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Summary of COVID-19 Hospitalizations — Alaska, January 1 through December 31, 2020

Background

This *Bulletin* summarizes data for Alaska residents hospitalized with COVID-19 through December 31, 2020. Additional data are available in the [Alaska Coronavirus Response Hub](#). This *Bulletin* updates the previously released hospitalization summary *Bulletin*.¹

Methods

COVID-19 hospitalizations were identified from interview and medical records. Only cases where COVID-19 contributed to or caused the hospitalization are included; individuals with no or mild COVID symptoms and an alternative reason for admission (such as motor vehicle accident) were excluded. Hospitalizations where admission date was known and occurred in 2020 were used in this analysis. All cases had a recent positive SARS-CoV-2 molecular test. For patients who were admitted multiple times or transferred, only data from the hospitalization with the highest acuity or longest duration were included. Same-day admissions and discharges were counted as one day. Region was assigned based on the patient’s home address. Underlying conditions were determined by contact tracers and data analysts during interviews and records reviews. Some cases lack data because the patient was too ill or refused interview. Rates were calculated using Alaska Department of Labor population estimates. All data are preliminary. Stratifications by race, ethnicity, and age are available online.²

Results

During January 1 through December 31, 2020, 46,037 cases of SARS-CoV-2 infection were reported in Alaska residents, and 1035 hospitalizations were determined to be caused by or related to COVID-19 during that time frame at the time of analysis. Of these, 571 (55%) were male. The average age of hospitalized patients was 61.7 years (range: 1 month–98 years). A total of 194 (19%) hospitalized patients died. Statewide hospitalization rates peaked for most regions in November (Figure), which is also when state case counts peaked.

Admission and discharge dates were available for 822 (79%) patients; the mean length of stay for hospitalized patients was higher for patients who required care in an intensive care unit (ICU; Table 1). Onset date was available for 383 (37%) patients, and the average interval between onset date and admission date was 5.7 days (range: 0–23). Of the 112 patients who were placed on mechanical ventilation, the duration of ventilation was available for 67 (60%) individuals; the average duration of ventilation was 9.6 days (range: 1–44 days). A total of 33 patients were identified as requiring readmission and 28 patients were identified as having been transferred to another

facility; however, these are likely underestimates due to data collection limitations.

Of the 711 (69%) patients for whom underlying conditions data were available, 674 (95%) had an underlying health issue of any kind and 628 (88%) had at least one underlying condition listed by the Centers for Disease Control and Prevention (CDC) as a known or potential risk factor for severe illness.³ Severity indicator data were available for 822 (79%) hospitalized patients (Table 2).

Table 1. Total Length of Stay among 822 Patients Hospitalized for COVID-19 — Alaska, January 1–December 31, 2020

	#	Mean (days)	Range (days)
All	822	8.8	1–78
Non-ICU	402	7.0	1–78
ICU*	236	13.4	1–75

*This includes patients who spent any time in an ICU.

Table 2. Severity Indicators among 822 Patients Hospitalized for COVID-19 — Alaska, January 1–December 31, 2020

Indicator	Yes	No	Unknown	Deaths
ARDS	114	451	257	55
ICU stay	236	402	184	92
Ventilator use	112	555	155	68

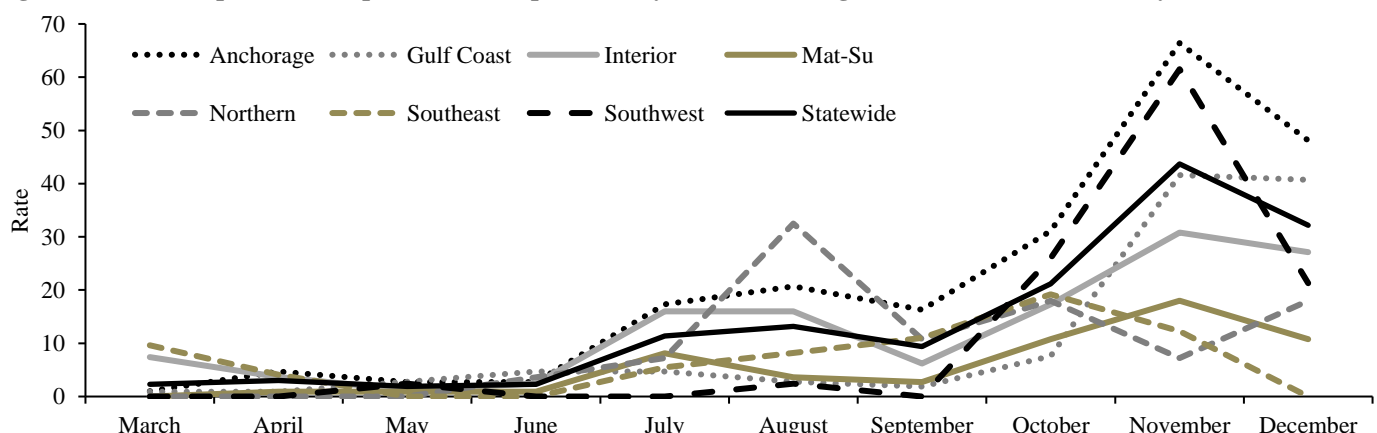
Discussion

During 2020, Alaska’s COVID-19 cumulative hospitalization rate was less than half the national rate (140.6 vs. 343.4 per 100,000 population, respectively).⁴ This may be due to several factors, including successful community mitigation, Alaska’s younger population age distribution, and successful preservation of hospital capacity. Regional rate patterns are influenced by a range of factors, such as adherence to mitigation strategies, testing, outbreaks, hospital referral patterns, health care infrastructure, and population density.

References

1. Alaska Section of Epidemiology *Bulletin*. Summary of COVID-19 Hospitalizations – Alaska, January 1 through October 15, 2020. Available at: http://www.epi.alaska.gov/bulletins/docs/b2020_12.pdf
2. DHSS COVID-19 Data Hub. Available at: <https://coronavirus-response-alaska-dhss.hub.arcgis.com/datasets/table-3-demographic-distribution-of-confirmed-cases/data>
3. CDC. Certain Medical Conditions and Risk for Severe COVID-19 Illness. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>
4. CDC. COVIDView Week 53. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>

Figure. Rate of Hospitalizations per 100,000 Population, by Month and Region of Residence — January 1–December 31, 2020



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