Along with the worsening coronavirus disease 2019 (COVID-19) pandemic, the US is simultaneously witnessing an insidious rise in drug-associated overdoses, now reaching a record high level. While the opioid epidemic has been at the forefront of addiction treatment, policy, and research in the recent past, the steady rise in stimulant use and associated deaths from drugs such as cocaine and methamphetamine portend an extremely concerning future. As necessary next steps to curb these trends, more biopsychosocial research, stimulant-specific harm reduction methods, and adequate public health resource allocations are urgently needed.

At present, opioid overdoses remain the most common drug-associated cause of mortality—claiming more than 130 lives daily in the US. However, stimulant-associated fatalities are not far behind. In 2018, overdoses involving cocaine killed nearly 40 US individuals daily—up from 10 daily deaths in 1999. From 2013 through 2018, the age-adjusted rate of cocaine-associated overdose fatalities nearly tripled—an increase by about 27% per year. Additionally, overdoses involving psychostimulants such as methamphetamine claimed nearly 35 lives daily—up from only 2 deaths per day in 1999. From 2012 through 2018, the age-adjusted fatality rate increased nearly 5-fold—a spike of roughly 30% per year.

At the same time, illegally manufactured fentanyl, an extremely potent synthetic opioid, and its analogs, such as carfentanil, are increasingly and without users’ awareness being mixed into stimulants, predisposing a greater risk of overdose and death. Data from 2019 from the US Centers for Disease Control and Prevention indicate that more than 3 in 10 overdose deaths involved both opioids and stimulants, while more than 1 in 10 deaths involved stimulants alone. Lockdowns, job losses, social isolation and disruption in health care services associated with COVID-19 may be exacerbating these trends.

Disaggregating the demographic differences of stimulant uptake statistics is critical to nuanced public health interventions. For example, significant racial/ethnic disparities persist in stimulant-associated fatalities. From 2009 to 2018, the cocaine-associated death rate among non-Hispanic Black individuals was nearly double that of non-Hispanic White individuals and 3 times that of Hispanic individuals. Geographic differences are also striking. Stimulants are involved in more overdose deaths in Southern and Western states than in Northeastern and Midwestern ones. Additionally, substance use disorders disproportionately affect lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals compared with their heterosexual counterparts because of discrimination, stigma, and abuse based on sexual orientation or gender identity. Some studies estimate that 20% to 30% of the LGBTQ community misuses substances, compared with 9% of the general population. Attending to these specific population needs will be critical for effective policy design.

It is essential to raise awareness about stimulant misuse in the US and build a roadmap to plateau (and hopefully reverse) the rise in stimulant use-associated overdose deaths. Although only a subset of people who use stimulants will be diagnosed with stimulant use disorders, therapies are limited. Current treatment mainstays for those diagnosed are largely psychosocial—including motivational interviewing, contingency management, community reinforcement approach, and cognitive behavioral therapy. A recent systematic review found that contingency management and a community reinforcement approach synergistically held the most promise in achieving abstinence.
But for those who may not respond to behavioral treatments alone, there are no equivalent treatments, such as methadone or buprenorphine, that show a large and reproducible beneficial effect in stimulant use disorders.\(^7\)

In addition to psychosocial treatment options, more research is needed to better understand the neurobiology, heritability, and/or environmental factors contributing to stimulant use disorders. It is necessary to ramp up clinical trials to find potent pharmacological agents. Advances in stimulant-specific vaccines may also hold promise.

In the near term, communication and adoption of harm reduction practices will also be critical to decelerating the rise in overdose deaths associated with stimulant use. In particular, health care professionals should discuss with patients the ways to avoid binging and managing stimulant crashes, offer resources around syringe exchange programs and safe consumption services, and advocate for regulatory changes to sites.

At the same time, greater public and provider awareness around stimulant-associated fatalities, ways to detect contamination with illegally manufactured fentanyl, ease of access to naloxone rescue kits,\(^8\) and warning signs of stimulant overdose are needed. Encouraging the use of fentanyl test strips could be a possible solution. Some studies have shown that there is high acceptability of these strips among young adults and adults in general and knowledge of fentanyl contamination was associated with reduced frequent and solitary drug use.

Another effort worth investigating is the adoption of safe supply programs in which patients can have access to prescribed stimulants, such as Dexedrine for cocaine use disorder or methylphenidate for methamphetamine use disorder, delivered to their primary residence. This can potentially reduce accidental overdoses and fatalities from contaminated stimulant use.\(^9\)

Finally, system-level efforts need to be prioritized. Encouraging hospital participation in the Substance Abuse and Mental Health Services Administration’s recently reestablished Drug Abuse Warning Network may serve as an important step for region-specific surveillance of substance use patterns. At the same time, US ethnic/racial minority members may benefit from expansive community engagement programs, such as Brother, You’re On My Mind, and culturally competent messaging and representation in advertising campaigns. Also, increased government funding and broader payer coverage to offset financial burdens of substance use disorder treatment may be challenges. Additionally, greater institutional commitment to LGBTQ visibility, investment in diverse and inclusive health care professionals, and implementation of cognitive behavioral therapy programs such as Getting Off may be beneficial. We must also work to destigmatize and reframe the narrative around substance use disorders, expand access to mental health professionals through telemedicine and mobile health applications, especially during the pandemic, and prioritize legislative reform to end the war on drugs. Oregon’s latest effort (Measure 110) to decriminalize small amounts of stimulants, heroin, and other drugs is an important step forward.

We are at a critical juncture of multipronged public health needs. However, a recent study shows that the prongs are not mutually exclusive. Of the 73 million people studied, individuals with substance use disorders were more likely to develop COVID-19 symptoms and have adverse consequences, including hospitalizations and deaths. Specifically, individuals with cocaine use disorder had substantially increased risk associated with COVID-19. However, with concerted efforts and innovative harm reduction methods implemented sooner rather than later, stimulant-associated morbidity and mortality can be significantly decreased.
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