



Let's talk about MASKS

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10/6/2021

OUTLINE

COVID-19 Updates in Pediatrics

MASKS

ABC Science Collaborative Efforts

National Pediatric COVID-19 Summary (9/30/21)

- 173,469 new child COVID-19 cases were reported from (9/23-9/30/2021)
- Over the period 2 weeks (9/16/21-9/30/21) there was a 7% increase in cases

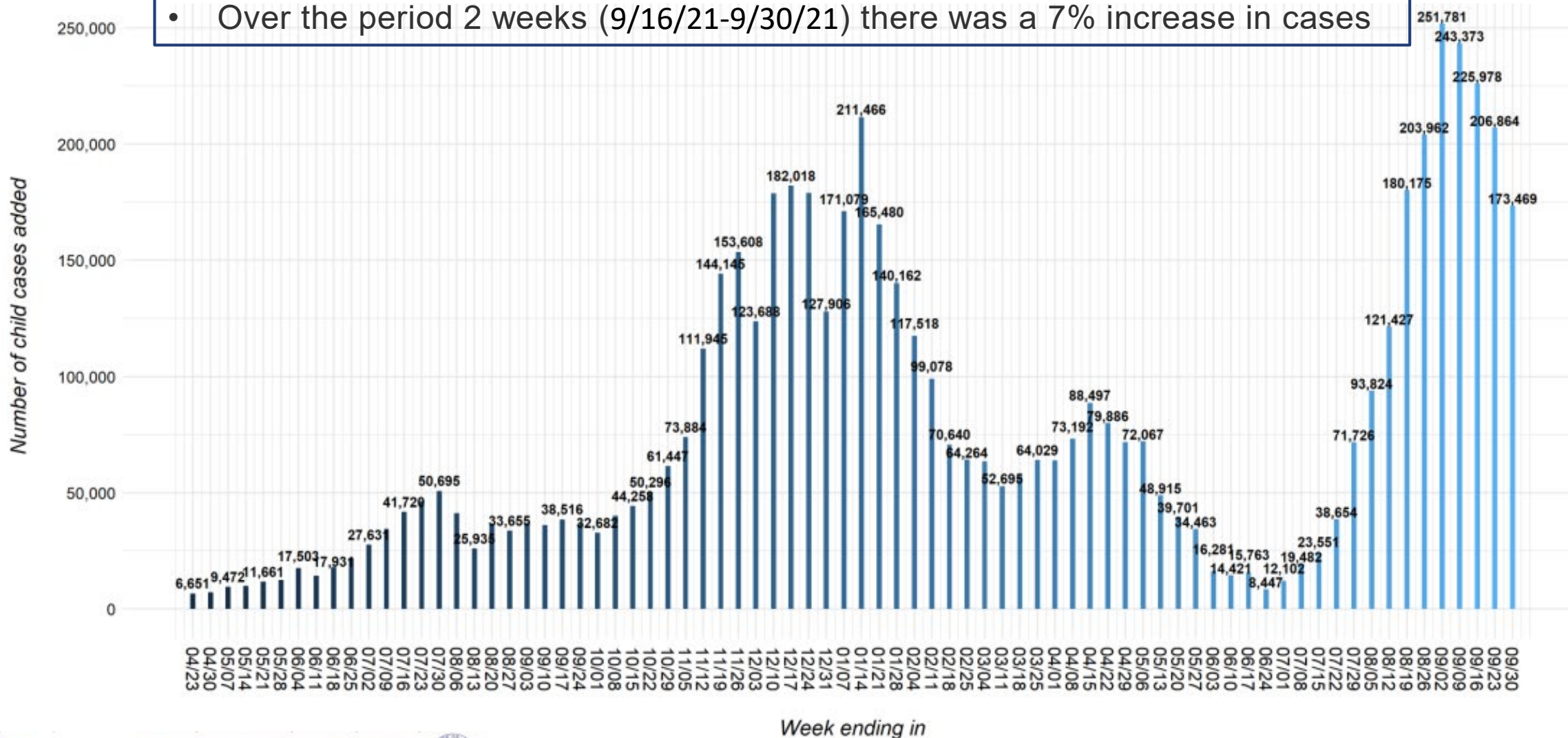
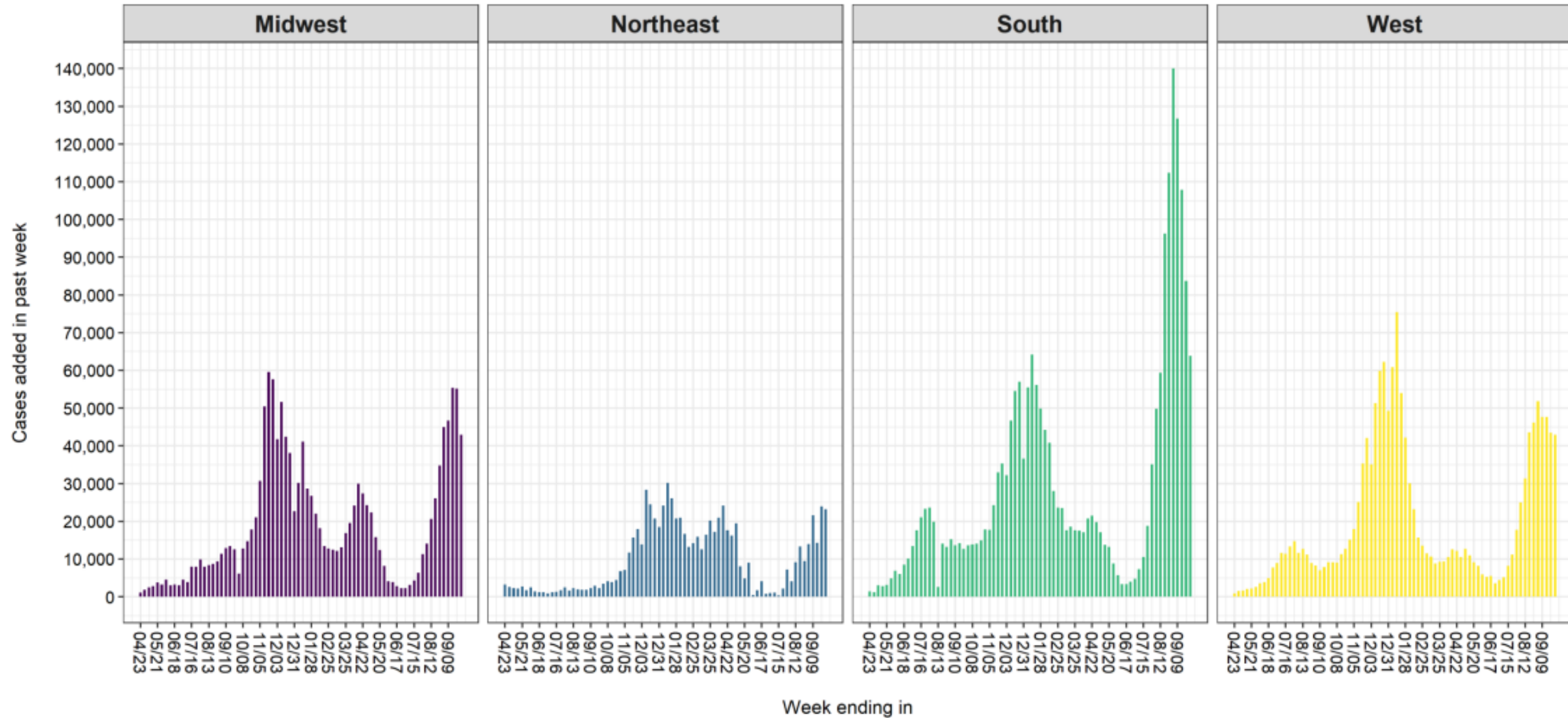


Fig 7. United States: Child COVID-19 Cases Added in Past Week, by Region*



* Note: Regions are the US Census Regions

5 states changed their definition of child cases: AL as of 8/13/20, HI as of 8/27/20, RI as of 9/10/20, MO as of 10/1/20, WV as of 8/12/21;

TX reported age for only a small proportion of total cases each week (eg, 3-20%); TX cumulative cases through 8/26/21

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 (eg, on 9/30/21, 5,070 cases were added)

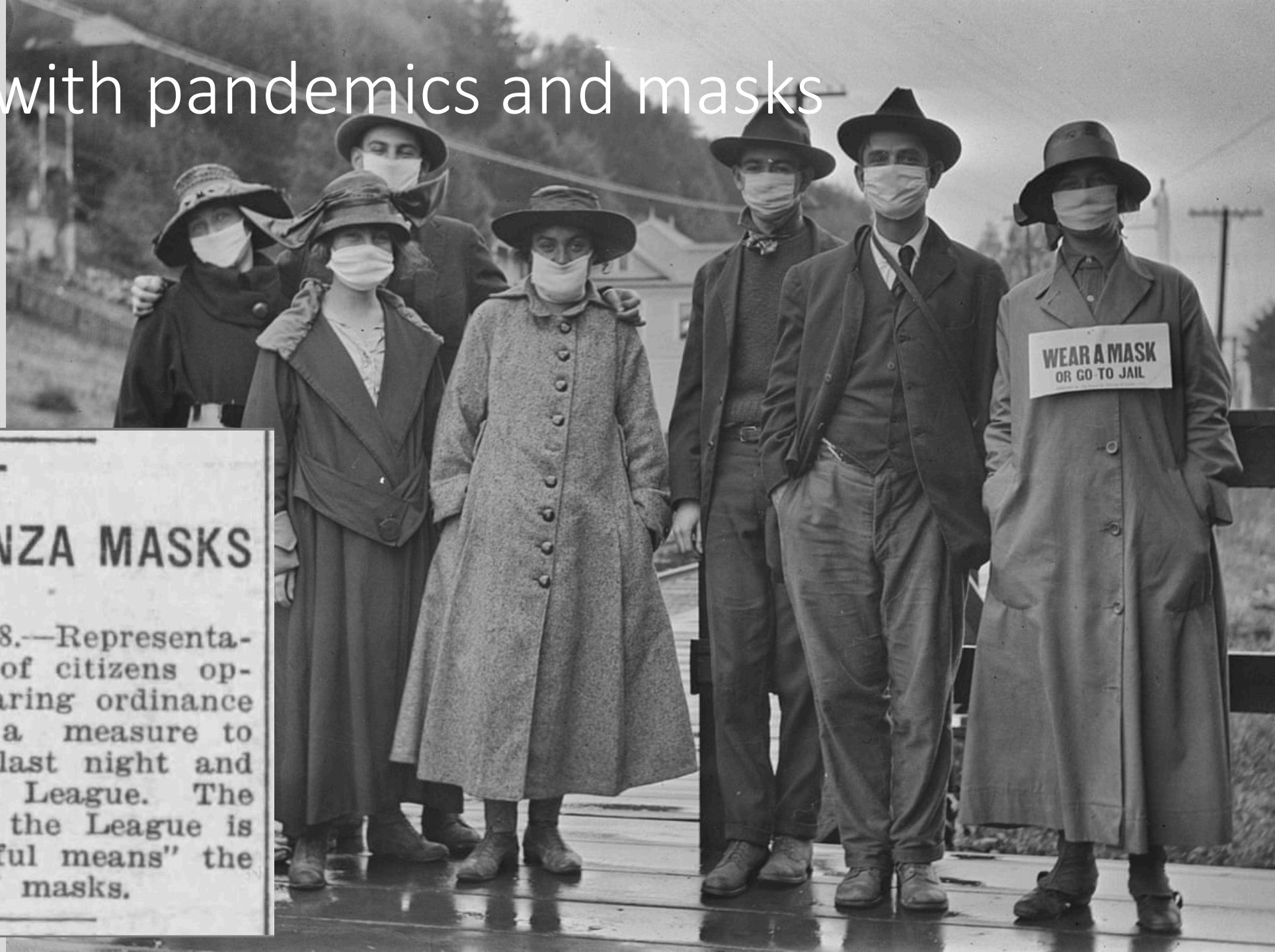
See detail in Appendix: Data from 49 states, NYC, DC, PR and GU

All data reported by state/local health departments are preliminary and subject to change; Analysis by American Academy of Pediatrics and Children's Hospital Association

MASKS in School

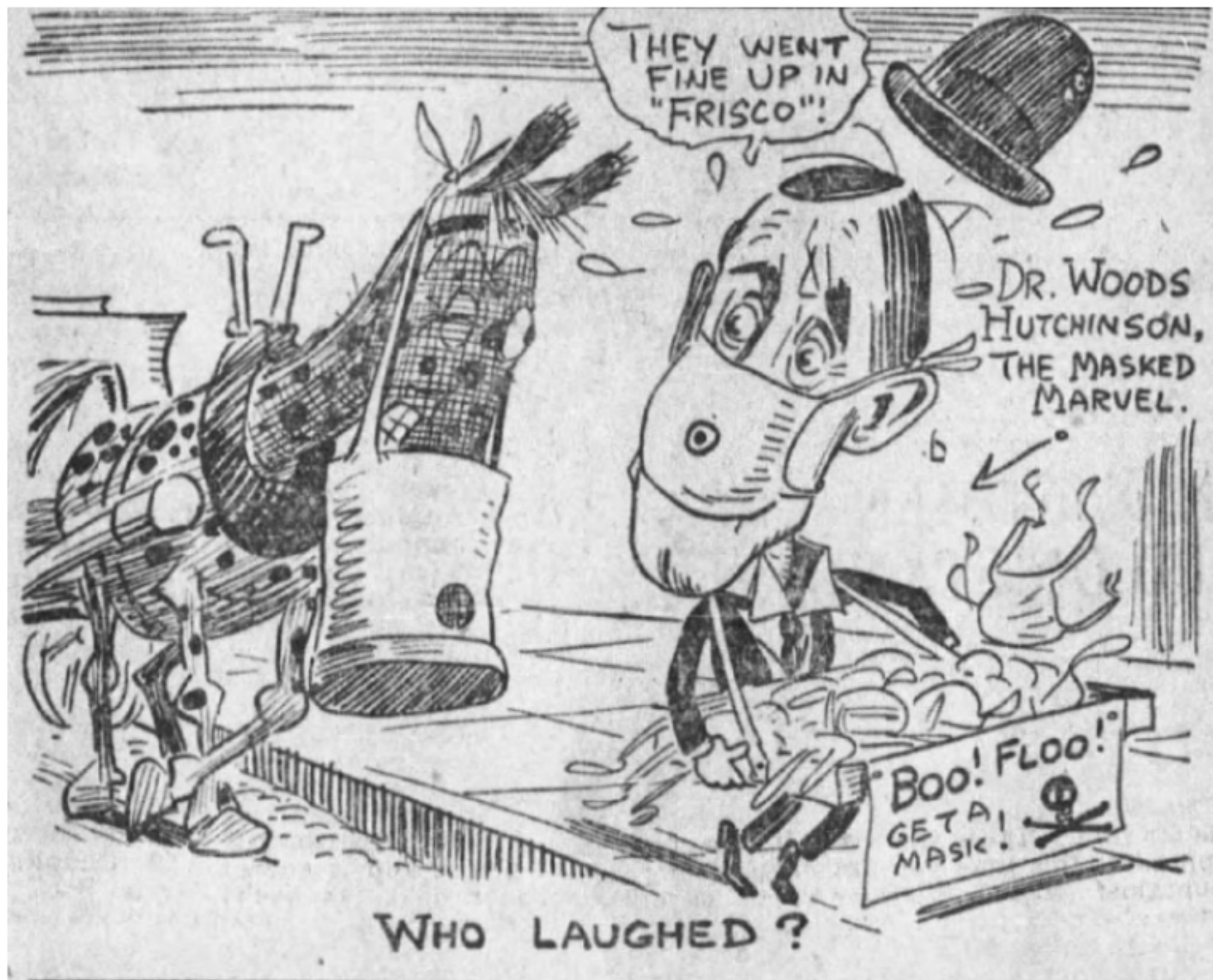
CDC recommends that schools require universal indoor mask use for students, staff members, and others in kindergarten through grade 12 (K–12) school settings

Our history with pandemics and masks



A FIGHT AGAINST INFLUENZA MASKS

San Francisco, Jan. 18.—Representatives of organizations of citizens opposed to the mask-wearing ordinance which was passed as a measure to check influenza, met last night and formed the Anti-Mask League. The announced purpose of the League is to "oppose by all lawful means" the compulsory wearing of masks.



Do masks requirements in school work?

- Mask efficacy
- Impact on cases
- Impact on school-related outbreaks

Infectious SARS-CoV-2 in Exhaled Aerosols and Efficacy of Masks During Early Mild Infection

Oluwasanmi O Adenaiye, M.B.B.S., M.S, Jianyu Lai, B.Med., M.P.H,
P Jacob Bueno de Mesquita, Ph.D, Filbert Hong, Ph.D, Somayeh Youssefi, Ph.D,
Jennifer German, Ph.D, S-H Sheldon Tai, Ph.D, Barbara Albert, M.D., M.P.H,
Maria Schanz, B.A., B.S, Stuart Weston, Ph.D ... [Show more](#)

Clinical Infectious Diseases, ciab797, <https://doi.org/10.1093/cid/ciab797>

Published: 14 September 2021 **Article history** ▼



- Recruited 49 acute COVID-19 cases (seronegative) May 2020 through April 2021
 - blood, saliva, nasal and fomite (phone) swabs,
 - 30-minute breath samples while vocalizing with and without masks at up to two visits two days apart
- They sequenced viral RNA, cultured virus, and checked participants for antibodies to COVID-19
 - detected SARS-CoV-2 RNA in 45% of fine ($\leq 5 \mu\text{m}$), 31% of coarse ($> 5 \mu\text{m}$) aerosols
 - 65% of fomite samples overall
 - found SARS-COV-2 RNA in all samples from four alpha-variant cases
- Results: Masks reduced viral RNA by 48% in fine aerosols; 77% in coarse aerosols
- The alpha variant was associated with a 43-fold increase in aerosol viral RNA, compared with earlier viruses

Impact on cases

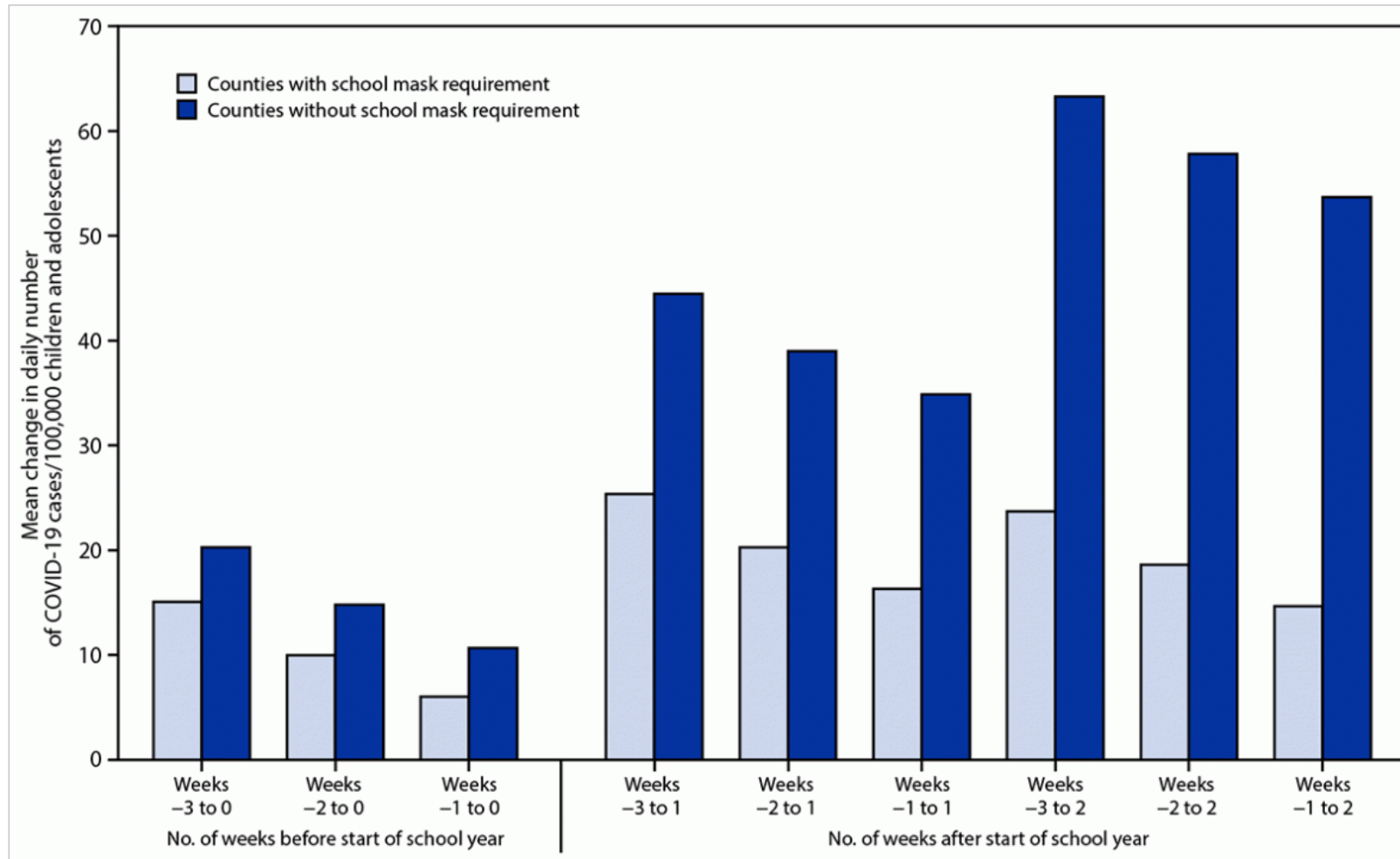
- Scientists compared pediatric county case rates in schools with and without mask requirements July 1- Sept 4, 2021.
 - Looked at all 3,142 U.S. counties
 - Inclusion criteria: schools had to have clear mask policies (all in masks or none required to mask), school was open for at least 3 weeks
 - Ultimately included 520 counties across the U.S.
- Results: Counties without school mask requirements experienced larger increases in pediatric COVID-19 case rates compared to counties that had school mask requirements
- Remained true even after controlling for confounders

Pediatric COVID-19 Cases in Counties With and Without School Mask Requirements — United States, July 1–September 4, 2021

Weekly / October 1, 2021 / 70(39);1377–1378

On September 24, 2021, this report was posted online as an MMWR Early Release.

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Mask requirements in K-12 schools limited COVID-19 outbreaks

Schools without mask requirements were...



more likely to have COVID-19 outbreaks...

Compared with schools that started the year with mask requirements



* K-12 public noncharter schools in Maricopa and Pima Counties, AZ— July–August, 2021



bit.ly/MMWR92421

MMWR

In case you are interested...



District

Sch

☐ Black Bee

☐ Black Chicken

☐ Black Flamingo

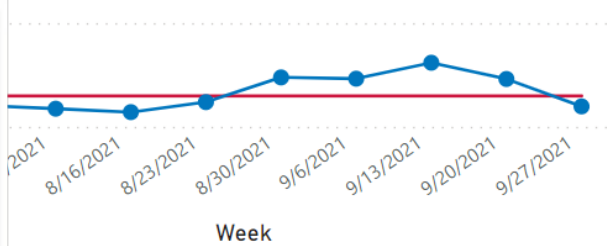
☐ 50

☐ 55

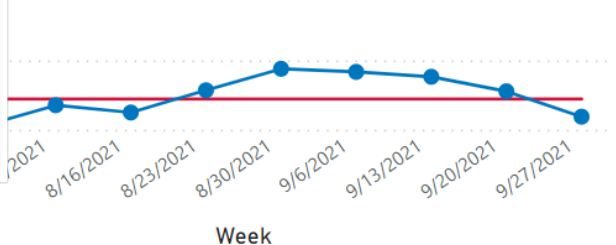
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Weekly Student Quarantines

10K

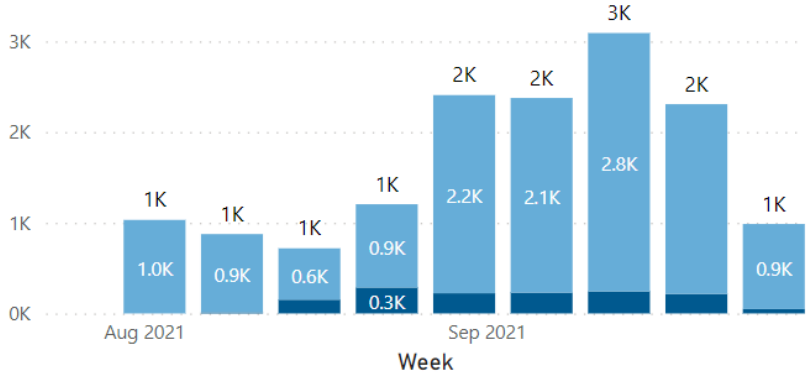


Quarantines



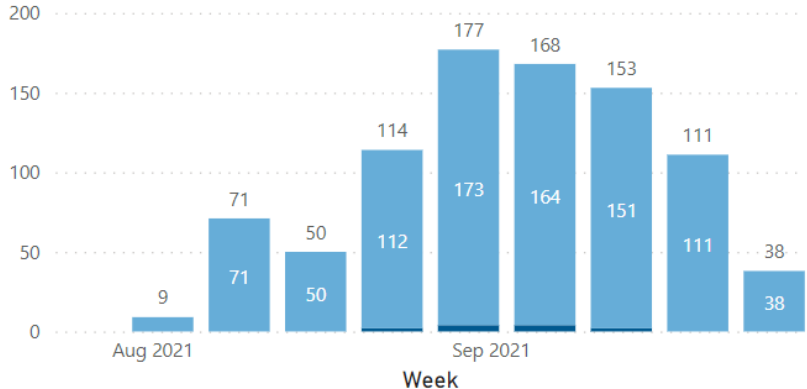
Quarantine Causes in Students

● Related to Sports ● Other/Unspecified Cause



Quarantine Causes in Staff

● Related to Sports ● Other/Unspecified Cause



☐ Turquoise Ox

☐ 127

☐ Violet Mosquito

☐ 131

Clear All Filters

Data Current As Of:

10/5/2021 4:00:08 PM

Legend

Date Range

7/26/2021 9/27/2021

— Average

● Number



Secretary Miguel Cardona
@SecCardona

Doctors & scientists at @AbcCollab conducted studies involving nearly 1 million students & concluded that universal masking in schools helped keep transmission rates to under 1% last fall and spring.
abcsiencecollaborative.org/wp-content/upl...

5:02 PM · Sep 27, 2021 · Twitter Web App

6 Retweets 23 Likes

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Bottom line

- Delta variant is 200 % more transmissible
- up to 1000x higher viral load per person
- one person can infect 6-10 people





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