

Harm Reduction Strategies for People Who Inject Drugs: Considerations for Pharmacists

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This toolkit is intended to highlight both the evidence-base, available literature as well as strategies of clinical decision making used by expert clinicians. The content reflects the views and practice of the authors as substantiated with evidence-based facts as well as opinion and experience. The opinions and recommendations in this document reflect those of the authors and do not necessarily reflect those of their employers or CPNP.

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Abbreviations

CDC - U.S. Center for Disease Control and Prevention

CLIA - Clinical Laboratory Improvement Amendments of 1988

HBV – Hepatitis B Virus

HCV - Hepatitis C Virus

HIV - Human Immunodeficiency Virus

IDU - Injection Drug Use

NSDUH - National Institutes of Health's National Survey on Drug Use and Health

OTC - Over-the-counter medication

PWID - People/Person who inject(s) drugs

PWUD - People/Person who use(s) drugs

SSTI - Skin and soft tissue infection

STI – Sexually Transmitted Infections

SUD/DUD – Substance/Drug Use Disorder

U.S. – United States

Background

More than 18 million people in the U.S. misuse prescription-type opioids, heroin, cocaine, or methamphetamine. Injection and snorting/smoking are routes of administration used by millions of people who use drugs (PWUD) during their lifetime. It is estimated that there were nearly 7 million people who injected drugs (PWID) during the 'past year'.¹ Drug Use Disorders (DUD) develop in more than one-third of those misusing prescription-type opioids, heroin, cocaine or methamphetamine.²

Resource

Data from National Institutes of Health's National Survey on Drug Use and Health (NSDUH) website²

Consequences of Injection Drug Use (IDU)

Overdoses

In 2017, there were more than 72,000 overdose deaths, including over 49,000 opioid-related deaths in the U.S.³ The number of non-fatal overdoses is estimated to be 10-30 times that of fatal overdoses.⁴ IDU increases the overall rate of death by over 13 times that of the general population, with drug overdose as the leading cause.⁵ Overdose deaths associated with synthetic opioids, including fentanyl and its derivatives began to spike in 2013 and now exceed both heroin and prescription opioid deaths. State and county level data show that no state or county in the U.S. is spared.⁶ Overdose is just one of several significant health risks associated with illicit drug use, particularly use by injection.

Resources

Center for Disease Control (CDC) webpages

- CDC overdose information
- MMWR 2018: ER overdose visits

Infections

Major consequences of IDU, as well as use by intranasal (snorting, insufflation) or smoking (using pipes), includes infection with hepatitis C virus (HCV), human immunodeficiency virus (HIV), other viruses and bacteria. Among PWID, sharing needle/syringes is the main risk factor for new HCV infections and remains an important risk for new HIV infection. Acute HCV infections in the U.S. more than tripled over a 10 year period to 2967 new cases in 2016. During that same period, rates of injecting as a method of drug use nearly doubled. In addition to injection itself, sharing drug preparation containers, filters, rinse water and backloading (a method of sharing drugs by transferring them from the needle of one syringe into the barrel of another) increases the risk of HCV acquisition. There has been a dramatic rise in HCV with 69% of PWID having acute infection in 2016. In contrast, PWID represent about 9% of new cases of HIV in the U.S.

Differing drug sources, types of heroin (i.e., "black tar", brown, or white heroin), or other physical or chemical properties may increase the risk of HIV (and likely transmission of other viral and bacterial infections). Cases of HIV transmitted directly via sharing of equipment used to snort or smoke drugs have not been reported. It is speculated this is because the virus is less tenacious and not viable outside blood and body fluids. On the other hand, HCV is more tolerant and persistent and, although studies have not consistently shown evidence of transmission via sharing equipment used for intranasal or smoked drug use, the risk should not be discounted. Als, 14

In addition to HCV and HIV, there have also been increases in new cases of endocarditis, osteomyelitis, and other infectious diseases that are attributed to increased injection drug use. ¹⁵ Hepatitis B virus (HBV) and bacterial infections like Clostridium tetani, Clostridium botulinum, and Mycobacterium tuberculosis can be contracted through sharing of syringes and paraphernalia. Injection of contaminated drugs or nonsterile techniques can also lead to cellulitis, abscesses, bacteremia, endocarditis, and osteomyelitis. Intravenous injection can sclerose veins and, if severe enough, result in peripheral edema.

These infections may be prevented or minimized, and disease transmission decreased by expanding drug users' access to medications to treat substance use disorders and sterile syringes and other injection equipment.

Resources

- CDC webpages
- Hepatitis Surveillance CDC webpage
- HIV Surveillance Report 2016 CDC

Health Care Utilization and Cost

Illicit substance use is associated with high utilization and cost of health services; however, the costs specifically associated with IDU are less well characterized. This is in part due to the chronic nature of many of the medical conditions caused by IDU. PWID are four times more likely to need health care for one or more problems. ¹⁶ They are also less likely to seek preventative care for chronic conditions. ¹⁷ IDU results in a greater number of emergency visits and hospitalizations relative to non-drug users, with chronic users generating about \$1000 annually in excess services utilization per individual. ¹⁸ Additionally, hospital admissions for skin and soft tissue infections (SSTI) associated with IDU have led to significantly increased length of stay. ¹⁹ Cost and healthcare utilization has been found to be even higher with IDU than in those with HIV. ²⁰

Furthermore, PWID are often marginalized from society, which increases unemployment, homelessness, and crime.²¹ High rates of incarceration within this population contributes to the societal and economic burden.^{21,22}

What is Harm Reduction?

Harm reduction is a public health approach to reduce disease impacts in communities. Harm reduction services have demonstrated effectiveness in reducing HIV and HCV transmission, do not increase rates of community drug use, help individuals engage in treatment, and are cost-effective.²³ Stigmatization of PWUD is one current challenge for increasing community support for harm reduction services.²⁴ Stigma can lead to discriminatory actions/behaviors. (See section on Stigma)

The central elements of harm reduction include acceptance that people who use drugs are entitled to basic human rights and provision of practical accessible policies and services aimed at reducing negative consequences associated with drug use. Additional principles of Harm Reduction include:

- Accepting that many people use licit and illicit drugs;
- Knowing there are real and tragic harms and dangers associated with drug use;
- Acknowledging that some methods of using drugs are clearly safer than others;
- Recognizing that many forms of discrimination and social inequalities affect an individual's vulnerability to and capacity for reducing drug-related harms;
- Using non-judgmental, non-coercive approaches in providing services;
- Affirming individuals are their own primary agents of reducing the harms of their drug use; and
- Empowering people who use drugs (PWUD) to share and support each other with strategies which meet their actual conditions of use.

Resource

The Harm Reduction Coalition

Harm Reduction Services for Individuals

Education

Many different platforms including print (posters), access to online materials, outreach through social media, individual patient consultations can be used to provide education about harm reduction strategies. Valuable topics include:

- Infection prevention education/awareness
- Overdose prevention education/awareness
- Other drug effects/medication interactions (as pertinent)

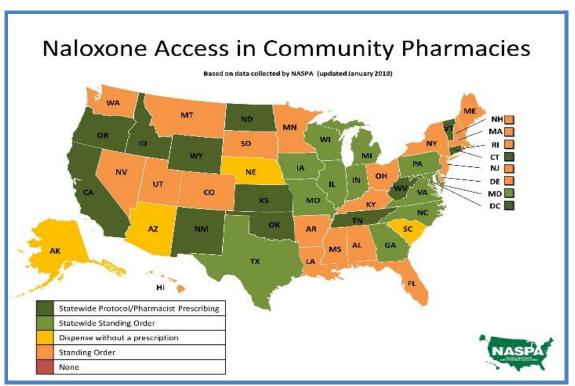
Resources

- National Institutes on Drug Abuse
- Harm Reduction Coalition

Overdose Prevention and Response

Naloxone Access

All 50 states and the District of Columbia have laws facilitating broader access to naloxone for overdose prevention. However, states vary with regard to legal protections provided to individuals who possess, dispense, and prescribe naloxone. Models for pharmacists dispensing naloxone include pharmacists prescribing naloxone, providing it through a standing order, or having a collaborative practice agreement for overdose prevention. Pharmacists can refer to their state's Board of Pharmacy for specific regulations that affect their practice.



Source: https://naspa.us/resource/naloxone-access-community-pharmacies/

Resources

- Prescription Drug Abuse Policy System
- NASPA
- CPNP's Naloxone Access: A Practical Guideline for Pharmacists
- www.prescribetoprevent.org
- OpiRescue is a free smartphone app with interactive prompts for overdose rescue

Good Samaritan Protections

As excerpted from The Presidents Commission on Combating Drug Addiction and The Opioid Crisis: In response to real and perceived fears that law enforcement will punish people who assist during an overdose, most states have created immunity or 'Good Samaritan' laws to ensure bystanders and those experiencing an overdose are not subject to and do not fear legal repercussions. States vary in the content of 'Good Samaritan' laws, but generally offer protection to people assisting and administering naloxone from civil or criminal prosecution. As of July 2017, 40 states and the District of Columbia have enacted some form of a 'Good Samaritan' or 911 drug immunity law.²⁵

Syringe and Clean Works Access Programs and Safe Disposal

IDU requires both a syringe and injection equipment (aka "works") that may include cottons, sterile water, tourniquets and cookers (see **Table 1**: Safe Injection Kit Supplies). Blood-borne infections, such as HIV and HCV, can be acquired through transmission of blood via shared injection equipment including needles, syringes, water, cookers, and cottons. ²⁶⁻³⁰ The intent of syringe access programs is to reduce the spread of these bloodborne infections by providing PWID access to sterile syringes. In addition, syringe access programs may offer a variety of services such as other harm reduction supplies (e.g., sterile water, cookers, cottons, condoms, etc.), HIV/HCV testing, harm reduction education, drug supply testing (see <u>Point-of-Care Testing section</u>), syringe disposal services and counseling and treatment referrals to substance use or other services.

Harm Reduction Strategies: Considerations for Pharmacists

The evidence for syringe access programs suggest they reduce harms from drug injecting. Syringe access programs decrease risky injection behaviors such as sharing syringes/needles.^{31,32} In addition, there is some evidence they reduce the risk of HIV infection in PWID.^{31,33} However, there is insufficient evidence to suggest syringe access programs reduce the risk of HCV transmission.³⁴ A common concern about syringe access programs is they will have unintended negative consequences including increasing and encouraging IDU, theft of syringes, leaving used syringes and materials in public bathrooms and public spaces. However, there is no evidence that syringe access programs are associated with an increase in new drug users, increased injection frequency in current IDUs, increase in crimes, or increase in the number of discarded needles in the community.³⁵

Pharmacists interested in providing PWID access to sterile syringes and other injection supplies should check their state's laws. Some states' laws are silent on syringe sales to PWID, others specifically allow retail sales of syringes to PWID, and several specify that pharmacists can sell syringes to people at risk for transmitting blood borne pathogens. Studies have shown that current or former injection drug users perceive less stigma from pharmacists who dispense syringes.³⁶ If state laws or employer policies are prohibitive, pharmacists may choose to familiarize themselves with their local syringe access resources and provide patients with information about how to access sterile syringes and supplies.

Resources

Links to State Specific Information about Syringe Sales and Paraphernalia Laws

- http://lawatlas.org/datasets/syringe-policies-laws-regulating-non-retail-distribution-of-drug-parapherna
- https://www.cdc.gov/hepatitis/policy/AccessLawsByState.htm

North American Syringe Exchange Network's Directory of Syringe Exchange Programs

Table 1: Safe Injection Kit Supplies

Harm Reduction Supply	Purpose
Syringes	To reduce the risk of infection and the transmission of infectious diseases
Sterile water	A drug needs to be in liquid form to be injected. Sterile water is used for dissolving the drug prior to injection. Providing sterile water may decrease the risk of infection from using non-sterile water.
Cookers	A container that is used for heating a drug to facilitate dissolution. Often a bottle cap or spoon-like device. Providing cookers may decrease the risk of transmission of HCV.
Cottons	Used to filter insoluble contaminants from drugs dissolved in a solution. The cotton is placed in with the drug solution. A syringe is used to draw the drug into the syringe through the cotton filter. Should be long stranded cotton to prevent inadvertent injection of microscopic fibers.
Twist ties	Twisted around cooker to make a handle to prevent burn injuries
Tourniquet	To tie off arms or legs to make veins more prominent and encourage minimization of subcutaneous and intramuscular injection.
Alcohol wipes	To clean the skin prior to injecting to reduce the risk of infection.
Vitamin C/ascorbic acid powder	Provides acid to facilitate substance dissolution. Providing vitamin C may reduce risk of using less sterile products (ex: lemon juice).
Bleach	To clean used syringe and injection equipment when sterile equipment is not available to reduce risk of infection and transmission of infection disease.

Table 2: Syringe/Needles Overview with Associated Slang Terms

Slang Term	Use	Technical Information
"Super Shorts", "Bee Stingers"	Use for surface veins	Come in two volumes: _ 31 or 30 gauge, 5/16 inch needle, 1 mL barrel _ 31 or 30 gauge, 5/16 inch needle, ½ mL barrel
"Micros" ("Fulls")	Used for small veins, including those in the hands and feet	29 gauge, ½ inch needle, 1 mL barrel
"Micros" ("Halves")	Same as above but holds half the volume	29 gauge, ½ inch needle, ½ mL barrel
"Shorts"	The standard syringe	28 gauge, ½ inch needle, 1 mL barrel
"Halves" ("50s")	Same as above but holds half the volume	28 gauge, ½ inch needle, ½ mL barrel
"Longs"	Used for deep or scarred veins	27 gauge, 5/8 inch needle, 1 mL barrel
"Muscle"	Used for injection into muscle	Comes in two lengths and two gauges - 25 gauge, 1 inch needle, 3 mL barrel - 23 gauge, 1-1/2 inch needle, 3 mL barrel

Adapted with permission from Project Inform³⁷

Figure 1: Contents of a "hit kit" with safe injection supplies



- 1. Clean Bottle for mixing water and bleach.
- 2. Bleach to disinfect used syringes when a sterile one isn't available.
- 3. Bandages to help avoid infection after injecting.
- 4. Sterile water to mix the drug with.
- **5. Tourniquet** to "tie off" above the injection site.
- **6. Bottle cap** for mixing water with the drug before it's drawn up into the syringe (commonly called "cooker").
- **7. Cotton balls** to trap dirt and debris as the drug, mixed in water, is pulled into the syringe.
- **8. Syringes** don't come inside the kit but are provided at distribution sites.
- ${\bf 9.~Step\text{-}by\text{-}step}$ injection instructions that come in English and Spanish.
- 10. Alcohol swabs to clean the injection site before insertion.

Source: Anonymous. Artifact Using Heroin Safely. Findings from the streets, files, and hard drives of New York. 2008. NYMAG.com http://nymag.com/news/features/artifact/48512/ accessed July 24, 2018

Safe Syringe Disposal

Pharmacists routinely educate patients who self-administer injectable medications about proper disposal of used syringes. Pharmacists may want to become familiar with local resources for disposal of used syringes and can provide information if requested by PWID. Some of these resources may include contact information for services to remove improperly discarded syringes.

Resources

Links to FDA information about syringe disposal resources

- How to Get Rid of a Sharps Container Safe Disposal of Needles and Other Sharps Used At Home, At Work, or While Traveling (FDA Pamphlet)
- If You Cannot Get an FDA-Cleared Sharps Container

Safe Injection Methods Education

PWID have an increased risk of disease transmission (i.e. HIV/HCV), SSTI, as well as damage to veins and muscle tissue. Harm reduction principles indicate that PWID are entitled to services aimed at reducing negative consequences associated with their drug use. Some of these risks may be reduced or avoided by engaging in safer injection practices. For PWID who are not ready to quit injecting, teaching IDU safer injection techniques has been found to reduce the risk of infections and disease transmission.³⁸

With a growing number of self-injected medications dispensed from pharmacies, many community pharmacists are trained to educate patients about proper injection techniques. Pharmacists who wish to extend education services about safer injection methods to PWID might consider these topics:

- Reminders to clean hands and skin prior to each injection
- Using more hygienic means to prepare and inject the drug
- Using a new syringe with every injection to decrease bacterial infections as well as skin, vein and muscle injury from dulled needles³⁹
- Cleaning used syringes with bleach only if a new needle is not available
- How to more successfully find their veins
- Ensuring the proper angle of needle bevel and angle of injection
- Explaining risks of subcutaneous and intramuscular injection such as an increased prevalence of abscesses compared to intravenous injection^{39,40}

Resources

- Preston, A & Derricott, J (2015) The Safer Injection Handbook Eighth Edition. <u>ExchangeSupplies</u>
 Online version: http://www.exchangesupplies.org/pdf/P303_9.pdf)
- Harm Coalition: Safer Injection Materials

Point-of-Care Testing – Testing for HIV, HCV, and Fentanyl Contaminated Drugs *HIV/HCV testing*

Numerous Clinical Laboratory Improvement Amendments of 1988 (CLIA)-waived point-of-care and home use tests are available for HIV, HCV and sexually transmitted infections (STI) testing. Some are available over-the-counter (OTC) and others for use by health professionals only. Interested pharmacists could educate customers about point-of-care testing as well as actually providing testing and counseling on results. Several recent publications describe the benefits, barriers and role of pharmacists offering testing services in their communities.⁴¹⁻⁴³

Harm Reduction Strategies: Considerations for Pharmacists

Fentanyl testing

Between 2015 and 2017, the death rate from synthetic opioids other than methadone tripled.³ Synthetic opioids associated with many of these deaths are fentanyl and fentanyl analogues which are highly potent in microgram quantities. Heroin, methamphetamine, cocaine and illicit tablets have all been found to be contaminated with fentanyls. Evidence suggests that most people who use illicit substances that are contaminated may not be aware that they are using fentanyl.⁴⁴ Fentanyl test strips use an immunoassay to detect fentanyl and some fentanyl analogs. These testing strips were developed for urine drug screening, however some harm reduction programs are using them off-label to test supplies of illicit substances for fentanyl contamination. Correct use of fentanyl test strips requires education about how to correctly dilute the drug solution being tested in order to reduce occurrence of false positives. Education and reminders about safer drug use practices are usually provided along with access to fentanyl testing. Based on the results of a fentanyl test, the person can modify their behaviors including not using or utilizing a harm reduction method such as using less, using with others, and having naloxone available.

Resources

The following resources include guidance, guidelines, and training for pharmacists wanting to engage in point-of-care testing:

- American Pharmacists Association article on HIV testing in pharmacies 2015
- American Pharmacists Association article on HIV/HCV point of care testing 2017
- Denver Prevention Training Center information brief and checklist for pharmacy based HIV testing
- Michigan Guidelines for pharmacies implementing point of care HIV testing
- Michigan Pharmacists Association point-of-care-testing educational and certification resources
- FDA Webpage on Home Use Tests
- Fentanyl test strips information brief from the Harm Reduction Coalition
- Fentanyl test strip purchasing from DanceSafe.org

Self-Management of Soft Tissue Infections and Use of OTC Wound Care Products

Pharmacists are in a position – professionally and logistically – in their community to be a resource for wound care management. As PWID have an increased risk of SSTI, and damage to veins and muscle tissue, pharmacists may wish to extend their expertise to PWID. OTC wound care products are available in pharmacies, and pharmacists have the expertise to recommend self-management and recognize when a referral for more extensive medical care is needed.



Figure 2: Wound Care Products

Resources

- North American Syringe Exchange Network resources for "Wound Care on the Street": https://nasen.org/news/categories/nasec/
- New Hampshire Harm Reduction Coalition NHHRC Skin Care Guide
- NPR 2018 story on wound care for PWID
- Pharmacy Times article on First Aid Products for Wound Care 2010
- Pharmacy Times article on self-treatment on wounds and burns 2017
- Pharmacy Times continuing education activity on wound care for pharmacists

Access to and Support for Medications Used to Treat Substance Use Disorders

There are multiple effective medications for opioid use disorder and alcohol use disorder. This has been extensively reviewed elsewhere. CPNP has toolkits for Opioid Use Disorders and Alcohol Use Disorders (See Resources). Pharmacists may become familiar with local resources for accessing medications used to treat substance use disorders. Pharmacists may provide and review a list of local resources to patients interested in treatment.

Resources

- CPNP: Opioid Use Disorders: Interventions for Community Pharmacists
- CPNP: Pharmacist Guide to Alcohol Use Disorder
- Tommasello AC. Substance abuse and pharmacy practice: what the community pharmacist needs to know about drug abuse and dependence. Harm Reduct J. 2004;1:3.⁴⁵
- The <u>National Institute on Drug Abuse (NIDA) website</u> provides access to valid factual information on commonly abused drugs. It has publications in a variety of formats from newsletters to condensed "fact sheets" that can be downloaded, printed, and offered to pharmacy customers.
- Also, pharmacists can build a list of local treatment resources using online local Yellow Pages such as www.superpages.com or www.superpages.com or www.whitepages.com/yellow-pages and searching the following headings:
 1) Alcoholism & Drug Abuse Information & Treatment Centers, 2) Drug Abuse & Addiction
 Information & Treatment Centers, and 3) Information & Referral Services Drug Abuse & Addiction.

Harm Reduction Services and Policies for Communities

Incorporating Harm Reduction Strategies into Broader Drug Control Strategies

Nationally, efforts to combat societal and individual problems associated with drug misuse often include law enforcement, prevention, and treatment activities. More recently, employing harm reduction strategies as a public health approach to reduce harms associated with drug use has become a fourth element. Now, combining all four of these efforts in a comprehensive and coordinated strategy has become known as "Four Pillars." ⁴⁶ This approach to drug control strategy has been implemented in many countries and communities globally. When these harm reduction strategies are coordinated, communities may see a reduced and safer drug supply, less demand for drugs, increased access to wellness and treatment programs, and improved tolerance and respect for the rights of people who use drugs. ⁴⁷

Supervised Consumption Sites/Overdose Prevention Sites

Supervised consumption sites (also called overdose prevention sites⁴⁸) provide a hygienic environment, safe injection methods education, and naloxone for PWID to self-administer drugs they obtained elsewhere. Sites are staffed by health professionals or trained peers. Intervention is provided in case of an overdose. PWID who self-administer drugs in these sites exhibit decreased risky injection behavior.⁴⁹⁻⁵¹

Supervised consumption/overdose prevention sites have existed in Canada, the Netherlands, Germany, Norway, Spain, and Switzerland. California, Colorado, Washington, New York, Pennsylvania and Maryland are among states that are currently considering or are planning opening safe consumption sites.

Law Enforcement Assisted Diversion Programs (LEAD)

Many political and law enforcement officials in US cities are now examining and implementing LEAD programs as an alternative to traditional arrest and incarceration approaches to individuals' who commit "low-level" drug-related infractions. LEAD programs typically redirect people into community-based support services such as housing, health care, drug treatment, and mental health services instead of processing them through the criminal justice system.⁵²

Drug Legalization/Decriminalization

This strategy has been shown to eliminate many negative consequences of drug criminalization for 'low level' drug users including stigmatization, incarceration, separation of families, barriers to housing and jobs post-sentencing, and infection. 53-54

Stigma

A Pharmacist On Combating Stigma

"When I feel frustrated by a patient's behavior—perhaps they continue to engage in risky drug use or refuse to take medication—I remind myself that each individual has the right to make decisions, and I can't force change upon someone. I do, however, have the power to instill hope and help guide someone to more positive life changes." ⁵⁵

Kelly Gable, PharmD, BCPP

Pharmacists often are "gatekeepers" to services and care in their communities and can be important agents for harm reduction services such as syringe access, overdose prevention and other services. Research in 2016 and 2018 showed that stigma and bias can drive pharmacists (even unconsciously) to act in ways that limit or block access to syringes and other harm reduction and public health services.^{56, 57}

Stigma Defined

Stigmas are beliefs based on a person's or group's attributes (e.g., race, gender identity, socioeconomic class, homelessness, etc.) or behaviors (e.g., drug use, hygiene, mental health issues, dress, etc.) and leads to stereotyping and labeling. Stigma can lead to discriminatory actions/behaviors.

Elements of Stigma

- Blame and moral judgement: People "choose to use drugs and bring consequences on themselves."
- Criminalization: Viewing drug use as criminal rather than a public health issue.
- Pathologize/patronize: People are 'sick' and cannot help themselves, telling drug users what they should do, telling people what they need rather than seeking input and involving them in decisions that will impact them.

Resources for training materials on understanding and combatting stigma

• Harm Reduction Coalition website

Examples of Stigma

- Self-stigmatization: Drug users feeling that they are "bad" people or don't "deserve" services or respect.

 Others think of them as liars, so they might as well lie. People who use drugs may stigmatize themselves as less capable than others or blame themselves.
- Stigma from individuals: Talk louder to blind people, don't want to touch people who are disabled or ill, locking up valuables if a drug user visits, calling people "junkies", believe drug users are aggressive or seeking drugs.
- Stigma within institutions: Create restrictions for who is eligible for treatment or services (mandatory drug testing in treatment programs or job requirements).
- Stigma within communities: Discriminatory laws related to group characteristics or behaviors.

Consequences of Stigma

- People who are treated as "different" learn to stay out or stay away from services
- Discrimination against individuals/groups keeps them "down", marginalized, oppressed and without a voice
- Treating people as "dangerous" keeps them away and increases fear

Managing and Eliminating Stigmas

Attitudes are modifiable through education and practice.

- Use non-judgmental approaches, language, etc. Person-first language is proven to reduce stigma and improve treatment. It is not about being sensitive, or polite, or politically correct. It is about access to quality treatment and care. Person-first language does not define a person based on any medical disorder she may have. It is nonjudgmental, it is neutral, and the diagnosis is purely clinical. See **Table 3** for nonjudgmental language recommendations from The Office of National Drug Control Policy of terms and phrases to reduce stigma.⁵⁸
- Exhibit trust build relationships with people you work with
- Be open observe how people are reacting, listen to what they are saying
- Increase your cultural competency/sensitivity through training and education.

Table 3: Non-Judgmental Language

Words to Avoid	Words to use
Addict	Person with substance use disorder
Alcoholic	Person with alcohol use disorder
Drug problem, drug habit	Substance use disorder
Drug abuse	Drug misuse, harmful use
Drug abuser/junkie	Person with substance use disorder
Drug user	Person who uses drugs/injects drugs
Clean	Abstinent, not actively using
Dirty	Actively using
A clean drug screen	Testing negative for substance use
A dirty drug screen	Testing positive for substance use
Former/reformed addict/alcoholic	Person in recovery/person in long-term recovery
Opioid replacement/methadone maintenance	Medication-assisted treatment

Resources

- See training materials at <u>Harm Reduction Coalition</u>
- <u>The Words We Use Matter. Reducing Stigma Through Language</u>. NAABT (The National Alliance of Advocates for Buprenorphine Treatment)
- Changing the Language of Addiction. ONDCP (Office of National Drug Control Policy)

Potential Barriers to Pharmacist Engagement in Harm Reduction Practices

Legal Barriers

As of 2016, only five states prohibited the non-prescription sale of syringes and needles. Some states require the pharmacist to record names and addresses of individuals purchasing syringes and record the indication or intended use for syringes. This requirement may undermine patient trust and may put the pharmacist in conflict with state drug paraphernalia laws if the pharmacist records the indication as "administration of illicit drugs."

Perceived Barriers

There are many perceived barriers for pharmacists to provide harm reduction 36,59,60

- Stigma regarding having 'drug users' in the pharmacy
- Ethical concerns about supplying materials for abuse or illegitimate use of drugs
- Possible conflicts with city ordinance or company policy or other legal concerns
- Record-keeping
- Time management
- Concerns about pharmacist/pharmacy reputation
- Concerns about possibly handling used needles
- Concerns about maintaining syringe and materials supply (inventory, space, etc.)
- Fear of harm to staff (from needles or violent drug users)
- Fear of shoplifting
- Fear of increased crime around the pharmacy
- Fear of overdoses occurring near the pharmacy
- Lack of training
- Lack of space
- Obtaining reimbursement for goods and services

Responding to Perceived Barriers

Most of these barriers can be overcome by the following:

- Developing store or company policies related to providing various harm reduction services
- Providing stigma-reducing and sensitivity training to store and pharmacy staff
- Using rational business models and approaches to providing a new service in your pharmacy
- Educating and partnering with local business leaders and owners as well as law enforcement regarding benefits to them and the community of providing harm reduction services

Table 4: Common Criticisms/Myths about Harm Reduction Approaches

Theme	Criticisms/Myths	Response
Efficacy	"It doesn't work" "It only encourages/increases drug use, supports addiction, and keeps them 'stuck' in a cycle of drug use"	Numerous studies have demonstrated that the availability of syringe access programs reduces incidence of HIV in communities. No data exists to suggest a change in drug use in communities with syringe access programs
Moral	"Drug use is immoral" "Drug use is always a choice"	See Managing and Eliminating Stigmas section
Legal	"Drugs are illegal, so people who use drugs are criminal" "Harm reduction is only a subversive pathway to drug legalization"	See Managing and Eliminating Stigmas section. Decriminalization as an element of harm reduction has been explored with mixed results in Portugal and other places. See Drug Legalization/Decriminalization section
Crime	"Allowing and enabling drug use increases crime in the area"	No data exists to support this criticism
Economic	"It will hurt my store"	See Managing and Eliminating Stigmas section and also consider company and community levels of stigma and how to overcome it

Professional and Policy Support for Harm Reduction Work by Pharmacists

Engaging in Harm Reduction activities increases pharmacists' public health reach in their community.

Resources

The following professional organizations recognize pharmacists' role in various harm reduction activities:

- APhA Policy Manual 2017 Topics: Drug Abuse, Control and Education; Public Health
- <u>International Pharmaceutical Federation (FIP) report: Reducing Harm Associated with Drugs of Abuse: The Role of Pharmacists 2017</u>

Additional Resources for Pharmacists

- World Health Organization
- <u>Centers for Disease Control and Prevention:</u> "Evidence-Based Strategies for Preventing Opioid Overdose: What's Working in the United States", 2018
- American Pharmacists Association Policy Manual on syringe access
- California Department of Public Health

References

- Lansky A, Finlayson T, Johnson C, Holtzman D, Wejnert C, Mitsch A, et al. Estimating the Number of Persons Who Inject Drugs in the United States by Meta-Analysis to Calculate National Rates of HIV and Hepatitis C Virus Infections. Baral S. Plos One. 2014;9(5):e97596. DOI: <u>10.1371/journal.pone.0097596</u>. PubMed PMID: <u>24840662</u>; PubMed Central PMCID: <u>PMC4026524</u>.
- Center for Behavioral Health Statistics and Quality. (2017). 2016 National Survey on Drug Use and Health: Detailed Tables. Substance Abuse and Mental Health Services Administration, Rockville, MD. (NSDUH data tables)
- 3. Ahmad FB, Rossen LM, Spencer MR, Warner M, Sutton P. Provisional drug overdose death counts. National Center for Health Statistics. 2018. https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm Accessed October 30, 2018
- 4. Darke S, Mattick RP, Degenhardt L. The ratio of non-fatal to fatal heroin overdose. Addiction. 2003 Aug;98(8):1169-71.d
- 5. Degenhardt L, Hall W, Warner-Smith M. Using cohort studies to estimate mortality among injecting drug users that is not attributable to AIDS. Sexually transmitted infections. 2006 Jun 1;82(suppl 3):iii56-63.
- Centers for Disease Control and Prevention. Understanding the Epidemic webpage: https://www.cdc.gov/drugoverdose/epidemic/index.html Accessed July 25, 2018
- 7. Platt L, Minozzi S, Reed J, Vickerman P, Hagan H, French C, et al. Needle syringe programmes and opioid substitution therapy for preventing hepatitis C transmission in people who inject drugs. Cochrane Database Syst Rev. 2017;137(9). DOI: 10.1002/14651858.CD012021.pub2. PubMed PMID: 28922449; PubMed Central PMCID: PMC5621373.
- Campbell CA, Canary L, Smith N, Teshale E, Ryerson AB, Ward JW. State HCV Incidence and Policies Related to HCV Preventive and Treatment Services for Persons Who Inject Drugs — United States, 2015–2016. Mmwr Morb. Mortal. Wkly. Rep. 2017;66(18):465-469. DOI: 10.15585/mmwr.mm6618a2. PubMed PMID: 28493854; PubMed Central PMCID: PMC5657985.
- 9. Centers for Disease Control and Prevention. Viral Hepatitis Surveillance United States 2016. https://www.cdc.gov/hepatitis/statistics/2016surveillance/pdfs/2016HepSurveillanceRpt.pdf Acc essed 06.01.18.
- Zibbell JE, Asher AK, Patel RC, Kupronis B, Iqbal K, Ward JW, et al. Increases in Acute Hepatitis C Virus Infection Related to a Growing Opioid Epidemic and Associated Injection Drug Use, United States, 2004 to 2014. Am J Public Health. 2018;108(2):175-181. DOI: 10.2105/AJPH.2017.304132. PubMed PMID: 29267061; PubMed Central PMCID: PMC5846578.
- 11. Daniels D, Grytdal S, Wasley A. Surveillance for acute viral hepatitis—United States, 2007. Morbidity and Mortality Weekly Report: Surveillance Summaries. 2009 May 22;58(3):1-27.
- 12. Centers for Disease Control and Prevention. HIV Surveillance Report, 2016; vol. 28. http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published November 2017. Accessed 06.01.18.
- 13. Ciccarone D, Bourgois P. Explaining the Geographical Variation of HIV Among Injection Drug Users in the United States. Subst Use Misuse. 2003;38(14):2049- 2063. DOI: 10.1081/JA-120025125.
- 14. Fernandez N, Towers CV, Wolfe L, Hennessy MD, Weitz B, Porter S. Sharing of Snorting Straws and Hepatitis C Virus Infection in Pregnant Women. Obstetrics Gynecol. 2016;128(2):234-237. DOI: 10.1097/AOG.00000000001507. PubMed PMID: 27400008.

- 15. Health Resources & Services Administration. eNews April 2018 https://www.hrsa.gov/enews/past-issues/2018/may-3/opioids-driving-infectious-disease-rates.html?utm_campaign=enews05032018&utm_medium=email&utm_source=govdelivery_Accessed_06.01.18.
- 16. Chitwood DD, McBride DC, Metsch LR, Comerford M, McCoy CB. A Comparison of the Need for Health Care and Use of Health Care by Injection-Drug Users, Other Chronic Drug Users, and Nondrug Users. Am Behav Sci. 1998;41(8):1107- 1122. DOI: 10.1177/0002764298041008007.
- 17. Chitwood DD, Sanchez J, Comerford M, McCoy CB. Primary preventive health care among injection drug users, other sustained drug users, and non-users. Subst Use Misuse. 2001;36(6-7):807-24. PubMed PMID: 11697612.
- 18. French MT, McGeary KA, Chitwood DD, McCoy CB. Chronic illicit drug use, health services utilization and the cost of medical care. Soc Sci Med. 2000;50(12):1703-13. PubMed PMID: 10798326.
- 19. Chotai N, Gallagher K, Kieffer WKM, Rogers BA, Ricketts DM. A comparative analysis of the patient characteristics and cost of managing intravenous drug users (IVDU) with soft tissue abscesses with non-IVDU. Surgeon. 2016;14(1):13-7. DOI: 10.1016/j.surge.2014.08.003. PubMed PMID: 25201626.
- 20. Palepu A, Tyndall MW, Leon H, Muller J, O'Shaughnessy MV, Schechter MT, et al. Hospital utilization and costs in a cohort of injection drug users. CMAJ. 2001;165(4):415-20. PubMed PMID: 11531049.
- 21. DeBeck K, Shannon K, Wood E, Li K, Montaner J, Kerr T. Income generating activities of people who inject drugs. Drug Alcohol Depend. 2007;91(1):50-6. DOI: 10.1016/j.drugalcdep.2007.05.003. PubMed PMID: 17561355.
- 23. U.S. Department of Health and Human Services (HHS), Office of the Surgeon General, Facing Addiction in America: The Surgeon General's Spotlight on Opioids. Washington, DC: HHS, September 2018
- 24. Des Jarlais DC. Harm reduction in the USA: the research perspective and an archive to David Purchase. Harm reduction journal. 2017 Dec;14(1):51.
- 25. Christie C, Baker C, Cooper R, Kennedy CP, Madras B, Bondi FA. The president's commission on combating drug addiction and the opioid crisis. Washington, DC, US Government Printing Office, Nov. 2017;1.
- 26. Chitwood DD, Griffin DK, Comerford M, Page JB, Trapido EJ, Lai S, et al. Risk factors for HIV-1 seroconversion among injection drug users: a case-control study. Am J Public Health. 1995;85(11):1538-1542. DOI: 10.2105/AJPH.85.11.1538.
- 27. Hagan H, Thiede H, Weiss NS, Hopkins SG, Duchin JS, Alexander ER. Sharing of drug preparation equipment as a risk factor for hepatitis C. American Journal of Public Health. 2001; 91:42–46. [PubMed: 11189822]
- 28. Hagan H, Pouget E R, Williams I T, Garfein R L, Strathdee S A, Hudson S M, et al.. Attribution of Hepatitis C Virus Seroconversion Risk in Young Injection Drug Users in 5 US Cities. J Infect Dis. 2010;201(3):378-385. DOI: 10.1086/649783. PubMed PMID: 20053137.
- 29. Patrick DM, Strathdee SA, Archibald CP, Ofner M, Craib KJP, Cornelisse PGA, et al. Determinants of HIV seroconversion in drug users during a period of rising prevalence in Vancouver. Int J Std Aids. 1997;8(7):437-445. DOI: 10.1258/0956462971920497. PubMed PMID: 9228591.

- 30. Strathdee SA, Galai N, Safaiean M, Celentano DD, Vlahov D, Johnson L, et al. Sex Differences in Risk Factors for HIV Seroconversion Among Injection Drug Users. Arch Intern Med. 2001;161(10):1281. DOI: 10.1001/archinte.161.10.1281.
- 31. Tilson, H., Aramrattana, A., Bozzette, S., et al. (2007), 'Preventing HIV infection among injecting drug users in high risk countries: an assessment of the evidence', Institute of Medicine, Washington, DC.
- 32. Gibson, D. R., Flynn, N. M. and Perales, D. (2001), 'Effectiveness of syringe exchange programs in reducing HIV risk behavior and HIV seroconversion among injecting drug users', AIDS 15 (11), pp. 1329–41.
- 33. Käll , K., Hermansson, U., Amundsen, E. J. and Ronnback, S. (2007), 'The effectiveness of needle exchange programmes for HIV prevention: a critical review', Journal of Global Drug Policy and Practice 1. Available at http://www.globaldrugpolicy.org/1/3/1.php
- 34. Kimber, J. and Palmateer, N. and Hutchinson, S.J. and Hickman, M. and Goldberg, D.J. and Rhodes, T. (2010) Harm reduction among injecting drug users evidence of effectiveness. In: Harm reduction: evidence, impacts and challenges EMCDDA, Lisbon, April 2010. European Monitoring Centre for Drugs and Drug Addiction, pp. 115-163.
- 35. Committee on the Prevention of HIV Infection among Injecting Drug Users in High Risk Countries. Preventing HIV infection among injecting drug users in high risk countries: an assessment of the evidence. National Academies Press; Washington: 2006.
- 36. Bratberg J, Jackson A. Part II: Law: Educating and empowering patients and caregivers: the pharmacist's role in reducing the risk of opioid overdose. Drug Topics. 2016:51-65.
- 37. "Sales of Syringes in California (as of January 1, 2015)". Fact Sheet. Project Inform. San Francisco, CA. n.d. Web.
- 38. Phillips KT, Stein MD, Anderson BJ, Corsi KF. Skin and needle hygiene intervention for injection drug users: Results from a randomized, controlled Stage I pilot trial. J Subst Abus Treat. 2012;43(3):313-321. DOI: 10.1016/j.jsat.2012.01.003. PubMed PMID: 22341554; PubMed Central PMCID: PMC3358564.
- 39. Murphy E L, DeVita D, Liu H, Vittinghoff E, Leung P, Ciccarone D H, et al. Risk Factors for Skin and Soft-Tissue Abscesses among Injection Drug Users: A Case-Controlled Study. Clin Infect Dis. 2001;33(1):35-40. DOI: 10.1086/320879. PubMed PMID: 11389492.
- Binswanger IA, Kral AH, Bluthenthal RN, Rybold DJ, Edlin BR. High Prevalence of Abscesses and Cellulitis Among Community-Recruited Injection Drug Users in San Francisco. Clin Infect Dis. 2000;30(3):579-581.
 DOI: 10.1086/313703. PubMed PMID: 10722447.
- 41. Weber NC, Klepser ME, Akers JM, Klepser DG, Adams AJ. Use of CLIA-waived point-of-care tests for infectious diseases in community pharmacies in the United States. Expert Rev Mol Diagnostics. 2016;16(2):253- 264. DOI: 10.1586/14737159.2015.1116388. PubMed PMID: 26560318.
- 42. Gubbins PO, Klepser ME, Dering-Anderson AM, Bauer KA, Darin KM, Klepser S, et al. Point-of-care testing for infectious diseases: Opportunities, barriers, and considerations in community pharmacy. J Am Pharm Assoc (2003). 2014;54(2):163- 171. DOI: 10.1331/JAPhA.2014.13167. PubMed PMID: 24632931.
- 43. Dugdale C, Zaller N, Bratberg J, Berk W, Flanigan T. Missed Opportunities for HIV Screening in Pharmacies and Retail Clinics. JMCP. 2014;20(4):339-345. DOI: 10.18553/jmcp.2014.20.4.339. PubMed PMID: 24684638; PubMed Central PMCID: PMCID: PMC4465258.
- 44. Amlani A, McKee G, Khamis N, Raghukumar G, Tsang E, Buxton JA. Why the FUSS (Fentanyl Urine Screen Study)? A cross-sectional survey to characterize an emerging threat to people who use drugs in British Columbia, Canada. Harm Reduct J. 2015;12:54. DOI: 10.1186/s12954-015-0088-4. PubMed PMID: 26577516.

Harm Reduction Strategies: Considerations for Pharmacists

- 45. Tommasello AC. Substance abuse and pharmacy practice: what the community pharmacist needs to know about drug abuse and dependence. Harm Reduct J. 2004;1(1):3. DOI: 10.1186/1477-7517-1-3. PubMed PMID: 15169544.
- 46. Anonymous. The Four Pillars Drug Strategy 2017 http://overcomeit.org/drug-addiction/the-four-pillars-drug-strategy/ Accessed May 19, 2018
- 47. Savary JF, Hallam C, Bewley-Taylor D. The Swiss Four Pillars Policy: An evolution from local experimentation to federal law. The Beckley Foundation Drug Policy Programme. 2009 May.
- 48. Barry CL, Sherman SG, McGinty EE. Language Matters in Combatting the Opioid Epidemic: Safe Consumption Sites Versus Overdose Prevention Sites.
- 49. Milloy, M. and Wood, E. (2009), 'Emerging role of supervised injecting facilities in human immunodeficiency virus prevention', Addiction 104 (4), pp. 620–1.
- 50. Hedrich, D. (2004), European report on drug consumption rooms, European Monitoring Centre for Drugs and Drug Addiction, Lisbon.
- 51. Kerr, T., Kimber, J., De Beck, K. and Wood, E. (2007), 'The role of safer injection facilities in the response to HIV/AIDS among injection drug users', Current HIV Reports 4, pp. 158–64.
- 52. Nadelmann E, LaSalle L. Two steps forward, one step back: current harm reduction policy and politics in the United States. Harm Reduct J. 2017;14(1). DOI: 10.1186/s12954-017-0157-y. PubMed PMID: 28606093; PubMed Central PMCID: PMC5469032.
- 53. Eastwood, N., Fox, E., & Rosmarin, A. (2016). *A Quiet Revolution: Drugdecriminalisation Across the Globe*. Release drugs the law and human rights.
- 54. Hughes CE, Stevens A. What Can We Learn From The Portuguese Decriminalization of Illicit Drugs?. Br J Criminol. 2010;50(6):999- 1022. DOI: 10.1093/bjc/azq038.
- 55. D'Arrigo. Challenging stigma in mental health care: The power of compassion in your community. Pharmacy Today. 2017 Volume 23, Issue 6, Pages 32–35
- 56. Chiarello E. Nonprescription syringe sales: Resistant pharmacists' attitudes and practices. Drug & Alcohol Dependence. 2016 Sep 1;166:45-50.
- 57. Meyerson BE, Davis A, Agley JD, Shannon DJ, Lawrence CA, Ryder PT, Ritchie K, Gassman R. Predicting pharmacy syringe sales to people who inject drugs: Policy, practice and perceptions. International Journal of Drug Policy. 2018 Jun 30;56:46-53.
- 58. Saitz R. International Statement Recommending Against the Use of Terminology That Can Stigmatize People. J Addict Medicine. 2016;10(1):1- 2. DOI: 10.1097/ADM.000000000000178. PubMed PMID: 26588846.
- 59. Goodin A, Fallin-Bennett A, Green T, Freeman PR. Pharmacists' role in harm reduction: a survey assessment of Kentucky community pharmacists' willingness to participate in syringe/needle exchange. Harm reduction journal. 2018 Dec;15(1):4.
- 60. Watson T, Hughes C. Pharmacists and harm reduction: A review of current practices and attitudes. Canadian Pharmacists Journal: CPJ. 2012;145(3):124-127.

Additional Data Sources

- Vivolo-Kantor AM, Seth P, Gladden RM, Mattson CL, Baldwin GT, Kite-Powell A, et al. *Vital Signs*: Trends in Emergency Department Visits for Suspected Opioid Overdoses United States, July 2016–September 2017. Mmwr Morb. Mortal. Wkly. Rep. 2018;67(9):279- 285. DOI: 10.15585/mmwr.mm6709e1. PubMed PMID: 29518069; PubMed Central PMCID: PMC5844282.
- Vlahov D, Wang C, Ompad D, Fuller CM, Caceres W, Ouellet L, et al. Mortality risk among recent-onset injection drug users in five U.S. cities. Subst Use Misuse. 2008;43(3-4):413-28.
 DOI: 10.1080/10826080701203013. PubMed PMID: 18365941.