

Presented at the ACMT Annual Scientific Meeting 2023 – San Diego, CA

Published in J Med Toxicol 2023;19(2):116.

114. Changes in Route of Administration Among People Who Use Fentanyl, ToxIC Core Registry, 2014-2021

Emily V Glidden^{1,2}, Desiree Mustaquim²; On behalf of the Toxicology Investigators Consortium (ToxIC)

¹National Network of Public Health Institutes, New Orleans, LA. ²Centers for Disease Control and Prevention, Division of Overdose Prevention, Atlanta, GA.

Background: The drug overdose crisis and illicit drug supply continue to evolve, as have behaviors of people who use drugs. A better understanding of changing drug use behaviors, including routes of administration (ROA), allows for more tailored prevention and response activities.

Methods: We analyzed data from the Toxicology Investigators Consortium (ToxIC) Core Registry from 2014-2021. We explored changes in reported ROA among medical toxicology patient consultations with an intentional exposure to fentanyl. Annual counts and percentages by ROA were calculated.

Results: Annual counts of intentional fentanyl exposures with ROA reported were similar from 2014 (n=27) to 2015 (n=29), rising slightly in 2016 (n=41) before increasing in 2017 (n=72). Counts were similar from 2017 to 2018 (82), increasing in 2019 (n=134) and dipping slightly in 2020 (n=118) before increasing again in 2021 (n=201). Annual dermal exposures (i.e., patch) dropped from 44.4% in 2014 (n=12) to 1.0% in 2021 (n=2). Annual injection exposures increased from 3.7% in 2014 (n=1) to 19.5% in 2016 (n=8) before dropping in 2017 (n=4;5.6%), peaking at 32.8% in 2019 (n=44), and decreasing to 9.0% in 2021 (n=18). Smoking exposures first occurred in 2016 (n=3;7.3%) increasing in 2020 (n=20;16.9%) and peaking at 19.9% in 2021 (n=40). Annual snorting exposures increased from 2014 (n=1;3.7%) through 2019 (n=15;11.2%), peaking at 20.3% in 2020 (n=24) and dipping in 2021 (n=34;16.9%). Annual oral exposures rose from 14.8% (n=4) in 2014 to 34.5% (n=10) in 2015, and after a low in 2019 (n=19;14.2%), rose to 21.2% in 2020 (n=25) and 21.4% in 2021 (n=43).

Conclusion: Results show shifting drug use behaviors initially from transdermal use to injecting, then to smoking or snorting. The need for harm reduction strategies for people who smoke, snort, or inject drugs, as well as other evidence-based prevention and accessible treatment remains urgent in combating the overdose crisis.