Substance use disorders, which are problematic patterns of using alcohol or another substance, such as crack cocaine, methamphetamine (“meth”), amyl nitrite (“poppers”), prescription opioids, and heroin, are closely associated with HIV and other sexually transmitted diseases.

Injection drug use (IDU) can be a direct route of HIV transmission if people share needles, syringes, or other injection materials that are contaminated with HIV. However, drinking alcohol and ingesting, smoking, or inhaling drugs are also associated with increased risk for HIV. These substances alter judgment, which can lead to risky sexual behaviors (e.g., having sex without a condom, having multiple partners) that can make people more likely to get and transmit HIV.

In people living with HIV, substance use can hasten disease progression, affect adherence to antiretroviral therapy (HIV medicine), and worsen the overall consequences of HIV.

**Commonly Used Substances and HIV Risk**

- **Alcohol.** Excessive alcohol consumption, notably binge drinking, can be an important risk factor for HIV because it is linked to risky sexual behaviors and, among people living with HIV, can hurt treatment outcomes.
- **Opioids.** Opioids, a class of drugs that reduce pain, include both prescription drugs and heroin. They are associated with HIV risk behaviors such as needle sharing when injected and risky sex, and have been linked to a recent HIV outbreak.
- **Methamphetamine.** "Meth" is linked to risky sexual behavior that places people at greater HIV risk. It can be injected, which also increases HIV risk if people share needles and other injection equipment.
- **Crack cocaine.** Crack cocaine is a stimulant that can create a cycle in which people quickly exhaust their resources and turn to other ways to get the drug, including trading sex for drugs or money, which increases HIV risk.
- **Inhalants.** Use of amyl nitrite (“poppers”) has long been linked to risky sexual behaviors, illegal drug use, and sexually transmitted diseases among gay and bisexual men.

**Prevention Challenges**

A number of behavioral, structural, and environmental factors make it difficult to control the spread of HIV among people who use or misuse substances:

- **Complex health and social needs.** People who are alcohol dependent or use drugs often have other complex health and social needs. Research shows that people who use substances are more likely to be homeless, face unemployment, live in poverty, and experience multiple forms of violence, creating challenges for HIV prevention efforts.
- **Stigma and discrimination associated with substance use.** Often, illicit drug use is viewed as a criminal activity rather than a medical issue that requires counseling and rehabilitation. Fear of arrest, stigma, feelings of guilt, and low self-esteem may prevent people who use illicit drugs from seeking treatment services, which places them at greater risk for HIV.
- **Lack of access to the health care system.** Since HIV testing often involves questioning about substance use histories, those who use substances may feel uncomfortable getting tested. As a result, it may be harder to reach people who use substances with HIV prevention services.
- **Poor adherence to HIV treatment.** People living with HIV who use substances are less likely to take antiretroviral therapy (ART) as prescribed due to side effects from drug interaction. Not taking ART as prescribed can worsen the effects of HIV and increase the likelihood of spreading HIV to sex and drug-sharing partners.
What CDC Is Doing

CDC and its partners are pursuing a high-impact approach to advance the goals of the National HIV/AIDS Strategy (NHAS) (https://www.aids.gov/federal-resources/national-hiv-aids-strategy/overview/) to maximize the effectiveness of current HIV prevention methods and to improve what we know about the behaviors and risks faced by people who use substances. For example, CDC

- **Has awarded at least $330 million each year since 2012** (http://www.cdc.gov/hiv/funding/announcements/ps12-1201/index.html) ($343.7 million in 2015) to health departments to direct resources to the populations and geographic areas of greatest need, including gay and bisexual men, and prioritize the HIV prevention strategies that will have the greatest impact.

- **Supports intervention programs** that deliver services to people who inject drugs, such as Community PROMISE (https://effectiveinterventions.cdc.gov/en/HighImpactPrevention/Interventions/PROMISE.aspx), a community-level HIV/STD prevention program that uses role-model stories and peer advocates to distribute prevention materials within social networks.

- **Supports responses for outbreaks of HIV** traced to injection drug use such as the 2015 outbreak in rural Indiana.

- **Supports programs to develop biomedical approaches to HIV prevention for people who use substances** such as pre-exposure prophylaxis (PrEP) (http://www.cdc.gov/hiv/basics/prep.html) for people at high risk, post-exposure prophylaxis (PEP) (http://www.cdc.gov/hiv/basics/pep.html) to lower the chances of becoming infected after an exposure, and antiretroviral therapy (ART) (http://www.cdc.gov/actagainstaids/campaigns/hivtreatmentworks/stayincare/treatment.html) or daily medicines to treat HIV.

- **Maintains the National HIV Surveillance System** (http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html) to monitor and evaluate trends in HIV among various populations, including people who inject drugs. Data about HIV and AIDS cases are collected through state and local health departments and then reported to CDC after personal identifiers have been removed. The data may be used to determine who is most at-risk and to develop and implement interventions that reach people who inject drugs.

- **Conducts the National HIV Behavioral Surveillance** (http://www.cdc.gov/hiv/statistics/systems/nhbs/) survey to collect information about behaviors of populations at increased risk for HIV, including alcohol and drug use, testing behaviors, and use of HIV prevention services.

- **Provides culturally appropriate prevention messages through Act Against AIDS** (http://www.cdc.gov/actagainstaids/index.html), a national initiative that focuses on raising awareness, fighting stigma, and reducing the risk of HIV infection among at-risk populations.

- **Works with the White House and other partners** to support the objectives of the 2015 National Drug Control Strategy (https://www.whitehouse.gov/ondcp/national-drug-control-strategy), which aims to use evidence-based public health strategies to reduce illicit drug use.