Methadone-related overdoses accounted for nearly one in four deaths related to prescription opioids in 2014, despite a recent decline in drug overdose deaths involving methadone, said researchers from the Centers for Disease Control and Prevention.

Overall, the rate of methadone-overdose deaths increased 600% from 1999 to 2006 (from 0.3 persons per 100,000 to 1.8 per 100,000) before declining to 1.1 per 100,000 in 2014, reported Mark Faul, PhD, and colleagues.

While the drug accounted for only 1% of all opioid prescriptions, methadone-related deaths were responsible for 22.9% of opioid-related deaths in 2014, the authors wrote in the *Morbidity and Mortality Weekly Report*,

In an attempt to explain this decline in methadone-related mortality, the researchers noted that the FDA issued a Public Health Advisory in December 2006 that linked methadone to reports of respiratory depression and cardiac arrhythmias, among other serious side effects. Moreover, in January 2008, there was a voluntary manufacturer restriction that limited the distribution of the 40 mg formulation of methadone.

Faul and colleagues also examined methadone prescription by insurance type and found that prescriptions for methadone accounted for a higher portion of all
opioid prescriptions in the Medicaid population compared with the commercially insured population -- 0.85% weighted versus 1.1%, respectively.

Further, the team investigated the role that Medicaid preferred-drug-list (PDL) policies played in these potential deaths, examining the rates of fatal and nonfatal methadone overdose among Medicaid enrollees in two states where methadone was listed as a preferred drug on its PDL (Florida and North Carolina) versus one state where methadone was not listed on the PDL (South Carolina). Not surprisingly, overdose rates were significantly lower in South Carolina than in both North Carolina and Florida:

- Florida: 1.75 per 100,000 persons, 95% CI 1.57-1.94
- North Carolina: 1.67 per 100,000 persons, 95% CI 1.35-1.98
- South Carolina: 0.81, 95% CI 0.65-0.96

"Given that methadone prescribing rates are higher among persons enrolled in Medicaid, strategies to reduce methadone prescribing among persons in this population might further reduce injuries and deaths from methadone," the authors wrote. "If confirmed by additional studies, other states could consider Medicaid drug utilization management strategies such as PDL placement among other evidence-based strategies."

The researchers examined three sources for these data: Drug overdose deaths and mortality rates were calculated through National Vital Statistics System Multiple Cause of Death mortality files and bridged U.S. Census data for 1999-2014. Truven Health's MarketScan database for commercial claims and encounters was examined and compared with information from Medicaid multistate databases for 2014. Finally, Health Care Utilization Project data were examined from three states to determine whether a state’s policy was associated with higher methadone morbidity and mortality rates.

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