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Dear Community Partners,

The CDC introduced its Community Levels tool in February 2022 to help individuals, organizations, and communities understand the state of the COVID-19 pandemic in their community and to make recommendations for prevention measures. CDC recommends Community Levels be used in concert with other data to guide prevention decisions. The Alaska Department of Health and Social Services (DHSS) is introducing a new tool on the COVID-19 Cases Dashboard next week depicting Community Case Rates to provide additional local data to complement CDC's Community Levels.

CDC Community Levels

The CDC's Community Levels range from "low," "medium," or "high" and are updated weekly. Levels are based on a combination of 3 metrics:

- Total new COVID-19 cases per 100,000 population in the past 7 days
- New COVID-19 admissions per 100,000 population in the past 7 days
- Percent of staffed hospital beds occupied by COVID-19 patients

Indian Health Service and Department of Defense hospitals are included in the calculation of the hospitalization metrics. Psychiatric and rehabilitation hospitals are excluded. As shown in the table below, the thresholds used to interpret the hospitalization metrics depend on the number of new cases.

Hospital and case data are combined to create a level for each community. As the table below shows, if there were 200 or more new COVID-19 cases per 100,000 people in the past 7 days, the CDC

Community Level is at least "medium" and cannot be "low," regardless of how few people were hospitalized with COVID-19.

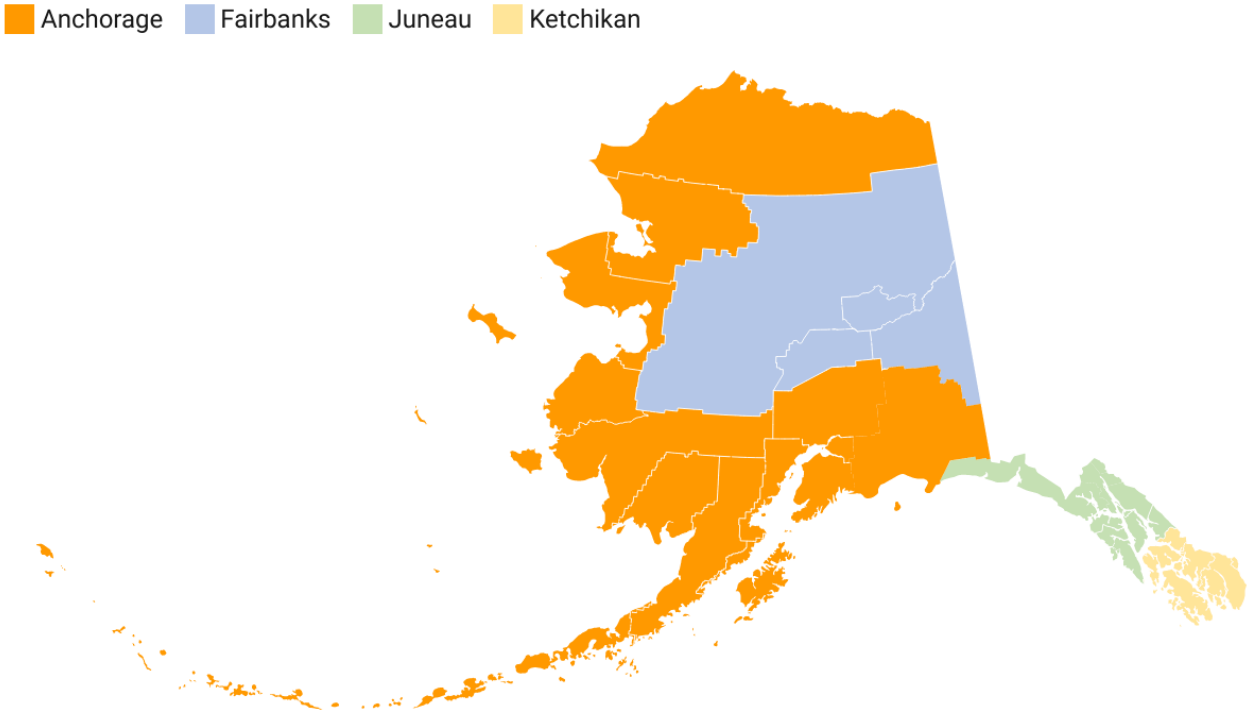
Conversely, if there were fewer than 10.0 hospitalizations per 100,000 population (7-day total) and fewer than 10.0% of staffed inpatient beds were occupied by COVID-19 patients (7-day average), then the Community Level cannot be "high," regardless of how many new cases were reported.

COVID-19 Community Levels – Use the Highest Level that Applies to Your Community				
New COVID-19 Cases Per 100,000 people in the past 7 days	**Indicators**	**Low**	**Medium**	**High**
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	<10.0%	10.0-14.9%	≥15.0%
200 or more	New COVID-19 admissions per 100,000 population (7-day total)	NA	<10.0	≥10.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	NA	<10.0%	≥10.0%

CDC Community Levels in Alaska

The CDC Community Level is determined for each borough/census area in Alaska. The cases metric is specific to each borough/census area, but the hospitalization metrics are calculated by aggregating boroughs/census areas into Health Service Areas (HSAs), which are based on where residents from a given borough/census area are likely to receive inpatient hospital care. Alaska's boroughs/census areas are divided among four HSAs (Anchorage, Fairbanks, Juneau and Ketchikan). Data from all hospitals in an HSA are added together to calculate the hospitalization metrics. Following is a map and table of boroughs and census areas showing the corresponding HSAs assigned by CDC.

Boroughs/Census Areas Grouped by Health Service Area



Created with Datawrapper

Borough/Census Area	Health Service Area Name
Aleutians East Borough	Anchorage
Aleutians West Census Area	Anchorage
Anchorage Municipality	Anchorage
Bethel Census Area	Anchorage
Bristol Bay Borough	Anchorage
Denali Borough	Fairbanks
Dillingham Census Area	Anchorage
Fairbanks North Star Borough	Fairbanks
Haines Borough	Juneau
Hoonah-Angoon Census Area	Juneau
Juneau City and Borough	Juneau
Kenai Peninsula Borough	Anchorage
Ketchikan Gateway Borough	Ketchikan
Kodiak Island Borough	Anchorage

Kusilvak Census Area	Anchorage
Lake and Peninsula Borough	Anchorage
Matanuska-Susitna Borough	Anchorage
Nome Census Area	Anchorage
North Slope Borough	Anchorage
Northwest Arctic Borough	Anchorage
Petersburg Borough	Ketchikan
Prince of Wales-Hyder Census Area	Ketchikan
Sitka City and Borough	Juneau
Skagway Municipality	Juneau
Southeast Fairbanks Census Area	Fairbanks
Valdez-Cordova Census Area	Anchorage
Wrangell City and Borough	Ketchikan
Yakutat City and Borough	Juneau
Yukon-Koyukuk Census Area	Fairbanks

There are advantages to using hospitalization metrics instead of solely using case metrics to monitor the COVID-19 pandemic and guide decision making about prevention measures. These include:

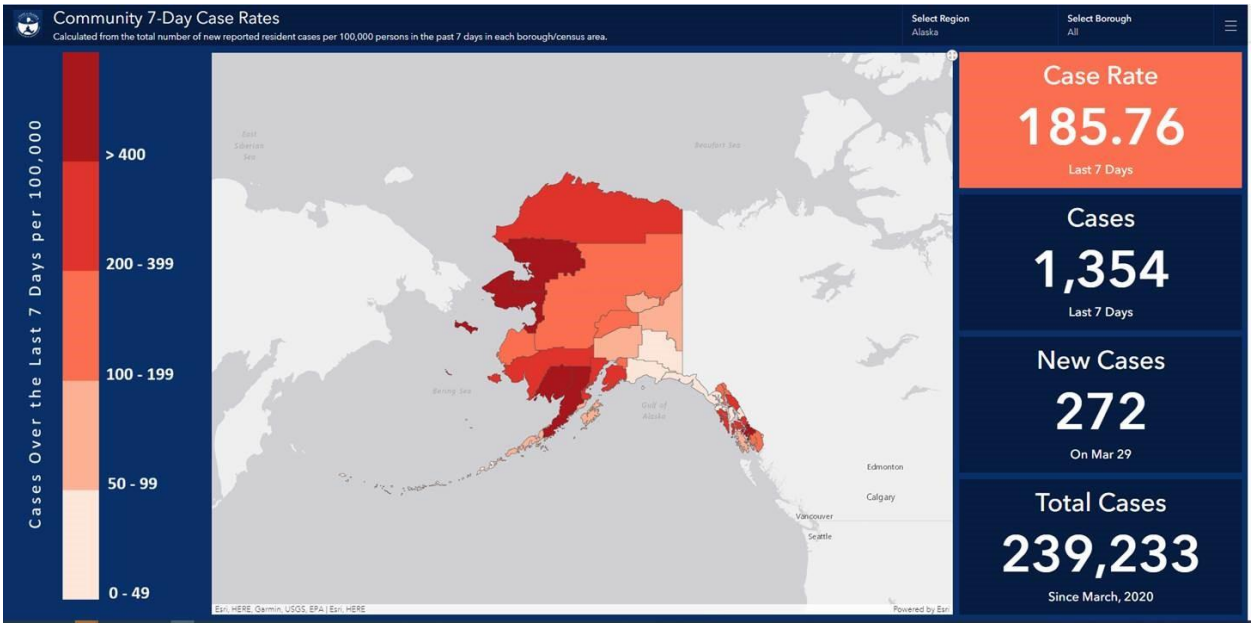
- Hospitalizations better reflects the extent to which COVID-19 is leading to clinically significant illness. The relationship between cases and clinically significant illness varies depending on the level of vaccine-induced and infection-induced immunity in a population and the properties of circulating SARS-CoV-2 variants.
- They are likely less affected than case metrics by changes in testing practices.
- They provide direct evidence about the burden of COVID-19 on the health care system.

Hospitalization metrics do have limitations. Compared to cases, hospitalizations are a lagging indicator of trends of SARS-CoV-2 transmission. And if hospitals are not reporting on a regular basis, then the hospitalization data are further lagged.

Combining boroughs/census areas into HSAs is useful because it 1) is a way to apply hospitalization metrics to boroughs/census areas that do not have a hospital, 2) makes hospitalization metrics more stable over time, and 3) reflects the reality that health care systems operate at a geographic level larger than the borough/census area (for example, in Alaska, both COVID and non-COVID patients are routinely transferred from smaller hospitals in rural areas to larger hospitals, especially in Anchorage). But one notable limitation of combining boroughs/census areas into HSAs is that the community levels might not reflect risks associated with localized high levels of COVID-19.

Community Case Rates – a New Tool for Alaska

DHSS is introducing Community Case Rates as a tool to complement the CDC's community levels. Community Case Rates are calculated for each borough/census area (or combined boroughs and census areas when there are fewer than 1,000 residents) and reflect new COVID-19 cases reported in the past 7 days per 100,000 residents. The thresholds for case rate categories are 50, 100, 200, and 400 cases per 100,000 residents. These thresholds reflect the variety of intensities of COVID-19 transmission observed in Alaska since the beginning of 2021. While no methodology is going to be a perfect fit for each community, this combination of regional hospitalization rates and case rates provides a strategy to concurrently assess transmission, disease burden and healthcare infrastructure capacity. Here is a preview of the new tool that will be added to our dashboard Wednesday, April 6, which is the same date the dashboard will begin to update weekly instead of three times each week on Mondays, Wednesdays and Fridays, excluding state holidays.



Community Case Rates have fluctuated throughout the pandemic. For example, in late spring and early summer 2021, before the Delta-variant surge, the statewide case rate was below 100 cases per 100,000 persons per week and sometimes below 50 cases per 100,000. Case rates during late winter and early spring 2021 and again during the low point in December 2021 between the Delta-variant and Omicron-variant surges were more than 100 but less than 200 cases per 100,000 persons per week. Case rates were between 200 and 400 cases per 100,000 during parts of the acceleration and deceleration phases of the Delta and Omicron surges. And case rates were above 400 cases per 100,000 during periods of very widespread Delta and Omicron transmission.

By dividing Community Case Rates into 5 ranges or categories, they better reflect the widely varying intensities of transmission that can occur over time and from place to place. But like all metrics, this tool has limitations:

- The proportion of cases detected and reported likely varies from place to place and over time depending on access to testing, use of over-the-counter versus clinic-based testing, and screening testing practices (e.g., in schools and workplaces).
- In small populations, an elevated Community Case Rate is not necessarily indicative of community transmission. For example, a single household cluster of 4 cases within a 7-day period in a borough or census area with 2,000 residents would correspond to a case rate of 200 cases per 100,000.
- The extent to which Community Case Rates correspond to clinically significant illness depends on the level of immunity in the population and the population's age structure and prevalence of risk factors.
- Significant variability in the intensity of COVID-19 transmission may occur within a borough/census area. An elevated Community Case Rate may be due to a large outbreak in a single village.

There are multiple ways in which individuals, organizations, and communities can use the CDC's Community Levels in conjunction with Alaska's Community Case Rates to guide decisions about prevention measures. For example, community leaders in an area experiencing an outbreak might choose to recommend increasing non-pharmaceutical mitigation measures when the borough/census area's case rate is >400 cases per 100,000, even if the CDC Community Level remained only "medium" (e.g., this might occur if it is part of an HSA that is comprised of many boroughs/census areas). Both personal and community decisions about which prevention measures to adopt inherently entail complex tradeoffs and judgements that reflect tolerance for risk, multiple priorities, and local circumstances.

In addition to using both tools, individuals, organizations, and communities may wish to consider the trajectory of COVID-19 cases when making decisions about prevention measures. Community-level prevention measures may be more impactful if implemented relatively early during an acceleration of cases. Keep in mind, however, that especially in smaller populations, the incidence of COVID-19 can fluctuate considerably from week to week. It is not always possible to tell if a community is experiencing a sustained upward or downward trajectory.

Uncertainty around duration of immunity, viral evolution, and the impact of seasonality on transmission rates make it difficult to predict the future course and disease burden of the COVID-19 pandemic. Individuals, organizations, and communities should remain flexible and alert to changing circumstances and updates to public health guidance. Regardless of the Community Level or

Community Case Rate, key actions to reduce the impact of COVID-19 include improving ventilation, getting tested and staying home if symptoms develop, and staying up to date on COVID-19 vaccination.

We hope you find Alaska's Community Case Rates a helpful new tool for your community, particularly when used in conjunction with the CDC's Community Levels.

Thank you for all you do,

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