Communities and people in Indiana are adversely affected by substance use disorders. In Indiana, 1 in 12 people meet criteria for a SUD — the term used in the medical field for drug and alcohol abuse and addiction. Opioid use is not only costly in dollars — more than $43 billion in direct and indirect costs during the past 15 years (Indiana University, 2021) — but also in the health and welfare of Hoosiers. Indiana has the highest rate of hepatitis C in the United States.

Hepatitis C is primarily spread via the sharing of syringes (Centers for Disease Control and Prevention, Figure 3.2, 2021). One out of every 100 infants born in Indiana has Neonatal Abstinence Syndrome or Neonatal Opioid Withdrawal Syndrome (Progress Report, 2022), meaning they are born with an addiction to opioids or other substances. The Child Welfare Policy and Practice Group found that in 55% of cases where children were removed from their homes, it was due to substance use by the parents. In 2017, the Indiana Department of Child Services spent nearly $25 million on drug testing supplies (Child Welfare Policy and Practice Group, 2018).

From 2019 to 2020, during the COVID-19 pandemic, the nation experienced a nearly 30% increase in overdose deaths (Goodnough, 2021).
While many individuals are ready to enter treatment, many are not prepared to take that step. This may be due to denial, fear of stigma related to seeking treatment, or lack of confidence in their ability to enter into and maintain recovery. This is captured in the Stages of Change model, which asserts that individuals go through different stages of readiness to change, and that interventions must align with an individual’s stage in the change process (Prochaska & DiClemente, 1983).

What does this mean for an individual who is not ready to stop using substances? Even if the person is not open to abstaining from use or attending a treatment program, the individual might be willing to take steps to reduce use, or lessen some of the risks inherent in use. Harm reduction strategies diminish the long-term negative consequences of use, not only for the individual but for society as a whole, which shoulders the economic and social burden of substance use. Moreover, it sets the stage for individuals to enter recovery.


**Harm Reduction Programs**

**Naloxone Distribution**

Between 2019 to 2020, Indiana saw a 50% increase in overdose deaths due to opioids, with 1,875 individuals dying of an opioid overdose in 2020 (IDOH, 2021). Opioids suppress respiratory function to the point that an individual becomes unconscious and stops breathing. Naloxone (Narcan) is a lifesaving medication that reverses the effects of opioid overdose. Naloxone can be injected or administered by nose spray. Naloxone can be purchased over-the-counter in all 50 states (in Indiana since 2015 with the passage of PL 32-2015, Aaron’s Law). This is important because it is vital that naloxone be administered quickly. Brain death occurs within six minutes of an individual ceasing to breathe, and in rural areas of Indiana, it may take 15 to 30 minutes for emergency medical services (EMS) to arrive to administer care (AP, 2021). Under Aaron’s Law, if an individual administers naloxone and contacts EMS, they are shielded from civil liabilities.

What is “harm reduction”? Harm reduction is “interventions aimed at reducing the negative effects of health behaviors without necessarily extinguishing the problematic health behaviors completely” (Hawk, et al., 2017). Individuals may be willing to take steps that minimize the impact of unhealthy behaviors, thus improving their overall health. For example, a person might not be ready to quit smoking but is willing to try to reduce smoking to half a pack a day instead of a full pack. Continuing to smoke is not ideal, yet it is less harmful to smoke half a pack than a full pack.

Harm reduction principles, while commonly applied to interventions around substance use disorder, can be applied in a variety of situations. For example, using a condom reduces the risk of sexually transmitted infections, wearing a seatbelt while driving reduces the number of deaths from car crashes, and applying sunscreen reduces the incidence of skin cancer (Indiana State Department of Health, 2020). We assume certain risks in daily life, but often there are strategies we can employ to minimize those risks.

Research shows that harm reduction programs are effective in multiple important ways. Harm reduction programs reduce the spread of hepatitis C, HIV, and other blood-borne pathogens that emerge with the sharing of syringes; reduce health care costs; function as a bridge to recovery services; decrease the number of overdose deaths; and reduce stigma (Substance Abuse and Mental Health Services Administration, 2022). Staff at these programs develop trusting, non-judgmental relationships with individuals who use drugs and alcohol, and, as a result, can support these individuals when they are ready to enter recovery. The following section details several harm reduction programs that could be helpful in Indiana.
Naloxone can be distributed in a variety of ways. For example, pharmacies sell naloxone; no prescription is required. However, it is often expensive – from $40 to $100 per dose. This may be a barrier to those who need it most. To eliminate the cost barrier, some communities have publicly placed boxes that contain free doses of naloxone, called NaloxBoxes. Recovery programs and syringe exchanges may distribute naloxone directly to users. Ship Happens mails naloxone for free to individuals who request it, thus increasing access and protecting privacy.

Syringe Exchange Programs
Intravenous drug use can lead to outbreaks of HIV, hepatitis C, and other infections. Sharing syringes is the leading cause of hepatitis C and one of the main causes of HIV, per CDC data. In fiscal year 2022, the federal government spent $13 billion on Medicaid services for people living with HIV (Dawson et al., 2023). These patients are also more likely than the general population to be without health insurance. Large viral outbreaks bring negative publicity to rural areas at the state and national level (Gonsalves & Crawford, 2018).

Syringe exchange programs provide sterile syringes in exchange for used syringes, and often provide wound care items, hepatitis C and HIV testing, naloxone to individuals who inject drugs, and referrals to treatment. Some programs do a 1:1 exchange of used syringes for sterile syringes; others do not link the number of syringes they provide to the number of syringes returned. Frequently, syringe exchange programs are mobile or community-based, though there are pharmacy-based syringe exchange programs. Evidence suggests that pharmacy-based programs effectively reduce risky behaviors, but their effectiveness may be affected by the pharmacist’s role in counseling the individual (Sawanjit et al., 2016). More study on the role of pharmacy-based syringe exchanges is needed.

In Indiana
For a current list of syringe service programs in Indiana, visit Indiana Recovery Network’s Syringe Service Programs of Indiana page: https://www.indianarecoverynetwork.org/syringe-service-programs-of-indiana/

Many of the objections to needle exchanges, such as that they increase crime or incentivize substance use, are not supported by evidence (Allen, Ruiz, & O’Rourke, 2015). Policies that decrease barriers to accessing clean syringes, such as allowing individuals to purchase syringes without a prescription from a pharmacy, appear to reduce the sharing of syringes and other drug paraphernalia (Nassau et al., 2020). Currently, many pharmacies that allow this practice are less likely to be located in high drug-use areas (Meyerson et al., 2018). Research shows that syringe exchanges reduce the sharing of needles and reduce the reuse of contaminated syringes (Clark et al., 2016; Nassau et al., 2020; Sawanjit et al., 2016), thus reducing the prevalence of HIV/AIDS, hepatitis, and other blood-borne pathogens and reducing costs to the health care system.

Syringe exchange sites can connect people to treatment. A study conducted in Seattle discovered that new users of the syringe exchange program were five times more likely to start treatment than those who did not use the syringe exchange during a one-year period. It also found that individuals who were injecting daily were more likely to reduce the amount they were using (Hagan et al., 2000). Studies show that syringe exchanges often reduce, rather than increase, the number of needles discarded in public spaces, (Doherty et al., 2000; Tookes et al., 2012; Wenger et al., 2011). One study found, via self-reported behavior and an environmental scan for syringes, individuals who had access to a needle exchange were far more likely to dispose of needles properly than those in the control city that lacked a needle exchange (Tookes et al., 2012). Surveyed individuals from a city without a needle exchange reported primarily disposing of needles in trash cans and in public spaces, making the likelihood of accidental needlesticks more common. Policymakers can help syringe exchange programs be more successful by decriminalizing syringe exchange programs, eliminating laws that criminalize the possession of syringes, and allowing government funding for the operation of the programs (Allen et al., 2015).
Fentanyl Test Strips
Fentanyl is largely responsible for the massive increase in drug overdose deaths in the U.S. Fentanyl, a synthetic opioid, is 50 to 100 times stronger than morphine (CDC, Fentanyl, 2021). The U.S. Drug Enforcement Administration (DEA) has increasingly found fentanyl laced into other drugs (DEA, 2016). The rate of overdoses involving synthetic opioids was almost 12 times higher in 2019 than in 2013 (CDC, Fentanyl, 2021).

Fentanyl test strips are a recent addition to the harm reduction toolkit. They enable individuals to test for the presence of fentanyl in drugs. A little bit of the drug must be mixed with water, and then the strip is dipped into it. The strip will indicate if fentanyl is detected. The strip does not determine how much fentanyl is in the drug, nor does it detect the presence of any other substances; it only determines if fentanyl is present.

Indiana law leaves fentanyl test strips in a legally gray area. Some proponents argue that fentanyl test strips should not count as paraphernalia, as the strips cannot be used for “testing the strength, effectiveness, or purity of a controlled substance” (IC 35-48-4-8.5, 2022). However, there is no law protecting possession of fentanyl test strips. The Division of Mental Health and Addiction has partnered with Overdose Lifeline to provide fentanyl test strips to Hoosiers.

There is evidence that individuals who use drugs will take steps to increase safety based on the results of the strips. People self-report that if they get a positive indication of fentanyl, they may discard the drug they purchased, ensure there is someone else present when they use, use a smaller amount, or have naloxone on hand (Goldman et al., 2019; Peiper et al., 2019). The distribution of fentanyl strips presents an opportunity for education about safer use practices and the distribution of naloxone.

Housing First Model
Housing for the homeless often requires that they engage with social services and abstain from substance use before being eligible for housing. Some refer to this as the “Treatment First” model (Aubry et al., 2019). The Housing First model places homeless individuals in housing, regardless of current substance use or willingness to participate in mental health or recovery programs. Supportive services such as assertive community treatment or intensive case management are available to the individuals. The housing first model posits that it is easier for individuals to address substance use and mental health issues if they have safe, stable housing. Individuals experiencing homelessness are often at risk for physical and sexual violence, have less access to hygiene facilities, and are more exposed to the elements. These conditions can exacerbate psychiatric symptoms and increase dependence on substances.

Results on the Housing First approach are mixed. This model may reduce the costs of emergency services use by chronically homeless individuals, but it does not necessarily improve their mental health symptoms or substance use disorder (Tsai, 2020). Furthermore, the model may not be as effective in cost or outcomes as more time-limited programs for individuals who are not chronically homeless, because the longer-term housing subsidies may be a disincentive to employment (Eide, 2020; Poremski et al., 2016). Programs that focus on re-entry into the workforce appear to be more effective for this population.

Conclusion
Harm reduction programs continue to be hotly debated in Indiana. Some believe that the harm reduction approach facilitates or enables irresponsible substance use, and/or removes some of the strongest and most direct disincentives to such behavior — i.e., it spares people the consequences of their own choices. That is not unreasonable, but this view is based on assumptions rather than evidence. Shifting to an evidence-based approach has the potential to produce win-win outcomes, save lives, and rejuvenate communities, while reducing costs to taxpayers.

Acknowledgment
Thanks to Dr. Nicole Adams, Anne Silvis, Dr. Courtney Cuthbertson, and Dr. Miguel Cruz for their review and suggestions for this brief.
References


Centers for Disease Control and Prevention (2021) Figure 3.2. Rates* of reported acute hepatitis C† virus infections, by state — United States, 2018–2019, Viral Hepatitis. https://www.cdc.gov/hepatitis/statistics/2019surveillance/Figure3.2.htm


