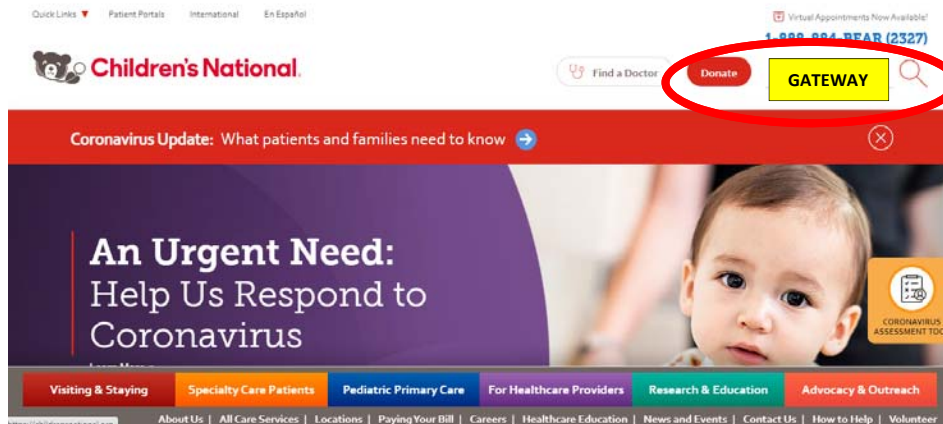


Tests Processed by Children's National

- On a future date TBD, we will begin processing specimens at Children's National
- Implications:
 - New lab requisition and consent forms
 - Results will be loaded into in the Gateway Portal and Cerner (no longer emailing results)
 - Courtesy positive result calls will continue

What you can do now to prepare

- ❑ Access the Gateway Portal
- ❑ Ensure you have access to the patient records
- ❑ Contact your physician liaison if you have questions



Pediatric Health Network
Children's National.



Children's National Gateway Portal

For Healthcare Providers +

- Gateway Portal for Referring Physicians
 - Gateway Access Request
 - Gateway Assistance Request Form
 - Terms and Conditions

Gateway Portal for Referring Physicians

Children's National Gateway is our resource for referring physicians looking for real-time information on their patients referred to Children's National. Physician and nursing documentation, as well as radiology and lab results, are included in the portal, with information dating back to May 18, 2008.

If you do not see your patient when you log in, or have any questions regarding the portal, please review the [Children's National Gateway User Manual](#).

For assistance, please complete [this form](#). Requests will be answered within 48 hours.

[Log in to the Physician's Portal](#) ›

[Request Portal Access](#) ›

Gateway Portal Helpful Links

- [Request Assistance](#) ➔
- [User Guide \(PDF\)](#) ➔
- [Terms and Conditions \(PDF\)](#) ➔

CORONAVIRUS ASSESSMENT TOOL

Visiting & Staying | Specialty Care Patients | Pediatric Primary Care | **For Healthcare Providers** | Research & Education | Advocacy & Outreach

Children's National Gateway Portal



Welcome User: DESAI, BIJAL MD [Children's National Health System](#)

- My Patients
- Group Patients
- Search
- MD Documents
- RN Documents
- Labs
- Rad
- Inpatient Summary
- Links

Patient List

last refresh: 14:35

Facility: Children's National Health System

Census Type: My Patients

Patient Status Filter: in days

Your default patient list will display any patients (inpatient or outpatient) where you are listed as the primary provider and who have been seen in the last 180 days. To search for your patients seen more than 180 days ago, adjust the days and select Get Patient List.

If you cannot locate a patient under your care, please call 301-572-1123, Monday-Friday between the hours of 8:30 am and 5 pm. Inquiries at other times can be made by [filling out this form](#). A member of the Children's National team will contact you within 48 hours regarding your request.

2 Patients

Pat. Name	Dob	MRN	Visit Date	Sex	Pt Type	Attending	Adm. Diagnosis	Last account#
Jones, ED	1/1/2015	123456789	2/1/2015	M	Emergency	CHAMBERLAIN, JAMES M MD		1234567890
Smith, LESLIE	12/13/2009	123456788	1/18/2015	F	Emergency	CHAMBERLAIN, JAMES M MD		1234567899

Labs will display the last 60 days of lab results. You can adjust date range to get labs from >60days.



Questions

- Contact your physician liaison
- Search “Physician Relations” on [ChildrensNational.org](https://www.childrensnational.org)
- Call 202-476-4418

COVID-ICU Cases

Michael Bell, M.D. Chief, Critical Care Medicine

Pediatric **Health** Network



Children's National.

Summary of Cases

Age	Sex	Underlying Diagnosis	Clinical Features	Ventilatory Support
7 weeks	Female	Trisomy 21 Atrial Septal Defect	Symptom onset 12 days prior to admission: tachypnea, vomiting, diarrhea. Admitted on days 3-5 of symptoms for NC O2; SARS CoV-2 PCR negative. Readmission 3 days later due to progressive tachypnea, fever. CXR with right lower lobe pneumonia. Repeat SARS Cov-2 PCR positive.	RAM cannula
4 years	Male	None	Symptom onset 5 days prior to admission: consistent with Kawasaki Disease (fever, rash, strawberry tongue, cervical lymphadenopathy) presenting in hypotensive shock. Markedly decreased myocardial function consistent with myocardial injury of viral or inflammatory etiology. First 2 COVID tests negative, 3 rd positive (lower respiratory specimen). Presentation consistent with severe hyperinflammatory state (affecting myocardium) secondary to COVID.	Intubated-PRVC support Highest FiO2-0.5-1.00 upon intubation, but now steady at 0.40 FiO2 PEEP-8
10 years	Male	Static Encephalopathy Global Developmental Delay Chronic Lung Disease Seizure disorder Asthma	Acute onset of fever, increased work of breathing and decreased oxygen saturation from baseline 1-2L O2 overnight (no daytime O2 requirement).	BiPAP Highest FiO2-0.50
16 years	Male	Microcephaly, Global Developmental Delay, Seizures, Gastrostomy	Symptom onset 3 days prior to admission: fevers. Admitted after seizures, presented in septic shock. CXR with right sided pneumonia. Elevated troponin, acute kidney injury, liver injury, hypotensive (required pressors). Treated with hydroxychloroquine.	Intubated-PRVC Highest FiO2: 0.60 Highest PEEP: 10

Summary of Cases

Age	Sex	Underlying Diagnosis	Clinical Features	Ventilatory Support
17 years	Female	None	Symptom onset several days prior to admission: cough, congestion, myalgia. Presented with fever and dyspnea, shortness of breath. +COVID exposure (aunt).	BiPAP Highest FiO2: 0.35
19 years	Female	Type 1 Diabetes, Brian injury from prior DKA, Mild cognitive impairment	Symptom onset 5 days prior to admission: Fever, CXR with LLL consolidation. COVID + patient group home setting. .	Nasal Cannula Highest O2: 100% 4L/min flow
20 years	Male	Static Encephalopathy, Traumatic Brain Injury	Symptom onset 2-3 days prior to admission: cough, dyspnea, fever. + COVID exposure (father)	BiPAP Highest FiO2: 0.35
23 years	Male	None	Symptom onset 5 days prior to CNH admission: cough, fever, progressing to shortness of breath, pleuritic chest pain, fatigue, chills, sputum production. Admitted to outside hospital 2 days prior to transfer and received hydroxychloroquine and azithromycin, progressed to intubation and transferred to Children’s National on day 5 of illness.	Intubated—PRVC Highest FiO2: -1.00 (not weaned below 50%O2 since admission) Highest PEEP: 20 (while on 100% O2) Nitrous oxide X 6 days
25 years	Male	Morbid Obesity Asthma Hypertension Tobacco Use	Symptom onset 11 days prior to admission: mylagias, cough. Progressive respiratory distress, hypotension leading to admission, intubation, pressor support 5 days prior to transfer to CNH. Hypotension, diarrhea, hypokalemia, elevated troponin. Treated with antibiotics, hydroxychloroquine, azithromycin, tocilizumab. Transferred to CNH on day 11 of illness	Intubated-PRVC Highest FiO2: 0.60 Highest PEEP: 12

Allergic Disorders and COVID-19: What Your Patients want to Know

Hemant Sharma, M.D., M.H.S.
Chief, Division of Allergy & Immunology

Pediatric **Health** Network



Children's National.

Patient Question: How can I tell the difference between COVID-19 and my child's usual environmental allergy symptoms?

Coronavirus Symptoms

Symptoms may vary from person to person and may range from mild to severe. Symptoms usually occur from 2-14 days after exposure. If you have a cough with fever or shortness of breath, call your physician's office BEFORE visiting.

AAA
American Academy of
Allergy Asthma
& Immunology

Source: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

	COVID-19	Allergies	Influenza	Common Cold
FEVER	COMMON		COMMON	SOMETIMES
COUGH	COMMON		COMMON	COMMON
SHORTNESS OF BREATH	COMMON			
MUSCLE ACHES	COMMON		COMMON	SOMETIMES
SORE THROAT	SOMETIMES		SOMETIMES	COMMON
DIARRHEA	SOMETIMES		SOMETIMES	
CONGESTION	SOMETIMES	COMMON	SOMETIMES	COMMON
LOSS OF SMELL	SOMETIMES	SOMETIMES	SOMETIMES	SOMETIMES
RUNNY NOSE	SOMETIMES	COMMON	SOMETIMES	SOMETIMES
ITCHY EYES		COMMON		
SNEEZING		COMMON		
CHILLS	SOMETIMES		SOMETIMES	
REPEATED SHAKING WITH CHILLS	SOMETIMES			
HEADACHE	SOMETIMES		SOMETIMES	

Patient Question: Is asthma a risk factor for severe COVID-19?

- Conflicting data re: asthma risk in COVID-19
 - Hospitalization:
 - Same/decreased: Prevalence of asthma in hospitalized was less (in China) or same (in Seattle) as general population prevalence
 - Increased: Asthma over-represented in younger adults (18-49 year olds; 12/44 subjects, or 27%) in CDC analysis of US patients hospitalized in March
 - Mortality:
 - New York state data - fewer hospitalized patients with asthma died from COVID-19 than would be predicted from prevalence of asthma
- Key Message – Keep asthma under control:
 - Continue and ensure adherence with controller medications, including inhaled steroids and biologics
 - In patients with COVID-19, steroids (even systemic steroids) are not contraindicated when used to treat asthma

Patient Question: My child has life-threatening food allergies. Should I manage anaphylaxis any differently during COVID-19?



Revised Anaphylaxis Management Algorithm During COVID Pandemic
To be implemented based on the local risk / benefit assessment



Patients with history of severe anaphylaxis such as those who have been intubated and ventilated, or had reactions treated with more than two doses of epinephrine should follow their routine anaphylaxis plan and activate emergency services immediately when anaphylaxis is recognized.

1. **INJECT EPINEPHRINE IMMEDIATELY** while seated; have telephone within reach
2. Notify a housemate or neighbor to help you
3. Lay down with legs elevated near the doorway, which should be unlocked or open to allow others to enter and help. Keep children in a position of comfort, to minimize respiratory distress and agitation and risk of aspiration in case of vomiting.
4. Administer oral antihistamine, preferably non-sedating (e.g. cetirizine)
5. Administer albuterol for respiratory symptoms if prescribed and available
6. Monitor symptoms and blood pressure/pulse if possible

- Patients may be monitored at home if stable after 1 dose of epinephrine
- If prior history of severe anaphylaxis or require >1 dose, activate EMS per routine plan

SYMPTOMS DON'T IMPROVE OR WORSEN

Repeat epinephrine injection in 5 minutes or sooner if symptoms escalate rapidly

SEVERE SYMPTOMS DON'T IMPROVE OR WORSEN:

Activate Emergency Services (Call 911)

SEVERE SYMPTOMS RESOLVE



SEVERE SYMPTOMS RESOLVE

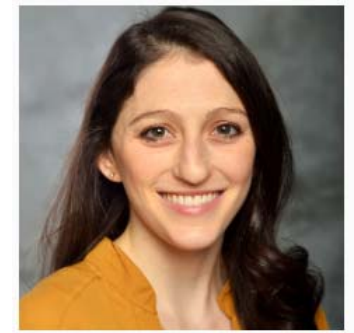
- Continue to monitor for 4-6 hours for the recurrence of symptoms
- Be ready to administer treatment if symptoms reappear (biphasic anaphylaxis)
- Notify your physician on a non-urgent basis
- Replenish emergency medications

Children's National Allergy and Immunology specialists continue to provide care: How to refer your patients?

- Food Allergy – new food-allergic reactions
- Allergic Rhinconjunctivitis – pollen-induced symptoms
 - medication optimization
- Atopic Dermatitis
- Asthma
- Urticaria
- Primary Immunodeficiency – SCID newborn screens



Anna Sprunger, PA-C



Olivia Ackerman, PPCNP

(202) 476-3016

Division of Allergy and Immunology

Appointment and Patient Line



Lisa Hiers, FNP

Allergy Immunology
Advanced Practice
Providers:
>25 years combined Allergy
expertise

Questions

Moderated by Ellie Hamburger, M.D.
Pediatric Health Network

Pediatric Health Network



Children's National.