

Criteria 6

Vaccinating against this disease reduces the risk of person-to-person transmission, with transmission in a school or childcare setting or activity being given the highest priority.



Laura Newman PhD, MHS

BIOGRAPHY

Professional

- 15 years of public health experience
- Washington State Department of Health
 - Senior epidemiologist for COVID-19 Outbreak Response in Non-healthcare Congregate Settings, 2020 - 2022
 - Refugee Health epidemiologist, 2016 - 2022
- University of Washington
 - Co-principal investigator for study to determine measles vaccine effectiveness in children living with HIV

Education

- University of Washington School of Public Health – PhD in Epidemiology
- Johns Hopkins Bloomberg School of Public Health – MHS in Global Disease Epidemiology & Control
- University of Wisconsin – BS in Molecular Biology

COVID-19 Outbreaks and Cases in K-12 Schools, Washington State



Learning Modality in Washington K-12 Schools

End of 2020 school year

- April 2020 – June 2020: Schools ceased in-person instruction and switched to remote instruction

2020 – 2021 school year

- August 2020 – April 2021: Most schools offered remote instruction. Some schools offered in-person instruction as the school year progressed
- April 2021 – June 2021: All public schools required to offer some in-person instruction

2021 – 2022 school year

- August 2021 – present: All public schools required to offer full in-person instruction

Mitigation Measures in Washington K-12 Schools



- Remote instruction
- Mask requirement for school personnel, volunteers, visitors, and students
- Physical distancing requirements
- Vaccination requirement for employees in educational settings as of October 18, 2021

K-12 School COVID-19 Outbreak Definition

Multiple probable or confirmed COVID-19 cases comprising at least **10% of students, teachers or staff within a specified core group***

OR

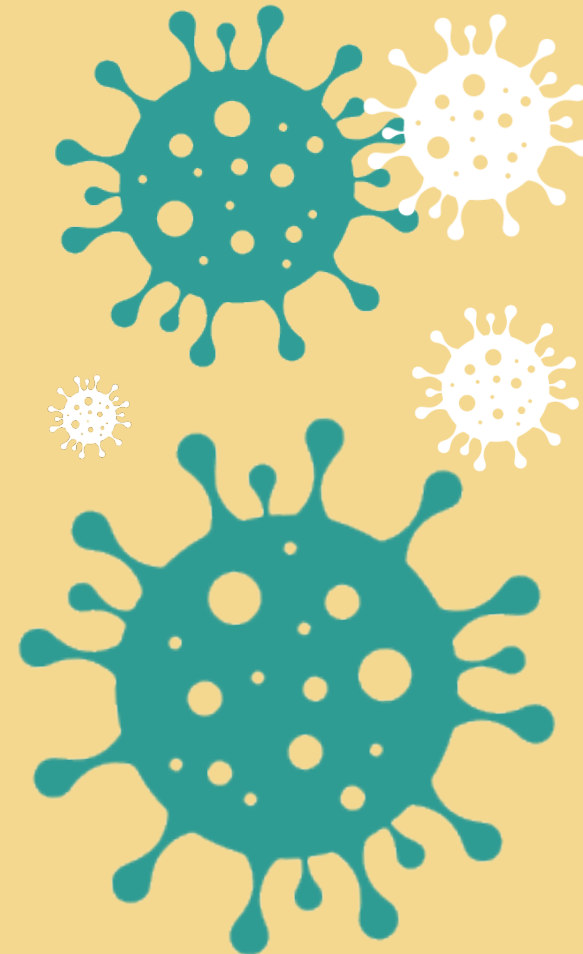
At least **3 cases within a specified core group*** meeting criteria for a probable or confirmed COVID-19 case

AND

- Cases have symptom onset or positive test result within 14 days of each other, **AND**
- Cases were not identified as close contacts of each other in another setting (i.e., household) outside of the school setting, **AND**
- Cases were epidemiologically linked in the school setting or a school-sanctioned extracurricular activity†

*A “core group” includes but is not limited to extracurricular activity†, cohort group, classroom, before/after school care, etc.)

† A school sanctioned extracurricular activity is defined as a voluntary activity sponsored by the school or local education agency (LEA) or an organization sanctioned by the LEA. Extracurricular activities include, but are not limited to, preparation for and involvement in public performances, contests, athletic competitions, demonstrations, displays, and club activities.



COVID-19 Data Collection Methods

SCHOOL

- Schools report cases and cluster to LHJs

LHJ

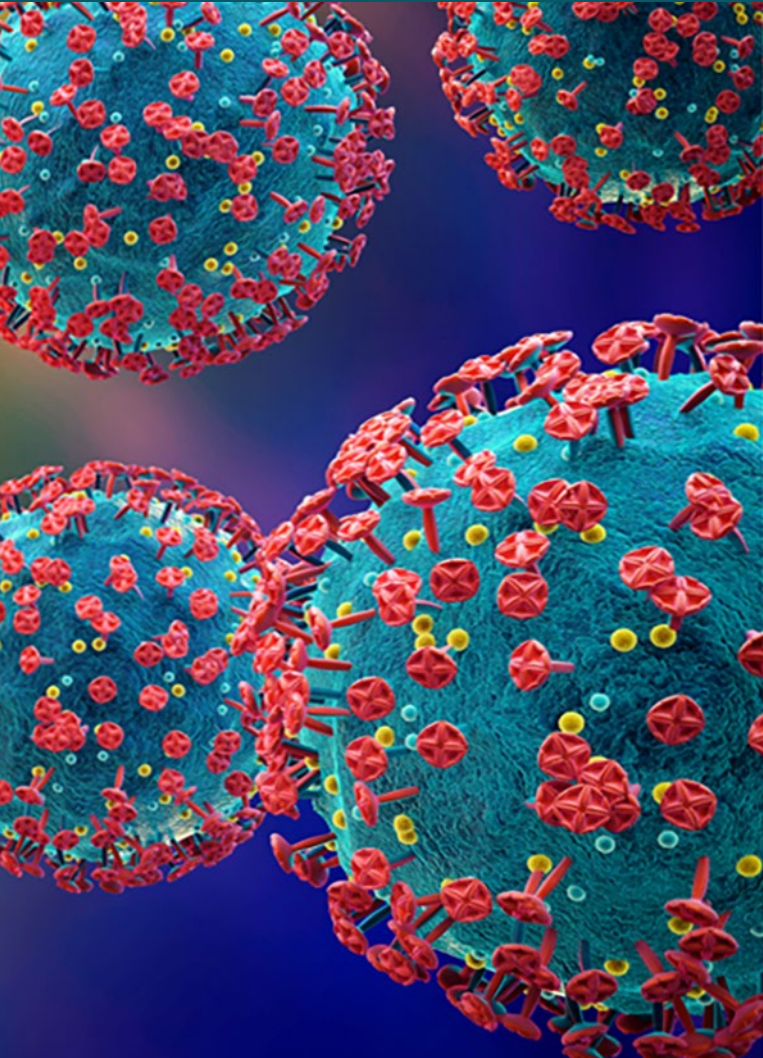
- Follow up on reports from schools to identify outbreaks
- Use case-based surveillance and contact tracing tools to proactively identify K-12 school outbreaks

WA DOH

- Monitors K-12 outbreaks reported into the Washington Disease Surveillance System by LHJs
- Follows up with enhanced K-12 school outbreak surveillance

The investigation of COVID-19 cases to confirm that an event meets Washington State's cluster or outbreak definition is time intensive. Therefore, the number of cases and outbreaks reported by a local health jurisdiction may change over time as outbreak details become available.

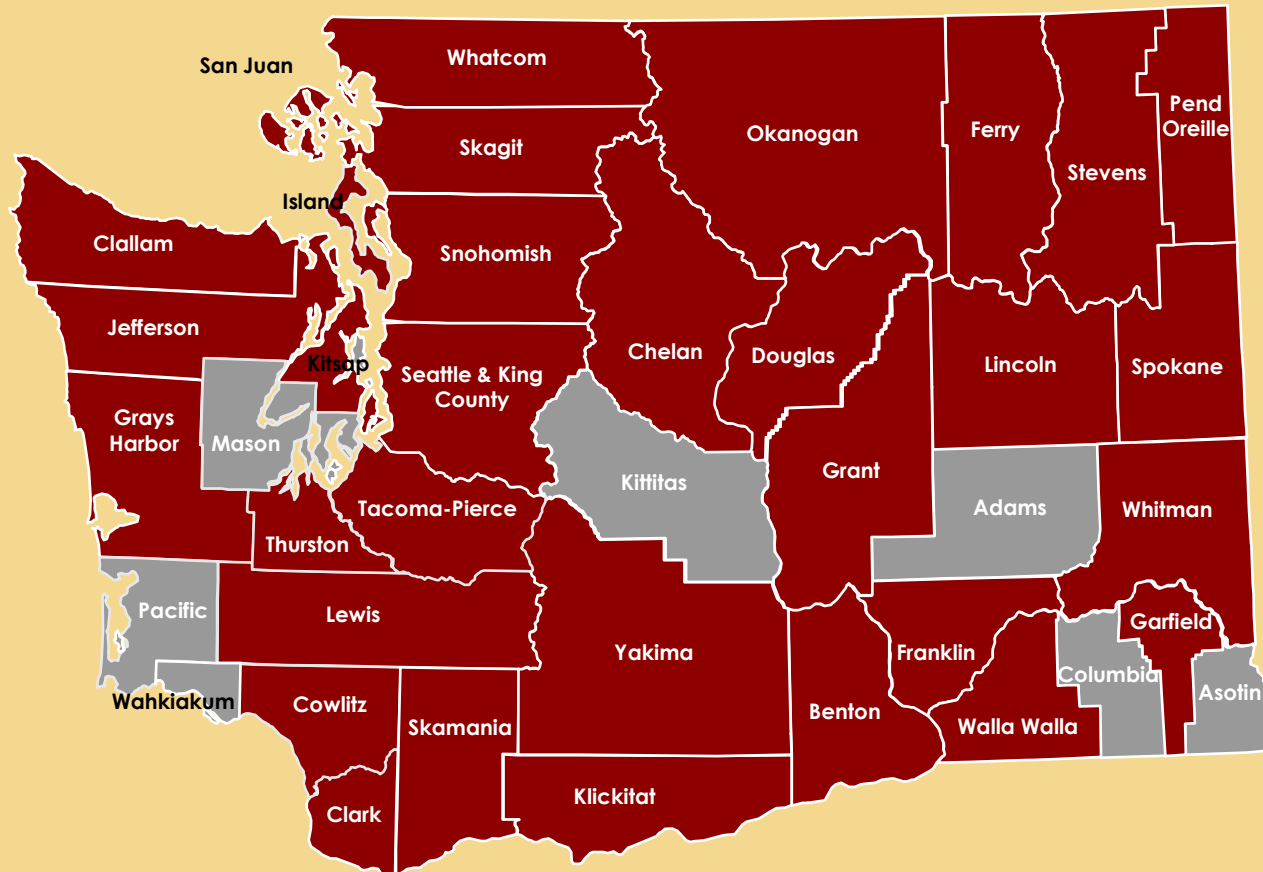
COVID-19 Outbreaks and Cases in K-12 Schools, Washington State



- **831 COVID-19 outbreaks in K-12 schools** between August 2020 and December 2021.
 - 12% of all non-healthcare outbreaks
 - By far the highest number of outbreaks of all non-healthcare settings (second is in childcare/pre-k with 613 outbreaks, followed by food service/restaurant facilities, with 539 outbreaks)
- **5306 COVID-19 cases associated with these outbreaks**
 - 4394 (83%) of the cases associated with K-12 school outbreaks were in children

Statewide Impact of COVID-19

Outbreaks in K-12 Schools

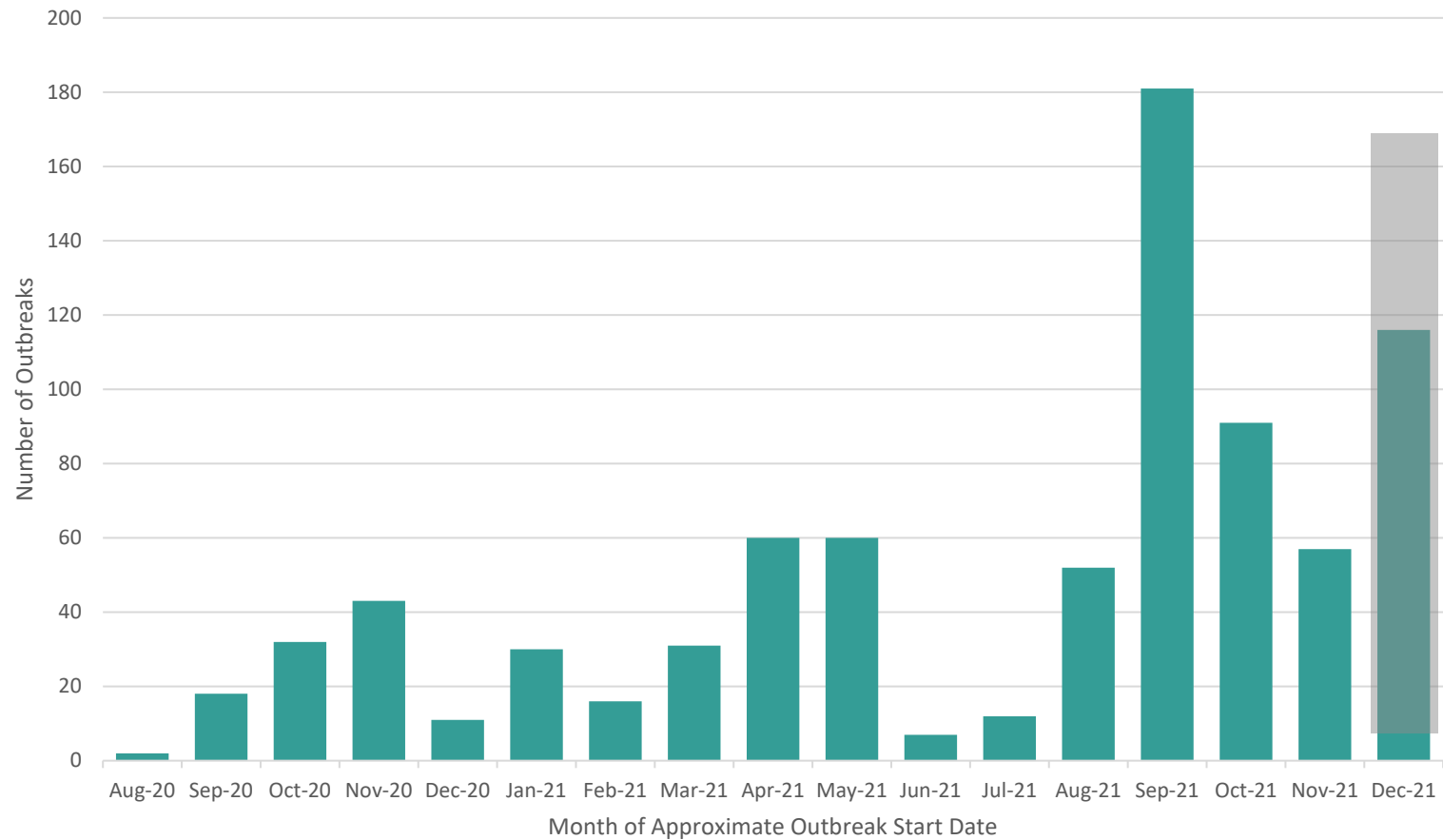


Local Health Jurisdiction (LHJ) that has reported COVID-19 outbreak(s) in K-12 schools

- 28 (80%) of LHJs have reported COVID-19 outbreaks in K-12 schools
- May be underreporting of outbreaks due to school and local health jurisdiction capacity constraints
- 19% of WA State's 3057 public and private schools have had at least one outbreak
- 50% of the COVID-19 outbreaks in K-12 schools involved 4 individuals or more

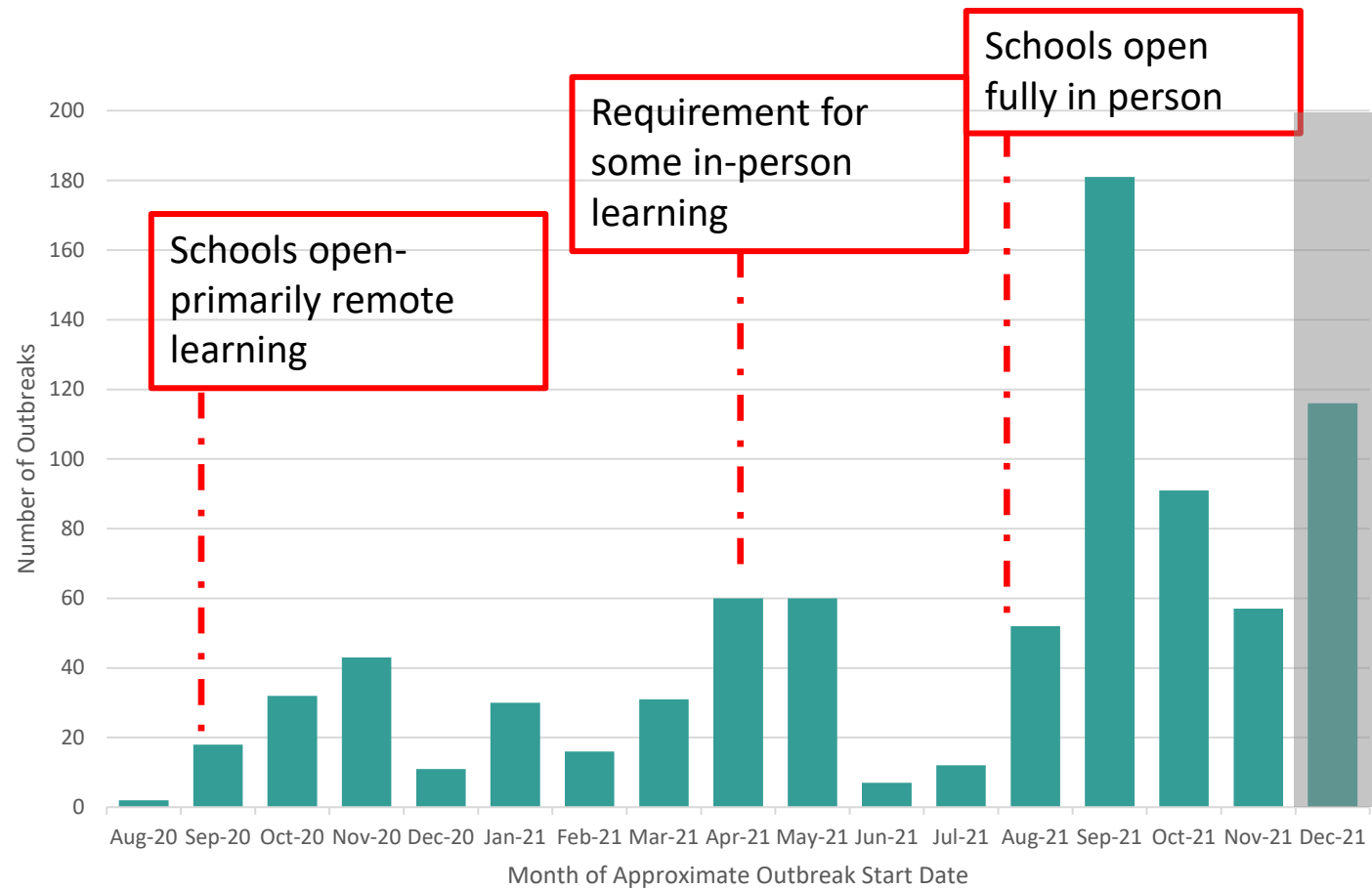
831 COVID-19 Outbreaks in K-12 Schools

August 2020 – December 2021



831 COVID-19 Outbreaks in K-12 Schools

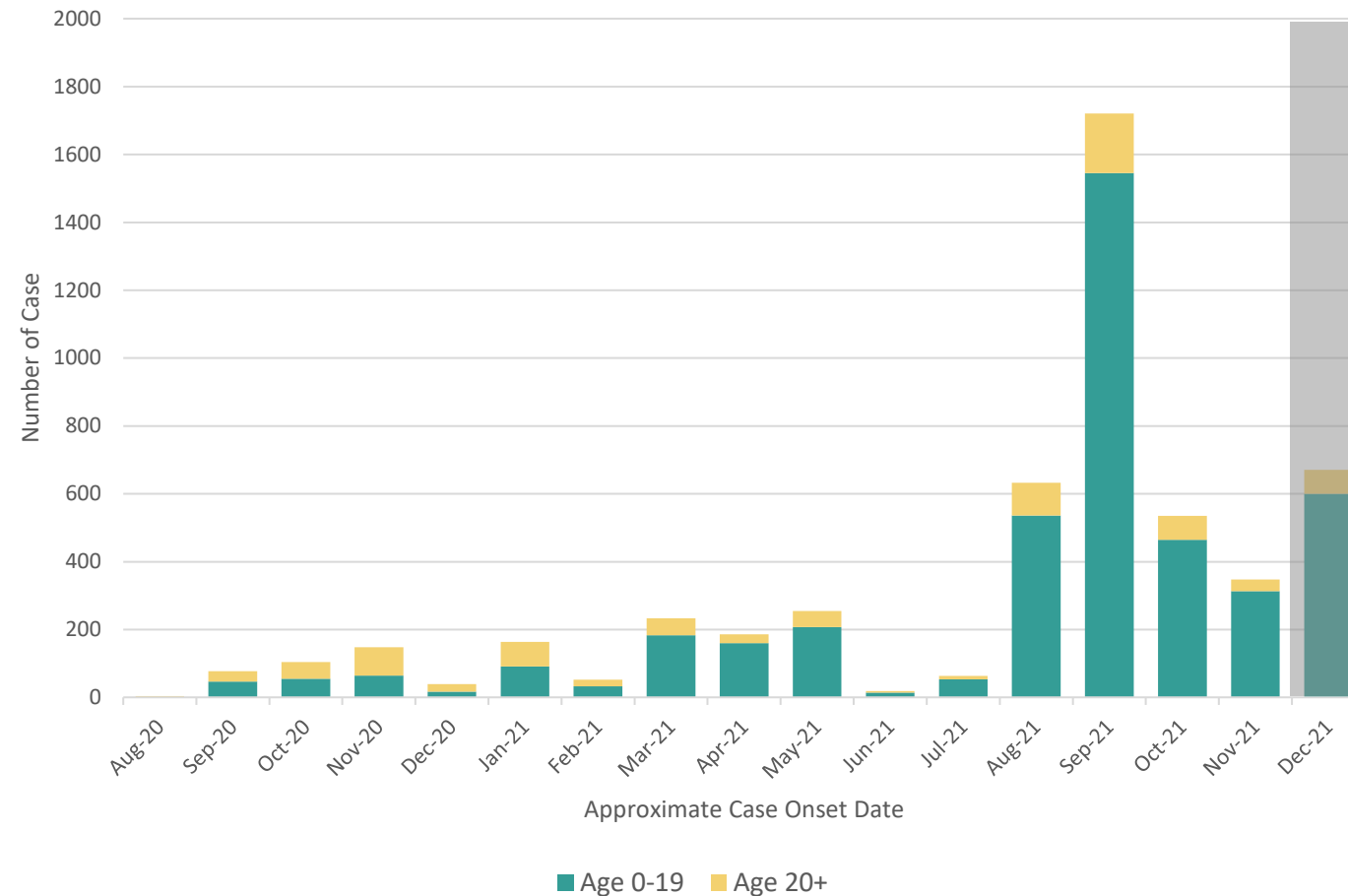
August 2020 – December 2021



Outbreak data from December may not be complete due to ongoing investigation

5,306 COVID-19 Cases Associated with 831 Outbreaks in K-12 Schools

August 2020 – December 2021



Case data from December may not be complete due to ongoing investigation

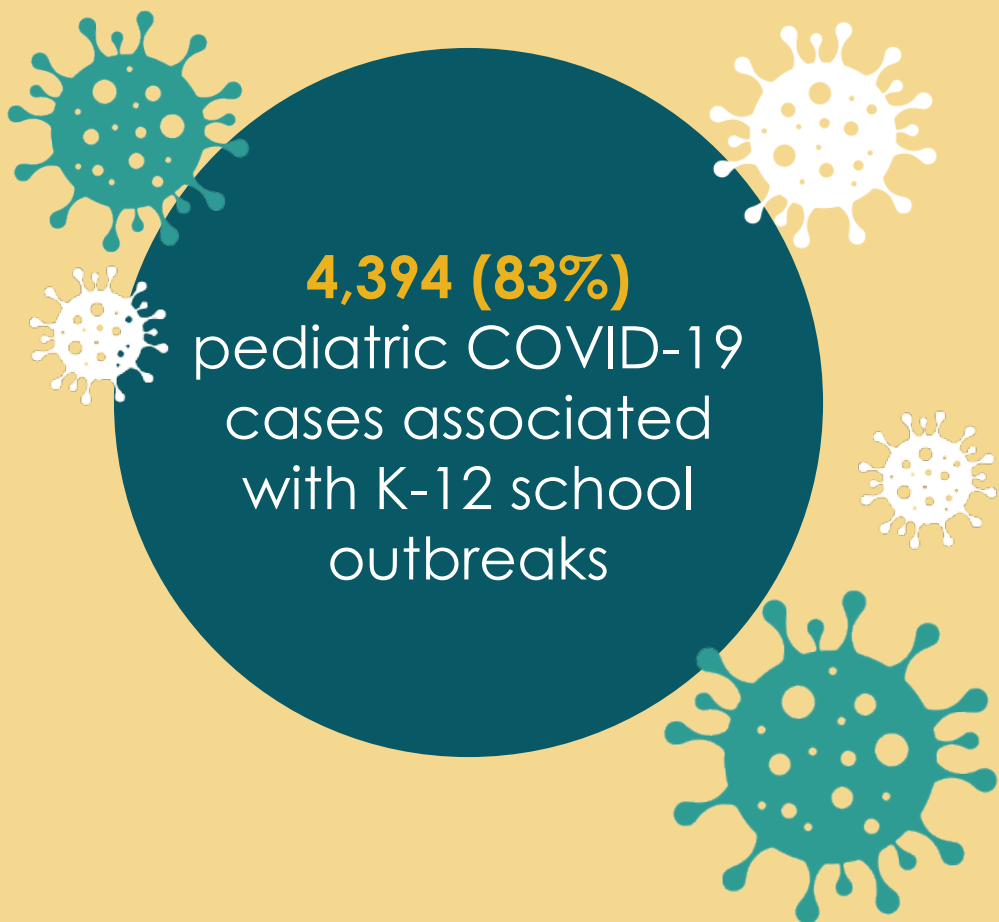
COVID-19 Cases Associated with Outbreaks K-12 Schools

August 2020 – December 2021

N=5,306

Demographic	N	%
Age Group		
0-3	12	<1
4-10	1618	31
11-13	773	15
14-19	1991	38
20+	892	17
Sex		
Female	2460	48
Male	2624	52
Other*	--	--
Hospitalization overnight	37	<1
Deaths*	--	--

*To protect privacy, counts of less than 10 are not reported. Some additional values that could allow someone to calculate those small numbers are also not reported.



4,394 (83%)
pediatric COVID-19
cases associated
with K-12 school
outbreaks

COVID-19 Cases Associated with Outbreaks K-12 Schools

August 2020 – December 2021

N=5,306

Race/Ethnicity	N	% of cases	% of total WA State population
Hispanic	601	11	13
Non-Hispanic American Indian/Alaskan Native	44	1	1
Non-Hispanic Native Hawaiian of Other Pacific Islander	59	1	1
Non-Hispanic Asian	232	4	9
Non-Hispanic Black	224	4	4
Non-Hispanic Multiracial	226	4	4
Non-Hispanic White	2992	57	68
Non-Hispanic Other Race	39	1	--
Unknown	869	16	--

Characteristics of Schools with COVID-19 Outbreaks

	2020/2021		2021/2022*	
	N	%	N	%
	(310)		(505)	
Public/Private				
Public	239	77	454	90
Private	71	23	51	10
Grade Level Served**				
Elementary	168	54	225	45
Middle	93	30	119	24
High	145	47	216	43
Suspected Transmission Location				
Classroom	--	--	97	19
Office	--	--	2	<1
Cafeteria/meal space	--	--	1	<1
Sports	--	--	166	33
Performing arts	--	--	2	<1
Transportation/bus	--	--	19	4
Undetermined	--	--	218	43

*2021/2022 school year is ongoing and data shown here is through Dec. 2021.

** Grade level served is not a mutually exclusive category. Percent reflects the percentage of total schools serving each grade level.

Transmission of COVID-19 in K-12 Schools

- Numerous studies on non-pharmaceutical interventions (e.g. masks, distancing) and impact on COVID-19 transmission in K-12 schools
- Currently no published literature on pediatric COVID-19 vaccine effectiveness in K-12 school setting



Summary



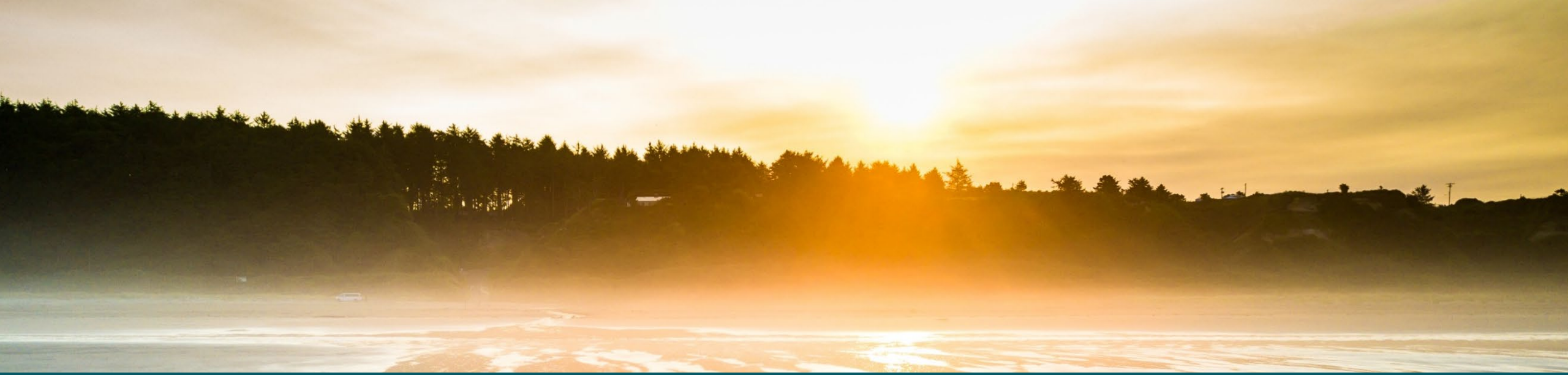
- At least 831 COVID-19 outbreaks, and 5,306 COVID-19 cases, occurred in K-12 schools in Washington State between August 2020 and December 2021
 - 4394 (83%) of the cases associated with K-12 school outbreaks were in children
 - At least 19% of WA State's 3,057 public and private schools have had at least one outbreak
- Outbreaks increased as in-person instruction resumed, and community transmission increased
- Currently no published literature on pediatric COVID-19 vaccine effectiveness in K-12 school setting

References

- COVID-19 Outbreaks in Washington State K-12 Schools Report
<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/data-tables/420-312-K12SchoolsOutbreakReport.pdf>
- K-12 COVID-19 Requirements for Summer 2021 and the 2021-2022 School Year
<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/820-105-K12Schools2021-2022.pdf>
- Supplemental Considerations to Mitigate COVID-19 Transmission in K-12 Schools
<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/820-218-K12SupplementalRecommendations.pdf>

References

- Washington State school closure and reopening references
 - <https://www.king5.com/article/news/health/coronavirus/coronavirus-washington-state-seattle-schools-may-remain-closed-through-spring/281-c2913363-9034-4f3e-b9a4-b920aa8585c3>
 - Emergency Proclamation of the Governor: Children and Youth Mental Health Crisis.
https://www.governor.wa.gov/sites/default/files/proclamations/21-05_Children%27s_Mental_Health_Crisis_%28tmp%29.pdf
- COVID-19 transmission in K-12 Schools (CDC Science Brief)
https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/transmission_k_12_schools.html#anchor_1625597553392



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