

Greater methadone take-home doses during the COVID-19 pandemic is not associated with higher rates of critical incidents in Colorado opioid treatment programs.

Critical Incidents in Colorado's Opioid Treatment Programs: A Comparison of the COVID-19 Pandemic to Previous Years

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Background

In response to the COVID-19 pandemic, Substance Abuse and Mental Health Services Administration (SAMHSA) guidance allowed methadone clinics greater flexibility to provide take-home medication doses to patients.

Objective

To characterize trends in the rates of critical incidents—safety events occurring in opioid treatment programs (OTPs) that are reportable to regulatory entities—across all Colorado OTPs during the COVID-19 pandemic.

Methods

Critical incident (CI) data for patients enrolled in Colorado OTPs between 2017-2021 was obtained from the Colorado Department of Human Services Central Registry in the Office of Behavioral Health. **Table 1** defines recorded CIs. March 15 was considered the start of the COVID-19 pandemic in Colorado, so only incidents which occurred from March 15-December 31 of each year were included. CI rate per 100 patients was calculated by dividing CI annual count between March 15-December 31 by the census of enrolled patients at the calendar midpoint of this period, which is August 7. Means comparison tests assessed differences in CI rates.

Results

OTP patient enrollment in Colorado increased from 4,377 in 2017 to 6,766 in 2021. Overall, Medication Diversion accounted for 70% of CIs, followed by Death (13%), and Other (6%; **Table 2**). There was a significant increase in the overall rate of CIs from 2017 to 2021 ($p < 0.001$, **Figure 1**). The average pandemic (2020-21) CI rate was higher than the average pre-pandemic (2017-19) CI rate ($p < 0.001$, **Figure 2**). When compared to 2019, the year 2020 showed no difference in overall CI rate among Colorado OTPs ($p = 0.814$, **Figure 3**). Post-pandemic years had significantly more CIs per month than pre-pandemic years (Pre: 14.5 ± 4.9 vs. Post: 28.9 ± 6.4 , $p < 0.001$). Notably, there was no difference in mean monthly CIs between 2019 and 2020 (2019: 26.3 ± 9.1 vs. 2020: 28.9 ± 6.4 , $p = 0.472$).

Conclusions

There was no increase in the rate of reportable critical incidents in Colorado OTPs following the SAMHSA COVID-19 guidance increasing take-home doses in 2020 when compared to 2019. The notable increase in CI incidence occurred from 2018-2019, predating the pandemic. These data offer a measure of reassurance for the safety of increased take-home methadone doses. There should be further consideration of how a greater number of take-home doses might benefit both patients and OTPs.

Acknowledgments and Disclosures

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Table 1. Critical Incident types and definitions in Colorado OTPs.

Critical Incident Type	Definition
Arrest/Felony Level Charge	Arrest or felony-level charge on site at OTP
Assault	Physical or sexual assault on site at OTP; modified in 2019 to include verbal assault
Breach of Confidentiality	Breach of patient confidentiality, per HIPAA guidelines
Death	Any incident at the facility that results in the death of a patient or outside of the facility while a client is OTP enrolled
Hospitalization	Hospitalization in relation to incident that occurred on OTP premises
Medical Emergency	Medical emergency on premises of OTP
Medication Diversion or Error	OTP dispensed medication used illicitly, rather than as intended; medication delivered at wrong time, in wrong dose, or to wrong person, diverted
Suicide Attempt/Self Harm	Documented self-harm or suicide attempt by client
Other	Other critical incident not previously categorized

Table 2. Distribution of CIs in Colorado OTPs by type and calendar year.

CI Type	2017	2018	2019	2020	2021	Total
Arrest/Felony Level Charge	0	0	1	0	0	1
Assault	3	4	9	11	8	35
Breach of Confidentiality	0	1	3	4	2	10
Death	9	15	19	32	48	123
Hospitalization	0	1	20	2	0	23
Medical Emergency	0	0	0	12	20	32
Medication Diversion or Error	30	49	154	217	217	667
Other	6	6	42	7	0	61
Stolen Car	0	0	0	0	1	1
Suicide Attempt/Self Harm	2	1	1	0	0	4
Grand Total	50	77	249	285	296	957

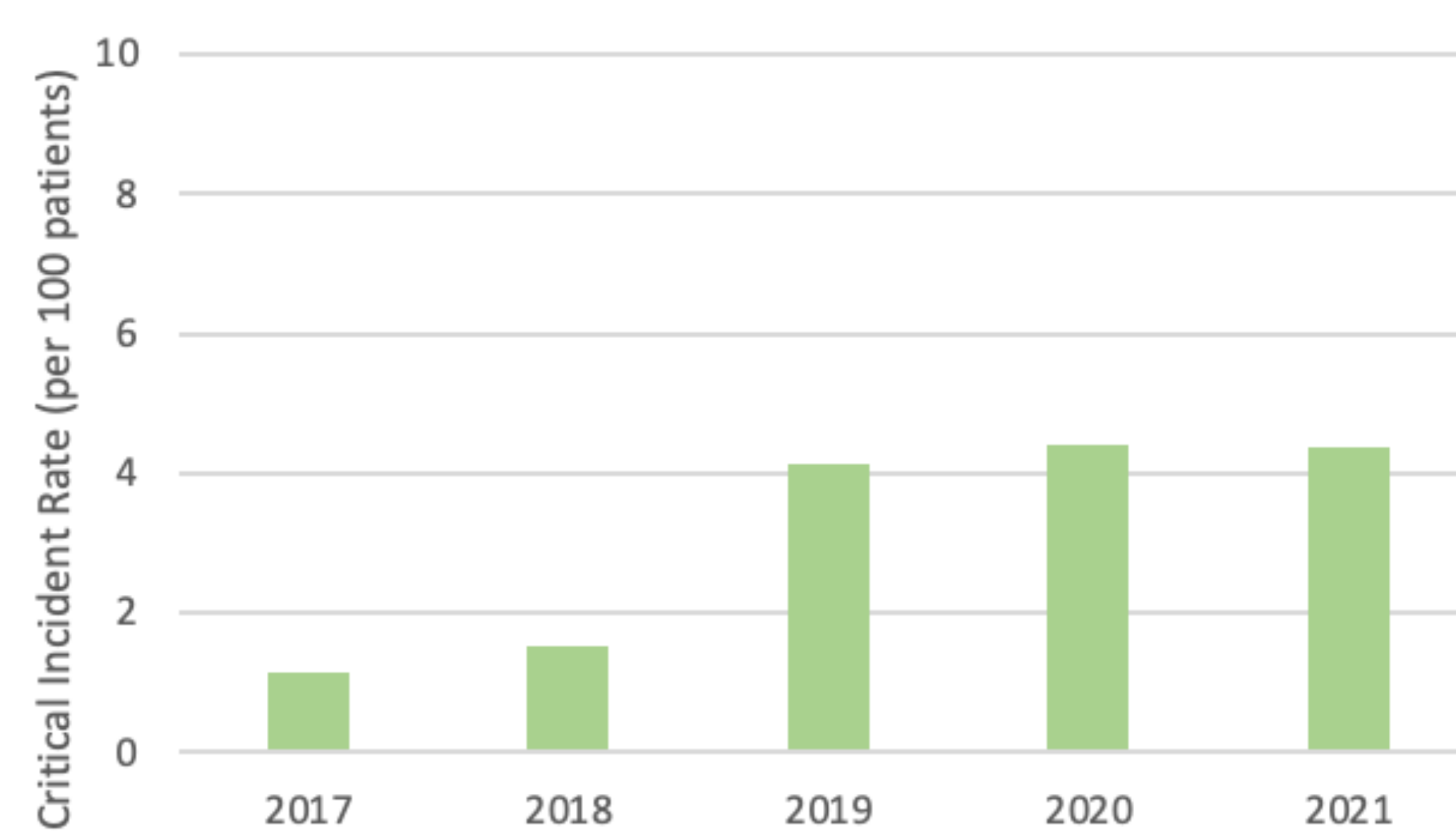


Figure 1. Annual Critical Incident Rate: Mar. 15-Dec. 31 of 2017-2021

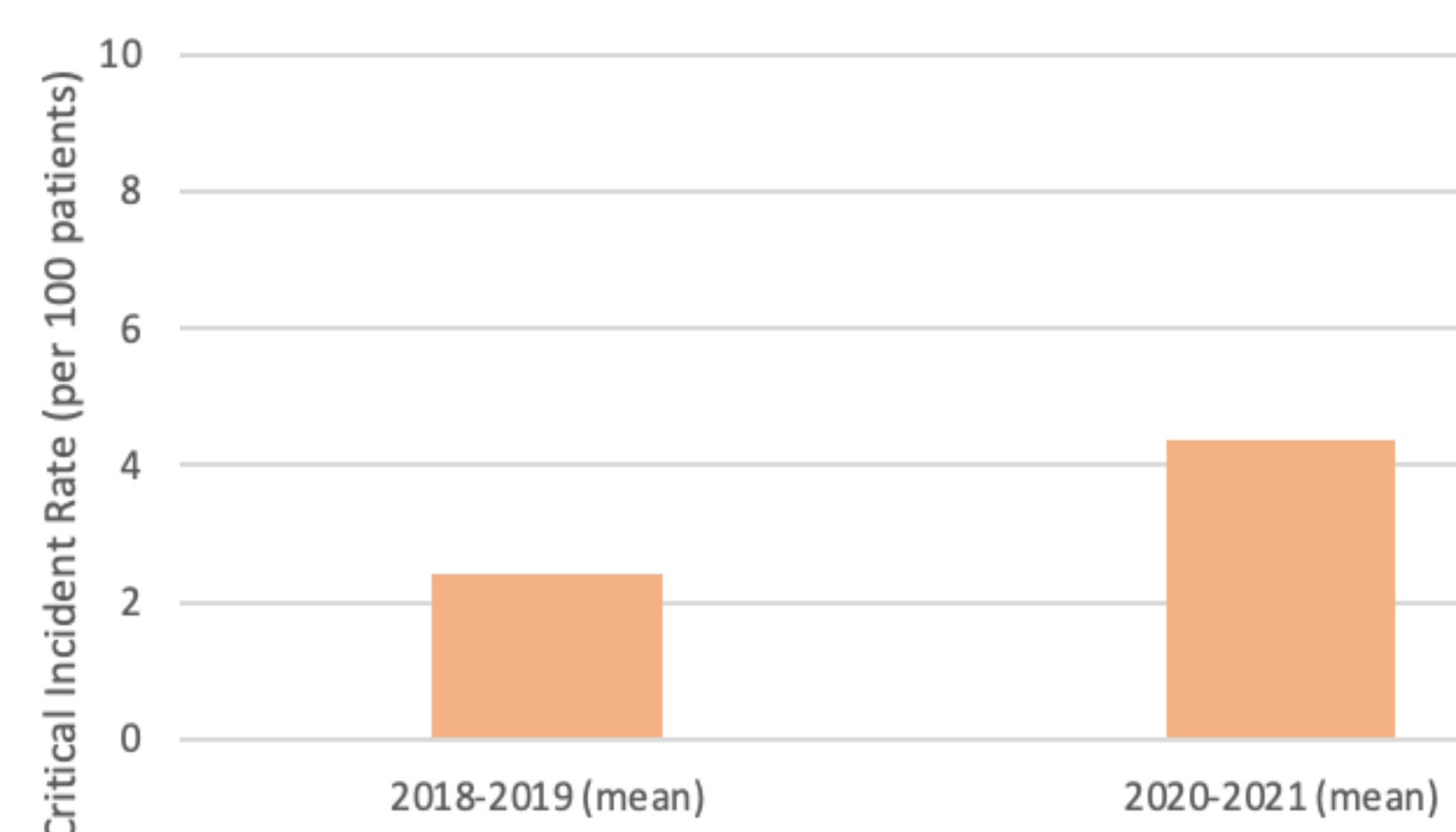


Figure 2. Mean Critical Incident Rate: Mar. 15-Dec. 31 of 2017-19 vs. 2020-2021

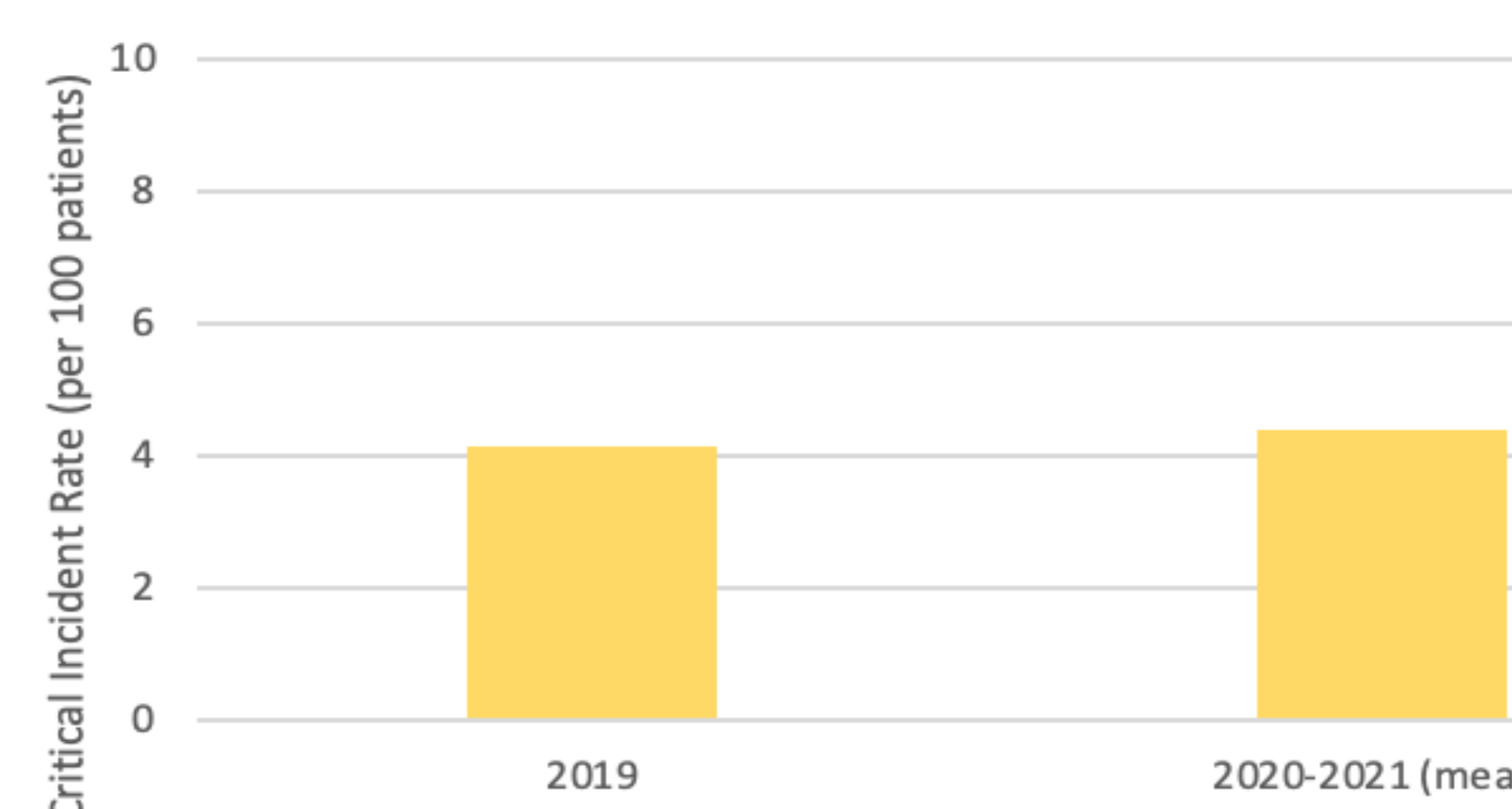


Figure 3. Annual Critical Incident Rate: Mar. 15-Dec. 31 of 2019 vs. 2020-2021 (mean)