

SUPPLEMENTARY TABLE. Characteristics of nitrous oxide (N2O)-involved poison control center (PCC) cases, emergency department (ED) visits, and emergency medical services (EMS) responses — Michigan, 2019-2023

Characteristic	PCC Cases		ED Visits		EMS Responses	
	Cases, No. (% of Total)	Crude Rate per 1,000,000*	Cases, No. (% of Total)	Crude Rate per 1,000,000*	Cases, No. (% of Total)	Crude Rate per 1,000,000*
Total	144 (100.0%)	14.4	132 (100.0%)	13.2	192 (100.0%)	19.1
Year						
2019	10 (6.9%)	1.0	7 (5.3%)	0.7	15 (7.8%)	1.5
2020	26 (18.1%)	1.3	17 (12.9%)	0.8	16 (8.3%)	0.8
2021	25 (17.4%)	2.5	21 (15.9%)	2.1	31 (16.1%)	3.1
2022	35 (24.3%)	3.5	27 (20.5%)	2.7	52 (27.1%)	5.2
2023	48 (33.3%)	4.8	60 (45.5%)	6.0	78 (40.6%)	7.8
Age Group						
0-19	25 (17.4%)	8.2	7 (5.3%)	2.3	10 (5.2%)	3.3
20-39	100 (69.4%)	39.5	111 (84.1%)	43.9	138 (71.9%)	54.6
40-59	12 (8.3%)	4.7	14 (10.6%)	5.5	40 (20.8%)	15.6
60+	2 (1.4%)	Suppressed	0 (0.0%)	0.0	3 (1.6%)	Suppressed
Unknown Age	5 (3.5%)	-	0 (0.0%)	-	1 (0.5%)	-
Age (Median (IQR))	26 (21-33)	-	29 (24-33)	-	32 (25-39)	-
Sex						
Female	66 (45.8%)	13.1	66 (50.0%)	13.1	66 (34.4%)	13.1
Male	78 (54.2%)	15.7	66 (50.0%)	13.2	125 (65.1%)	25.1
Unknown	0 (0.0%)		0 (0.0%)		1 (0.5%)	
Race†						
White	-	-	96 (72.7%)	12.1	127 (66.1%)	16.1
Black	-	-	18 (13.6%)	12.7	19 (9.9%)	13.4
Other	-	-	5 (3.8%)	-	18 (9.4%)	-
Unknown	-	-	13 (9.8%)	-	28 (14.6%)	-
Urbanicity^{§,¶}						
Metro	132 (91.7%)	16.1	125 (94.7%)	15.2	181 (94.3%)	22.0
Micropolitan	5 (3.5%)	Suppressed	3 (2.3%)	Suppressed	4 (2.1%)	Suppressed
Noncore	2 (1.4%)	Suppressed	4 (3.0%)	Suppressed	7 (3.6%)	10.4
Unknown	5 (3.5%)	-	0 (0.0%)	-	0 (0.0%)	-
Fatal Event**	0 (0.0%)	0.0	0 (0.0%)	0.0	14 (7.3%)	1.4

Abbreviations: PCC=Poison Control Center Cases, ED=Emergency Department, EMS=Emergency Medical Services

Data Sources: Poison control center call data from the Michigan Poison and Drug Information Center (MiPDC), ED data from the Michigan Syndromic Surveillance System, EMS data from biospatial, Inc.

*2022 population used as denominator for 2023 rate calculation as 2023 population estimate was not yet available. Rates where the numerator count is between 1-5 are suppressed to preserve statistical stability.

†Race is not collected by MiPDC during exposure calls.

§Urbanicity categorization was based on the National Centers for Health Statistics 6-level Urban-Rural Classification Scheme for Counties. Records were assigned to the "Metro" category if the county was within the NCHS large fringe metro, small metro, medium metro, or large central metro categories, to the "Micropolitan" category if the caller county was within the NCHS micropolitan category, or to the "Noncore" category if the caller county was within the NCHS noncore category.

¶County was missing in 5 (4%) of MiPDC records and urbanicity could not be assigned. Percents represent percent of total including missing cases.

**Fatal events identified if death was listed as the medical outcome in the MiPDC data or the disposition in the ED data, or the EMS outcome was fatal in EMS care. These may be under-estimates if the death was not reported in the patient record, or it occurred after EMS or MiPDC care was discontinued.