



Department of Health and Social Services
Adam Crum, MSPH, Commissioner
Anne Zink, MD, Chief Medical Officer

Division of Public Health
Heidi Hedberg, Director

Editors:
Joe McLaughlin, MD, MPH
Louisa Castrodale, DVM, MPH

3601 C Street, Suite 540
Anchorage, AK 99503 <http://dhss.alaska.gov/dph/Epi>

Local (907) 269-8000
24 Hour Emergency 1-800-478-0084

Bulletin No. 15 December 22, 2020

Indicators of Self-Harm and Unintentional Drug Overdose during the COVID-19 Pandemic in Alaska

Background

The COVID-19 pandemic has been inordinately stressful for many people in the United States. National data indicated rising rates of mental health and substance use disorders.^{1,2} This *Bulletin* characterizes the mortality associated with self-harm (suicide) and unintentional drug overdose, emergency department visits, and crisis intervention calls among Alaska residents from January 1 through November 30, 2020.

Methods

Suicide deaths and unintentional overdose deaths during the first three quarters (January–September) of 2018, 2019, and 2020 were identified in the Health Analytics and Vital Records Section mortality database using ICD-10 suicide and overdose (OD) codes (U03, X60–X84, Y87; and X40–X49, respectively). Rates were calculated using Alaska Department of Labor and Workforce Development population estimates and adjusted by year 2000 standard population ratios. Emergency department (ED)-associated suicide ideation (SI) and suicide attempt (SA) data were retrieved from the Alaska syndromic surveillance system based on ICD-10-CM codes and text mining intake notes for key character strings. Crisis intervention call data were retrieved from the Alaska Careline.

Results

Suicide death rates remained largely consistent during the first three quarters of 2018, 2019, and 2020; however, overdose death rates were higher in 2020 compared to 2018 and 2019 (Figure 1). In 2020, the highest suicide and overdose death rates by sex were among males (33.3 and 20.3 per 100,000 persons, respectively). The highest suicide rates by age were among persons aged 15–24 and 25–35 years (39.7 and 32.2 per 100,000 persons, respectively). OD rates by age were highest in persons aged 25–44 and 45–54 years (31.0 and 29.3 per 100,000 persons, respectively). Suicide and OD rates were highest in the Northern region and Anchorage, respectively (Table).

During January 1 through November 30, 2020, the Alaska syndromic surveillance system recorded 5,691 ED visits associated with SI and 1,437 ED visits associated with SA. In comparison to the number of ED visits during January through November 2019, ED visits increased by 3% for SI and 12% for SA. No notable differences were found in comparison to 2018 ED visits. The SA and SI rates were higher in 2020 than in previous years during the second through fourth quarters (Q2–Q4; Figure 2). Of the 5,691 SI visits, 2,966 (52%) were among females. Of the 1,437 SA visits, 918 (64%) were among females. Rates for SI and SA were highest among persons aged 11–14 years and 15–24 years (61.6 and 55.7 per 1,000 ED visits and 17.4 and 18.3 per 1,000 ED visits, respectively). Rates for SI and SA were highest in the Northern region (Table).

The Careline had an overall increase of 22% during Q3 (from 5,480 in Q2 to 6,612 in Q3). Comparison of 2020 Q3 call volume to 2019 Q3 volume indicated a 90% increase in calls from persons aged 25–44 years (2,245 calls and 1,178 calls, respectively) and a 51% increase in the number of new callers (2,273 calls and 1,507 calls, respectively).

Discussion

While suicide death rates remained largely consistent during the first three quarters of 2018–2020, overdose death rates were higher in 2020 compared to 2018 and 2019. SI and SA rates were higher during Q2–Q4 of 2020 than during Q2–Q4 of 2018 and 2019, particularly among adolescents and young adults. The small elevations in rates in syndromic SI and SA data may be due to decreases in ED visit volume from pandemic-related

behavior changes, as the number of events remained relatively consistent during 2018–2020. The increase in Careline call volume may indicate that more people are seeking assistance due to pandemic-associated stress.¹⁻³

Concurrent conditions and challenges (e.g., co-habitation, isolation, work, and school) may exacerbate existing psychosocial stress levels.⁴ The Centers for Disease Control and Prevention’s [Preventing Suicide monograph](#) provides strategies that promote overall health and build positive relationships and cultural connectedness, which are vital for reducing suicidal thoughts, attempts, and deaths.⁴ If someone exhibits warning signs, do not leave the person alone and remove any objects that could be used in a suicide attempt. Call the CARELINE at 877-266-4357 or a mental health professional.

Figure 1. Suicides and Unintentional Drug Overdose Death Rates — Alaska, January–September, 2018–2020

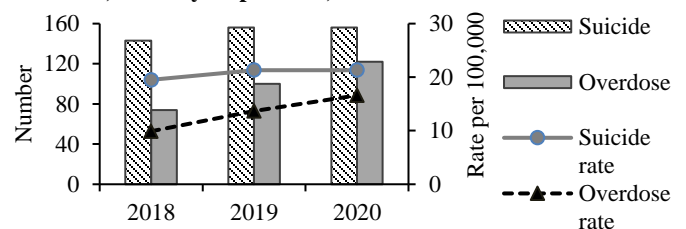


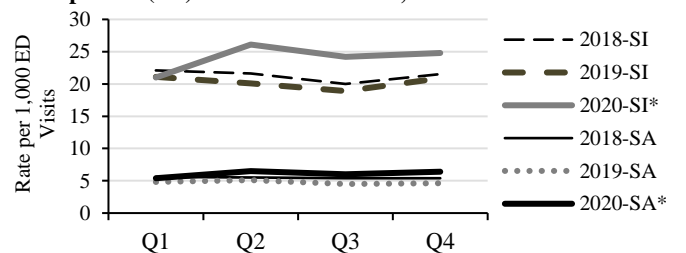
Table. Preliminary Age-adjusted Rates by Region — Alaska, January 1 through November 30, 2020

Region	Suicide Ideation*	Suicide Attempt*	Suicide Death†	Overdose Death†
	Per 1,000 ED visits		Per 100,000 persons	
Anchorage	29.6	6.5	16.3	21.7
Gulf Coast	14.8	4.0	15.3	14.4
Interior	21.6	5.4	20.2	7
Mat-Su	21.4	4.7	23.1	17.2
Northern	35.4	16.6	68.1	†
Southeast	19.5	4.0	10.2	12.7
Southwest	16.8	8.0	50.1	18.2

*Jan. 1 – Nov. 30, 2020

†Jan. 1 – Sept. 30, 2020; rate not calculated for ≤5 observations

Figure 2. Quarterly ED Rates of Suicide Ideation (SI) and Suicide Attempt (SA) — Alaska, 2018–2020 YTD



*January 1 through November 30, 2020 data

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