



CDC/IDSA COVID-19 Clinician Call

August 28, 2021

Welcome & Introduction

Dana Wollins, DrPH, MGC
Vice President, Clinical Affairs & Guidelines
IDSA

- 72nd in a series of weekly calls, initiated by CDC as a forum for information sharing among frontline clinicians caring for patients with COVID-19
- The views and opinions expressed here are those of the presenters and do not necessarily reflect the official policy or position of the CDC or IDSA. Involvement of CDC and IDSA should not be viewed as endorsement of any entity or individual involved.
- This webinar is being recorded and can be found online at www.idsociety.org/cliniciancalls.

Update on COVID-19 in the Pediatric Population

Hosted in partnership with the American Academy of Pediatrics

Update on SARS-CoV-2 Epidemiology and Transmission in Children



Hannah L. Kirking, MD

Co-Lead, Epidemiology Special Studies Team
Epidemiology Task Force, CDC COVID-19 Response
US Centers for Disease Control and Prevention

Hospital Capacity Update



Mark Wietecha

Chief Executive Officer
Children's Hospital Association

Emergency Department Visits and Hospital Admissions For COVID-19 Illness in Children and Adolescents



David Siegel, MD, MPH

Core Clinical Unit Lead, Clinical Disease and Health Systems Team
Health Systems Workers Safety Task Force
CDC COVID-19 Response
Centers for Disease Control and Prevention



Elliot Raizes, MD

Lead, Health Services and Worker Safety Task Force
COVID-19 Response
Centers for Disease Control and Prevention

COVID-19 in Children and a Safe Return to School



Lee Ann Savio Beers, MD, FAAP

President, American Academy of Pediatrics
Professor of Pediatrics and Medical Director for Community Health and Advocacy
Children's National Hospital

Update on Vaccine Trials for Children Under 12



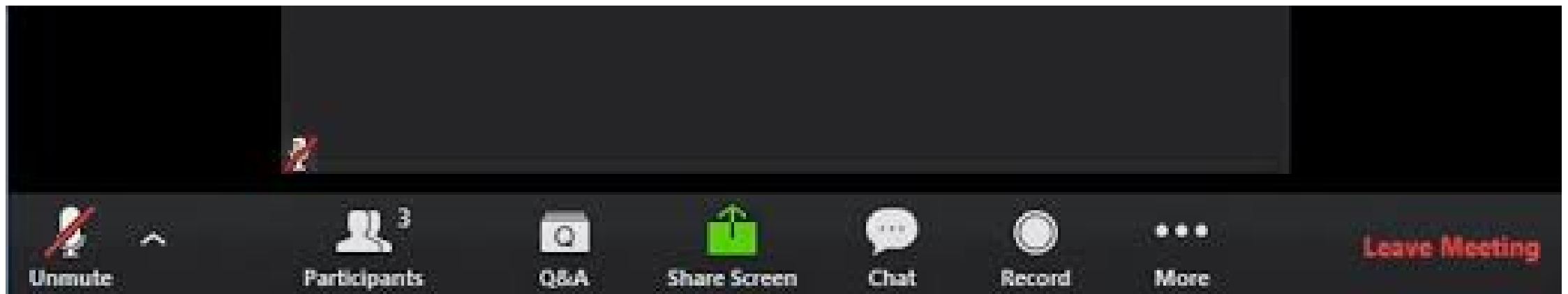
Peter Marks, MD, PhD

Director, Center for Biologics Evaluation and Research
U.S. Food and Drug Administration

Question?
Use the "Q&A" Button



Comment?
Use the "Chat" Button



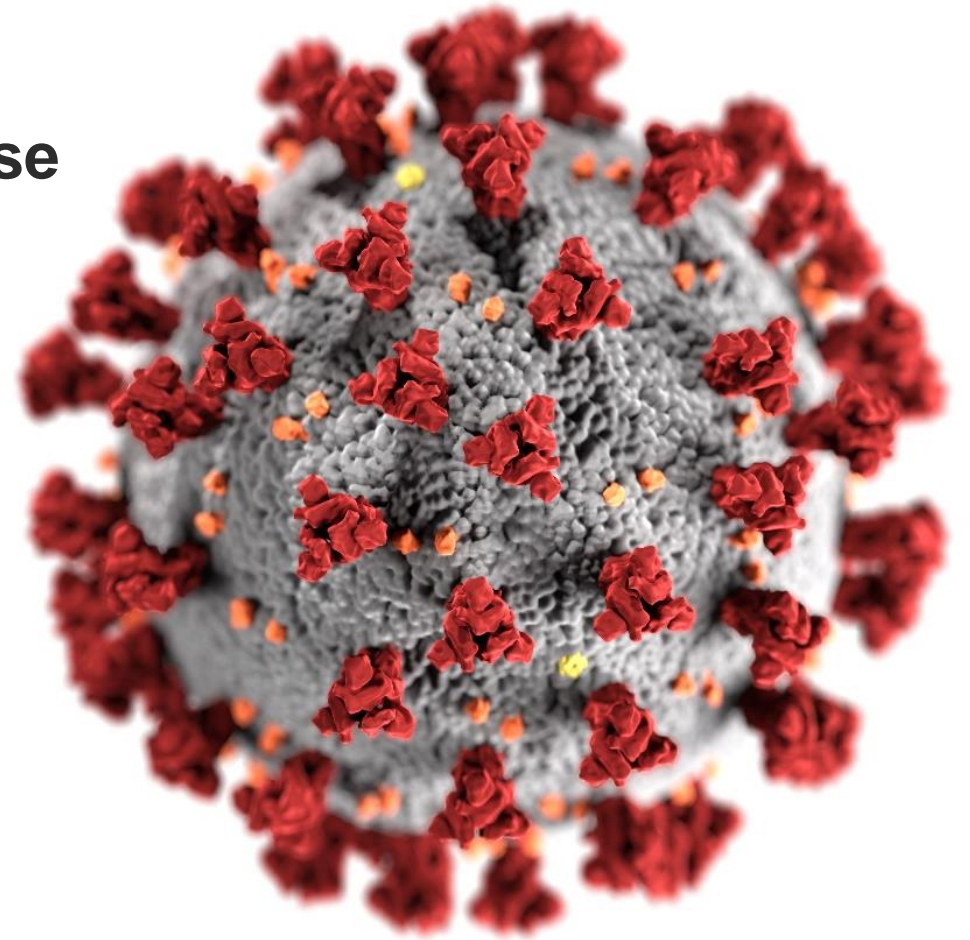
Epidemiology of SARS-CoV-2 in Children and Adolescents

Hannah Kirking, MD

Epidemiology Taskforce, COVID-19 Response

IDSA COVID-19 Clinician Call

August 28, 2021



cdc.gov/coronavirus

Epidemiology of SARS-CoV-2 in Children: Published Literature

- Numerous published studies and reviews on epidemiology of SARS-CoV-2 in children
 - Early reports on children largely used convenience and/or observational data
 - “Children” often includes all participants <18 years of age
- Published literature on infection and transmission of SARS-CoV-2 and children is mixed
 - Some studies suggest children are infected less; others show similar rates of infection to adults
 - Some studies suggest children transmit less; others show transmission is similar for children as it is for adults

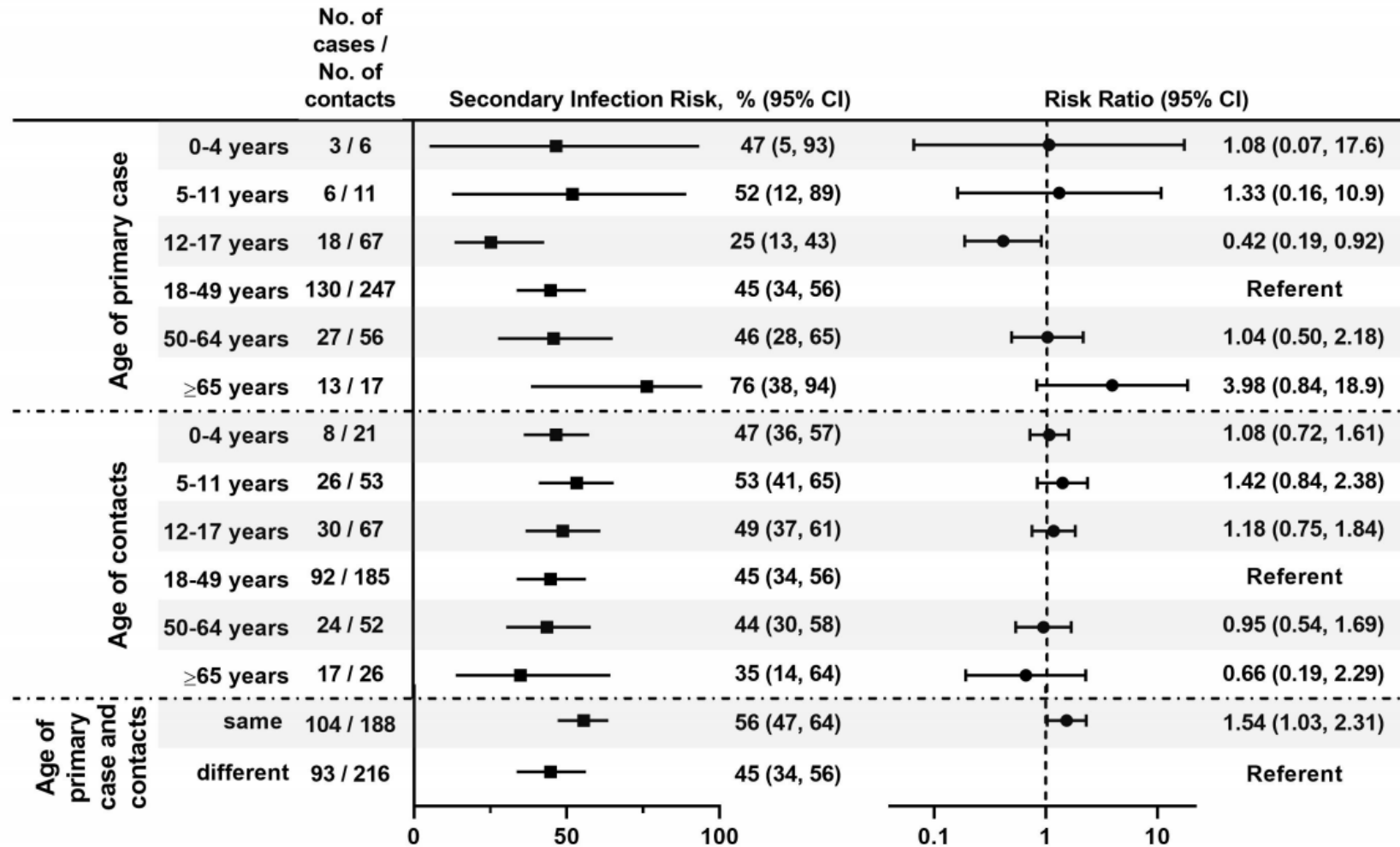
Important Epidemiologic Principles

- Young children are not physiologically or socially equivalent to older children, adolescents, or adults.
 - Age should be disaggregated when possible (e.g. <5 years, 6-11 years, 12-17 years, etc.)
- Beware of biases when interpreting data related to COVID-19 in children.
 - Exposures and behaviors impact observed infection rates
 - Incidence and transmission estimates should be unbiased by care-seeking behavior
 - Universal testing is important (i.e. independent of symptoms)

Epidemiology of COVID-19 in Children and Adolescents

- **Susceptibility** to Infection: Children/adolescents **are susceptible** to SARS-CoV-2 infection
- Risk of **Transmission**: Children/adolescents **can transmit** SARS-CoV-2
- **Medical care**: Children/adolescents are **less likely to seek testing/medical care**
- Risk for **Symptomatic or Severe Illness**: **Lower rates of severe illness** for children/adolescents compared to adults

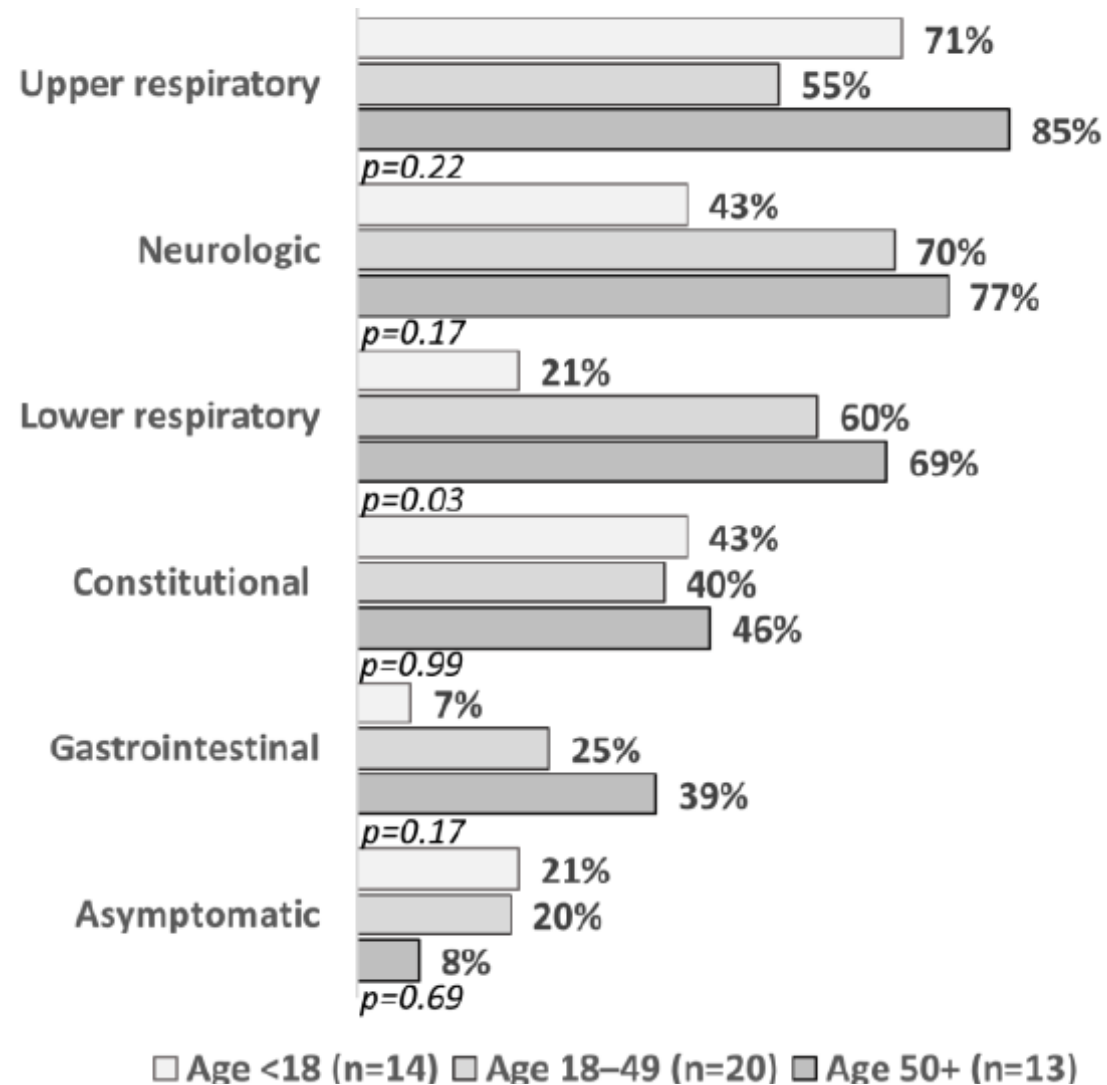
Risk of SARS-CoV-2 Infection and Transmission is Similar Across Age Groups



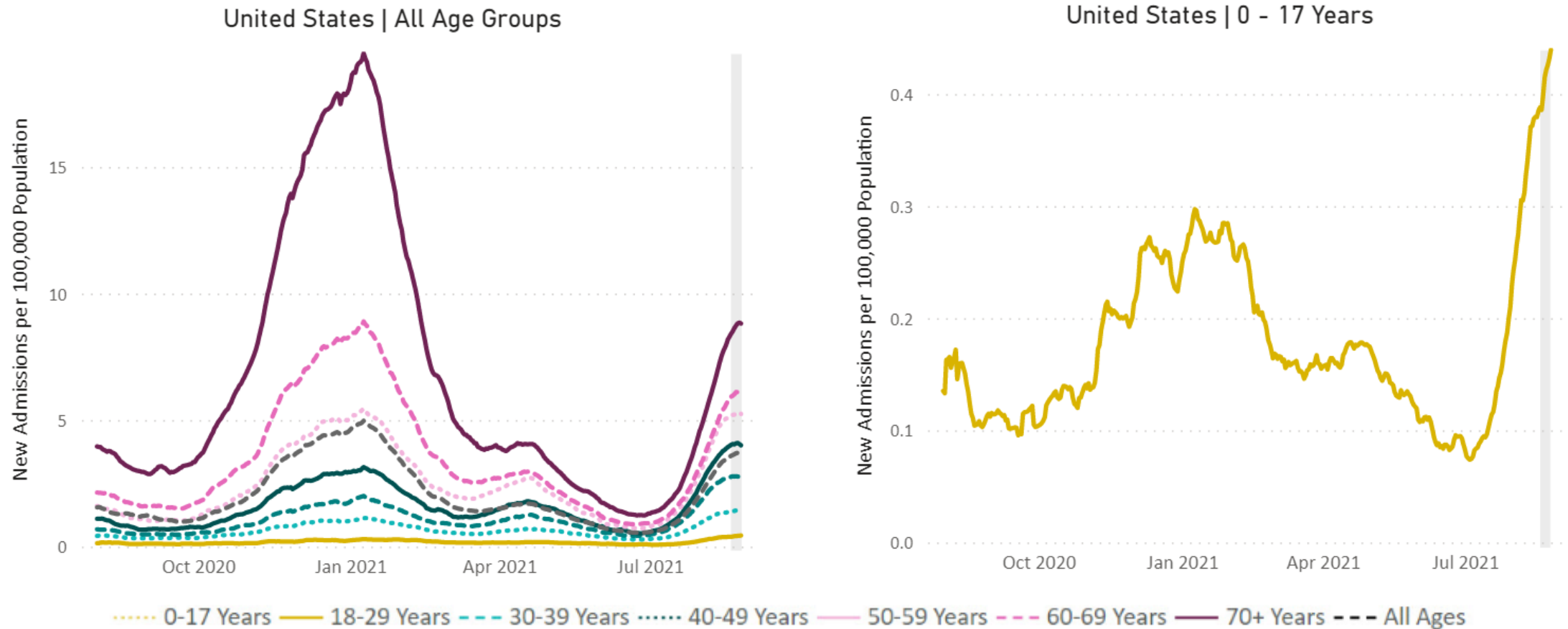
Unpublished CDC data (FluTES-C Study), under peer-review.

Available McLean et. al. MedRxiv. <https://doi.org/10.1101/2021.08.16.21262121>

Children/Adolescents with COVID-19 Have Fewer Symptoms



Children/Adolescents Have Lower Rates of Hospitalization



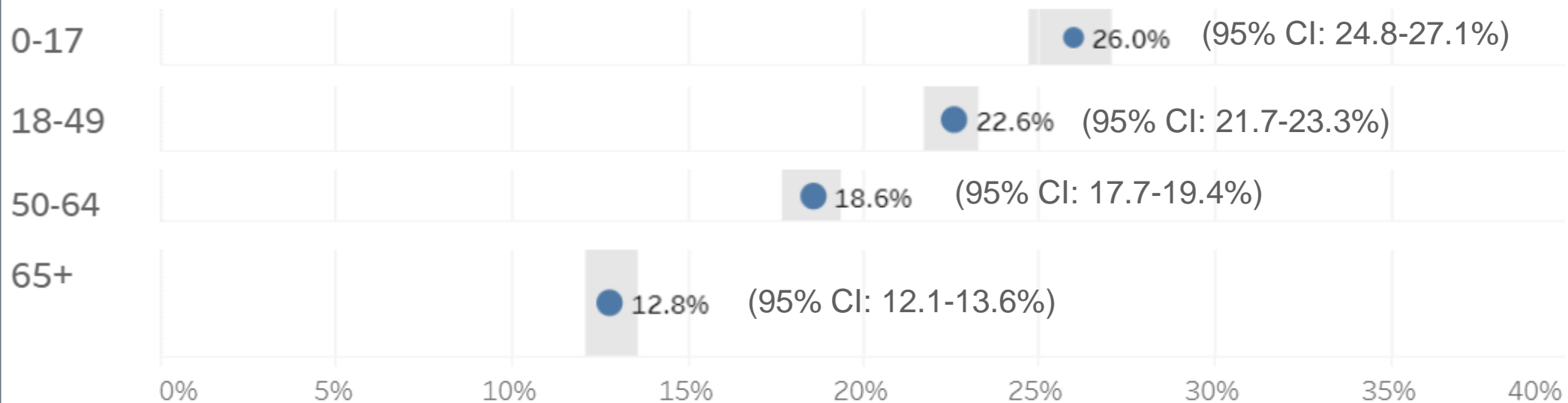
<https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>; accessed 08/28/2021

Estimated Seroprevalence from US Multi-State Assessment for SARS-CoV-2 Survey in Commercial Laboratories (MASS-C), July 2021

Catchment Area: 50 States & DC

Number of Samples Tested: 59,072

Age Specific Seroprevalence Estimate



<https://covid.cdc.gov/covid-data-tracker/#national-lab>; accessed 08/28/2021

Estimated Rates of COVID-19 Disease Outcomes, per 100,000, by Age Group — United States, February 2020–May 2021

Age group	Infection rate per 100,000		Symptomatic illness rate per 100,000		Hospitalization rate per 100,000		Death rate per 100,000	
	Estimate	95% UI*	Estimate	95% UI*	Estimate	95% UI*	Estimate	95% UI*
0-17 years	36,746	30,075 – 45,332	31,348	26,947 – 37,216	287	231 – 351	0.5	0.4-0.6
18-49 years	44,116	36,754 – 53,391	37,637	32,967 – 43,301	1,119	958 – 1,311	25	23-27
50-64 years	32,391	27,094 – 39,045	27,625	24,369 – 31,562	2,551	2,244 – 2,911	85	179-191
65+ years	22,751	18,377 – 28,599	18,509	16,412 – 20,975	5,195	4,577 – 5,955	1139	1124-1154
All ages	36,771	31,592 – 43,074	31,153	27,812 – 35,238	1,882	1,682 – 2,126	234	230-327

* Adjusted rates are presented in two parts: an uncertainty interval [UI] and a point estimate. The uncertainty interval provides a range in which the true number or rate of COVID-19 infections, symptomatic illnesses, hospitalizations, or deaths would be expected to fall if the same study was repeated many times, and it gives an idea of the precision of the point estimate. A 95% uncertainty interval means that if the study were repeated 100 times, then 95 out of 100 times the uncertainty interval would contain the true point estimate. Conversely, in only 5 times out of a 100 would the uncertainty interval not contain the true point estimate.

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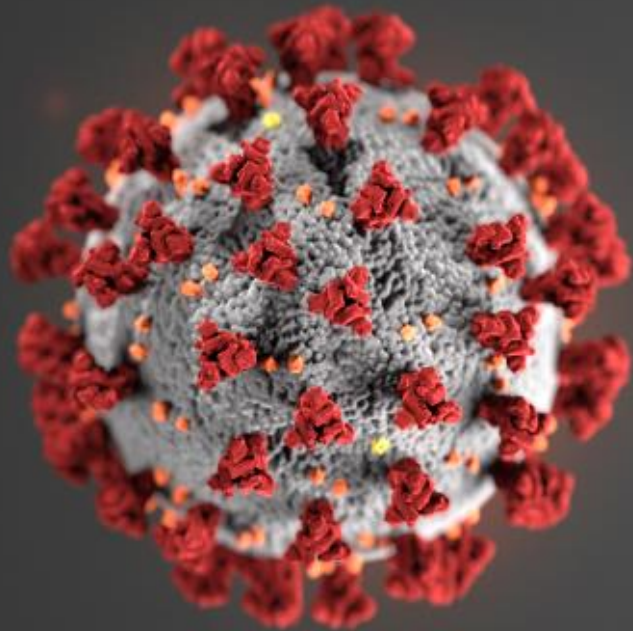
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High-Level Summary

- Children and adolescents are susceptible to SARS-CoV-2.
- Children tend to have fewer respiratory symptoms than adults.
- From prospective cohort and household transmission studies, infection rates are similar across age groups; children can transmit SARS-CoV-2 to others and with similar efficiency as adults.
- Children have lower rates of hospitalization and mortality compared to adults.





For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.





Emergency Department Visits and Hospital Admissions for COVID-19 Illness in Children and Adolescents

David Siegel MD, MPH

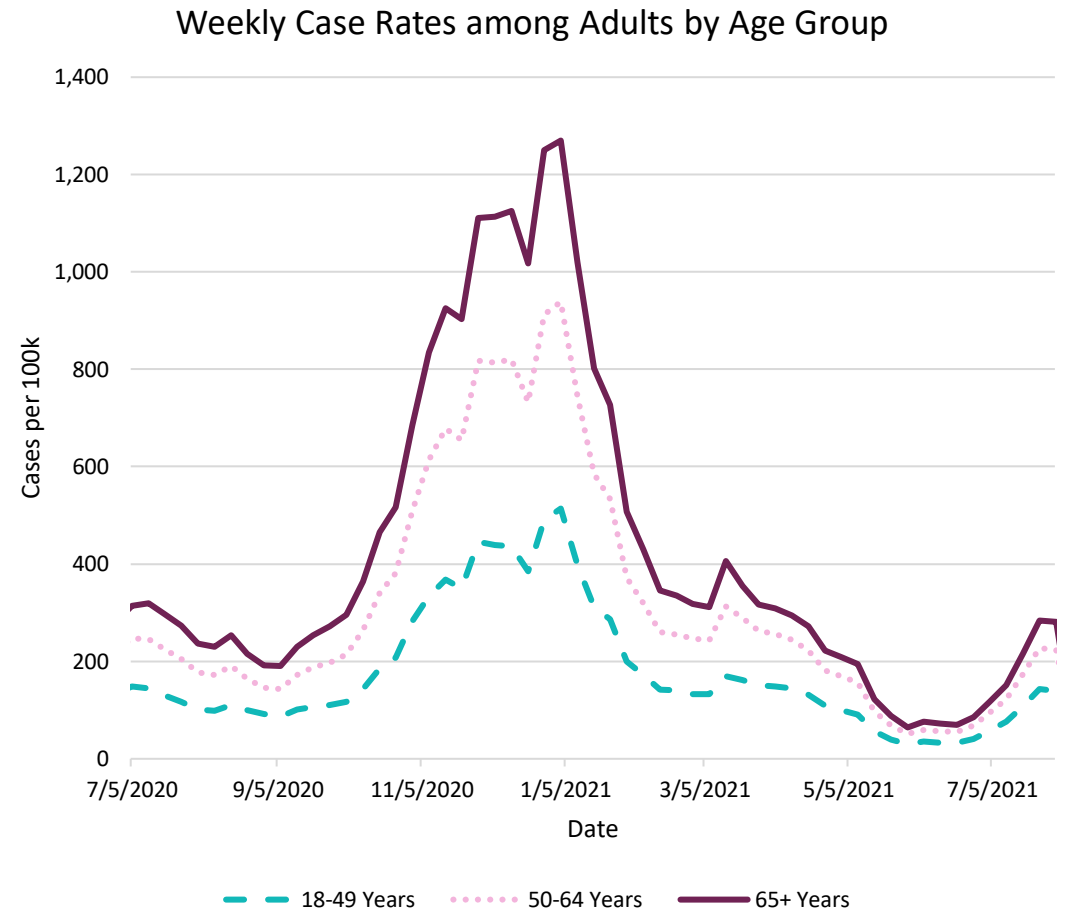
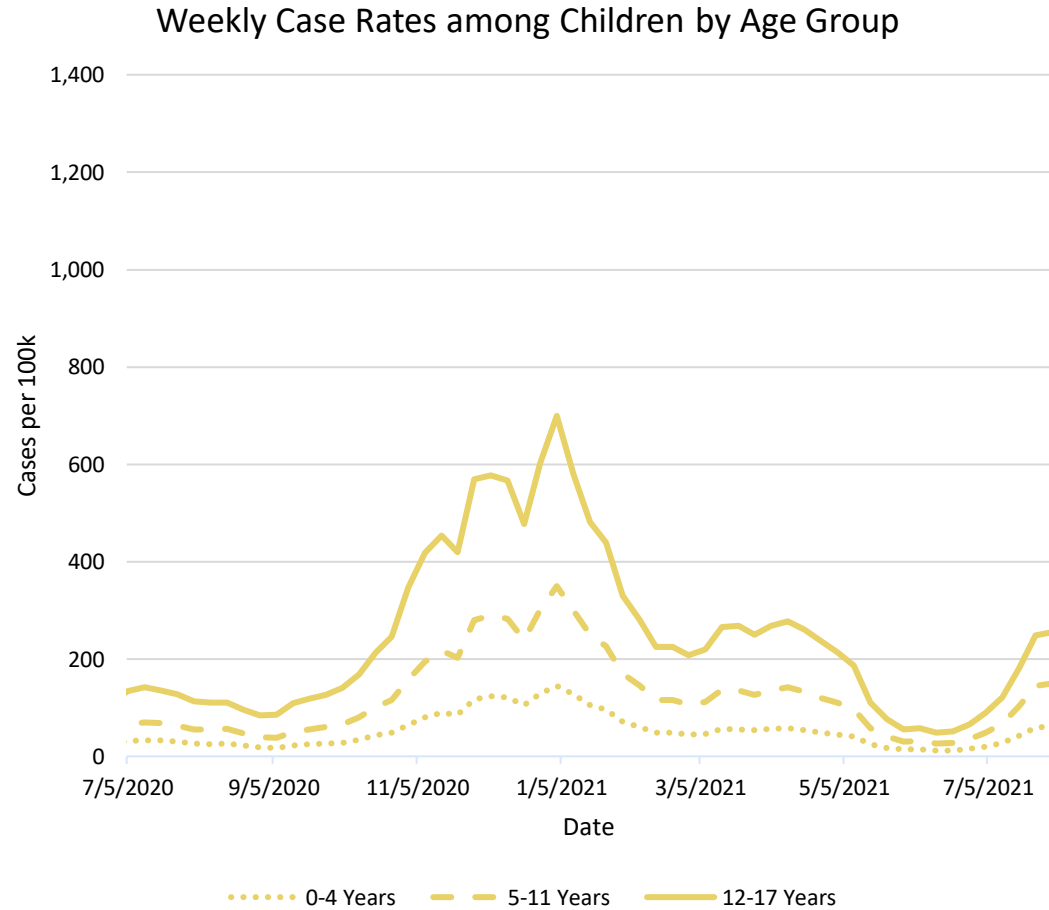
Heath Systems Workers Safety Task Force

COVID-19 Response

IDSA COVID-19 Clinician Call

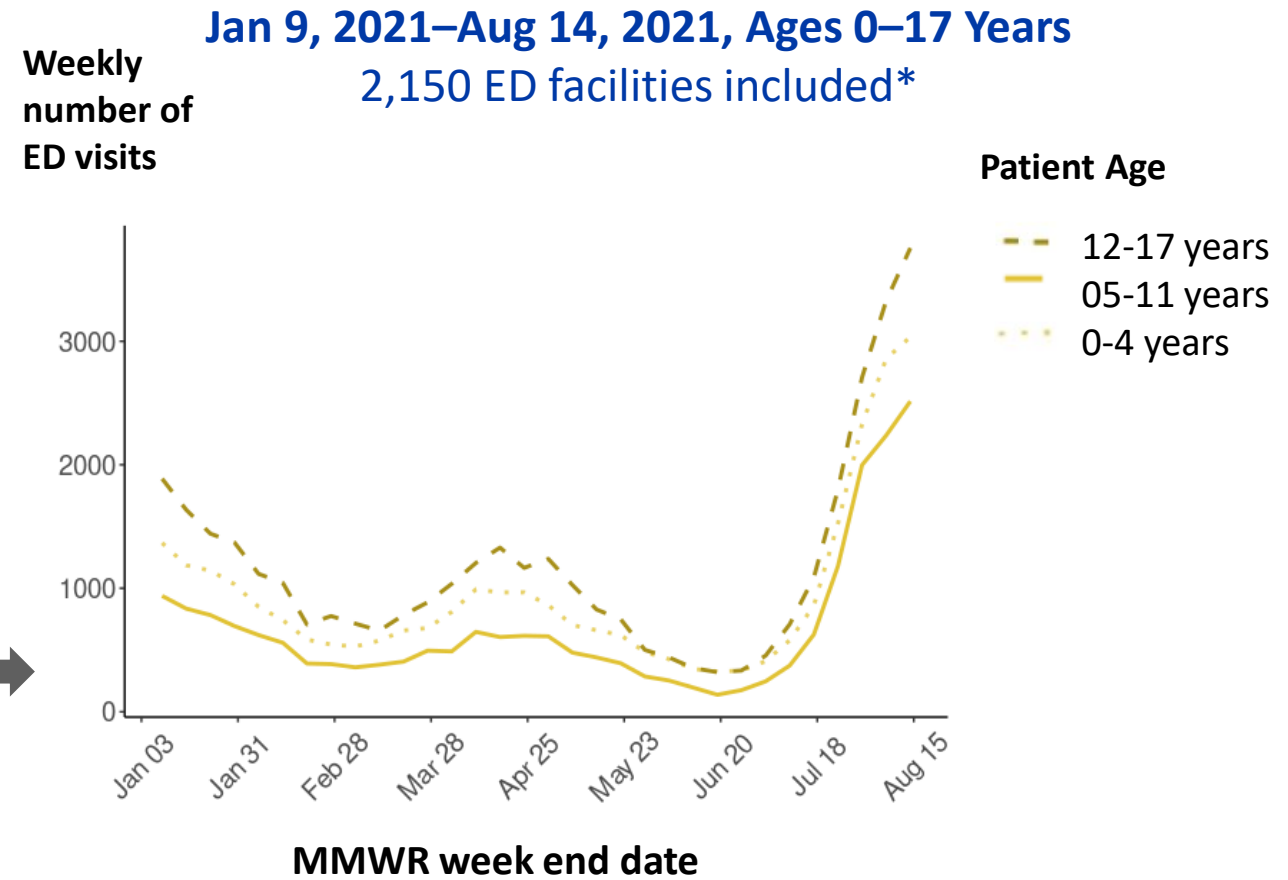
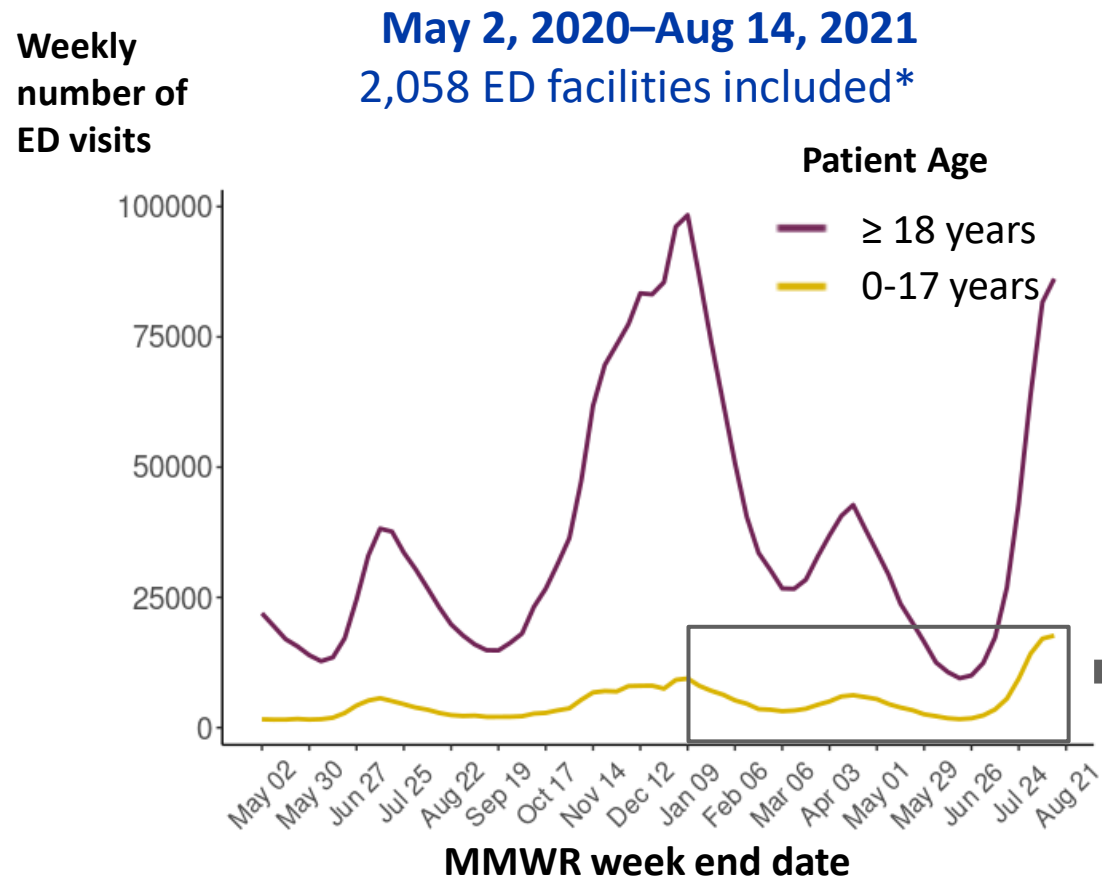
August 28, 2021

Weekly Rates of Cases among Children and Adults by Age Group, July 2020 – July 2021



Source: Case line level data, August 12, 2021

U.S. Emergency Department (ED) Visits in Patients Diagnosed with COVID-19 by Age in a Sample of Reporting Facilities*



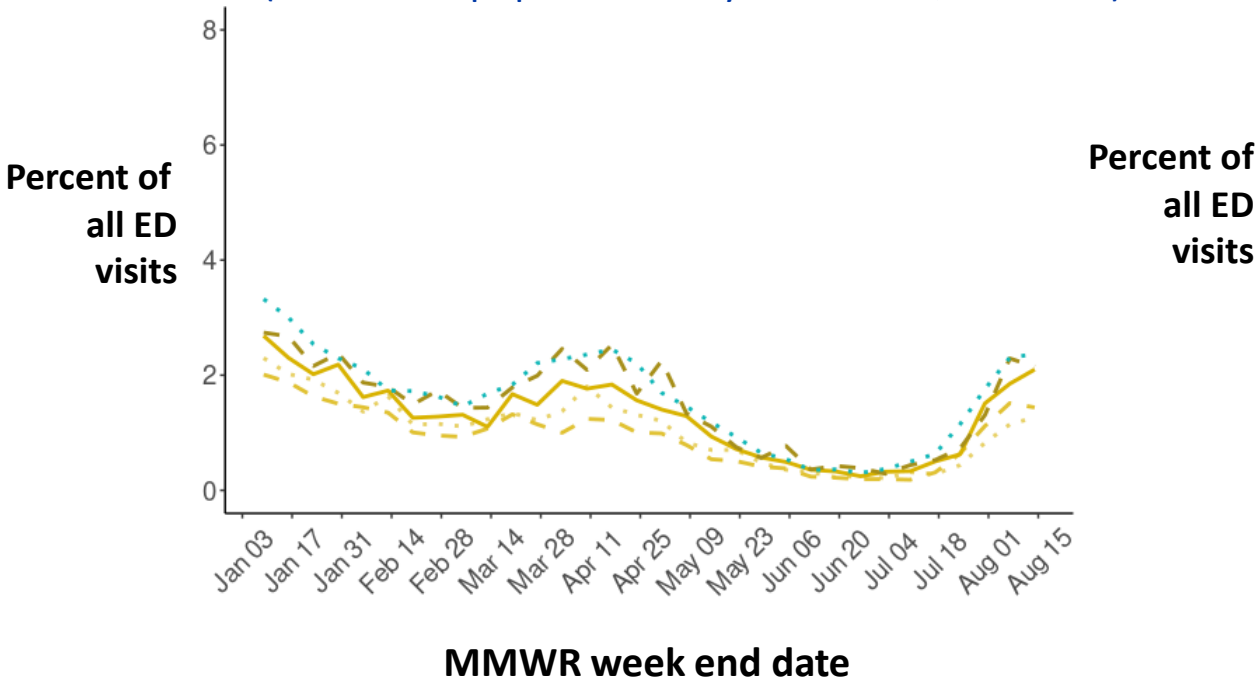
Data Source: ED visits from the National Syndromic Surveillance Program (NSSP).

*Counts include only the subset of the 5,225 NSSP facilities with consistent reporting to NSSP and with high quality diagnosis codes throughout the time period. Fewer than 50% of facilities in California, Hawaii, Iowa, Minnesota, Oklahoma, and Ohio report to NSSP.

U.S. Emergency Department (ED) Visits for COVID-19 in Children and Young Adults, by State Vaccination Rate; Jan 9–Aug 14, 2021

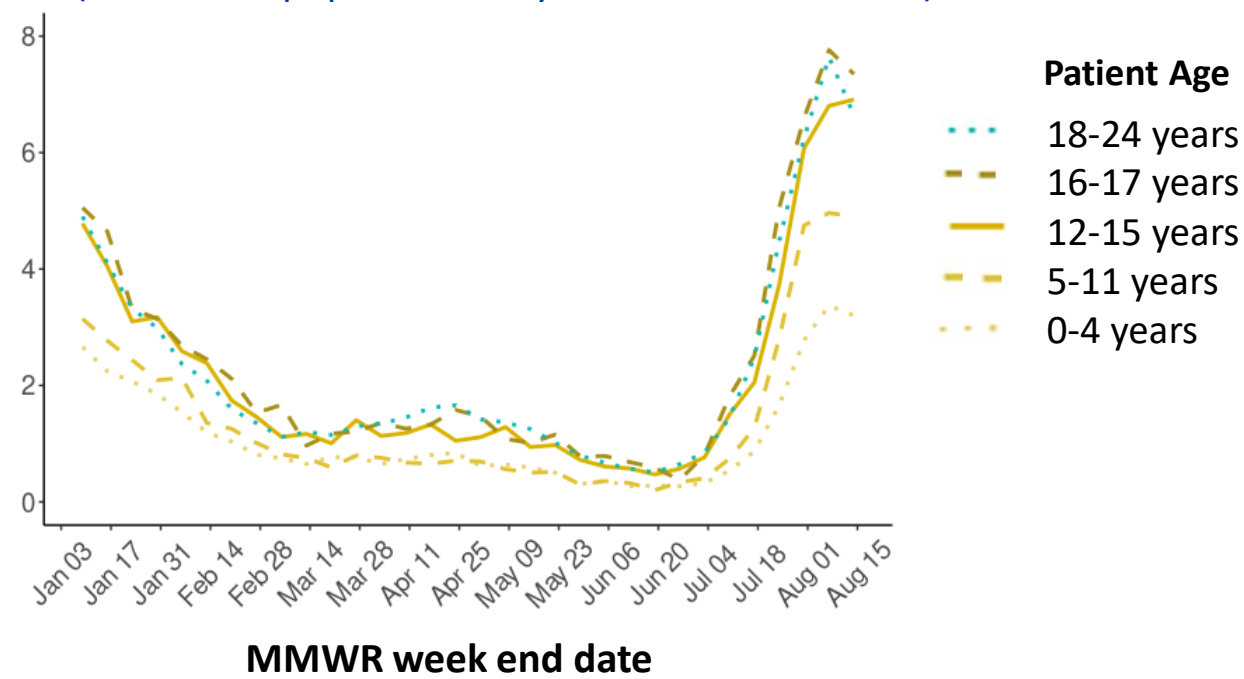
ED visits in quartile of states with highest vaccination rates*

(>56% total population fully vaccinated; 12 states)



ED visits in quartile of states with lowest vaccination rates**

(<42% total population fully vaccinated; 12 states)

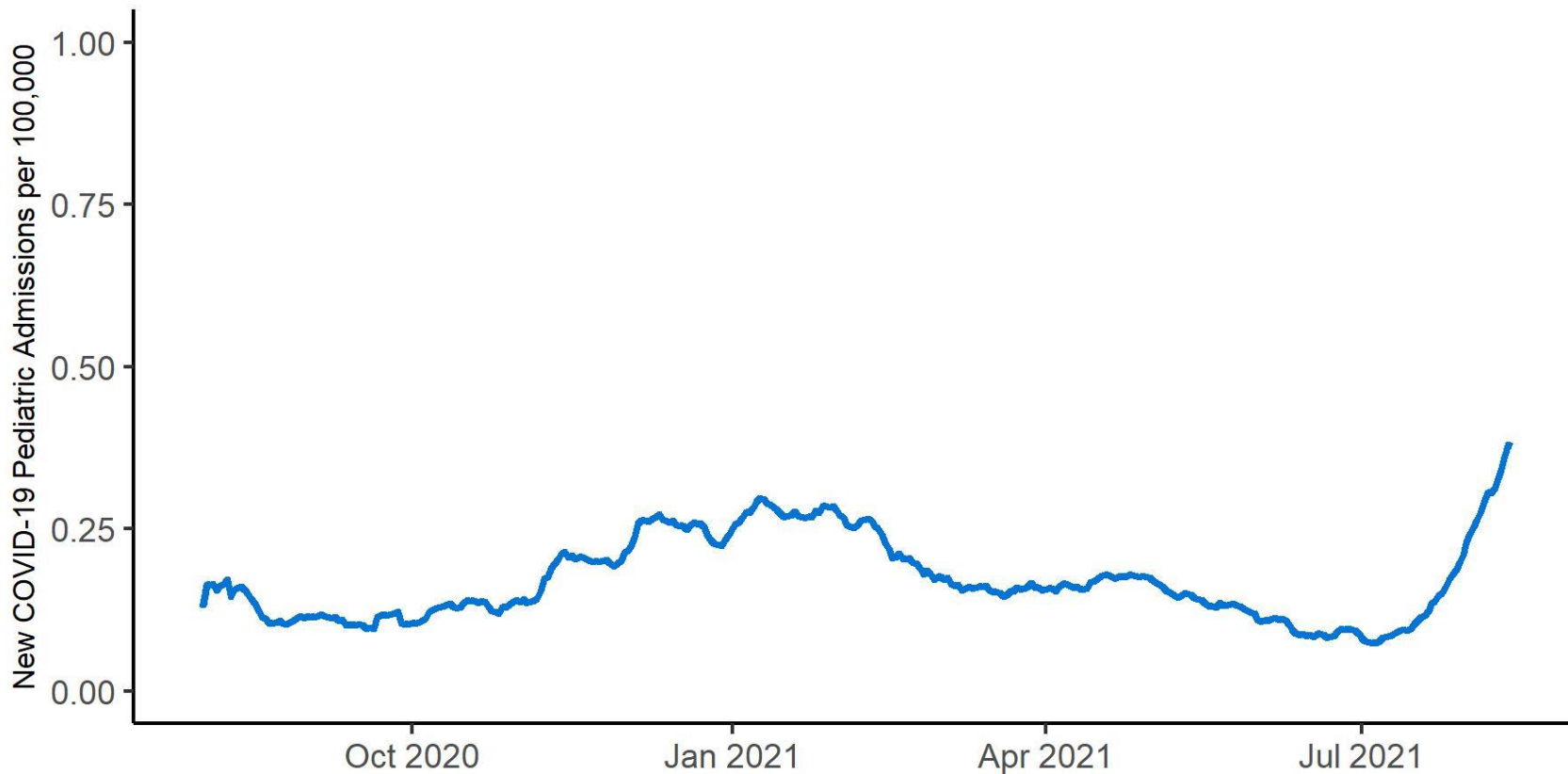


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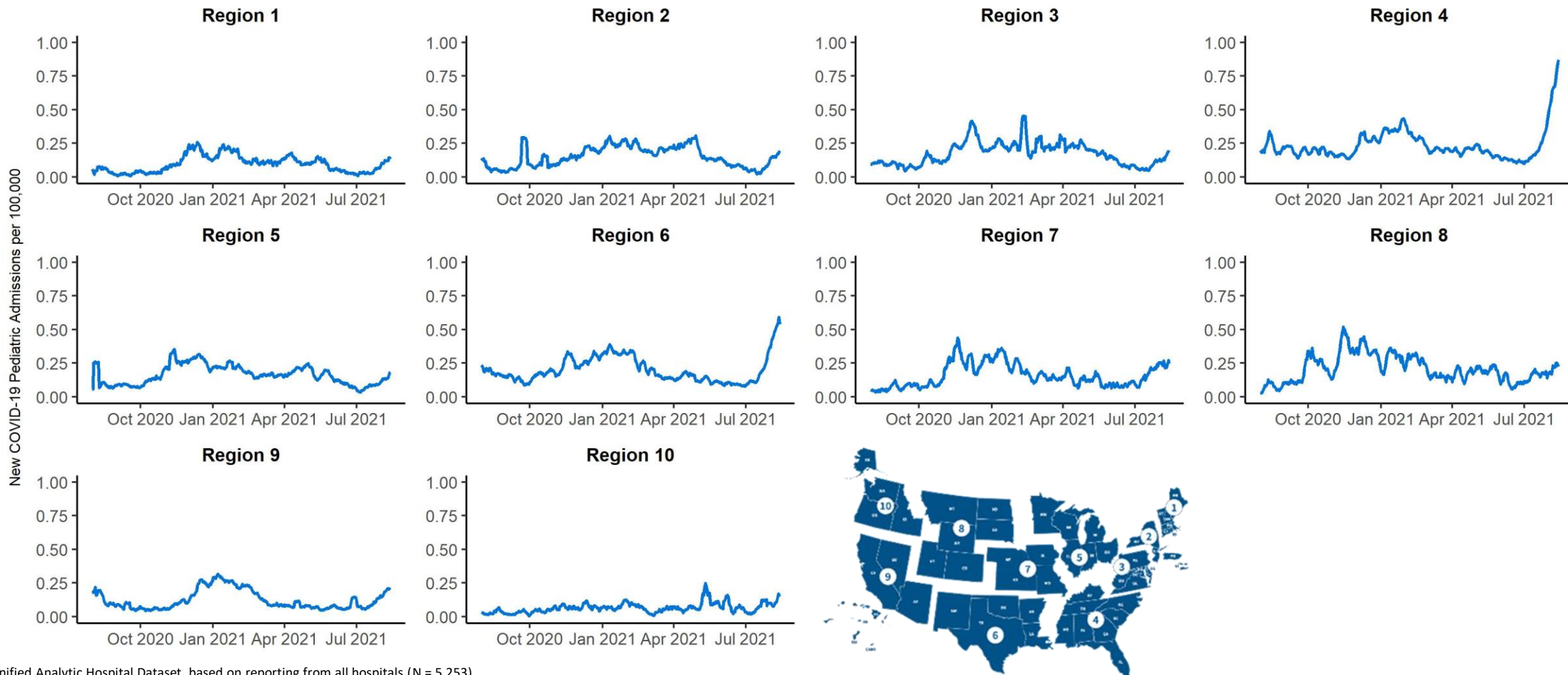
* Highest vaccination states: VT, MA, ME, CT, RI, MD, NJ, NH, WA, NM, NY, OR.

** Lowest vaccination states: AL, MS, WY, AR, LA, ID, GA, WV, TN, ND, OK, SC. Two states; WY and OK excluded because they did not have consistent data.

New Admissions of Pediatric Patients with Confirmed COVID-19 per 100,000 Population, August 1, 2020–August 13, 2021, United States

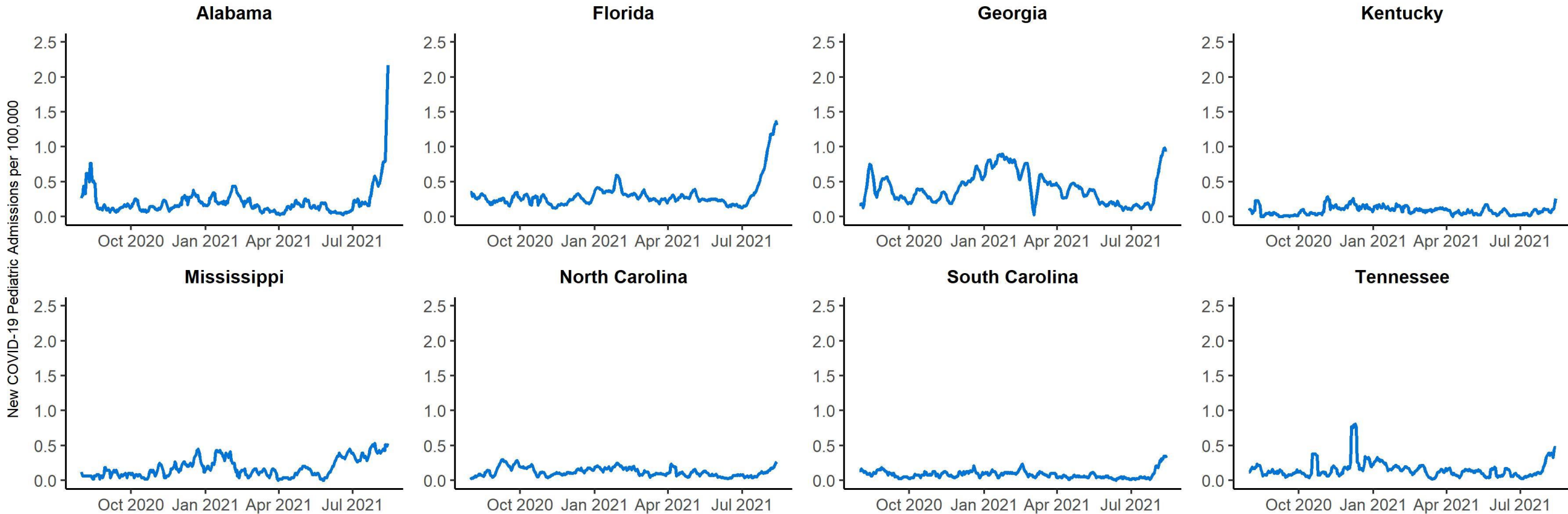
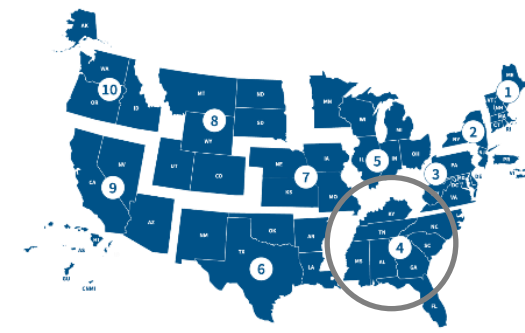


New Admissions of Pediatric Patients with Confirmed COVID-19 per 100,000 Population, August 1, 2020–August 13, 2021, HHS Regions



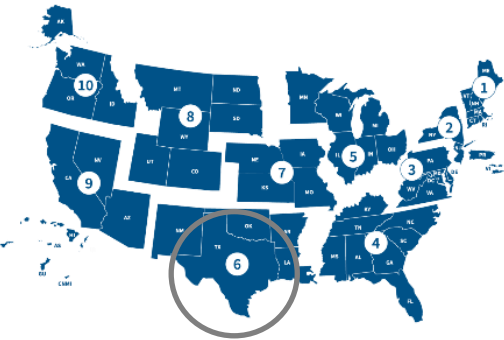
Source: Unified Analytic Hospital Dataset, based on reporting from all hospitals (N = 5,253).

New Admissions of Pediatric Patients with Confirmed COVID-19 per 100,000 Population, August 1, 2020–August 13, 2021, HHS Region 4

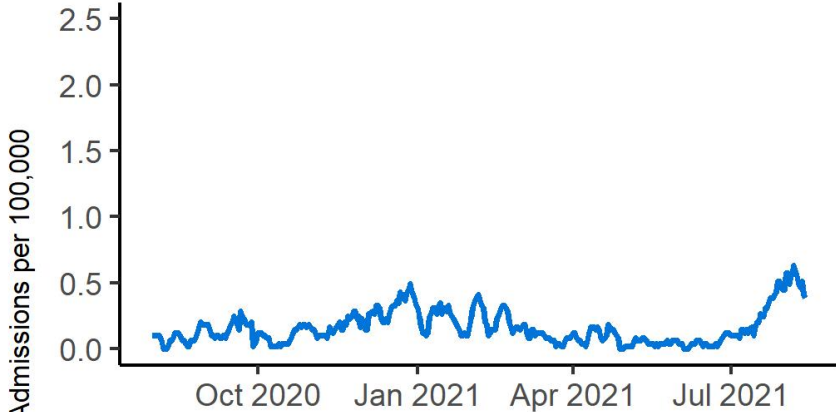


Source: Unified Analytic Hospital Dataset, based on reporting from all hospitals (N = 5,253).

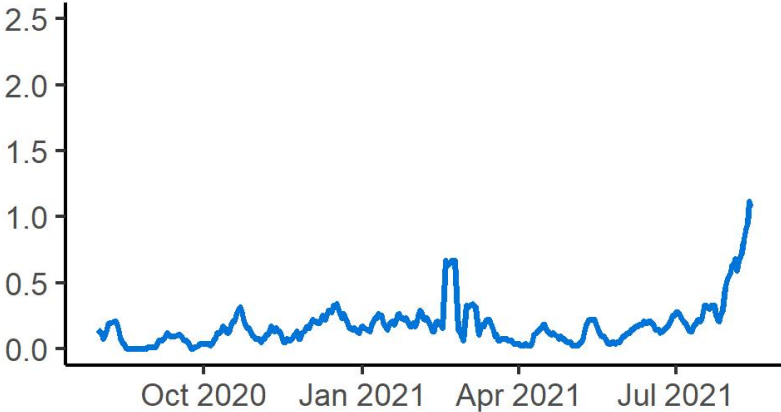
New Admissions of Pediatric Patients with Confirmed COVID-19 per 100,000 Population, August 1, 2020–August 13, 2021, HHS Region 6



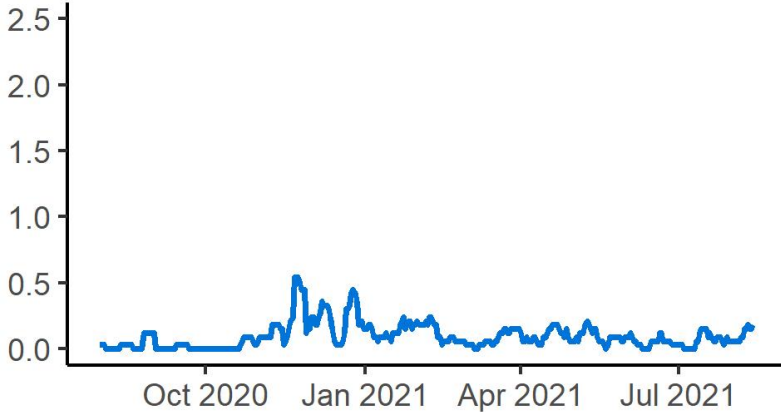
Arkansas



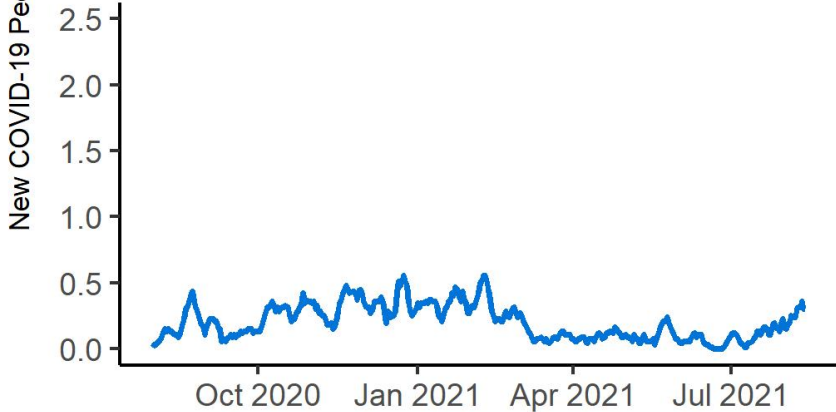
Louisiana



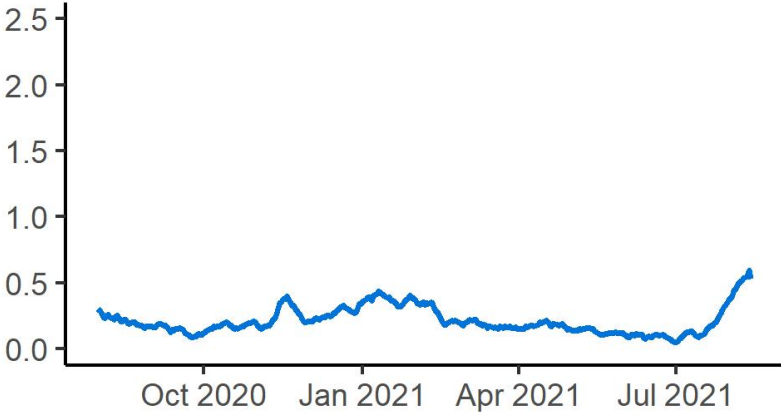
New Mexico



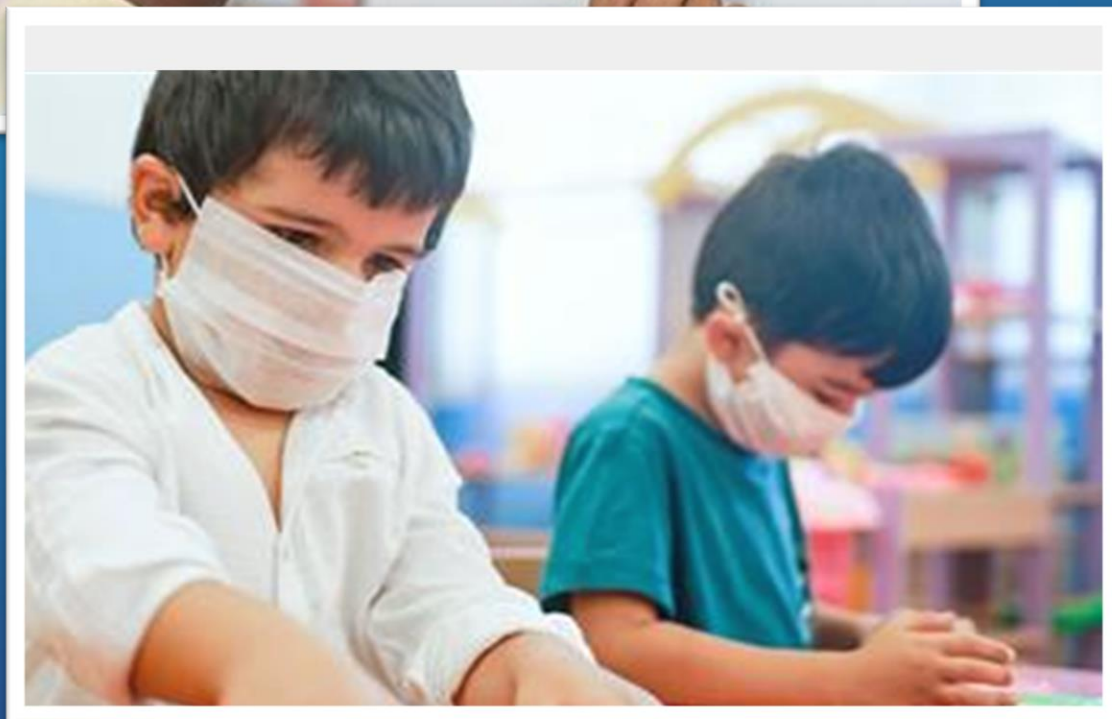
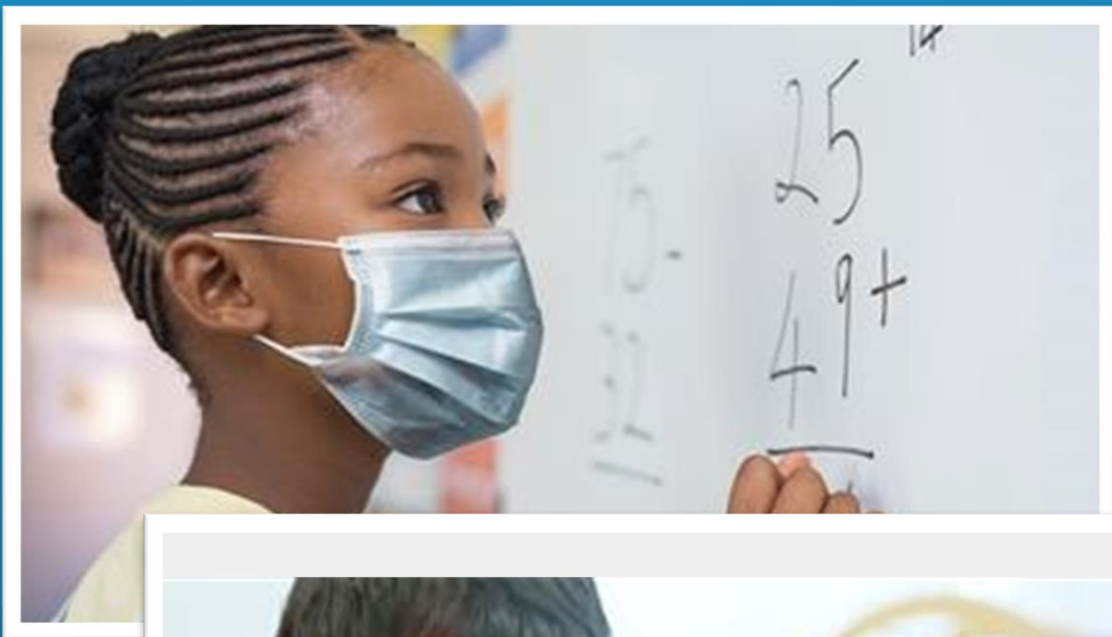
Oklahoma



Texas



Source: Unified Analytic Hospital Dataset, based on reporting from all hospitals (N = 5,253).



COVID-19's Impact on Children and a Safe Return to School

Lee Savio Beers, MD, FAAP
AAP President

American Academy of Pediatrics

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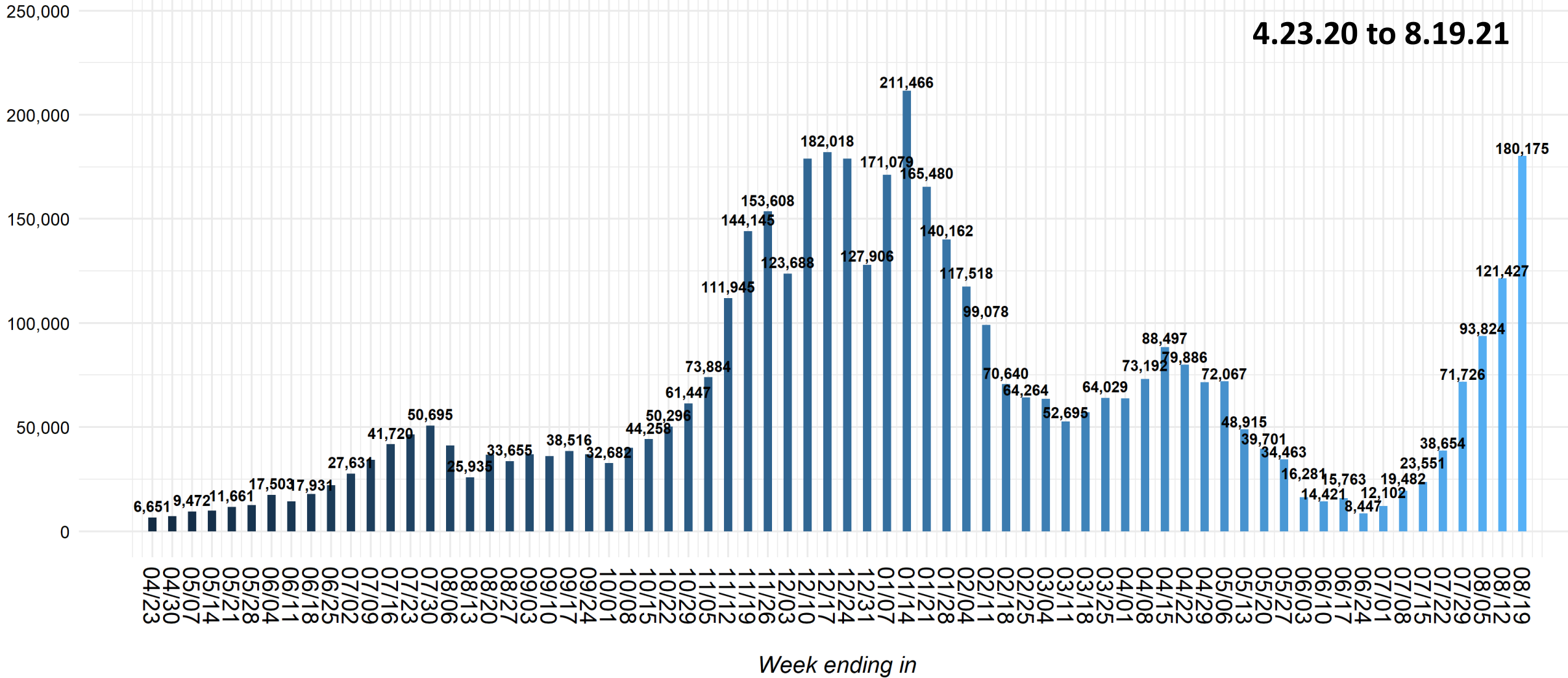


Within the past 12 months, I have had no financial relationships with proprietary entities that produce health care goods and services.

United States: Number of Child COVID-19 Cases Added in Past Week

4.23.20 to 8.19.21

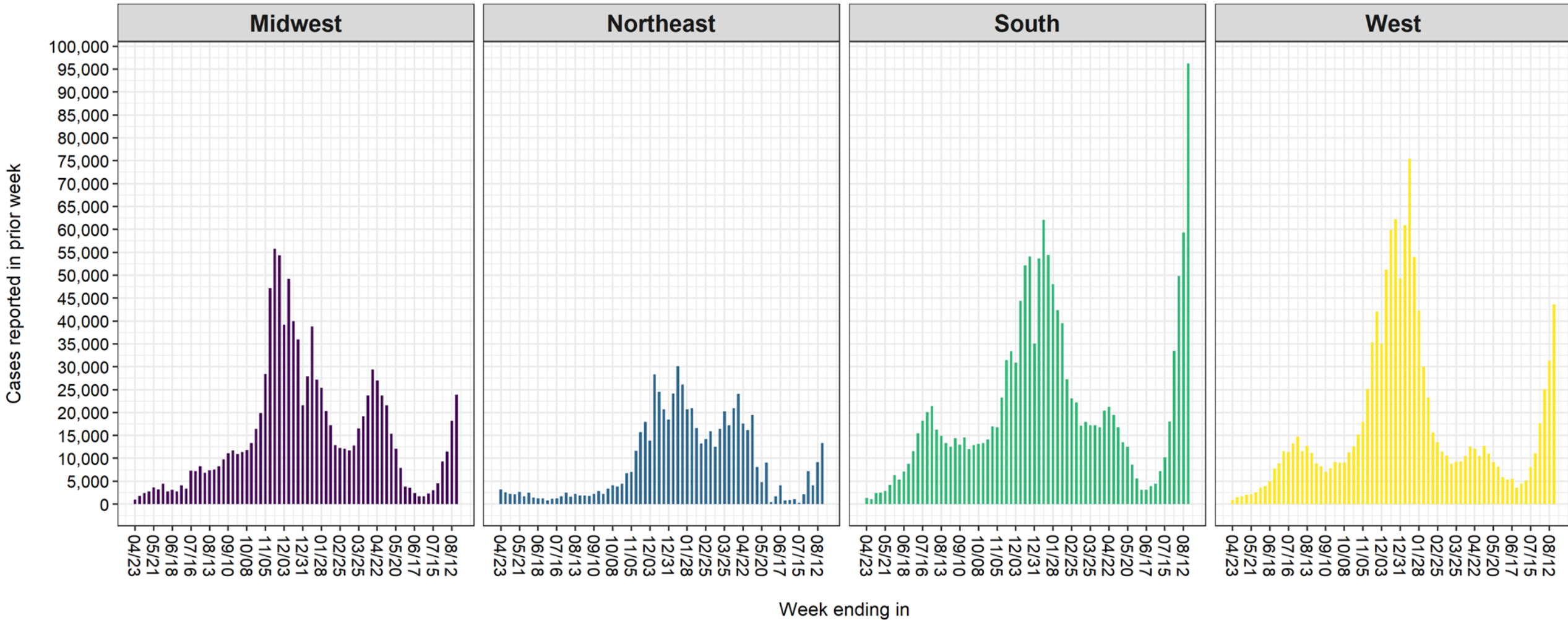
Number of child cases added



Source: AAP analysis of publicly available data from state/local health departments
 Note: 4 states changed definition of child cases: AL as of 8/13, HI as of 8/27, RI as of 9/10, MO as of 10/1
 TX reported age for only a small proportion of total cases each week (eg. 3-20%); as of 7/22/21, TX stopped updating demographic case data
 As of 6/30/21, NE COVID-19 dashboard is no longer available; NE cumulative cases through 6/24/21
 Due to available data and changes made to dashboard, AL cumulative cases through 7/29/21
 Due to available data and calculations required to obtain MA child cases, weekly estimates fluctuate
 As of 8/12/21, WV changed definition of child case from 0-19 to 0-20 years; the cumulative results in this 8/19 report represent the 0-20 age category

4.23.20 to 8.19.21

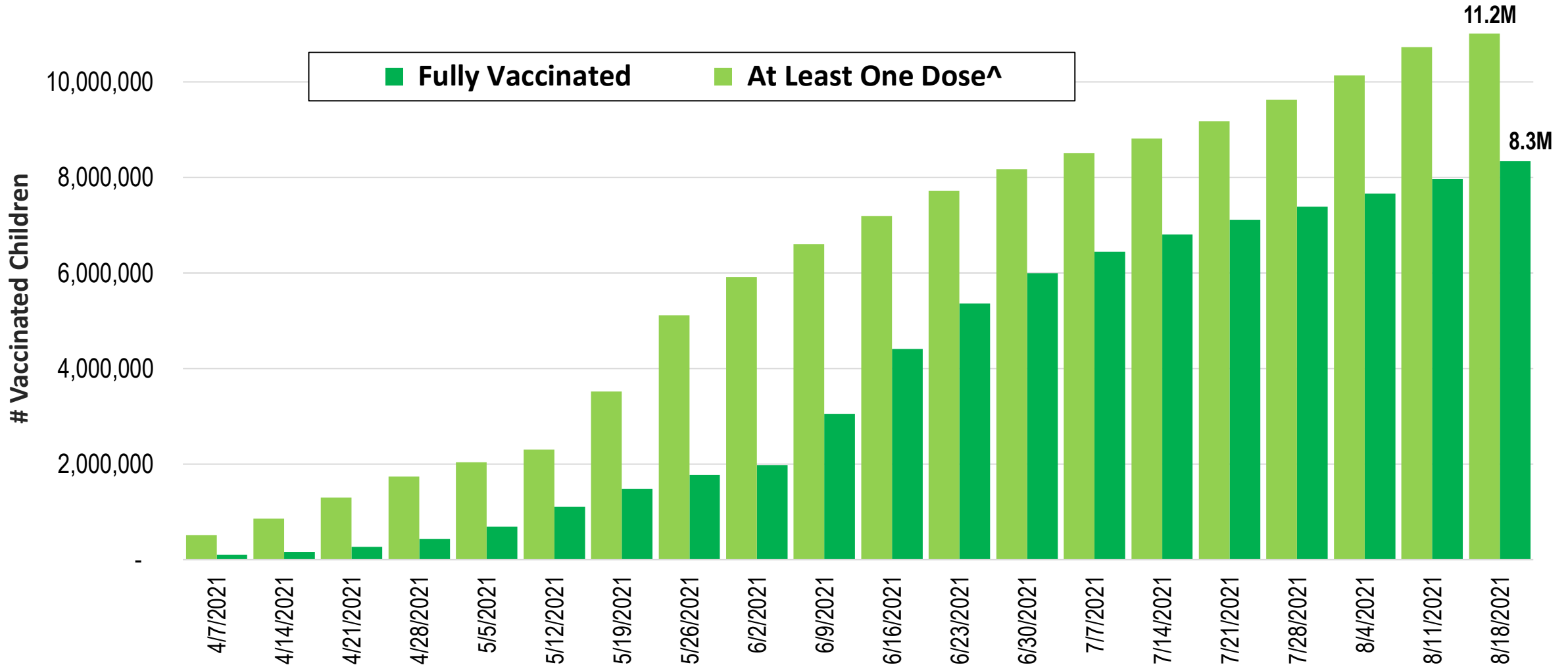
Child COVID-19 cases reported in the prior week, by region



Source: AAP analysis of publicly available data from state/local health departments
Note: Analysis excludes data from AL and MO due to change in definition of 'child' case
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Cumulative Number of US COVID-19 Vaccine Recipients Under Age 18

4.07.21 to 8.18.21

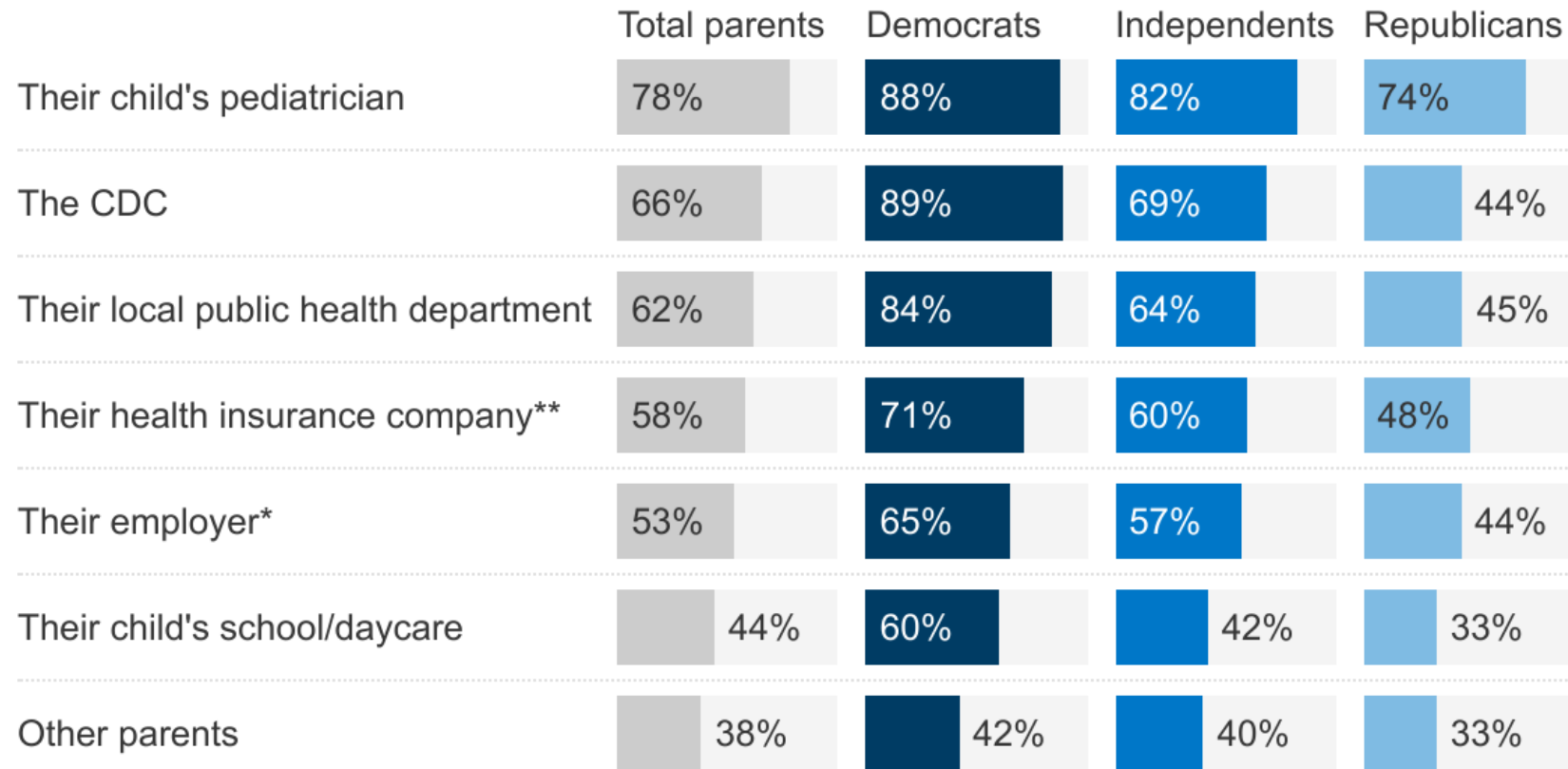


^Includes those having received only 1 of 2 doses and those fully-vaccinated.

Source: AAP analysis of data series published by the CDC titled "Demographic Trends of People Receiving COVID-19 Vaccinations in the United States."

Parents Are Most Likely To Trust Pediatricians To Provide Reliable Information About The COVID-19 Vaccine For Children

Percent of parents who say trust each of the following **a great deal** or **a fair amount** to provide reliable information about the COVID-19 vaccines for children:



NOTE: *Among those who are employed and not self-employed. **Among those who are insured. See topline for full question wording.

SOURCE: KFF COVID-19 Vaccine Monitor: Parents And The Pandemic (Jul. 15-Aug. 2, 2021).

COVID's Impact on Children: *Current and Lasting*

- Biological, social, and environmental well-being
 - Impact of fear, physical isolation, socio-economic factors
- Disparities in health outcomes and education
- Individual and collective trauma
- Pediatric sub-populations
 - Higher rates of food insecurity
 - Increased risk of child abuse and neglect
 - Impact on children in immigrant families
 - Impact on nutrition and obesity



All Policy Considerations for School Plans Should Start with the Goal of Keeping Students Safe and Physically Present in School

- All students and staff who are eligible for a COVID-19 vaccine should get vaccinated.
- Families should make sure their children are up to date on *all* vaccines.
- All children over the age of two and all adult staff should wear face masks, regardless of whether they are vaccinated.
- Research shows if we follow public health precautions and using a multi-layer approach – getting vaccinated, universal mask use, distancing, testing, ventilation, cleaning and disinfecting – there is very low spread of COVID in schools.
- Schools should be prepared to offer resources to support student’s mental health.

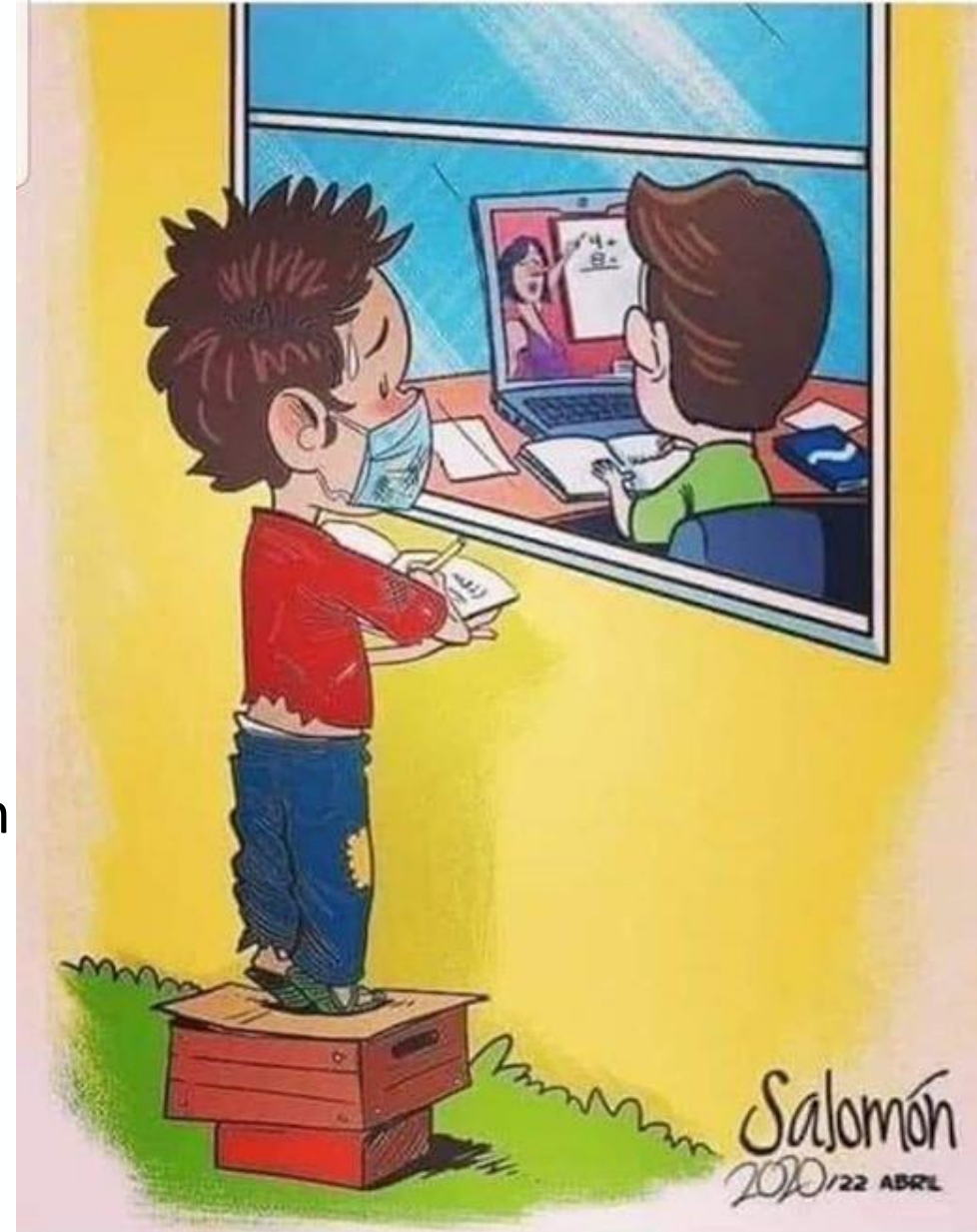


The screenshot shows the top portion of the AAP's 'COVID-19 Guidance for Safe Schools' webpage. The header is blue with the title 'COVID-19 Guidance for Safe Schools' in white. Below the header is a navigation bar with links for 'Home', 'Critical Updates on COVID-19', 'COVID-19 Interim Guidance', and 'COVID-19 Guidance for Safe Schools'. A row of social media icons (Facebook, Twitter, Pinterest, LinkedIn, Email, Print) is visible. The main content area features a quote: 'The AAP strongly advocates that all policy considerations for school plans should start with the goal of keeping students safe and physically present in school.' Below this is a table of contents with three items: 'Purpose and Key Principles' (highlighted in blue), 'Special Considerations for School Health During the COVID-19 Pandemic', and another item partially visible. The 'Purpose and Key Principles' section text reads: 'The purpose of this guidance is to continue to support communities, local leadership in education and public health, and pediatricians collaborating with schools in creating policies for safe schools during the COVID-19 pandemic that foster the overall health of children, adolescents, educators, staff, and communities and are based on available evidence. As the next school year begins, there needs to be a continued focus on keeping students safe, since not all students will have the opportunity or be eligible to be vaccinated before the start of the next school year. Since the beginning of this pandemic, new'

Address Widening Disparities

- Persistent racial and social inequities in educational system have been exacerbated by the pandemic, including disparities in:
 - school funding
 - quality of school buildings
 - resources for curriculum and teachers
- Substantial impact on social services, food security, and physical activity
 - disproportionate impact on English language learners, children with disabilities, children living in poverty, and children and families of African American/Black, Latinx/Hispanic, and Native American/Alaska Native origin
- Need to provide adequate resources for schools and families to access support services

Remember, not all kids have the same opportunity.





Thank You!

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



Pediatric COVID-19 Vaccine Development

Peter Marks, MD, PhD

August 28, 2021

COVID-19 Vaccines for Children

- Adolescents 12 years and older are being dosed as adults right now under EUA and in vaccine trials
- The various companies are conducting clinical trials
- Special considerations in children under 12 years
 - Determination of appropriate dose
 - Duration and number of children for safety follow-up
- Expecting data to FDA as early as end of September
- FDA will move quickly when get data

Detection of Adverse Events

Expected incidence of the adverse reaction	Number observed to detect one event
1 in 100	300
1 in 250	750
1 in 1000	3000
1 in 2000	6000
1 in 5000	15000



U.S. FOOD & DRUG
ADMINISTRATION

Q&A and Discussion

COVID-19 Real-Time Learning Network

Brought to you by CDC and IDSA

An online community bringing together information and opportunities for discussion on latest research, guidelines, tools and resources from a variety of medical subspecialties around the world.



Specialty Society Collaborators

American Academy of Family Physicians
American Academy of Pediatrics
American College of Emergency Physicians
American College of Physicians
American Geriatrics Society
American Thoracic Society
Pediatric Infectious Diseases Society
Society for Critical Care Medicine
Society for Healthcare Epidemiology of America
Society of Hospital Medicine
Society of Infectious Diseases Pharmacists

www.COVID19LearningNetwork.org

@RealTimeCOVID19

#RealTimeCOVID19

1th Anniversary IDWeek

Sept. 29 – Oct. 3, 2021
Virtual Conference



Register by Aug. 27 to Save!
[idweek.org](https://www.idweek.org)



Chasing the Sun: COVID-19
Beyond the Horizon

Attend, Learn & Collaborate.

Advancing Science, Improving Care

*Join the event and access
COVID-19 content at no charge!*

CDC-IDSA Partnership: Clinical Management Call Support

FOR WHOM?

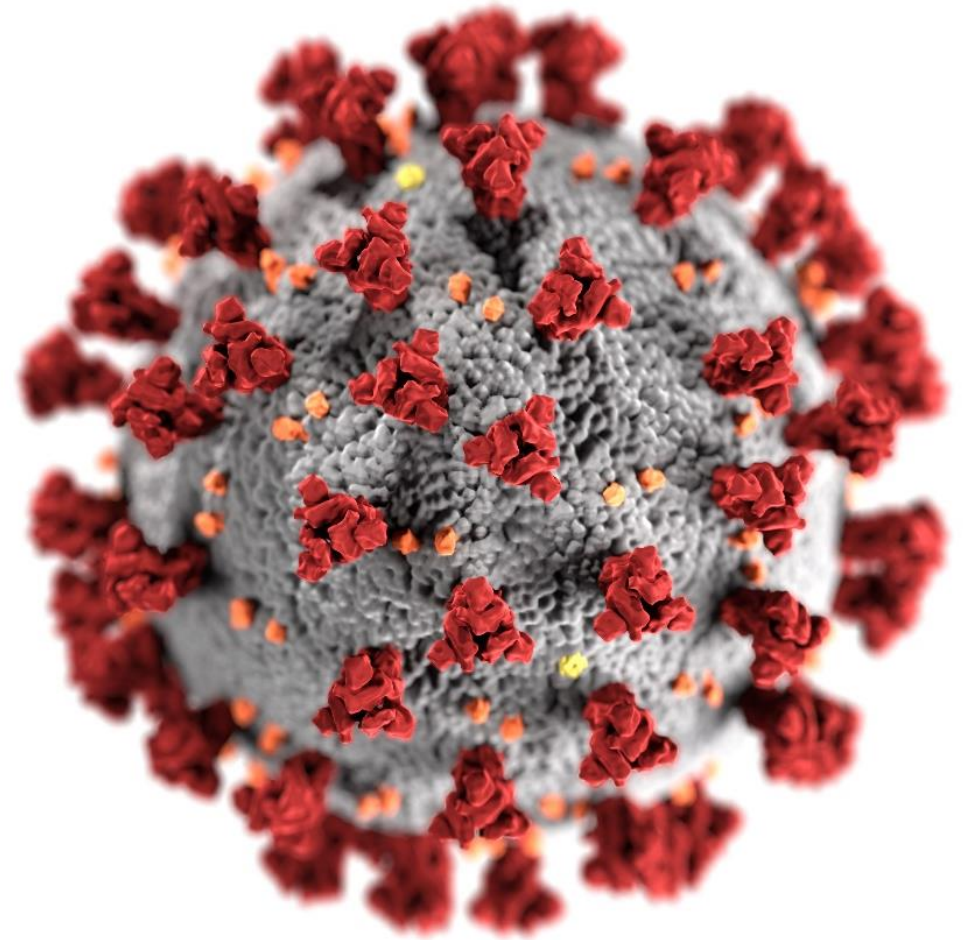
- Clinicians who have questions about the clinical management of COVID-19

WHAT?

- Calls from clinicians will be triaged by CDC to a group of IDSA volunteer clinicians for peer-to-peer support

HOW?

- Clinicians may call the main CDC information line at 800-CDC-INFO (800-232-4636)
- To submit your question in writing, go to www.cdc.gov/cdc-info and click on Contact Form



IDSA
Infectious Diseases Society of America

cdc.gov/coronavirus

Continue the
conversation on Twitter

@RealTimeCOVID19
#RealTimeCOVID19



We want to hear from you!
Please complete the post-call survey.
Clinician calls are now twice a month:

Next Call

Saturday, September 11

A recording of this call will be posted
Monday at

www.idsociety.org/cliniciancalls

-- library of all past calls available --

Contact Us:

Dana Wollins (dwollins@idsociety.org)

Deirdre Lewis (dlewis@idsociety.org)