Rising Stimulant Overdoses Among Young People in the United States

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Although commonly described as an opioid crisis, the drug overdose epidemic in the United States increasingly involves use of substances other than opioids.1,2 In this issue of Pediatrics, Roehler et al3 describe a concerning rise in overdoses among children, adolescents, and young adults related to stimulants such as cocaine, methamphetamine, and prescription drugs (including those commonly used to treat attention deficit/hyperactivity disorder).

Drawing on 2016–2019 surveillance data from a plurality of US emergency departments across 47 states, the authors found that whereas visits for drug overdoses rose only slightly among children <15 and remained unchanged in adolescents and young adults 15 to 24, visits for stimulant overdoses increased across all ages. Specifically, over each quarter between April 2016 and September 2019, stimulant overdose visits among young people aged 0 to 10, 11 to 14, and 15 to 24 years increased by 3%, 4%, and 2%, respectively.

These findings mirror other recent national drug overdose trends. Although the overall US overdose mortality rate plateaued in 2018 after climbing for 2 decades,4 preliminary 2019 data suggest a return to increasing year-over-year rates.1 Nationally, deaths involving cocaine and other stimulants increased sharply after 2016, including among youth ages 15 to 24.1,5

The overdose crisis is complex and evolving. Public health experts have described it as having occurred in waves.5,6 The first wave, beginning in the early 2000s, was largely driven by increases in prescription opioid-related overdoses, likely fueled by aggressive industry marketing of opioid products.7 Concomitant with a decrease in opioid prescribing, heroin began to supplant prescription opioids during the second wave of the early 2010s. From late 2013 onwards, highly potent fentanyl flooded drug markets and contributed to unprecedented mortality during the third wave. Now, in the fourth wave of the crisis, clinicians, public health experts, and policymakers are grappling with rising overdose fatalities involving stimulants, particularly cocaine and methamphetamine.

Pediatricians and other clinicians caring for youth should be concerned. Approximately 1 in 25 high school students has used cocaine, and 1 in 50 has used methamphetamine.8 Racial inequities are pernicious; previous work has revealed that Black and Latinx youth are significantly less likely to receive timely evidence-based addiction treatment.9 These inequities are critical not only because of the excess risk for overdose without recommended care, but also because youth of color are significantly more likely than white youth to be incarcerated for drug-related charges and to experience lifelong adverse health consequences stemming from criminal justice involvement.

What should also concern clinicians is the exceptional difficulty of treating stimulant use disorder. Whereas opioid use disorder is effectively treated with US Food and Drug

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Administered--approved medications, there are no approved pharmacotherapies for stimulant use disorder, and most behavioral therapies are disappointingly ineffective. Similarly, whereas widespread distribution of the opioid overdose reversal agent naloxone in the United States has averted innumerable deaths, no comparable antidote exists for stimulants. Preventing stimulant use disorder from developing in the first place remains our best hope for averting downstream harms.

Roehler et al draw much-needed early attention to this worsening public health problem. Further studies are needed. The authors examine overdoses among 15- to 24-year-olds collectively; more granular age data would shed light on the precise times that overdoses are rising during adolescence and young adulthood. Data are also needed on how stimulant overdoses in youth are related to rising fentanyl overdose and to polysubstance use.

In the meantime, pediatricians and other clinicians can take immediate action. They can routinely screen for substance use using a validated tool (eg, Screening to Brief Intervention, https://www.drugabuse.gov/ast/s2bi/; Brief Screener for Tobacco, Alcohol, and other Drugs, https://www.drugabuse.gov/ast/bstad/; Car, Relax, Alone, Forget, Family/Friends, Trouble, https://crafft.org/), counsel on substance use, and refer to addiction treatment when needed. As respected citizens in their communities, clinicians can advocate for evidence-based prevention programming in schools and other settings. When clinicians prescribe stimulants, they can counsel parents that they should ensure safe, locked storage of medications, which is especially critical given the rising rates of presumably unintentional stimulant overdoses observed in younger ages in the study by Roehler et al. Given that preliminary national 2019 data suggest that overdose rates have once again resumed their climb, addressing stimulant misuse and overdose early in the life course is urgent.

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