

COVID-19 morbidity and mortality by race, ethnicity and spoken language in Washington state

Washington State Department of Health

September 22, 2021



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NOTE: Beginning the week of December 23, 2020, probable cases are included in the metrics calculated for morbidity and mortality associated with race, ethnicity, and spoken language. Probable cases are individuals with a positive antigen test for COVID-19. Also, as of December 16, 2020, probable cases are included in all case, hospitalization, and death counts on the Washington State Department of Health COVID-19 dashboard. Probable cases since June 2020, when the first antigen results were reported in Washington, are now included in the dashboard. This places the report on “COVID-19 Morbidity and Mortality by Race, Ethnicity and Spoken Language in Washington State” in alignment with the Washington State Department of Health COVID-19 Data Dashboard.

Overview

The impacts of COVID-19 morbidity and mortality have not been felt equally by all populations in Washington state. The pandemic has exacerbated the underlying and persistent inequities among historically marginalized communities and those disproportionately impacted due to structural racism and other forms of systemic oppression. This report provides an overview of confirmed or probable COVID-19 case, hospitalization, and death rates by race and ethnicity at state and regional levels. It also provides counts and percentages of confirmed or probable cases and hospitalizations by primary language spoken. Throughout this report, the COVID-19 case definition includes both molecular testing and antigen testing. Molecular positive cases are considered confirmed cases and antigen positive cases are considered probable cases. All hospitalization, death, and testing data reported here are based on positive molecular or antigen test results.

All rates presented in this report are adjusted for age using the Washington state population distribution based on the Office of Financial Management’s (OFM) April 1, 2020 population estimates by age, sex, race, and Hispanic origin. The rate calculations are for the population groups available from OFM for the Washington state population and follow Department of Health guidelines. Hispanic ethnicity was assigned first, regardless of race, and then racial groups were identified for those identifying as non-Hispanic. Based on this, the current report includes the following groups:

- Hispanic; and

- non-Hispanic race categorizations for white, Black, Native Hawaiian and Pacific Islander, Asian, and American Indian/Alaska Native.

While this allows assessment of data by race and ethnicity groups, this categorization is incomplete and does not reflect the diversity of people and experiences across the state. Additionally, there is a significant lack of race and ethnicity reporting for confirmed or probable COVID-19 cases and hospitalizations (about 47% missing) and for deaths (about 0% missing). Primary language spoken is missing for about 63% of cases and hospitalizations. Age information is missing for a small percentage of confirmed or probable cases (about 0.1%), and these cases are not included in age-adjusted rates. The lack of data limits our ability to draw firm conclusions; however, there are some concerning patterns reported below.

Cumulative age-adjusted confirmed or probable COVID-19 case, hospitalization, and death rates by race and ethnicity per 100,000 population

The table and figures below describe the counts and age-adjusted rates per 100,000 population in Washington by race and ethnicity for confirmed or probable cases, hospitalizations, and deaths for the entire time period from the start of the pandemic through 2021-09-20 based on the specimen collection date. 95% confidence intervals are included in the charts.

The data show that communities of color are disproportionately impacted by COVID-19 in significant ways, including the following.

COVID-19 confirmed or probable case rates

- Native Hawaiian and Other Pacific Islander (NHOPI) and Hispanic populations have the highest age-adjusted confirmed or probable case rates while Asian and multiracial populations have the lowest case rates.
- Confirmed or probable case rates for NHOPI and Hispanic populations are approximately three times higher than case rates for Asian and multiracial populations.
- Confirmed or probable case rates for Black populations are approximately two times higher than case rates among Asian and multiracial populations.

COVID-19 hospitalization rates among confirmed or probable cases

- Hospitalization rates among confirmed or probable COVID-19 cases are the highest for NHOPI populations and lowest for white populations.
- NHOPI hospitalization rates among confirmed or probable COVID-19 cases are approximately eight times higher than white populations.
- Hispanic hospitalization rates among confirmed or probable COVID-19 cases are approximately four times higher than white populations.
- Hospitalization rates among confirmed or probable COVID-19 cases for Black and American Indian and Alaska Native (AIAN) populations are approximately 2.5 times higher compared to white populations.

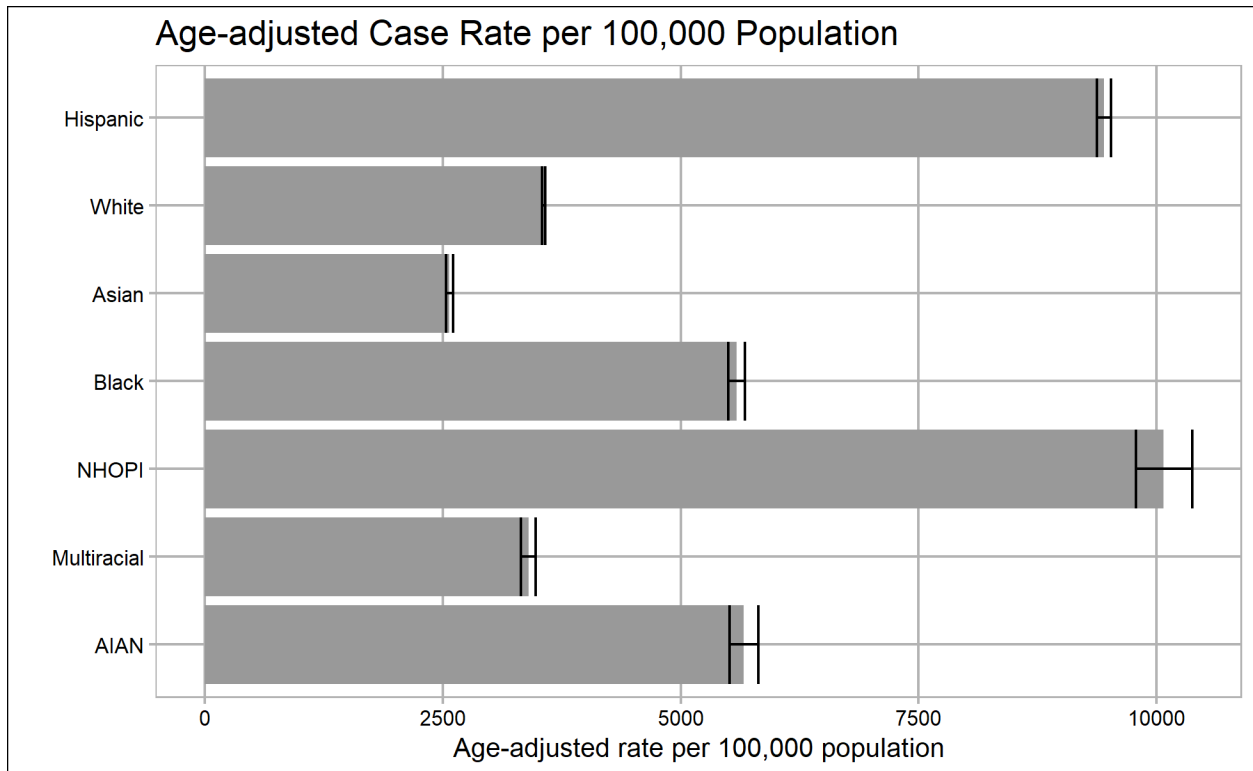
COVID-19 death rates among confirmed or probable cases

- White populations have the lowest death rates among confirmed or probable COVID-19 cases of all race/ethnicity groups.
- NHOPI populations have death rates among confirmed or probable COVID-19 cases that are approximately six times higher than white populations.
- AIAN and Hispanic populations have death rates among confirmed or probable COVID-19 cases that are three times higher than white populations.
- Black populations have death rates among confirmed or probable COVID-19 cases that are about twice as high as white populations.

Table 1. Confirmed or probable COVID-19 case, hospitalization, and death count and age-adjusted rates by race/ethnicity

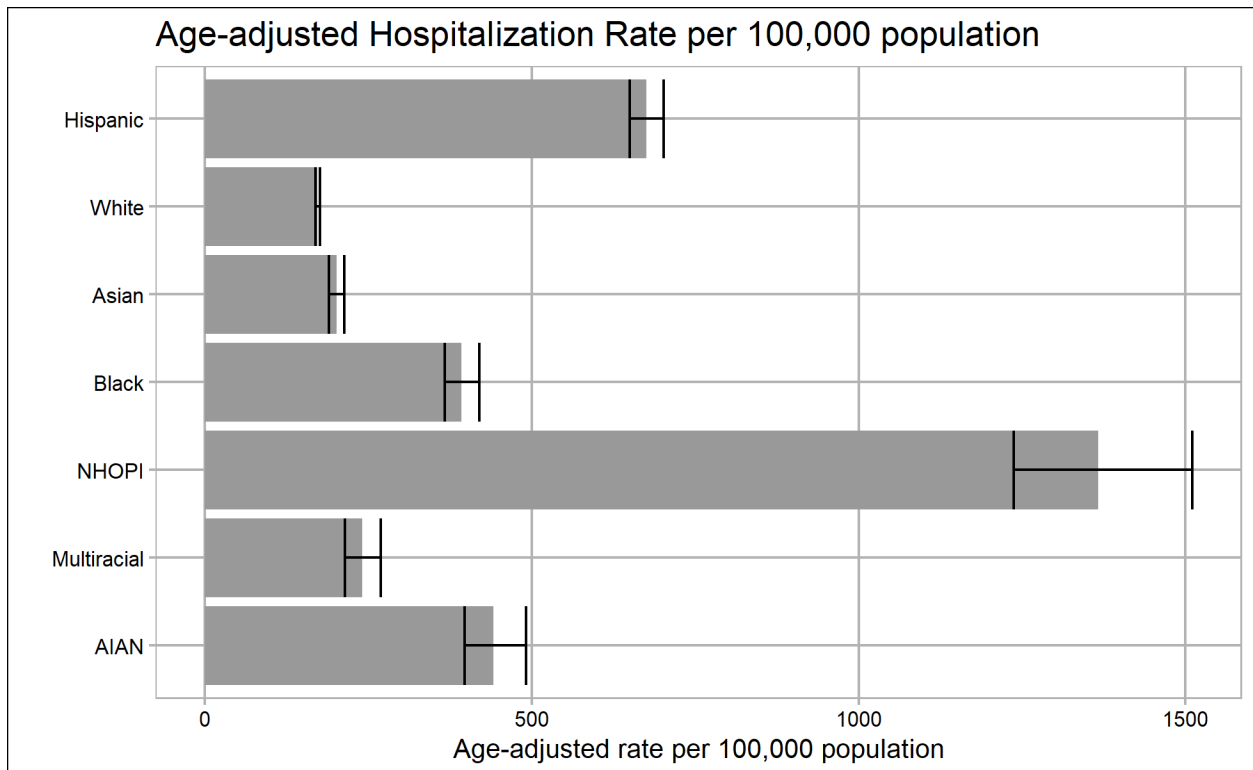
Race/Ethnicity	Case Count	Age-Adjusted Case Rate per 100,000	Hospitalization Count	Age-Adjusted Hospitalization Rate per 100,000	Death Count	Age-Adjusted Death Rate per 100,000
All Races	630,495	8235.1	35,378	462.1	7,314	95.5
Unknown	298,298		17,630		13	
Hispanic	90,474	9450	3,659	675.6	768	230.9
White	178,918	3561.7	10,356	172.3	4,481	68.8
Asian	18,935	2569.9	1,197	201	469	95.6
Black	17,626	5586.7	951	392.2	221	127.6
NHOPI	5,611	10074.6	522	1366.5	114	403.7
Multiracial	10,085	3397.9	371	240.2	97	92.1
AIAN	5,433	5661.8	370	441.6	144	214.1
Other	5,115		322		95	

The following graph indicates the age-adjusted confirmed or probable COVID-19 case rate per 100,000 population by race/ethnicity during the time period 2020-01-19 to 2021-09-20



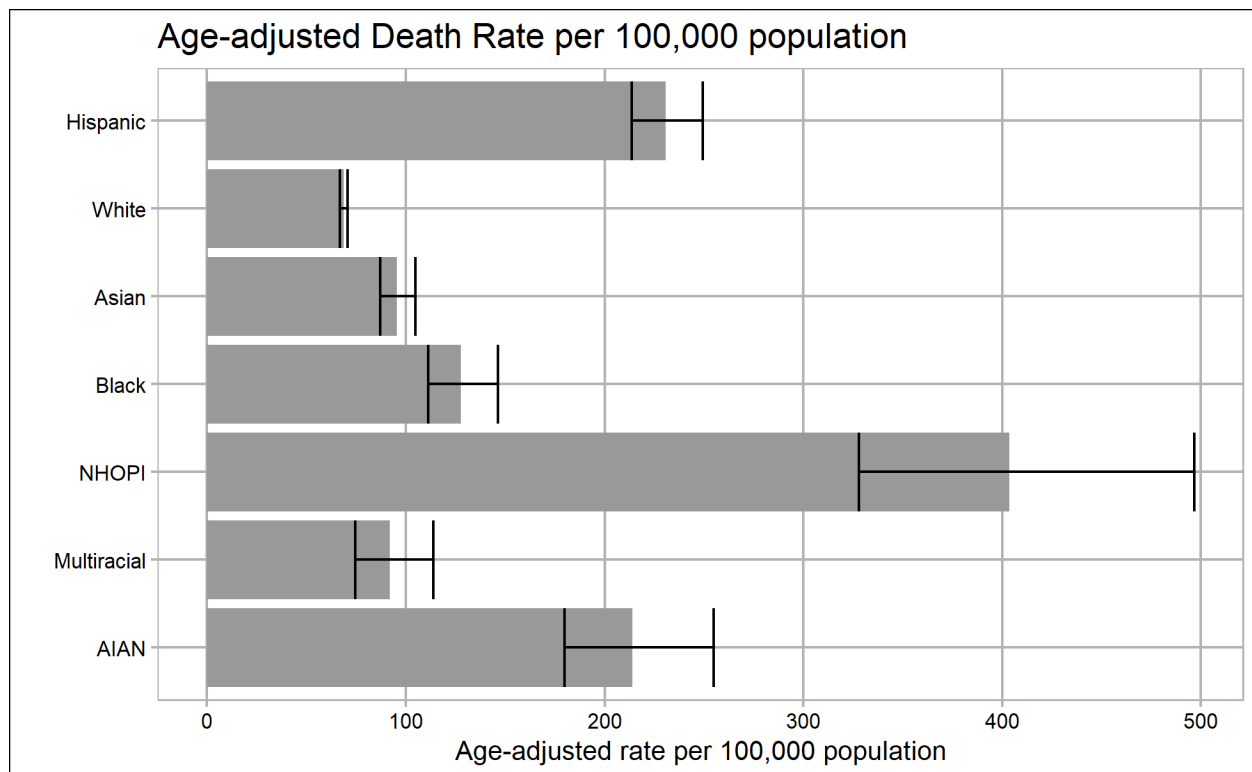
Source: Washington Disease Reporting System (WDRS)

The following graph indicates the age-adjusted hospitalization rate among confirmed or probable COVID-19 cases per 100,000 population by race/ethnicity during the time period 2020-01-19 to 2021-09-20



Source: Washington Disease Reporting System (WDRS)

The following graph indicates the age-adjusted death rate among confirmed or probable COVID-19 cases per 100,000 population by race/ethnicity during the time period 2020-01-19 to 2021-09-20



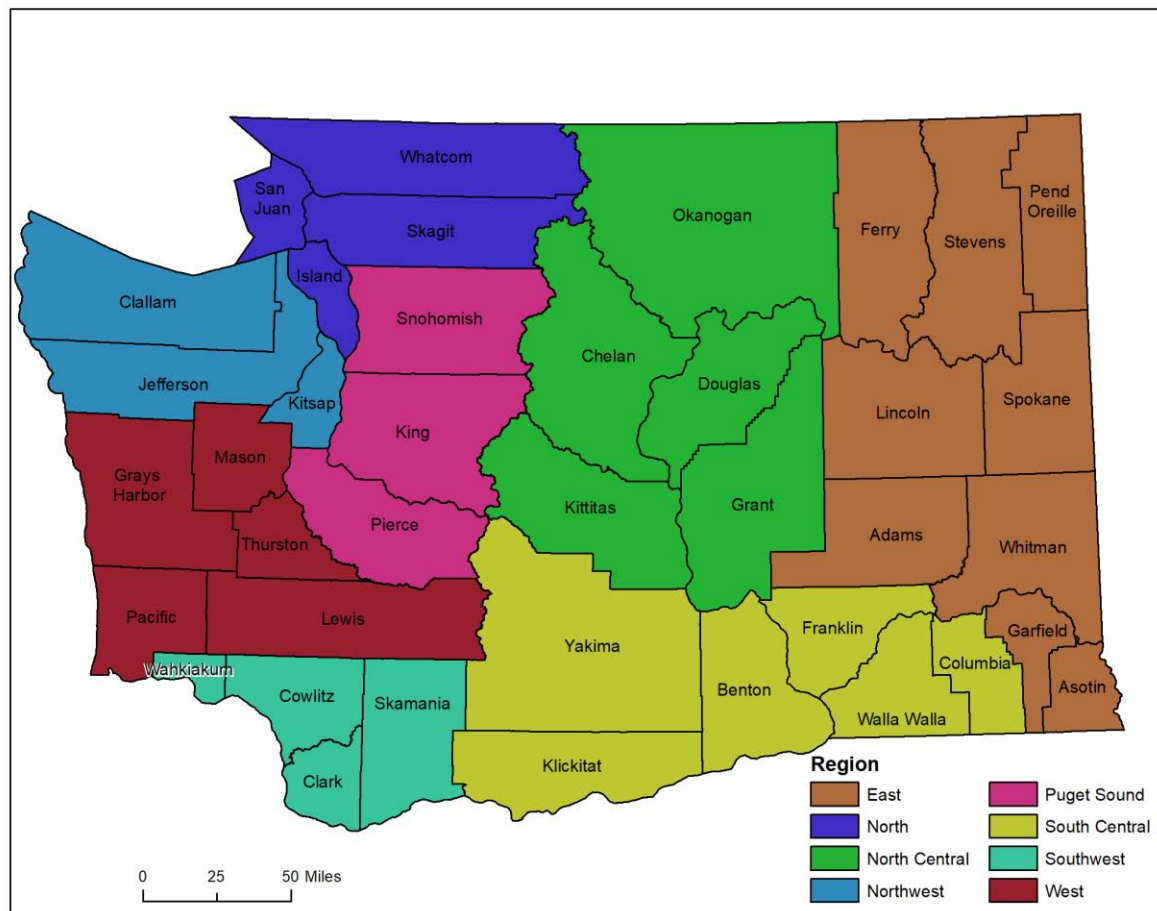
Source: Electronic Death Registration System (EDRS) and Washington Health and Life Events System (WHALES)

Analysis of confirmed or probable COVID-19 cases, hospitalizations, and deaths by geographic region

Regional groupings of Washington state counties

Some counties may not have sufficient case counts to analyze trends by race and ethnicity. In order to incorporate data from counties of all sizes, counties were assigned into one of 8 analytic regions (see Map of Washington Counties and Analysis Regions below). The regions presented were developed by the Washington State Department of Health in order to better understand geographic differences in disease spread and how disease spread may be changing over time. While infection rates may not be the same within any given region, this regional grouping allows for more specific geographic analyses without excluding any counties or communities due to concerns about smaller numbers.

Map of Washington counties by DOH analysis regions



Missing race/ethnicity data by region

The Puget Sound, East, and North Central regions have the highest percentage of missing race/ethnicity data among confirmed or probable COVID-19 cases and the North region has the lowest percentage of missing data on race/ethnicity, as indicated in the following table. The total number of confirmed or probable cases, and the number and percentage of confirmed or probable cases with missing data are shown in Table 2.

Table 2. Counts and percentage of confirmed or probable COVID-19 cases with unknown race/ethnicity by DOH analytic region.

Region	Case Count	Cases with Unknown Race/Ethnicity	% Cases with Unknown Race/Ethnicity
East	80,513	42,945	53%
North	26,406	7,909	30%

Region	Case Count	Cases with Unknown Race/Ethnicity	% Cases with Unknown Race/Ethnicity
North Central	37,185	18,801	51%
Northwest	18,876	8,929	47%
Puget Sound	283,721	141,356	50%
South Central	95,638	40,882	43%
Southwest	48,162	19,771	41%
West	38,837	17,231	44%
Unknown	1,685	788	47%

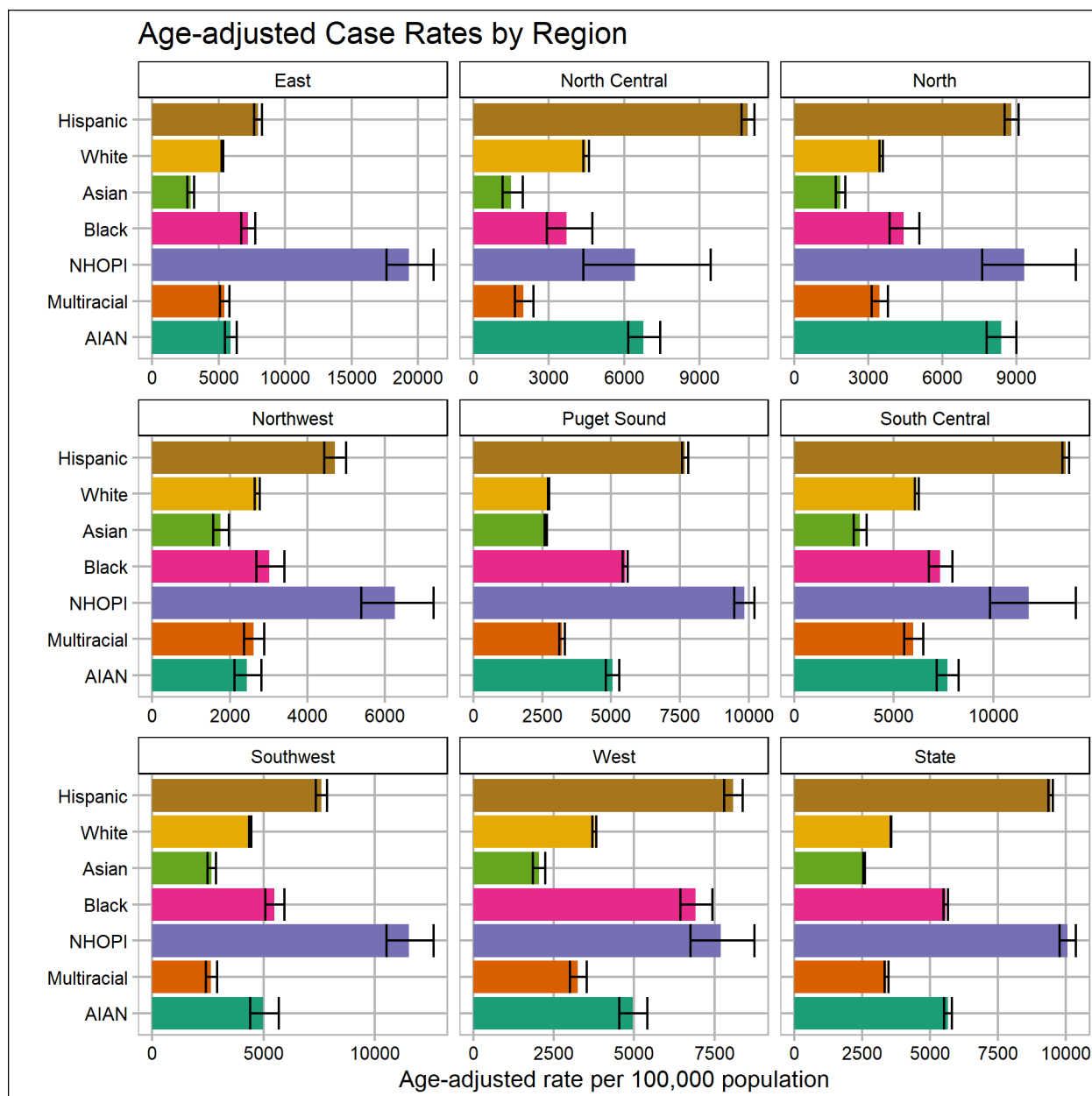
*Source: Washington Disease Reporting System (WDRS)
Includes data from 2020-01-19 to 2021-09-20*

Cumulative age-adjusted confirmed or probable COVID-19 case rates by race, ethnicity, and analytic region

The following figures describe the age-adjusted confirmed or probable COVID-19 case rates per 100,000 population by race/ethnicity and region. They were calculated using the confirmed or probable cases with known race/ethnicity (about 53% of all reported cases).

It is important to note that the numeric scale differs across regions, so use caution when comparing two or more regions, as their scales may differ. The last figure (lower right corner) presents the age-adjusted confirmed or probable COVID-19 case rates for the whole state.

These data indicate that COVID-19 is found in significant numbers across racial and ethnic groups throughout the state, and it is not confined to certain areas, such as rural, urban, or suburban regions. Population centers in Puget Sound contribute substantially to the counts. However less populated regions, like South Central Washington, show larger rate differences by race/ethnicity, although they have smaller populations of racial and ethnic minorities. Further, while extreme disparities exist, people of all races and ethnicities are impacted.

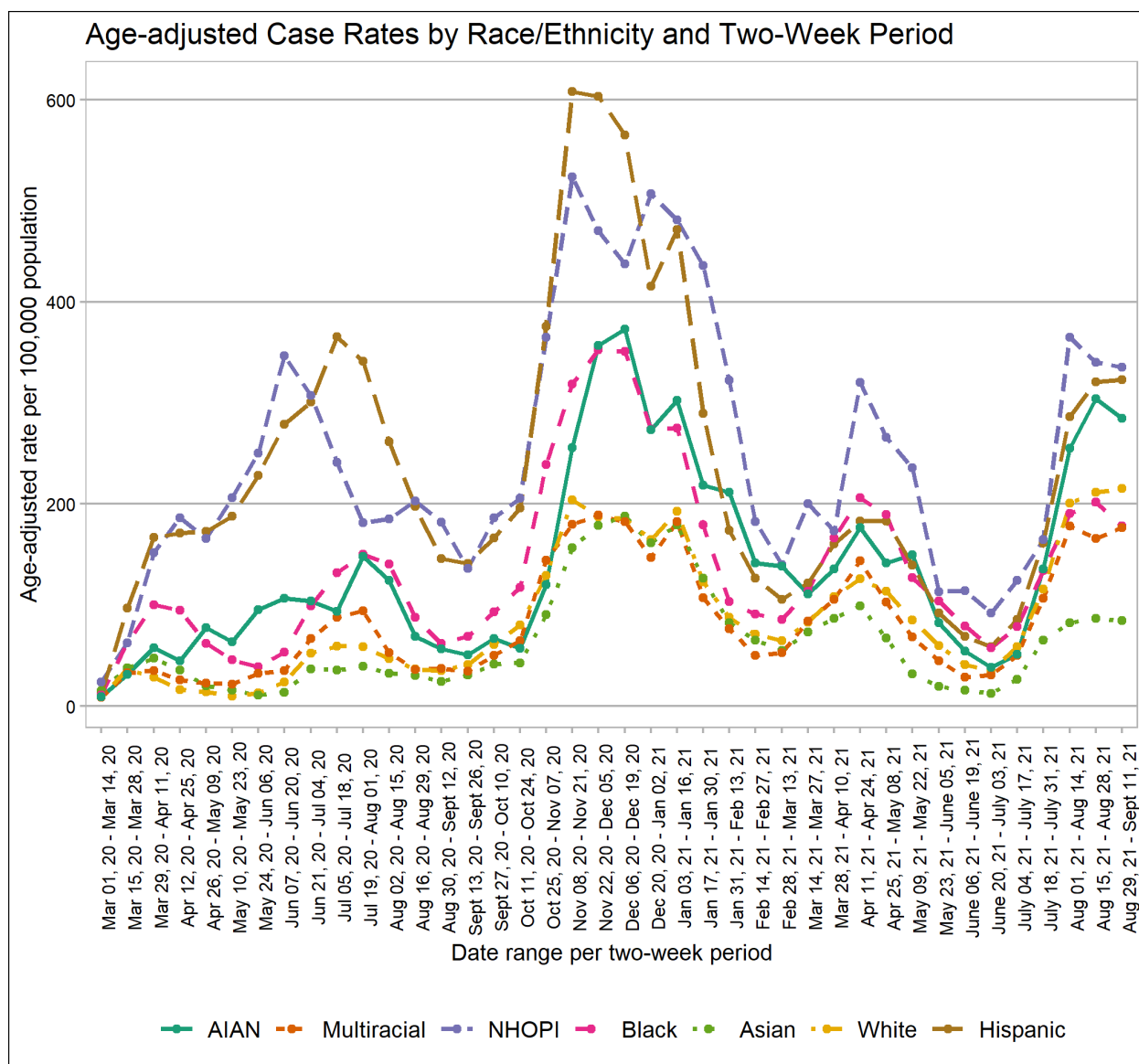


Source: Washington Disease Reporting System (WDRS)

Includes data from 2020-01-19 to 2021-09-20

Age-adjusted confirmed or probable COVID-19 case rates by race and ethnicity per two-week period (Mar 2020-September* 2021)

*September 2021 data include all confirmed or probable cases with a specimen collection date through 2021-09-11 to include the most recent, complete two-week period of data collection.



Confirmed or probable COVID-19 case rates, adjusted for age by race and ethnicity, were calculated to better understand how race- and ethnicity-specific patterns may be changing over time by two-week period. Race/ethnicity-specific counts and age-adjusted rates increased for all race/ethnicity groups through July and early August 2020. All groups declined from early August to mid/late-August and flattened through September 2020. All race/ethnicity-age-adjusted rates began to rapidly increase in mid-October through the end of November. Rates of confirmed or probable cases remain highest for Hispanic and NHOPI population, and higher Black and AIAN populations in comparison to white, Asian, and multiracial populations.

Table 3. Age-adjusted confirmed or probable COVID-19 case rates by race and ethnicity per two-week period (Mar 1, 2020 - September 11, 2021)

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Hispanic	Mar 01, 20-Mar 14, 20	88	12.5	9.8	16.0
	Mar 15, 20-Mar 28, 20	658	96.8	88.5	105.9
	Mar 29, 20-Apr 11, 20	1,154	166.9	155.7	178.8
	Apr 12, 20-Apr 25, 20	1,326	171.2	160.6	182.6
	Apr 26, 20-May 09, 20	1,438	173.0	162.6	184.0
	May 10, 20-May 23, 20	1,652	187.7	177.4	198.7
	May 24, 20-Jun 06, 20	1,920	228.5	216.5	241.2
	Jun 07, 20-Jun 20, 20	2,385	278.7	265.6	292.6
	Jun 21, 20-Jul 04, 20	2,709	301.1	287.7	315.1
	Jul 05, 20-Jul 18, 20	3,445	365.3	351.0	380.0
	Jul 19, 20-Aug 01, 20	3,211	341.4	327.6	355.7
	Aug 02, 20-Aug 15, 20	2,439	261.5	249.5	274.2
	Aug 16, 20-Aug 29, 20	1,852	197.8	187.4	208.9
	Aug 30, 20-Sept 12, 20	1,375	146.0	137.0	155.6
	Sept 13, 20-Sept 26, 20	1,295	141.2	132.2	150.8

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Sept 27, 20-Oct 10, 20	1,574	166.1	156.6	176.2
	Oct 11, 20-Oct 24, 20	1,893	196.0	185.9	206.6
	Oct 25, 20-Nov 07, 20	3,639	375.5	361.3	390.3
	Nov 08, 20-Nov 21, 20	5,733	608.3	590.0	627.3
	Nov 22, 20-Dec 05, 20	5,810	603.3	585.2	622.0
	Dec 06, 20-Dec 19, 20	5,365	565.0	547.3	583.3
	Dec 20, 20-Jan 02, 21	3,941	415.5	400.3	431.2
	Jan 03, 21-Jan 16, 21	4,641	471.5	455.8	487.9
	Jan 17, 21-Jan 30, 21	2,729	289.8	277.0	303.3
	Jan 31, 21-Feb 13, 21	1,688	173.9	164.2	184.2
	Feb 14, 21-Feb 27, 21	1,269	126.6	118.6	135.2
	Feb 28, 21-Mar 13, 21	1,077	105.3	98.2	113.0
	Mar 14, 21-Mar 27, 21	1,263	121.6	114.0	129.7
	Mar 28, 21-Apr 10, 21	1,722	160.3	151.7	169.4
	Apr 11, 21-Apr 24, 21	2,019	182.8	173.9	192.1
	Apr 25, 21-May 08, 21	1,994	183.3	174.2	192.9

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
White	May 09, 21-May 22, 21	1,558	139.6	131.8	147.9
	May 23, 21-June 05, 21	993	92.2	85.7	99.3
	June 06, 21-June 19, 21	703	69.1	63.2	75.5
	June 20, 21-July 03, 21	588	58.5	53.0	64.7
	July 04, 21-July 17, 21	835	85.4	78.6	92.8
	July 18, 21-July 31, 21	1,688	161.7	152.9	171.0
	Aug 01, 21-Aug 14, 21	3,052	286.3	274.7	298.5
	Aug 15, 21-Aug 28, 21	3,320	320.8	308.0	334.0
	Aug 29, 21-Sept 11, 21	3,363	323.1	310.2	336.5
	Mar 01, 20-Mar 14, 20	510	8.6	7.9	9.4
	Mar 15, 20-Mar 28, 20	2,071	36.7	35.2	38.4
	Mar 29, 20-Apr 11, 20	1,615	28.7	27.3	30.2
	Apr 12, 20-Apr 25, 20	920	16.2	15.2	17.3
	Apr 26, 20-May 09, 20	785	13.9	13.0	14.9
	May 10, 20-May 23, 20	540	9.8	9.0	10.7
	May 24, 20-Jun 06, 20	693	13.2	12.2	14.2

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Jun 07, 20-Jun 20, 20	1,227	23.7	22.4	25.1
	Jun 21, 20-Jul 04, 20	2,590	52.4	50.4	54.5
	Jul 05, 20-Jul 18, 20	2,982	59.2	57.0	61.3
	Jul 19, 20-Aug 01, 20	2,997	58.5	56.4	60.6
	Aug 02, 20-Aug 15, 20	2,377	46.8	45.0	48.8
	Aug 16, 20-Aug 29, 20	1,858	36.9	35.2	38.6
	Aug 30, 20-Sept 12, 20	1,765	34.9	33.3	36.6
	Sept 13, 20-Sept 26, 20	2,101	40.9	39.2	42.7
	Sept 27, 20-Oct 10, 20	3,080	60.8	58.7	63.0
	Oct 11, 20-Oct 24, 20	4,096	80.3	77.9	82.9
	Oct 25, 20-Nov 07, 20	6,563	129.1	126.0	132.3
	Nov 08, 20-Nov 21, 20	10,359	203.9	199.9	207.9
	Nov 22, 20-Dec 05, 20	9,597	187.6	183.9	191.5
	Dec 06, 20-Dec 19, 20	9,517	185.2	181.5	189.0
	Dec 20, 20-Jan 02, 21	8,428	164.8	161.2	168.4
	Jan 03, 21-Jan 16, 21	9,746	192.9	189.1	196.8

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Jan 17, 21-Jan 30, 21	6,195	122.9	119.8	126.0
	Jan 31, 21-Feb 13, 21	4,388	87.6	85.0	90.3
	Feb 14, 21-Feb 27, 21	3,537	70.9	68.6	73.3
	Feb 28, 21-Mar 13, 21	3,186	64.6	62.4	66.9
	Mar 14, 21-Mar 27, 21	4,065	83.1	80.5	85.7
	Mar 28, 21-Apr 10, 21	5,246	108.1	105.1	111.1
	Apr 11, 21-Apr 24, 21	6,121	126.1	123.0	129.4
	Apr 25, 21-May 08, 21	5,504	113.8	110.8	116.9
	May 09, 21-May 22, 21	4,163	85.3	82.7	87.9
	May 23, 21-June 05, 21	2,906	59.6	57.5	61.9
	June 06, 21-June 19, 21	2,034	41.0	39.2	42.9
	June 20, 21-July 03, 21	1,751	35.2	33.6	36.9
	July 04, 21-July 17, 21	2,899	59.0	56.9	61.2
	July 18, 21-July 31, 21	5,750	115.6	112.6	118.7
	Aug 01, 21-Aug 14, 21	9,927	201.0	197.1	205.1
	Aug 15, 21-Aug 28, 21	10,510	211.6	207.5	215.7

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Asian	Aug 29, 21-Sep 11, 21	10,640	215.4	211.3	219.6
	Mar 01, 20-Mar 14, 20	93	15.0	12.1	18.6
	Mar 15, 20-Mar 28, 20	260	37.5	33.1	42.6
	Mar 29, 20-Apr 11, 20	330	47.6	42.6	53.2
	Apr 12, 20-Apr 25, 20	247	35.6	31.4	40.5
	Apr 26, 20-May 09, 20	143	20.2	17.1	24.0
	May 10, 20-May 23, 20	111	15.6	12.9	18.9
	May 24, 20-Jun 06, 20	79	10.7	8.6	13.4
	Jun 07, 20-Jun 20, 20	98	13.7	11.2	16.8
	Jun 21, 20-Jul 04, 20	271	36.7	32.5	41.5
	Jul 05, 20-Jul 18, 20	261	35.4	31.3	40.2
	Jul 19, 20-Aug 01, 20	284	39.2	34.8	44.2
	Aug 02, 20-Aug 15, 20	240	32.3	28.4	36.8
	Aug 16, 20-Aug 29, 20	225	30.2	26.4	34.5
	Aug 30, 20-Sept 12, 20	177	24.5	21.0	28.5
	Sept 13, 20-Sept 26, 20	221	30.6	26.7	35.0

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Sept 27, 20-Oct 10, 20	313	41.5	37.1	46.5
	Oct 11, 20-Oct 24, 20	324	42.4	37.9	47.4
	Oct 25, 20-Nov 07, 20	669	90.7	83.9	98.0
	Nov 08, 20-Nov 21, 20	1,164	156.6	147.7	166.1
	Nov 22, 20-Dec 05, 20	1,307	178.8	169.1	189.0
	Dec 06, 20-Dec 19, 20	1,349	187.9	177.9	198.5
	Dec 20, 20-Jan 02, 21	1,182	161.3	152.1	171.0
	Jan 03, 21-Jan 16, 21	1,300	179.2	169.5	189.5
	Jan 17, 21-Jan 30, 21	907	126.7	118.5	135.4
	Jan 31, 21-Feb 13, 21	597	82.5	76.0	89.6
	Feb 14, 21-Feb 27, 21	479	65.1	59.5	71.4
	Feb 28, 21-Mar 13, 21	416	55.0	49.9	60.7
	Mar 14, 21-Mar 27, 21	555	73.3	67.4	79.8
	Mar 28, 21-Apr 10, 21	667	86.7	80.2	93.7
	Apr 11, 21-Apr 24, 21	760	98.9	92.0	106.4
	Apr 25, 21-May 08, 21	523	67.3	61.6	73.4

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	May 09, 21-May 22, 21	245	32.0	28.2	36.4
	May 23, 21-June 05, 21	143	19.3	16.3	22.9
	June 06, 21-June 19, 21	117	15.9	13.2	19.1
	June 20, 21-July 03, 21	93	12.2	10.0	15.1
	July 04, 21-July 17, 21	204	26.4	22.9	30.4
	July 18, 21-July 31, 21	486	65.1	59.4	71.2
	Aug 01, 21-Aug 14, 21	623	82.3	76.0	89.2
	Aug 15, 21-Aug 28, 21	645	86.5	80.0	93.6
	Aug 29, 21-Sept 11, 21	633	84.6	78.1	91.7
Black	Mar 01, 20-Mar 14, 20	28	10.9	7.3	16.3
	Mar 15, 20-Mar 28, 20	171	62.6	53.4	73.3
	Mar 29, 20-Apr 11, 20	272	100.0	88.1	113.4
	Apr 12, 20-Apr 25, 20	279	95.0	84.1	107.4
	Apr 26, 20-May 09, 20	188	61.9	53.4	71.7
	May 10, 20-May 23, 20	142	45.6	38.4	54.0
	May 24, 20-Jun 06, 20	113	38.6	31.8	47.0

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Jun 07, 20-Jun 20, 20	169	53.4	45.7	62.4
	Jun 21, 20-Jul 04, 20	321	99.2	88.6	111.1
	Jul 05, 20-Jul 18, 20	427	132.1	119.9	145.6
	Jul 19, 20-Aug 01, 20	467	150.1	136.6	165.0
	Aug 02, 20-Aug 15, 20	426	140.3	127.1	154.9
	Aug 16, 20-Aug 29, 20	271	88.0	77.8	99.6
	Aug 30, 20-Sept 12, 20	194	62.1	53.6	71.8
	Sept 13, 20-Sept 26, 20	211	68.9	59.8	79.4
	Sept 27, 20-Oct 10, 20	299	93.0	82.7	104.5
	Oct 11, 20-Oct 24, 20	368	117.4	105.5	130.6
	Oct 25, 20-Nov 07, 20	773	238.8	222.2	256.7
	Nov 08, 20-Nov 21, 20	1,011	318.4	298.8	339.3
	Nov 22, 20-Dec 05, 20	1,087	352.3	331.2	374.8
	Dec 06, 20-Dec 19, 20	1,065	350.7	329.4	373.4
	Dec 20, 20-Jan 02, 21	855	274.2	255.8	293.9
	Jan 03, 21-Jan 16, 21	869	275.1	256.8	294.7

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Jan 17, 21-Jan 30, 21	549	179.3	164.4	195.7
	Jan 31, 21-Feb 13, 21	319	103.2	92.0	115.7
	Feb 14, 21-Feb 27, 21	282	90.8	80.4	102.5
	Feb 28, 21-Mar 13, 21	274	85.9	76.0	97.0
	Mar 14, 21-Mar 27, 21	362	113.4	102.0	126.1
	Mar 28, 21-Apr 10, 21	551	166.3	152.8	181.1
	Apr 11, 21-Apr 24, 21	680	206.0	190.8	222.5
	Apr 25, 21-May 08, 21	619	189.4	174.7	205.3
	May 09, 21-May 22, 21	420	127.2	115.3	140.2
	May 23, 21-June 05, 21	341	103.7	93.0	115.6
	June 06, 21-June 19, 21	254	79.2	69.7	89.9
	June 20, 21-July 03, 21	188	57.6	49.8	66.8
	July 04, 21-July 17, 21	263	78.5	69.4	88.7
	July 18, 21-July 31, 21	447	134.0	121.9	147.3
	Aug 01, 21-Aug 14, 21	616	190.4	175.6	206.4
	Aug 15, 21-Aug 28, 21	653	201.7	186.5	218.1

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
NHOPI	Aug 29, 21-Sep 11, 21	568	178.2	163.7	194.0
	Mar 01, 20-Mar 14, 20	10	23.6	11.7	47.4
	Mar 15, 20-Mar 28, 20	25	62.4	39.2	99.5
	Mar 29, 20-Apr 11, 20	63	151.7	113.1	203.4
	Apr 12, 20-Apr 25, 20	100	186.3	150.7	230.3
	Apr 26, 20-May 09, 20	85	165.8	131.4	209.1
	May 10, 20-May 23, 20	115	206.0	168.8	251.5
	May 24, 20-Jun 06, 20	142	250.1	207.2	301.9
	Jun 07, 20-Jun 20, 20	198	346.7	298.2	403.1
	Jun 21, 20-Jul 04, 20	174	307.4	261.8	360.9
	Jul 05, 20-Jul 18, 20	136	240.9	200.8	289.0
	Jul 19, 20-Aug 01, 20	97	181.3	144.5	227.6
	Aug 02, 20-Aug 15, 20	94	185.0	146.3	234.0
	Aug 16, 20-Aug 29, 20	106	203.2	163.6	252.5
	Aug 30, 20-Sept 12, 20	98	182.1	144.8	229.0
	Sept 13, 20-Sept 26, 20	73	136.0	104.1	177.5

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Sept 27, 20-Oct 10, 20	89	186.5	145.5	239.0
	Oct 11, 20-Oct 24, 20	104	205.4	162.4	259.7
	Oct 25, 20-Nov 07, 20	203	365.1	314.4	423.9
	Nov 08, 20-Nov 21, 20	297	523.8	463.5	591.8
	Nov 22, 20-Dec 05, 20	249	470.2	407.7	542.2
	Dec 06, 20-Dec 19, 20	239	437.7	378.4	506.3
	Dec 20, 20-Jan 02, 21	260	507.0	440.4	583.5
	Jan 03, 21-Jan 16, 21	282	481.0	424.0	545.6
	Jan 17, 21-Jan 30, 21	237	435.9	376.9	504.1
	Jan 31, 21-Feb 13, 21	180	322.3	275.1	377.7
	Feb 14, 21-Feb 27, 21	107	182.4	148.9	223.4
	Feb 28, 21-Mar 13, 21	78	139.8	109.2	178.9
	Mar 14, 21-Mar 27, 21	119	200.4	165.4	242.7
	Mar 28, 21-Apr 10, 21	105	173.1	141.4	212.0
	Apr 11, 21-Apr 24, 21	189	320.0	274.8	372.5
	Apr 25, 21-May 08, 21	169	265.8	225.0	314.1

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Multiracial	May 09, 21-May 22, 21	139	235.9	195.6	284.4
	May 23, 21-June 05, 21	72	113.0	88.8	144.0
	June 06, 21-June 19, 21	71	114.4	89.4	146.4
	June 20, 21-July 03, 21	52	92.0	68.1	124.3
	July 04, 21-July 17, 21	72	124.2	94.9	162.5
	July 18, 21-July 31, 21	102	164.8	134.3	202.3
	Aug 01, 21-Aug 14, 21	220	365.1	315.4	422.7
	Aug 15, 21-Aug 28, 21	194	340.0	290.2	398.3
	Aug 29, 21-Sept 11, 21	193	335.3	286.5	392.5
	Mar 01, 20-Mar 14, 20	12	8.9	4.7	16.6
	Mar 15, 20-Mar 28, 20	66	32.7	24.9	43.0
	Mar 29, 20-Apr 11, 20	76	34.9	26.8	45.4
	Apr 12, 20-Apr 25, 20	52	26.1	19.1	35.6
	Apr 26, 20-May 09, 20	58	22.8	17.2	30.4
	May 10, 20-May 23, 20	49	21.7	15.8	29.9
	May 24, 20-Jun 06, 20	70	32.4	24.9	42.1

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Jun 07, 20-Jun 20, 20	107	35.0	28.1	43.7
	Jun 21, 20-Jul 04, 20	208	66.8	56.9	78.5
	Jul 05, 20-Jul 18, 20	228	87.7	75.4	102.0
	Jul 19, 20-Aug 01, 20	243	94.2	81.1	109.5
	Aug 02, 20-Aug 15, 20	155	52.7	43.7	63.7
	Aug 16, 20-Aug 29, 20	104	36.4	29.2	45.5
	Aug 30, 20-Sept 12, 20	105	37.2	29.4	47.0
	Sept 13, 20-Sept 26, 20	89	34.4	26.9	43.9
	Sept 27, 20-Oct 10, 20	133	50.0	40.6	61.6
	Oct 11, 20-Oct 24, 20	179	64.6	54.2	76.9
	Oct 25, 20-Nov 07, 20	409	144.3	128.6	162.0
	Nov 08, 20-Nov 21, 20	517	179.7	162.5	198.7
	Nov 22, 20-Dec 05, 20	527	188.9	171.3	208.4
	Dec 06, 20-Dec 19, 20	513	182.7	165.3	202.0
	Dec 20, 20-Jan 02, 21	412	147.2	131.6	164.7
	Jan 03, 21-Jan 16, 21	524	182.6	165.0	202.0

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Jan 17, 21-Jan 30, 21	309	107.0	93.4	122.5
	Jan 31, 21-Feb 13, 21	233	76.7	65.6	89.5
	Feb 14, 21-Feb 27, 21	150	50.3	41.5	61.0
	Feb 28, 21-Mar 13, 21	148	52.9	43.8	63.9
	Mar 14, 21-Mar 27, 21	249	84.3	72.7	97.8
	Mar 28, 21-Apr 10, 21	346	105.5	93.4	119.0
	Apr 11, 21-Apr 24, 21	461	144.0	129.5	160.1
	Apr 25, 21-May 08, 21	376	103.0	91.5	115.9
	May 09, 21-May 22, 21	253	68.5	59.2	79.2
	May 23, 21-June 05, 21	160	44.7	37.2	53.9
	June 06, 21-June 19, 21	96	28.5	22.5	36.0
	June 20, 21-July 03, 21	97	30.7	23.9	39.5
	July 04, 21-July 17, 21	165	50.1	41.7	60.2
	July 18, 21-July 31, 21	328	106.8	94.1	121.2
	Aug 01, 21-Aug 14, 21	573	178.1	161.4	196.5
	Aug 15, 21-Aug 28, 21	546	166.0	149.9	183.7

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
AIAN	Aug 29, 21-Sept 11, 21	553	176.8	159.7	195.8
	Mar 01, 20-Mar 14, 20	7	9.0	4.1	20.0
	Mar 15, 20-Mar 28, 20	28	31.1	21.3	45.6
	Mar 29, 20-Apr 11, 20	51	57.5	43.4	76.1
	Apr 12, 20-Apr 25, 20	43	44.9	33.3	60.7
	Apr 26, 20-May 09, 20	75	77.5	61.7	97.3
	May 10, 20-May 23, 20	60	63.6	49.2	82.4
	May 24, 20-Jun 06, 20	89	95.1	77.0	117.4
	Jun 07, 20-Jun 20, 20	103	106.9	88.0	129.8
	Jun 21, 20-Jul 04, 20	97	104.1	84.9	127.6
	Jul 05, 20-Jul 18, 20	89	93.9	75.9	116.2
	Jul 19, 20-Aug 01, 20	141	148.0	125.1	175.2
	Aug 02, 20-Aug 15, 20	113	124.4	102.7	150.7
	Aug 16, 20-Aug 29, 20	66	69.1	54.1	88.4
	Aug 30, 20-Sept 12, 20	53	56.5	42.9	74.4
	Sept 13, 20-Sept 26, 20	50	50.9	38.6	67.3

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	Sept 27, 20-Oct 10, 20	65	67.0	52.5	85.5
	Oct 11, 20-Oct 24, 20	53	57.2	43.3	75.6
	Oct 25, 20-Nov 07, 20	113	120.2	99.6	145.0
	Nov 08, 20-Nov 21, 20	239	255.9	224.8	291.4
	Nov 22, 20-Dec 05, 20	344	357.0	320.9	397.2
	Dec 06, 20-Dec 19, 20	353	373.1	335.6	414.8
	Dec 20, 20-Jan 02, 21	257	273.2	241.1	309.5
	Jan 03, 21-Jan 16, 21	295	302.6	269.8	339.4
	Jan 17, 21-Jan 30, 21	208	218.8	190.4	251.4
	Jan 31, 21-Feb 13, 21	205	211.5	184.0	243.0
	Feb 14, 21-Feb 27, 21	139	141.8	119.8	167.8
	Feb 28, 21-Mar 13, 21	137	138.5	117.1	163.8
	Mar 14, 21-Mar 27, 21	111	111.0	92.1	133.8
	Mar 28, 21-Apr 10, 21	130	135.6	113.6	161.7
	Apr 11, 21-Apr 24, 21	173	176.8	152.0	205.7
	Apr 25, 21-May 08, 21	137	141.8	119.6	168.2

Race/Ethnicity	Two-Week Period	Case Count	Age-Adjusted Case Rate per 100,000	Lower 95% Confidence Interval	Upper 95% Confidence Interval
	May 09, 21- May 22, 21	147	149.6	127.0	176.2
	May 23, 21- June 05, 21	83	82.5	66.5	102.4
	June 06, 21- June 19, 21	52	54.7	41.4	72.2
	June 20, 21- July 03, 21	36	38.2	27.3	53.4
	July 04, 21- July 17, 21	49	51.0	38.3	67.9
	July 18, 21- July 31, 21	134	135.8	114.5	161.2
	Aug 01, 21- Aug 14, 21	253	255.4	225.7	289.1
	Aug 15, 21- Aug 28, 21	296	304.2	271.1	341.4
	Aug 29, 21- Sept 11, 21	272	284.6	252.2	321.3

Source: Washington Disease Reporting System (WDRS)

Cumulative crude confirmed or probable case counts and percentages by language spoken

Analysis of language spoken provides another important method to understand health disparities and communities impacted by COVID-19. Use of one method alone may mask health disparities and community-specific impacts. Almost half of reported confirmed or probable cases are missing information on primary language. Despite missing data, there are some important observations.

The following table presents counts and percentages of confirmed or probable cases, by primary language spoken. The percentage of the Washington state population 5 years and over with limited English proficiency that speak each language are also included to provide context. The information on the percentage of the Washington state population with limited English proficiency come from the Office of Financial Management 2016 estimates. Findings should be interpreted with caution due to the high proportion of missing data (63%).

Table 4. Confirmed or probable COVID-19 case count and percentage of cases by primary language spoken

Language	Case Count	% of Cases	% of WA Population with Limited English Proficiency*
All Cases	631,023	100.0%	
Unknown Language	400,072	63.4%	
Known Language	230,951	36.6%	
English	191,905	83.1*%	
Spanish	32,665	14.1*%	6.4
Marshallese	333	0.1*%	0.1
Vietnamese	1,134	0.5*%	0.5
Russian	1,403	0.6*%	0.3
Chinese (all)	395	0.2*%	0.3
Ukrainian	269	0.1*%	0.2
Somali	336	0.1*%	0.1
Tagalog	149	0.1*%	0.1
Amharic	190	0.1*%	0.1
Other	2,172	0.9*%	

*For more information on the selected WA populations by primary language reported here, please see the WA OFM methodology, https://ofm.wa.gov/sites/default/files/public/legacy/pop/subject/ofm_pop_limited_english_proficiency_methodology.pdf

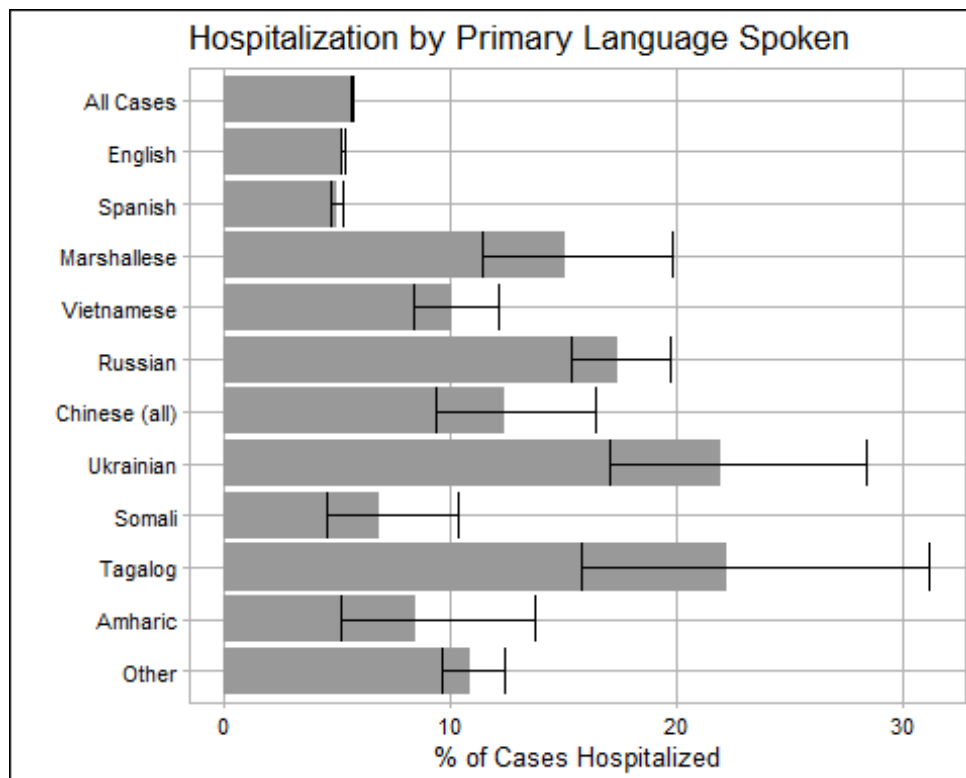
Cumulative hospitalization percentages among confirmed or probable COVID-19 cases by language spoken

The following table and graph present the percentages of confirmed or probable cases who were hospitalized, by primary language spoken. The high rates of hospitalizations among confirmed or probable cases whose primary language was other than English or Spanish suggests that increased exposures and/or barriers to care may contribute to more severe disease in these populations. Languages with less than 10 individuals hospitalized were

removed from this analysis to protect patient confidentiality. Findings should be interpreted with caution due to the high proportion of missing data (63%).

Table 5: Percentages of confirmed or probable COVID-19 cases hospitalized by primary language spoken

Language	Case Count	Hospitalization Count	% language specific cases hospitalized
All Cases	631,023	35,382	5.6%
English	191,905	10,023	5.2%
Spanish	32,665	1,616	4.9%
Marshallese	333	50	15%
Vietnamese	1,134	114	10.1%
Russian	1,403	244	17.4%
Chinese (all)	395	49	12.4%
Ukrainian	269	59	21.9%
Somali	336	23	6.8%
Tagalog	149	33	22.1%
Amharic	190	16	8.4%
Other	2,172	236	10.9%



Washington State Department of
Health