

Nonfatal Emergency Department Visits for Drug Related Poisonings and Mental Health by Border Status

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Background

Rates of nonfatal emergency department (ED) visits have increased for all drugs, all opioids, and cocaine in the United States (Vivolo-Kantor, 2020). Monitoring rates of nonfatal ED visits is important to help inform prevention strategies and properly allocate resources to areas at risk (Vivolo-Kantor, 2020). Substance use and mental health are complex issues that can be closely linked. In this study we aim to assess the prevalence and rates of nonfatal ED visits for opioid, cocaine, or psychostimulant poisonings with a co-occurring mental health visit in Texas by border status.

Methods

Study Population

We performed secondary data analyses using the 2016-2021 Texas Hospital Inpatient and Outpatient Discharge public use data files. The following criteria were used to achieve our final sample.

- Texas residents 18 years of age and older.
- Nonfatal emergency department visits.
- Individuals admitted for opioid, cocaine, or psychostimulant poisoning with a co-occurring mental health visit.
- Stratified by county border status defined by the La Paz Agreement.

Statistical Methods

Prevalence rates per 100,000 were calculated by dividing the number of individuals who presented for an ED visit with an opioid, cocaine, or psychostimulant poisoning plus a mental health visit divided by the total number of ED visits for those 18 years and older from 2016-2021. The rates are presented by substance type, year, and border status. All analyses were performed using SAS version 9.4.

Results

For each of the three substances of interest, most individuals were among the 18-44 age group. Among opioid visits, 64.5% were among non-Hispanic (NH) white, 59.2% of psychostimulant visits were among NH white, and 39.6% of cocaine visits were among NH black (Table 1).

In addition, mental health visits co-occurred for 42.9% of psychostimulant, 36.8% of opioid, and 36.3% of cocaine visits (Table 1).

Table 2 presents the rates of ED visits for each substance stratified by border and non-border status. The rate of opioid, cocaine, or psychostimulant visit co-occurring with a mental health visit was 22.3, 12.7, and 6.8 per 100,000 respectively, for those living in border counties. In contrast, opioids had the highest rate overall among non-border counties (36.4 per 100,000).

Table 1: Study Population Characteristics

Variable	Substance Type (n(%))		
	Opioid	Cocaine	Psychostimulant
Age			
18-44	8,300 (45.3)	2,273 (49.0)	5,354 (73.1)
45-64	6,827 (37.3)	2,148 (46.3)	1,845 (25.2)
65-74	2,222 (12.1)	201 (4.4)	111 (1.5)
75+	955 (5.3)	13 (0.3)	14 (0.2)
Race/Ethnicity			
NH White	11,807 (64.5)	1,318 (28.4)	4,336 (59.2)
NH Black	1,648 (9.0)	1,836 (39.6)	817 (11.1)
Hispanic	3,817 (20.9)	1,211 (26.1)	1,726 (23.6)
NH Other*	1,037 (5.6)	275 (5.9)	448 (6.1)
Border Status			
Border	996 (5.4)	564 (12.2)	296 (4.0)
Non-Border	17,313 (94.6)	4,076 (87.8)	7,031 (96.0)
Mental Health Visits	18,309 (36.8%)	4,640 (36.3)	7,327 (42.9)

NH = Non-Hispanic
Non-Hispanic Other = American Indian/Eskimo/Aleut; Asian or Pacific Islander; Other

Figure 1: Rates of Mental Health ED Visits by Substance Type and Border Status Per 100,000

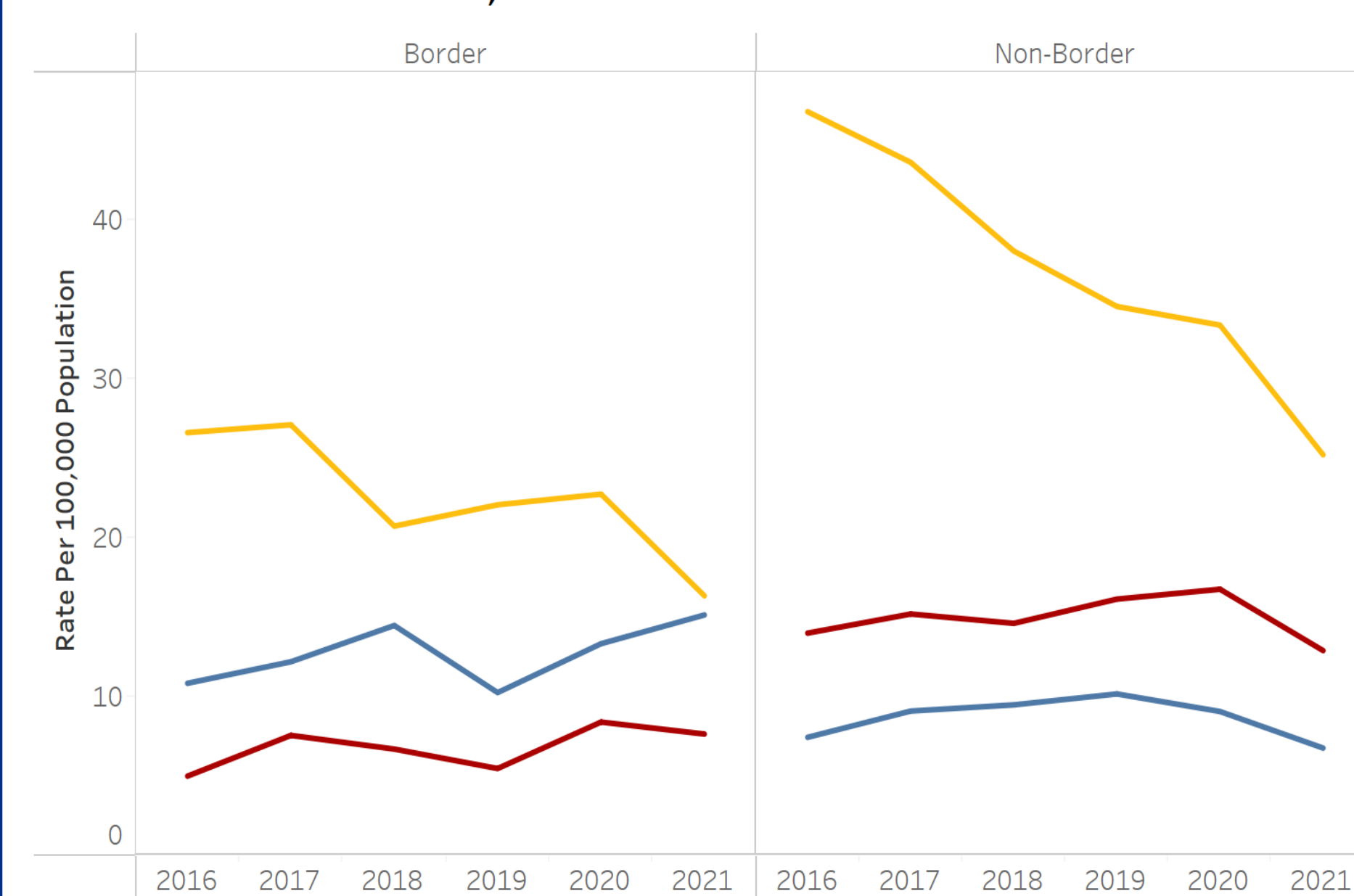


Figure 2: Frequency of Mental Health ED Visits by Substance Type and Year

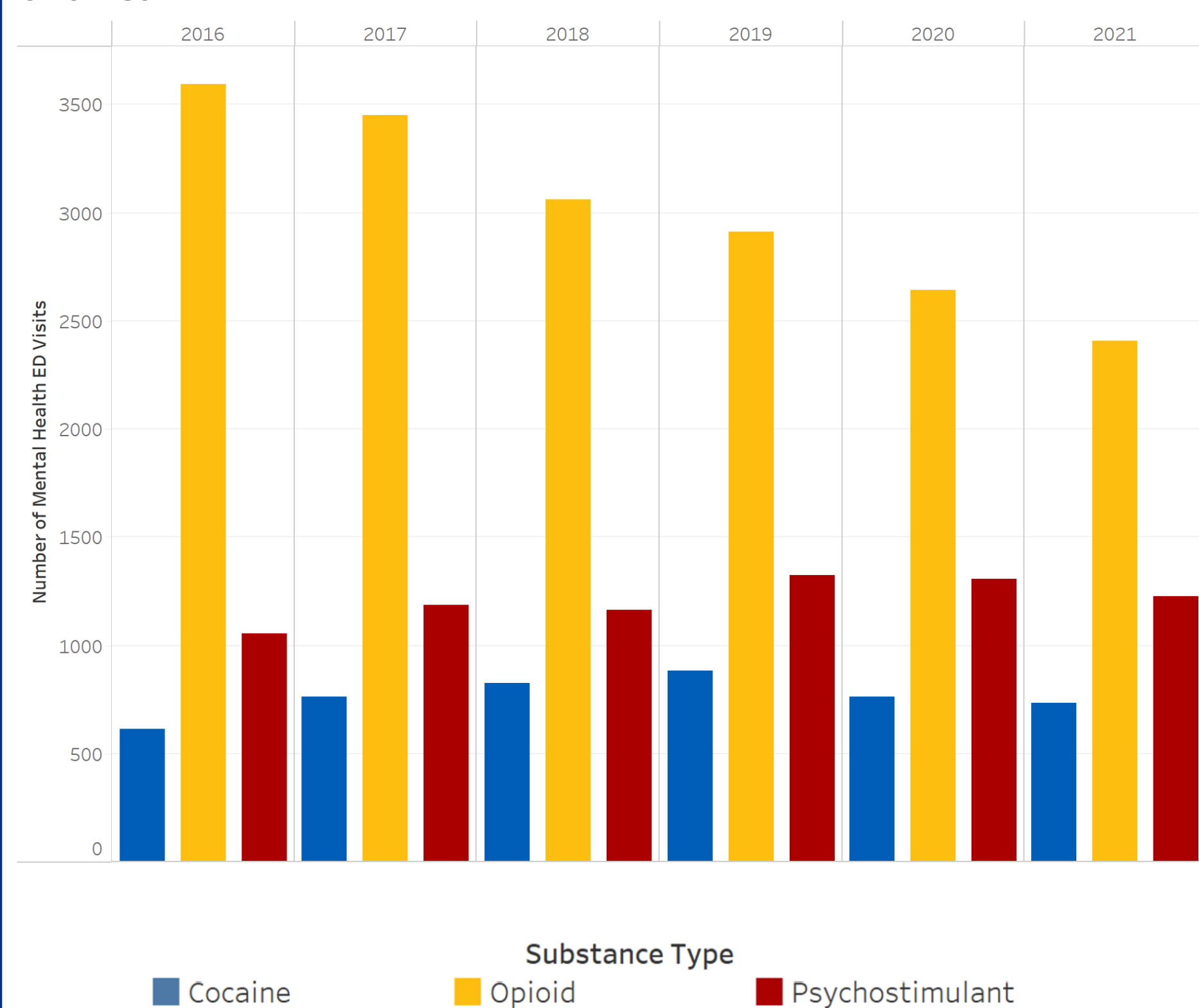


Table 2: Rates of Mental Health ED Visits by Substance Type Per 100,000

Opioid		Cocaine		Psychostimulant	
Border	Non-Border	Border	Non-Border	Border	Non-Border
22.3	36.4	12.7	8.6	6.8	14.8

Figures:

- Rates of cocaine poisonings are higher in border compared to non-border counties (fig. 1)
- Rates of psychostimulant related poisonings increased 2018-2019 (fig. 2)

Conclusions

In this study, we used the Texas Hospital Inpatient and Outpatient Discharge data to report prevalence rates and trends of nonfatal ED visits involving poisoning by opioids, cocaine, or psychostimulants with a co-occurring mental health visit. Our analyses found that the rate of these visits is lower among Texas border counties.

Because mental health and substance use are closely related, awareness of this complex relationship is important for prevention and early intervention. In addition, assessing the rates of visits based on border status highlights the need to strengthen the local and regional capacity to address co-occurring mental health and substance use disorders.

References:

Vivolo-Kantor AM, Hoots BE, Scholl L, et al. Nonfatal Drug Overdoses Treated in Emergency Departments — United States, 2016–2017. *MMWR Morb Mortal Wkly Rep* 2020;69:371–376. DOI: <http://dx.doi.org/10.15585/mmwr.mm6913a3external icon>

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