KITSAP PUBLIC
HEALTH DISTRICT

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KITSAP PUBLIC HEALTH BOARD
August 4, 2020

Documents entered into the record

1. **WA DOH Situation Report**
    a. COVID-19 Situation Report 11 (fig. 1, fig 2, fig 6)
2. **Kitsap COVID-19 Weekly Surveillance Report**
    a. August 3 update
3. **Kitsap County Safe Start Report Card**
    a. July 30 update

SitRep 11: COVID-19 transmission across Washington State

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Results as of July 28 2020 2 p.m. Incidence data through July 17 2020.

From week to week, we will be highlighting situations around the state that we think warrant special attention. For a comprehensive and up-to-date picture of what's happening around the state, see the WA State COVID-19 Risk Assessment and WADoH COVID-19 data dashboards.

Summary and highlights

Similar to our previous report, transmission continues to increase overall in eastern and western WA. The burden remains at or near local peak levels in most counties across the state. Both eastern and western WA have reached new peaks in cases since our last report. Using data from the Washington Disease Reporting System (WDRS) compiled on July 28, we estimate that in western WA, R_e was likely between 1.01 and 1.36 on July 12, with a best estimate of 1.19. In eastern WA, R_e on July 9th was likely between 0.94 and 1.22, with a best estimate of 1.08.

While the situation in King County has been flat near the historical peak in daily cases for the past two weeks, Pierce county cases have continued to increase and have reached a new peak since our last report. In eastern WA, Yakima cases have been decreasing since June 8th and reached 45% progress to zero. Meanwhile, there has been a new surge in COVID-19 cases in Okanogan. Okanogan, which is currently in Safe Start phase 2 and had less than 25 cases per 100,000 until June 24, is now the county with the highest cases per capita in Washington State (892 per 100,000).

Daily new case counts in other counties, including Benton, Franklin, Spokane, and Grant, have seen decreases or plateaus, which may be due to improved adherence to physical distancing guidelines. Still, we cannot entirely rule out impacts from delays in testing that may mimic slowing transmission.

Test positivity in eastern WA has been slowly decreasing for the past two weeks; however, at 14.6% it remains very high and is over three times as high as in western WA (4.2%). Hospitalization rates continue to increase in western and eastern WA. As transmission moves from younger adults into older more vulnerable populations, we expect new hospitalizations and eventually deaths to trend up.

Implications for public health practice

While in some counties daily case counts may be decreasing or plateauing, transmission is likely increasing overall in eastern and western WA. As a result, we expect the COVID-19 burden to continue to grow. This is a reflection that community behavior and transmission reduction efforts are still insufficient to limit the continued growth of COVID-19 in Washington State. It is likely too soon to observe changes in transmission due to recent policies pausing Safe Start phases. The new surge in cases in Okanogan reflects that susceptibility remains high and communities can experience explosive growth in a very short amount of time. Strict adherence to masking and physical distancing policies and limits on social contacts remains necessary to suppress COVID-19 transmission in Washington State. We also emphasize that testing delays reduce the success of case investigation and contact tracing as they postpone isolation and quarantine until several days into the infectious period. To minimize transmission, individuals should, whenever possible, isolate themselves at the onset of symptoms or after exposure to a person who has tested positive to COVID-19.

Key inputs, assumptions, and limitations of our modeling approach

We use a COVID-specific transmission model fit to testing and mortality data to estimate the effective reproductive number over time. The key modeling assumption is that individuals can be grouped into one of four disease states: susceptible, exposed (latent) but non-infectious, infectious, and recovered.

- For an in-depth description of our approach and its assumptions and limitations, see this earlier report.
- In this situation report, we use data provided by Washington State Department of Health through the Washington Disease Reporting System (WDRS). **We use the WDRS test and death data compiled on July 28, and to hedge against delays in reporting, we analyze data up to July 17 in western and July 15 eastern Washington.** This more conservative hedge against lags is in response to reports of increasing test delays.
- Estimates of R_e describe average transmission rates across large regions, and **our current work does not separate case clusters associated with known super-spreading events from diffuse community transmission.**
- Results in this report come from data on testing, confirmed COVID-19 cases, and deaths (see previous WA State report for more details). Also as described previously, estimates of R_e are based on an adjusted epi curve that accounts for changing test availability, test-positivity rates, and weekend effects, but all biases may not be accounted for. **In particular, situations with large, rapid testing volume increases introduce additional uncertainties that can only be fully resolved with longer time series. We emphasize however that increased testing volume is an overwhelmingly positive thing. Despite the short term uncertainty test volume changes introduced into metrics of COVID-19 transmission, increased testing is essential to identifying high-risk settings, preventing onward transmission, and linking people to care.**
- This report describes patterns of COVID transmission across Washington state, but it does not examine factors that may cause differences to occur. The relationships between specific causal factors and policies are topics of ongoing research and are not addressed herein.

Collaboration notes

The Institute for Disease Modeling (IDM), Microsoft AI For Health and the Fred Hutchinson Cancer Research Center are working with WA DoH to provide regional modeling of case, testing, and mortality data across Washington State to infer effective reproduction numbers, prevalence, and incidence from data in the Washington Disease Reporting System. This report is based on models developed by IDM that are being advanced to better represent the state by Microsoft, and both together volunteer to support WA DoH in its public health mission. This collaboration has evolved alongside the science, data systems, and analysis behind the models, and it reflects the ongoing commitment of all parties involved to improve our understanding of COVID-19 transmission. This collaboration and its outputs will continue to evolve as scientific frontiers and policy needs change over time.

Reproductive number estimates remained stable and likely above one through mid-July on both sides of the Cascades. COVID-19 burden will continue to grow if this persists.

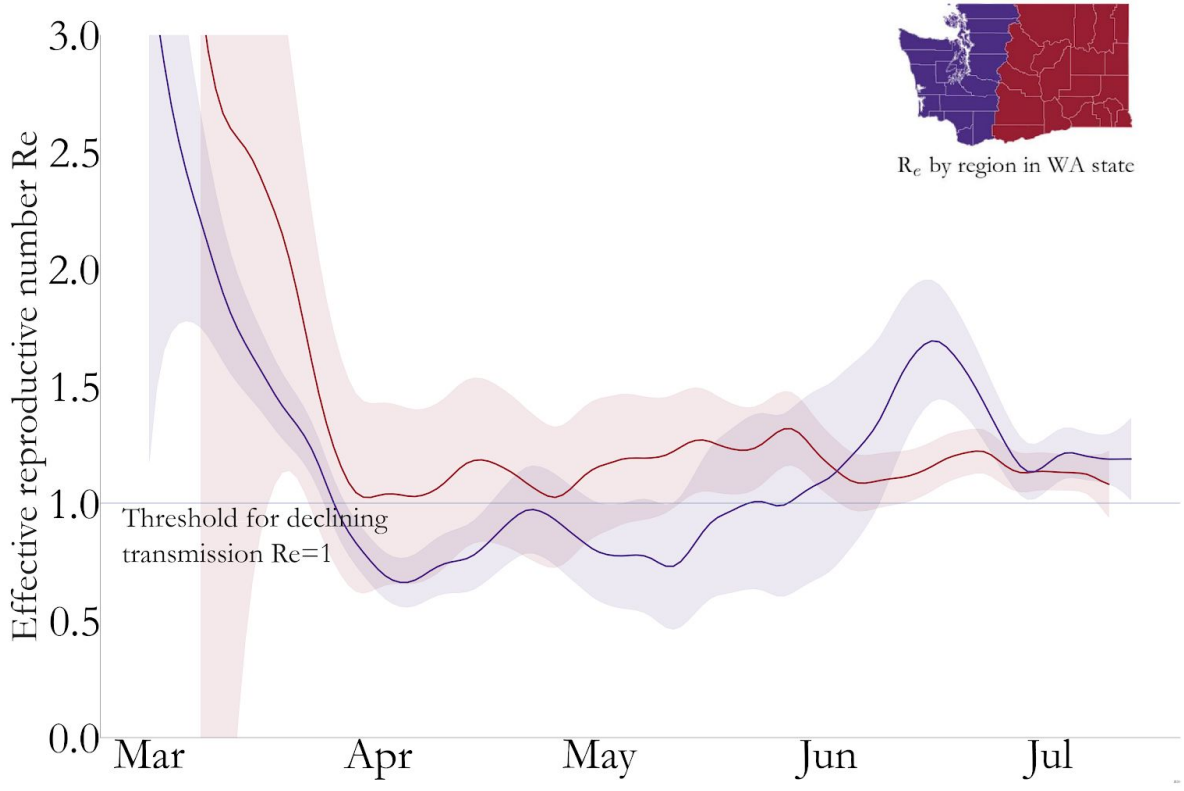


***Figure 1**: Re estimates for Eastern (red) and Western (purple) WA, with 2 standard deviation error bars. Our most recent estimates suggest that Re is above 1 in Western and likely above 1 for Eastern Washington. Overall, this suggests that COVID-19 prevalence will increase across the state in the near future. For details on how these estimates are generated, see our [technical report](#).*

A detailed look at cases by county shows that recent trends in cases are mixed across the state. There are recent indications of declining trends in Yakima, Benton, Franklin, Cowlitz and Clark and flat trends in King and Spokane, but these are counterbalanced by rising trends in Pierce, Kitsap, Chelan, Douglas, Okanogan, and others.

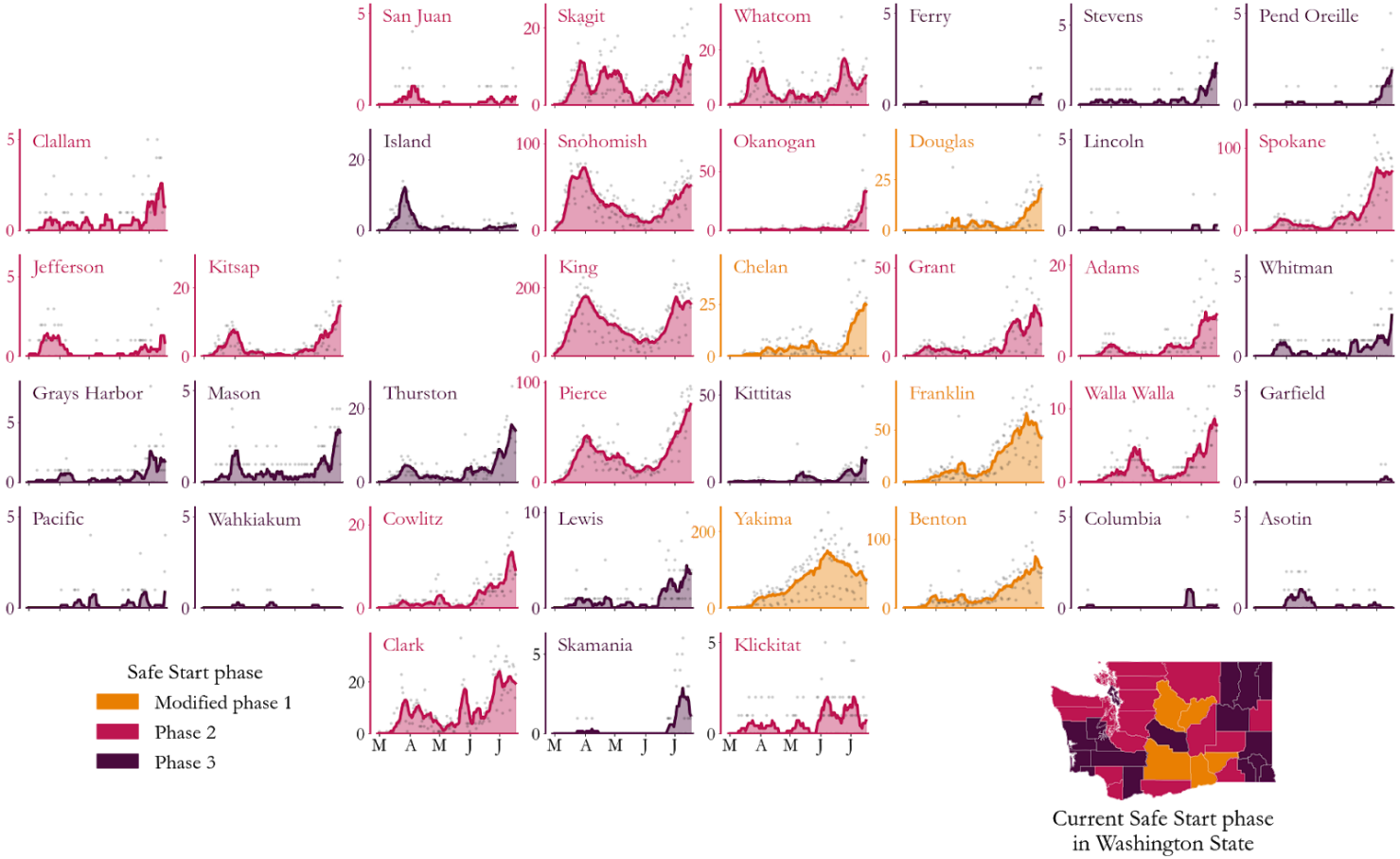


***Figure 2**: Daily COVID-19 positives (dots) and 7-day moving averages (curves) arranged geographically (inspired by this) and colored by Safe Start phase as of July 23. The figure shows that infections are accelerating in many counties, including those in modified phase 1, phase 2, and phase 3. The burden remains at or near local peak levels in most counties across the state.*

Patterns of outbreak growth and control vary widely across the state.

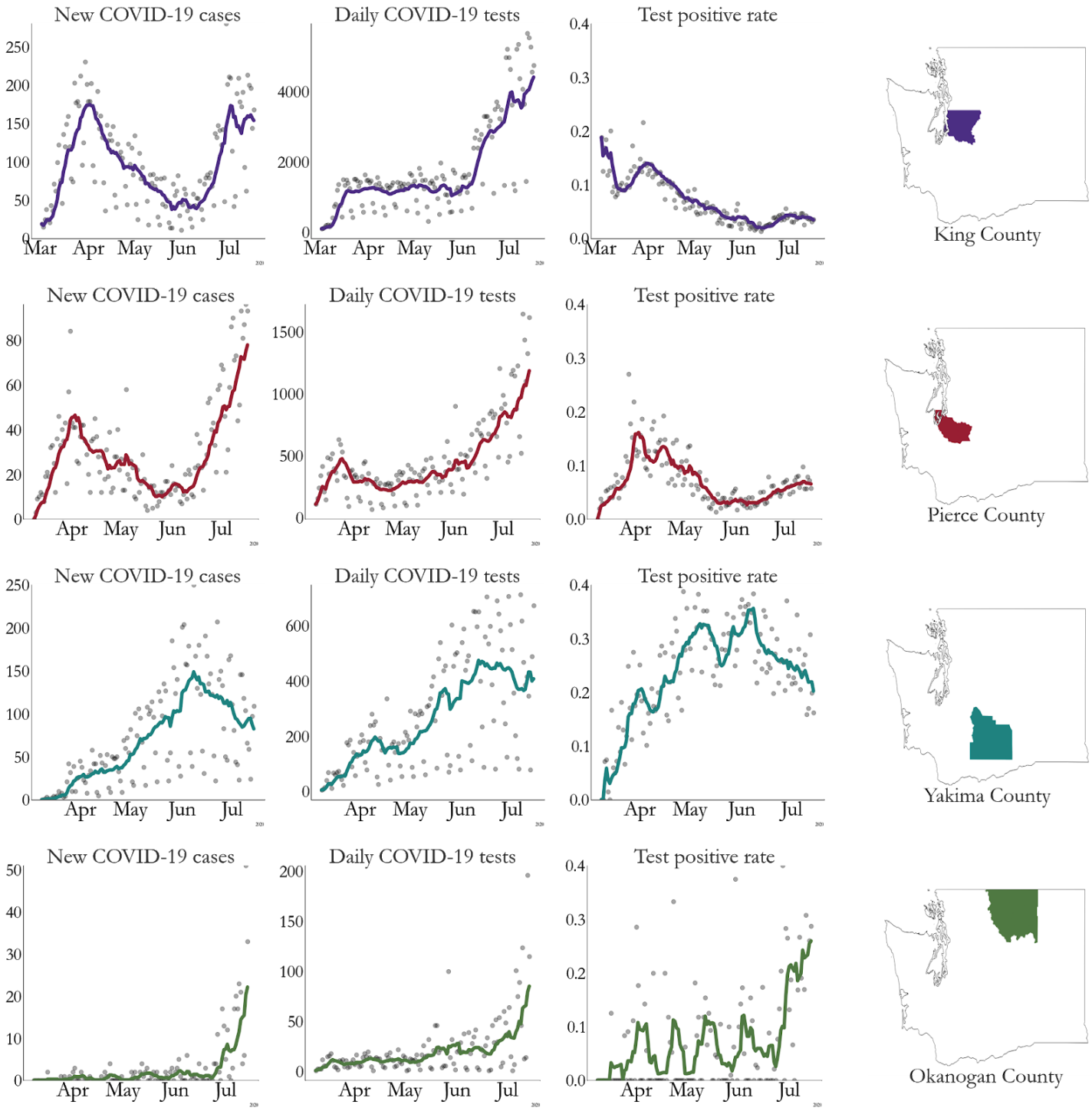


***Figure 3**: Case counts and test-positivity in King, Yakima , Pierce, and Okanogan County. While cases in King County appear to have plateaued, cases in Pierce county continue to increase. Cases count in Yakima continued its recent decline through July 15th. In contrast, Okanogan has been experiencing accelerating exponential growth in COVID-19 burden that has yet to show significant signs of slowing.*

The test positivity rate in eastern WA remains high and is still over three times the positivity in western WA. Both regions have recently reached a new peak in cases.

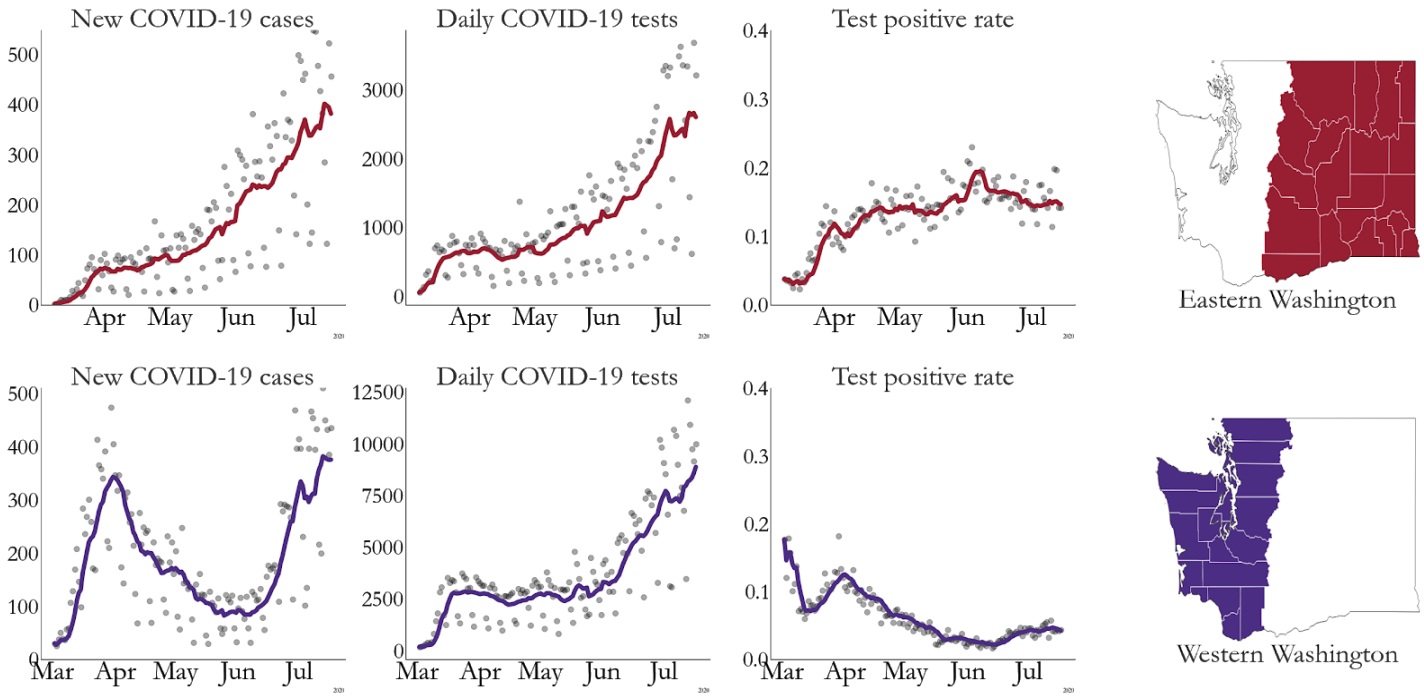


Figure 4*: Cases, total tests performed, and test-positivity (daily data, dots) are smoothed with a 7-day rolling average (curves) to highlight trends. In eastern WA, persistently high test positivity suggests that rising COVID-19 burden and suspicion of exposure is driving much of the increase in testing. In western WA, where test positivity rates have been much lower, the recent rise is consistent with growing disease burden in the community concurrent with recent increases in test availability in Puget Sound.*

In eastern WA, the trend of hospital admissions may be slowing among all age groups. In western WA, the recent trend of increasing hospital admissions across most age ranges and deaths continues.

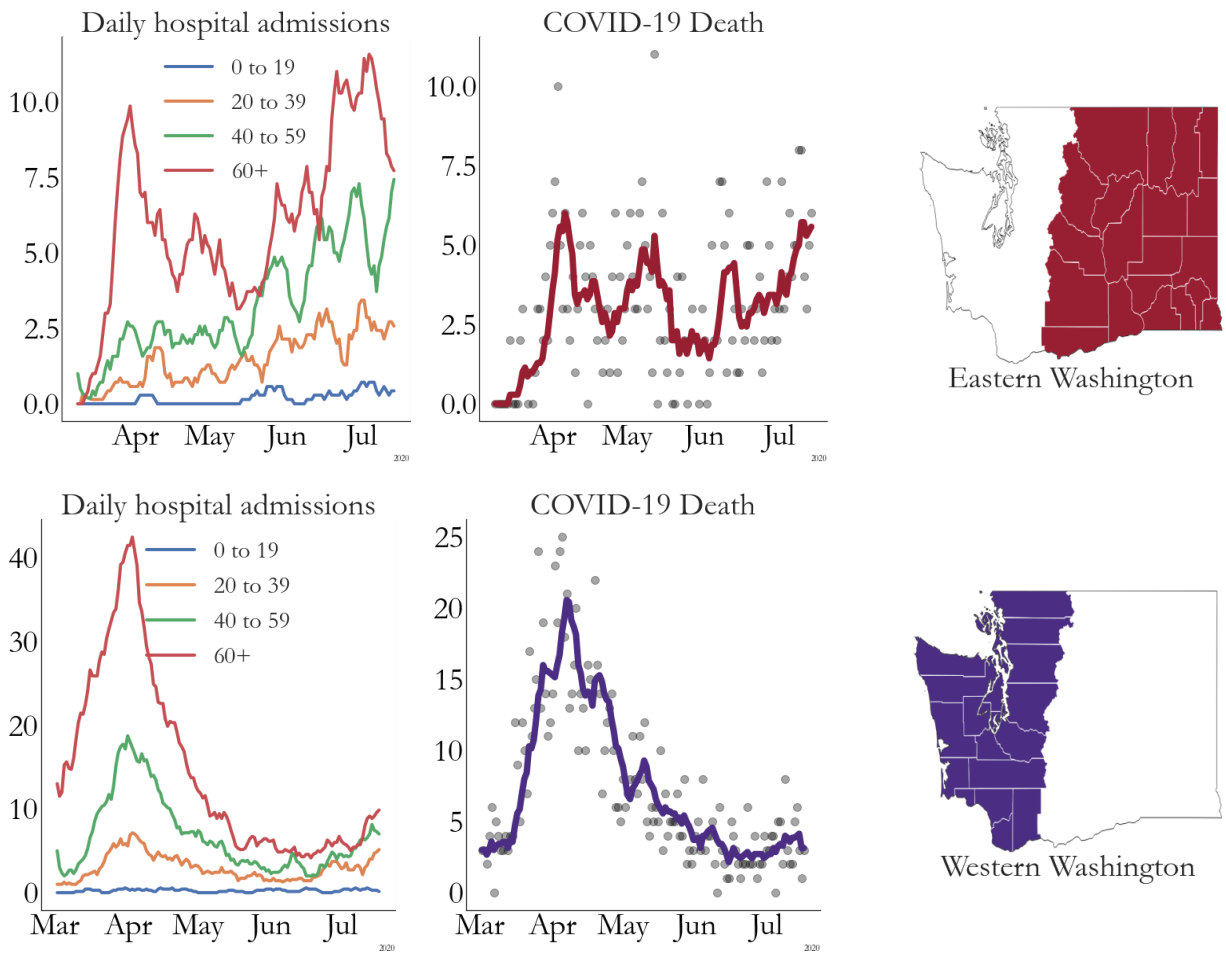


***Figure 5**: Hospitalizations by age group smoothed with a 7-day rolling average (curves) to highlight trends, and total daily deaths (dots) and smoothed (curves). Consistent with the growing case load, hospitalizations are increasing across most age groups and deaths are following. In eastern WA, total hospitalization is at highest levels to date. In western WA, total hospitalization remains lower than in March, but trends are increasing.*

Through July 19, the age distribution continues to broaden in WA, mirroring the pattern seen previously in Florida, albeit with less explosive growth. Still, as cases in older age groups rise, so does the risk for more severe COVID-19 infections.

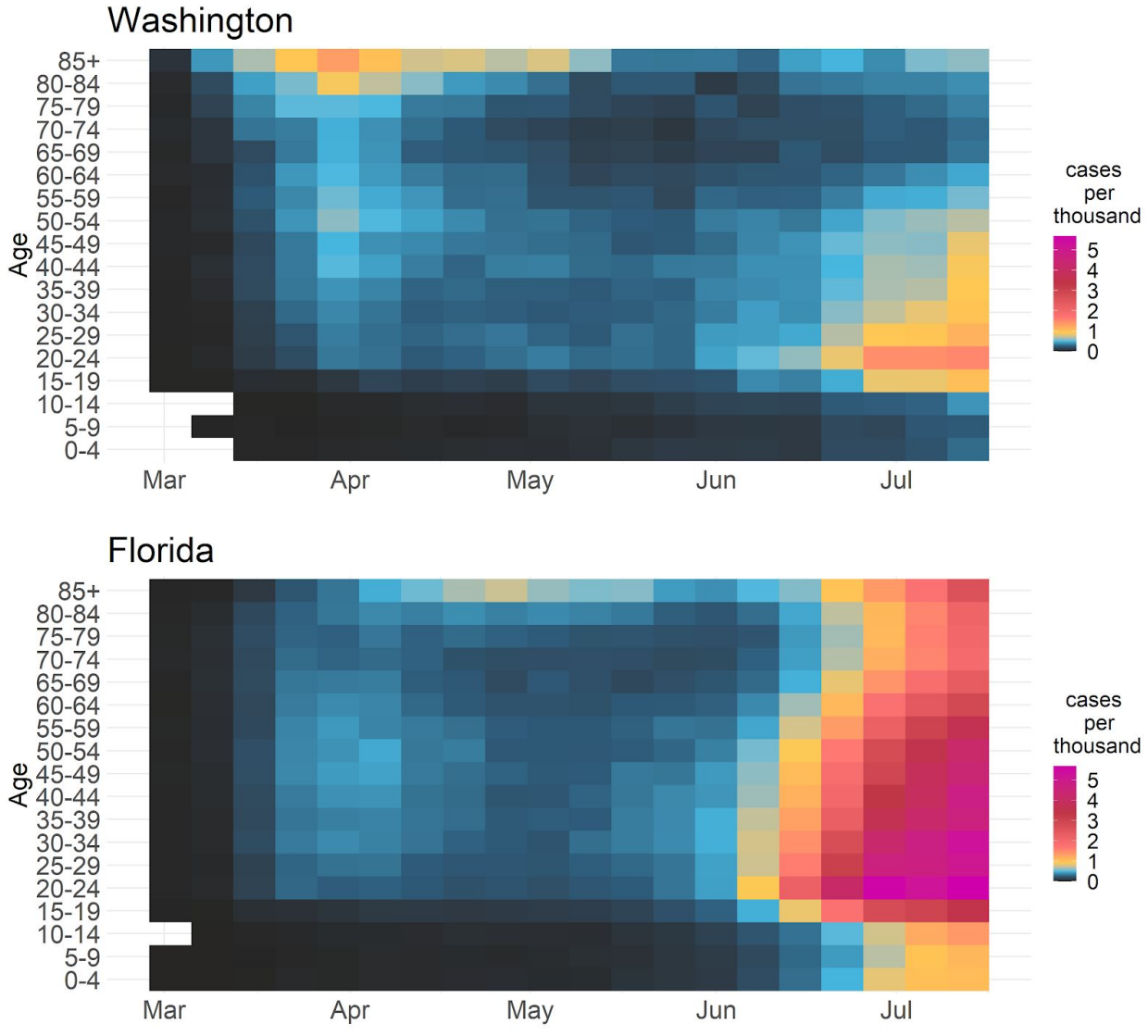


***Figure** 6: Cases per 1000 residents (2018 estimate) by age and week since the start of the COVID-19 epidemic in Washington (top) and Florida (bottom). The rate of growth in Washington State may be slower than in Florida, possibly as a consequence of adherence to masking and physical distancing policies. But exponential growth across a broad age range will likely continue with effective reproductive numbers at current levels across the state. While this figure displays raw case counts and is not adjusted for effects of increased testing over time, which likely differ between the states, the pattern of increasing burden across a wider age range is paralleled in the hospitalization data shown above. (Florida [data publicly available from FDOH](#).)*

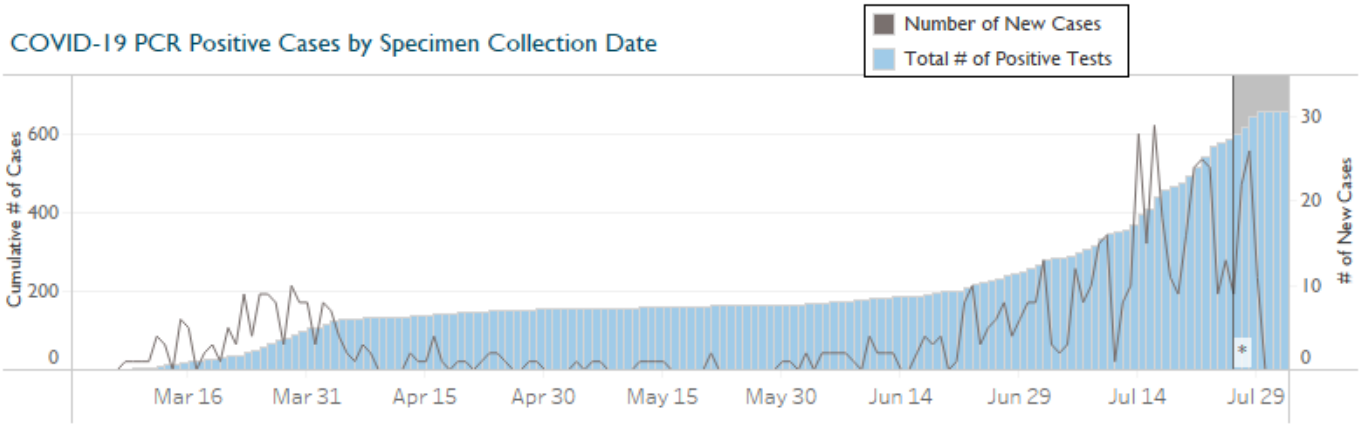
Kitsap COVID-19 Weekly Surveillance Report

KITSAP PUBLIC HEALTH DISTRICT

COVID-19 is an illness caused by a new strain of coronavirus. There were 68 positive COVID-19 tests reported between 7/26/2020 and 8/1/2020, with the total number of Kitsap resident cases at 656. Between 7/19/2020 and 7/25/2020, there were 66 healthcare visits for coronavirus-like illness (CLI). As of August 1, there have been 4 coronavirus-related deaths reported in Kitsap County.

Updated:
August 3, 2020

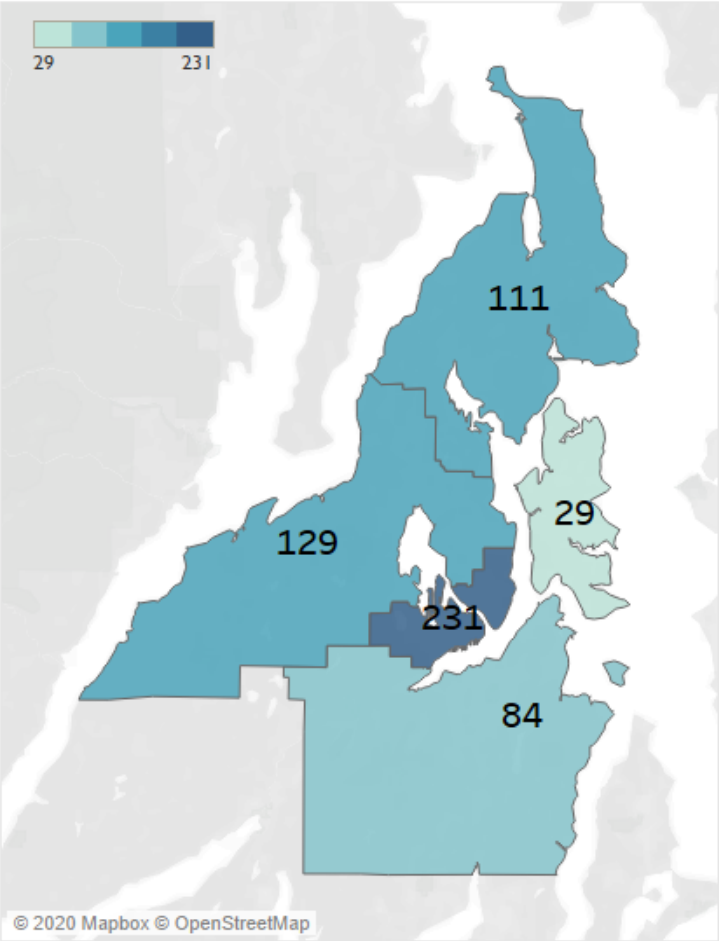
COVID-19 PCR Positive Cases by Specimen Collection Date



COVID-19 PCR Positive Tests Reported by Region

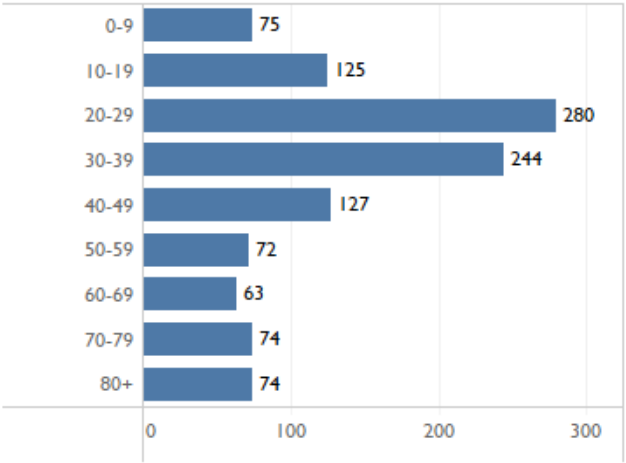
	Kitsap (all regions)	Bainbridge Island	Bremerton	Central Kitsap	North Kitsap	South Kitsap
Total # of Positive Tests	656	20	219	171	117	129

Rate of COVID-19 PCR Positive Cases per 100,000 Residents 6/28/2020 - 7/25/2020



Total Number Tested	19,741
Total Number of Negative Tests	19,085
Total Percent Positive	3%
Total Number of Deaths	4

Rate of COVID-19 PCR Positive Cases by Age Group per 100,000 Residents: 6/28/2020 to 7/25/2020



All data are preliminary and subject to change as more data become available. Test results may be delayed by several days, and negative test results may be delayed longer than positive test results.

Data Source: Washington Department of Health; Washington Disease Reporting System (WDRS), web accessed 8/3/2020

*Grey area in COVID-19 PCR Positive graph indicates incomplete data.

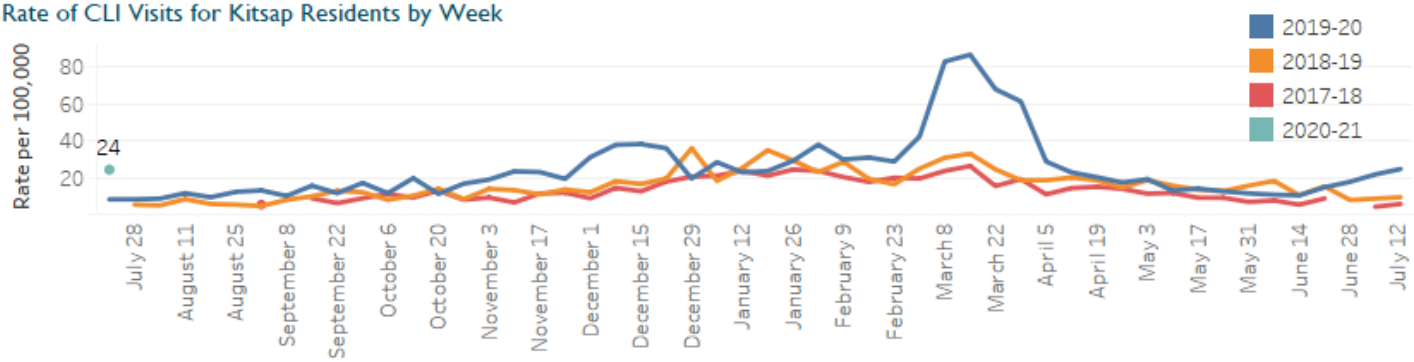
Kitsap Coronavirus-Like Illness (CLI) Weekly Surveillance Report

KITSAP PUBLIC HEALTH DISTRICT

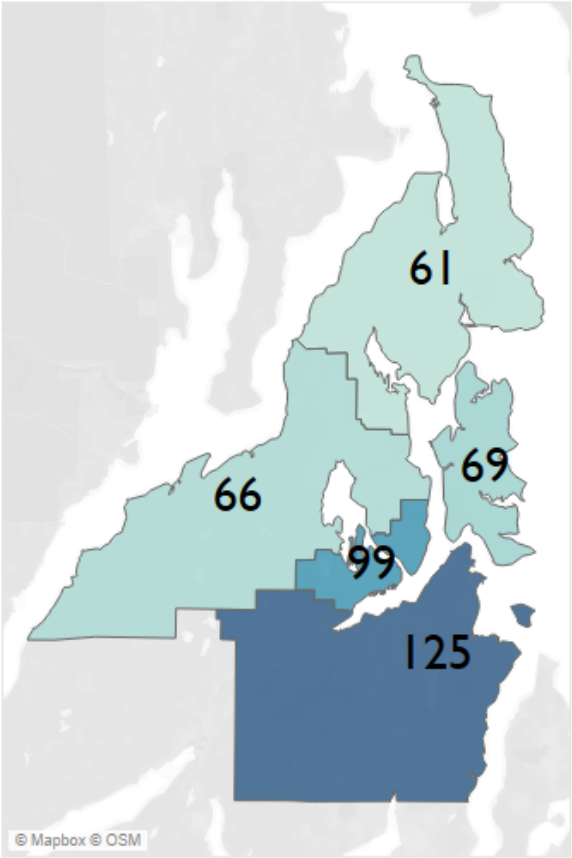
CLI visits are primary, urgent and emergency care visits for fever AND cough or difficulty breathing or shortness of breath, excluding cases diagnosed with influenza, and may not have been a lab-confirmed COVID-19 diagnosis. CLI visits could include visits for other similar respiratory illnesses.

Updated: August 3, 2020

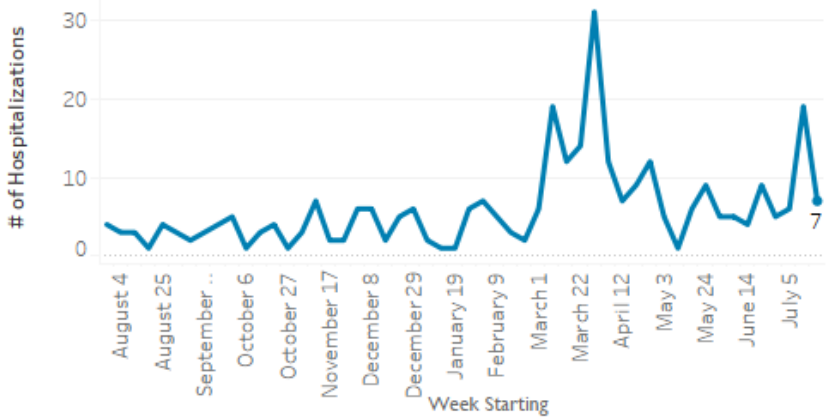
Rate of CLI Visits for Kitsap Residents by Week



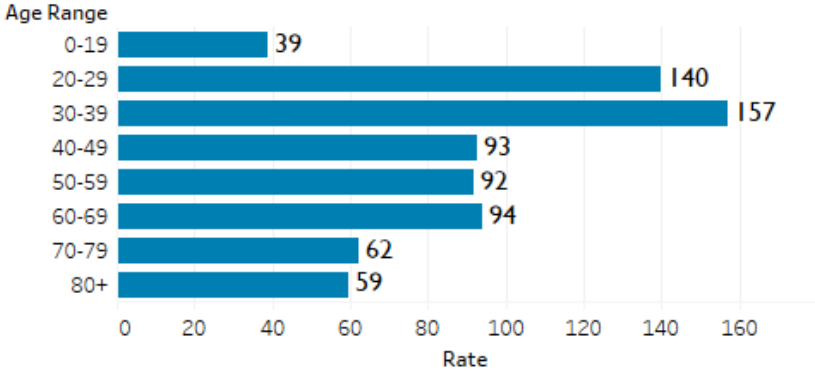
Rate of CLI visits per 100,000 Kitsap Residents by Region of Residence: 6/28/2020 to 7/25/2020



Inpatient Hospital Visits for CLI for Kitsap Residents by Week: 2019-2020



Rate of CLI visits by Age Group per 100,000 Residents: 6/28/2020 to 7/25/2020



Note: ESSENCE data reflects number of visits. This report may not include hospitalizations of military members.

All data are preliminary and subject to change as more data become available.

Data Source: National Synromic Surveillance Program, Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE), Version 1.22, accessed 8/3/2020

For questions or comments about this report, please contact: epi@kitsappublichealth.org

- Kitsap Public Health District: https://kitsappublichealth.org/CommunityHealth/CoronaVirus.php
- WA State COVID-19 Website: https://coronavirus.wa.gov/
- Washington Department of Health COVID-19 Website: https://www.doh.wa.gov/Emergencies/Coronavirus
- CDC Covid-19 Website: https://www.cdc.gov/coronavirus/2019-ncov/index.html
- World Health Organization Covid-19 Website: https://www.who.int/emergencies/diseases/novel-coronavirus-2019

KITSAP COUNTY SAFE START
REPORT CARD

KITSAP PUBLIC HEALTH DISTRICT

The state created targets to help evaluate when counties are ready to move forward under the Safe Start plan for COVID-19 recovery. Kitsap County is in Phase 2 of Safe Start.

UPDATED: July 30 with data available as of July 28.

COVID-19 DISEASE ACTIVITY

Measure	Safe Start Target	Kitsap County	
New COVID-19 cases	< 25 new cases per 100,000 population over 14 days	85 new cases per 100,000 population	✗
Hospitalizations for confirmed COVID-19	Flat or decreasing trend	Increasing trend	✗

HEALTH CARE SYSTEM READINESS

Measure	Safe Start Target	Kitsap County	
% of hospital beds occupied	< 80%	62%	✓
% of hospital beds occupied with confirmed or suspected COVID-19 cases	< 10%	1.8%	✓

COVID-19 TESTING ACTIVITY

Measure	Safe Start Target	Kitsap County	
Average % positive per week	< 2% of tests positive	8.4% positive	✗
Median time from symptom onset to testing (specimen collection date) for confirmed cases	< 2 days	3 days	✗

CASE INVESTIGATIONS AND CONTACT TRACING

Measure	Safe Start Target	Kitsap County	
% of cases reached within 24 hours of report	> 90%	89%	✗
% close contacts reached within 48 hours	> 80%	82%	✓
% of cases reached every day during isolation	> 80%	73%	✗
% of close contacts reached every day during 14-day quarantine	> 80%	66%	✗

PROTECTING HIGH-RISK POPULATIONS

Measure	Safe Start Target	Kitsap County	
Outbreaks reported in past week	< 2	4	✗

FIND MORE DETAIL: View our COVID-19 Risk Assessment Dashboard at kitsappublichealth.org