MILLENNIUM HEALTH SIGNALS ALERT™

Parafluorofentanyl Surges in the Western U.S.

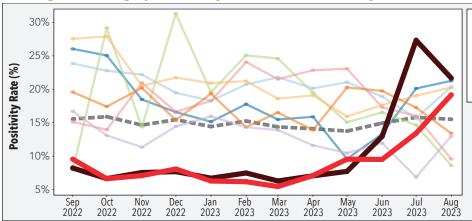
Published September 2023



Clinicians and public health officials, especially in the West, should maintain awareness of parafluorofentanyl use in their communities as it may increase overdose risk and potentially complicate the treatment of opioid use disorder

- Parafluorofentanyl is a fentanyl analogue with similar or slightly lower potency than illicitly manufactured fentanyl (IMF)¹
- Parafluorofentanyl-involved overdose deaths increased substantially from 2020-2021, especially in Eastern portions of the U.S., and almost always co-involved IMF¹
- This analysis shows geographical trends in parafluorofentanyl detection in fentanyl-positive specimens from September 2022 through August 2023 (Figure 1) and determined the percent change between the first and last 3-month periods (September November 2022 vs. June August 2023; Figure 2)
- Parafluorofentanyl dramatically increased in the Pacific (—) and Mountain (—) divisions from March to August of 2023 but generally declined in all other Census divisions (Figure 1)
- Significant increases were observed in the Pacific (+61%) and Mountain (+170%) divisions between the first and last 3-month periods; significant decreases occurred in the West South Central, East North Central, East South Central, and South Atlantic divisions (Figure 2)

Figure 1: Geographical Analysis of Parafluorofentanyl Detection in Fentanyl-Positive Urine Specimens

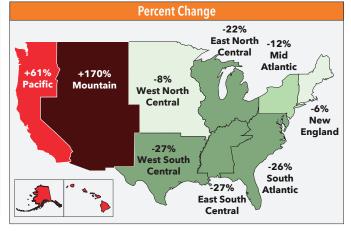




90,640 urine specimens (representing 33,374 patients) submitted for drug testing by an ordering provider between September 2022 and August 2023 were analyzed for parafluorofentanyl if fentanyl was also detected. Generalized Estimation Equation (GEE) Poisson regression was used to model the month (Figure 1) or consecutive 3-month (Figure 2) collection period and the U.S. Census Division. Predicted incidence rates (detection rates) and Percent Change are reported.

Figure 2: Change in 3-Month UDT Parafluorofentanyl Detection by U.S. Census Division

	3-Month UDT Detection Rate	
U.S. Census Division	Sep - Nov 2022	Jun - Aug 2023
Pacific	8%	13%*
Mountain	8%	20%*
West North Central	19%	18%
West South Central	14%	10%*
East North Central	23%	18%*
East South Central	24%	17%*
Mid Atlantic	17%	15%
South Atlantic	25%	19%*
New England	17%	16%
U.S. Total	16%	16%



Reference:

1. Bitting J, O'Donnell J, Mattson CL. Notes from the Field: Overdose Deaths Involving Para-fluorofentanyl - United States, July 2020-June 2021. MMWR Morb Mortal Wkly Rep. 2022;71(39):1239-1240. Published 2022 Sep 30. doi:10.15585/mmwr.mm7139a3

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^{*} represents a significant change with P value < 0.05