

Injection Drug Users for Non-Injection Drug Users

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WARNING

- This talk includes still images and discussion of preparing and injecting drugs that can be disturbing.

How significant globally is HIV among injecting drug users (IDUs)?

- **30% global HIV infections now outside Sub Saharan Africa**
- **30% of these infections outside Sub Saharan Africa involve IDUs**
- **IDUs now account for 10% of all new global HIV infections: growing**

Global Significance (2)

- **IDU in 144 countries worldwide, 128 detected HIV among IDU populations**
- **Over 41 countries with HIV prevalence among IDUs > 5%**
- **Increase: global drug production, consumption**
- **IDU now in 10 African countries**

Drug Use in the US

- Estimated that 24.6 million Americans use illicit drugs
 - 500,000 to 1 million inject drugs annually
 - 6.6 million people have injected drugs during their lifetime
- Dramatic increase in complications of drug use
 - Overdose
 - Death
 - Infectious complications

United States

- Hopelessness
- Federal funding not in place
- State paraphernalia ordinances
- Disparity of services & information across the country/State
- Adversity to HR
- Stigma of Addiction
- Stigma of Drug Use
- Stigma of Injection

Preventing injection drug use related Infectious Disease requires a comprehensive approach

- Ensure coverage, access to and **quality of interventions (cultural proficiency)**
- Work to recognize and overcome the stigma associated with injection drug use
- Tailor services and programs to the diverse populations and characteristics of IDUs.

Strategies for prevention should include:

- Using community outreach programs to reach drug users on the street. IDUs seen by community outreach workers were nearly twice as likely to not inject with a used syringe compared to those not seen by outreach workers.
- Substance use disorder treatment IS HIV/HCV prevention, but drug treatment slots need to be available upon demand (improving access to *high quality* drug treatment)
 - Instituting HIV/HCV prevention programs in jails and prisons
 - Having access to sterile injection equipment is important, but it is not enough. Services must be comprehensive, and culturally proficient.
 - Preventing initiation of drug injection

Institute of Medicine Statement on Sterile Syringes (1995)

"For injection drug users who cannot or will not stop injecting drugs, the once-only use of sterile needles and syringes remains the safest, most effective approach for limiting HIV transmission."

Normand J, Vlahov D, Moses LE, eds. Preventing HIV Transmission: The Role of Sterile Needles and Bleach. Washington, DC: National Academy Press, 1995.

Common Co-Morbidities

- Hepatitis C Virus
- Hepatitis B Virus
- Cotton Fever
- HIV/AIDS
- Overdose
- Mental Health (Bi-polar, Depression, etc.)
- Soft Tissue Infections (MRSA, abscesses, etc.)
- Endocarditis

Fentanyl is the deadliest drug in America, CDC confirms

By Nadia Kounang, CNN

Updated 9:51 PM ET, Thu December 27, 2018



Mental Health > Substance Abuse and Addiction > News >

U.S. Opioid Crisis Is Top Health Story of 2018





By E.J. Mundell

HealthDay Reporter

News

Opioid epidemic now taking more lives than car crashes, report says

By: Jamie Perez   

Posted: Jan 18, 2019 05:50 PM CST Updated: Jan 18, 2019 09:03 PM CST

Heroin overdoses hit Traverse City

BY MATT TROUTMAN mtroutman@record-eagle.com
Traverse City Record-Eagle

AUG 13, 2013

Origins of an Epidemic: Purdue Pharma Knew Its Opioids Were Widely Abused

A confidential Justice Department report found the company was aware early on that OxyContin was being crushed and snorted for its powerful narcotic, but continued to promote it as less addictive.

By BARRY MEIER
May 29, 2018

America's opioid crisis has become an "epidemic of epidemics"

Rising intravenous drug use has created new public health epidemics such as hepatitis C and deadly bacterial infections.

By Ella Nilsen | ella.nilsen@vox.com | Mar 6, 2018, 10:40am EST

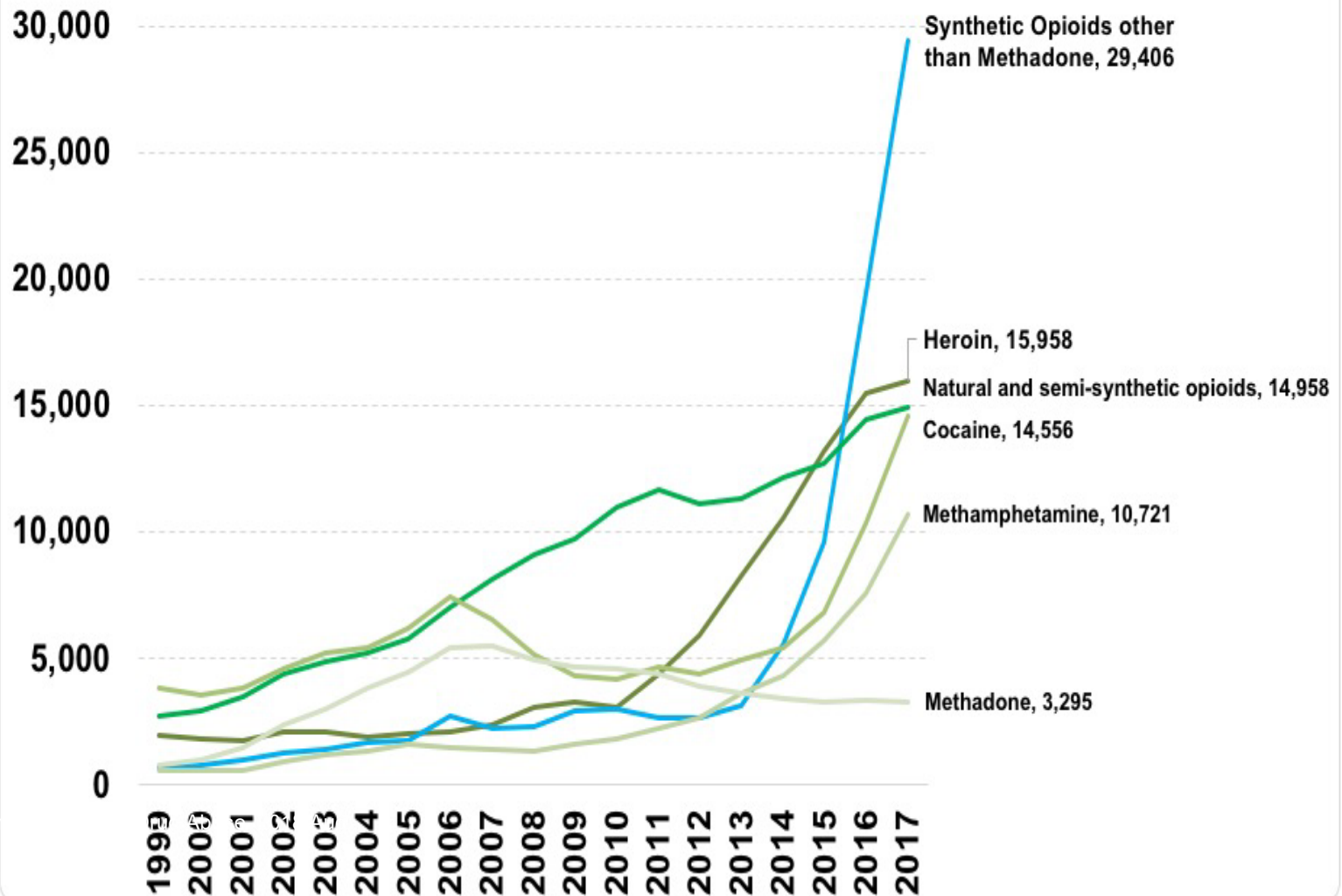
THE FINANCIAL PAGE SEPTEMBER 18, 2017 ISSUE

THE COST OF THE OPIOID CRISIS

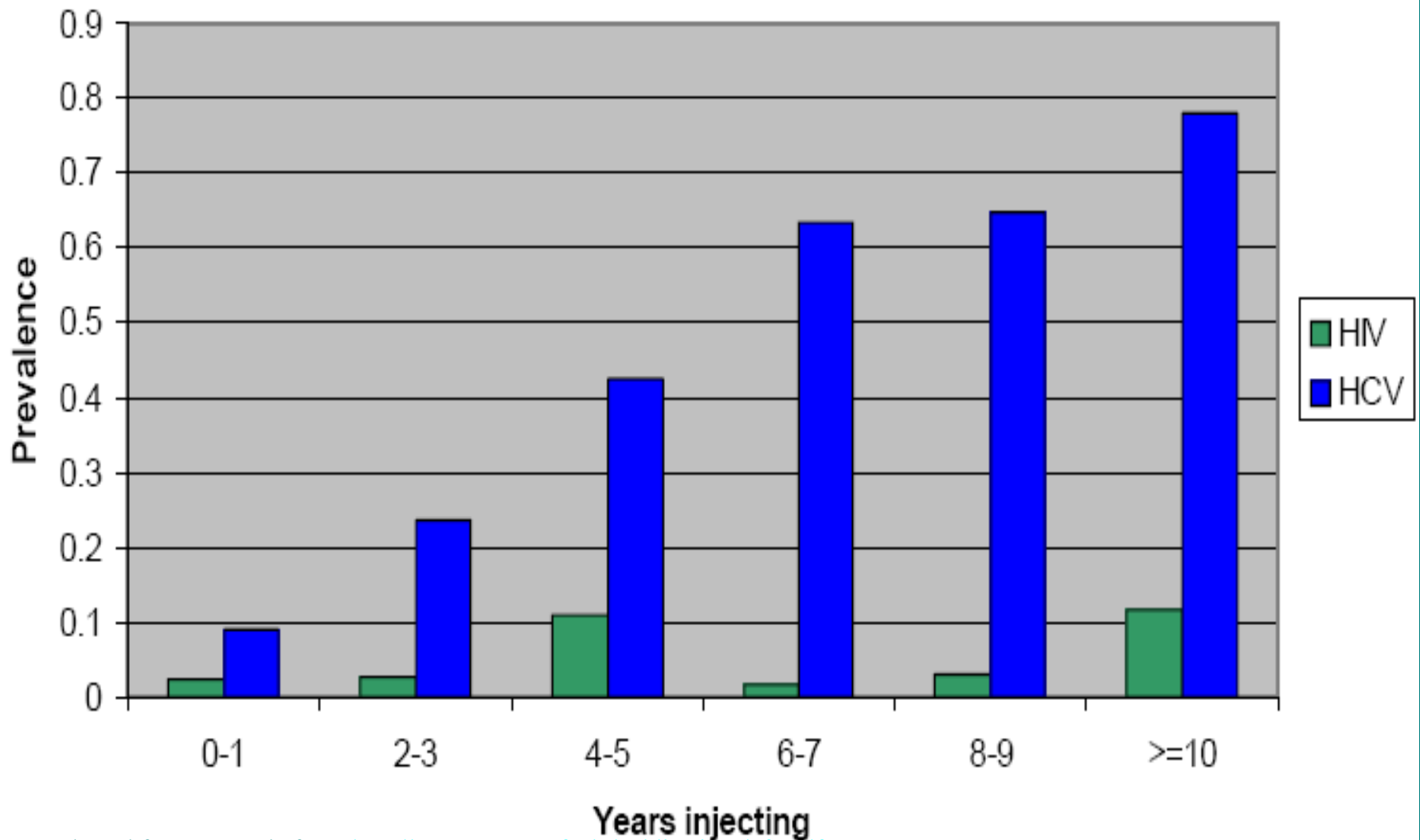
By Sheelah Kolhatkar



Drugs Involved in U.S. Overdose Deaths, 1999 to 2017

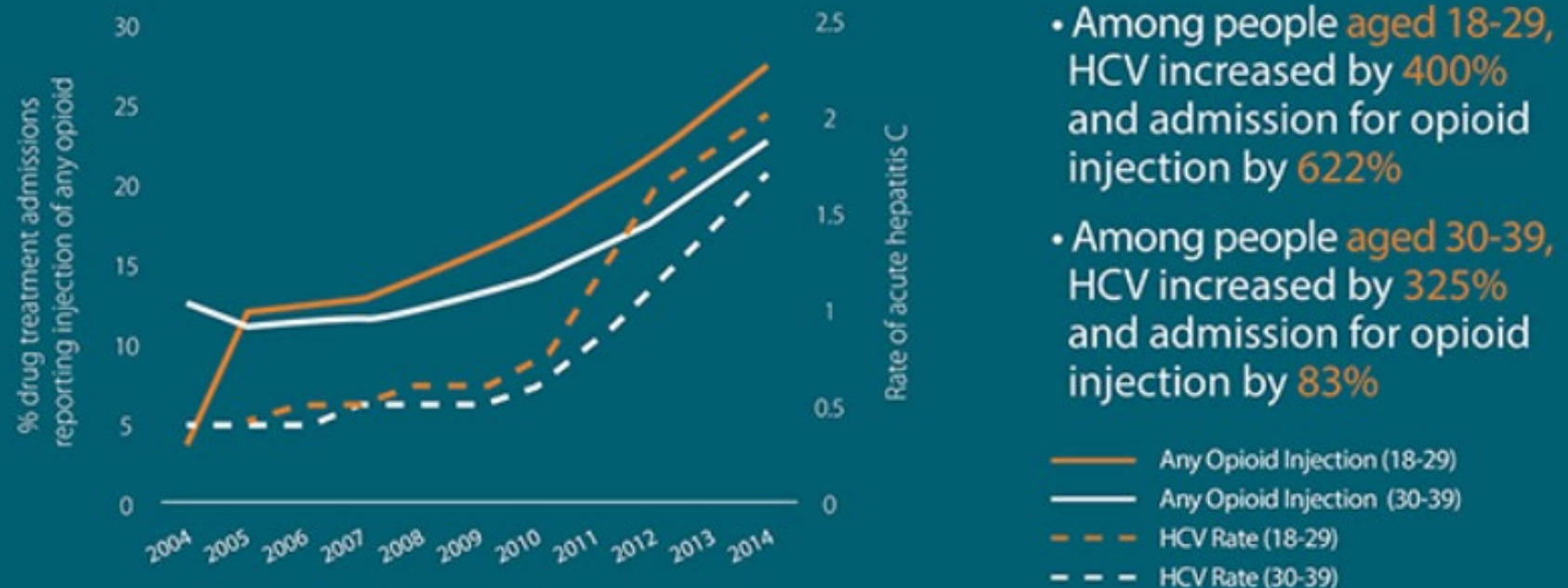


HIV & HCV Prevalence, by years of injecting, young IDUs, San Francisco



SYNDEMIC OUTCOMES

HEPATITIS C AND OPIOID INJECTION ROSE DRAMATICALLY IN YOUNGER AMERICANS FROM 2004-2014



- Among people aged 18-29, HCV increased by 400% and admission for opioid injection by 622%
- Among people aged 30-39, HCV increased by 325% and admission for opioid injection by 83%

Source: Centers for Disease Control and Prevention and Substance Abuse and Mental Health Services Administration

Less Common Co-morbidities

- Hepatitis A Virus
- Venous Thrombosis
- Septic Arthritis
- Septicemia
- Pulmonary Embolism
- Botulism
- Quinine Poisoning
- Tetanus

Soft Tissue Infections: How they Happen

Soft tissue infections among injection drug users are caused by:

- poor injection site hygiene (not washing hands or skin immediately before injecting)
- syringe re-use (not just sharing but re-use also)
- intramuscular (muscling) or subcutaneous (skin-popping) routes of injection
- contaminated drugs

When an IDU injects, a hole is made in the body's largest protective organ: the skin. This hole then provides an entryway for bacteria to get under the skin and into the bloodstream.

Types of Infections

- Skin and soft tissue infections most common
 - One abscess per 3 years of injection drug use
 - Risk increased by certain practices (skin popping)
- Deep-seated infections possible
 - Bacteremia
 - Endocarditis
 - IDU associated with right-sided endocarditis
 - Believed to be due to damage to endothelial tissue by injected particulate matter
 - Osteomyelitis
 - Septic arthritis



Abscesses



SKIN INFECTIONS (ABSCESSSES) 1/3 OF ALL IDU'S HAVE SOFT TISSUE INFECTIONS

Cause: Dirt or germs on the skin (not cleaning the site properly), missing the vein (and injecting anyway), using the same site over and over.

SIGNS could be: Redness and swelling at the injection site which might turn into a puss-filled sore. It can lead to scarring.

CARE: Clean it with soap and water, then keep it dry and apply bandage. See a doctor or someone at your local SSP. If left alone, it could turn into a blood infection (septicemia).

Harm Reduction Tip: Try to wash your hands and clean your spoon before you cook your hit. Try to rotate sites, and clean your site with an alcohol swab before you inject. Also, try to make sure you're in a vein before you inject.

STI Awareness Needed

- Providers' awareness of Soft Tissue Infections and their complications in IDUs must be increased. Soft Tissue Infections have great potential to develop into severe life-threatening infections, such as necrotizing infection, toxic shock, septicemia, and hypotension, which can be particularly dangerous for anyone, let alone for people with compromised immune systems.

MMWR

***Weekly* May 18, 2001 / 50(19);381-4**

Soft Tissue Infections Among Injection Drug Users --- San Francisco, California, 1996--2000

From FY 1996--97 through FY 1999--2000, the number of ED discharges for STIs increased 103%, from 1292 to 2619.

Annual inpatient charges for treatment of STIs averaged \$9.9 million per FY from 1996 to 2000. Because most patients admitted to SFGH were uninsured, San Francisco County was responsible for inpatient charges of approximately \$5.1 million.

In response to the high use of emergency and inpatient services, SFGH opened a surgical outpatient STI clinic in July 2000.

Soft Tissue Infections are a **VERY SERIOUS** Health Concern

- STI can be very serious and very expensive to a healthcare system that is already strapped and somewhat resistant to helping people that are *perceived* as unwilling to help themselves.

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Causative Organisms



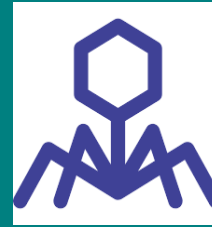
Bacteria

- *Staphylococcus aureus* (MRSA and MSSA)
- Group A streptococci
- *Pseudomonas aeruginosa*
- Clostridial infections
 - *Clostridium tetani*
 - *Clostridium botulinum*
- *Bacillus anthracis*
- *Mycobacterium tuberculosis*
- *Corynebacterium diphtheriae*



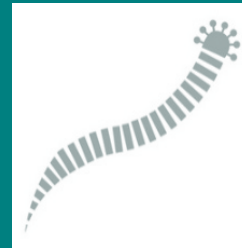
Fungi

- *Candida* species
- *Aspergillus* species
- *Rhizopus* species
- *Penicillium marneffeii*



Viruses

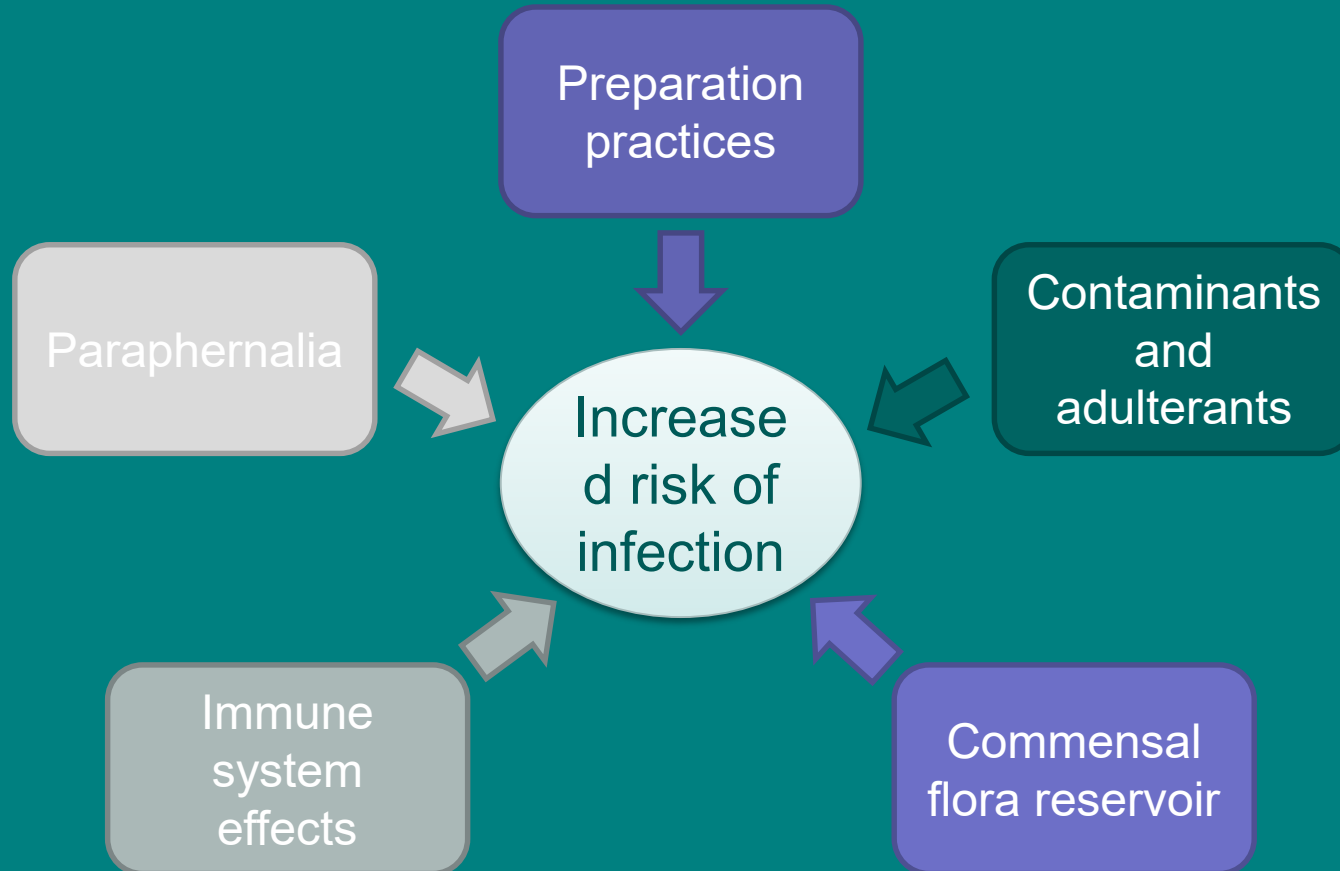
- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Hepatitis D virus (HDV)
- Human immunodeficiency virus (HIV)
- Human T-lymphotropic virus (HTLV)



Parasites

- *Plasmodium falciparum*
- *Plasmodium vivax*
- Leishmania
- *Toxoplasma gondii*

Risk Factors



Other Factors that can affect the Occurrence/Type of Co-morbidities

- particular drug injected
- geographic area
- personal injection practice specifics

Risk Factors

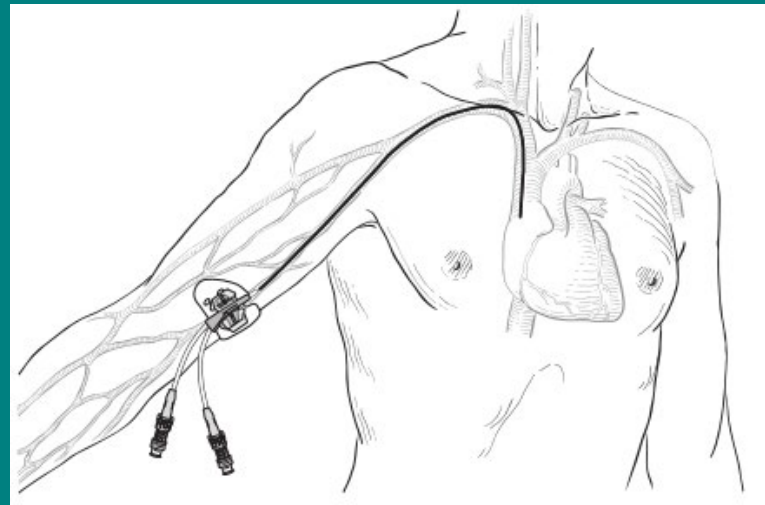
Contaminants and adulterants

- Process of cutting drugs
 - Spore-forming bacteria associated with black tar heroin
 - Colored methamphetamine associated with higher rates of abscesses
- Additives meant to increase the drug's effects (ex. levamisole)

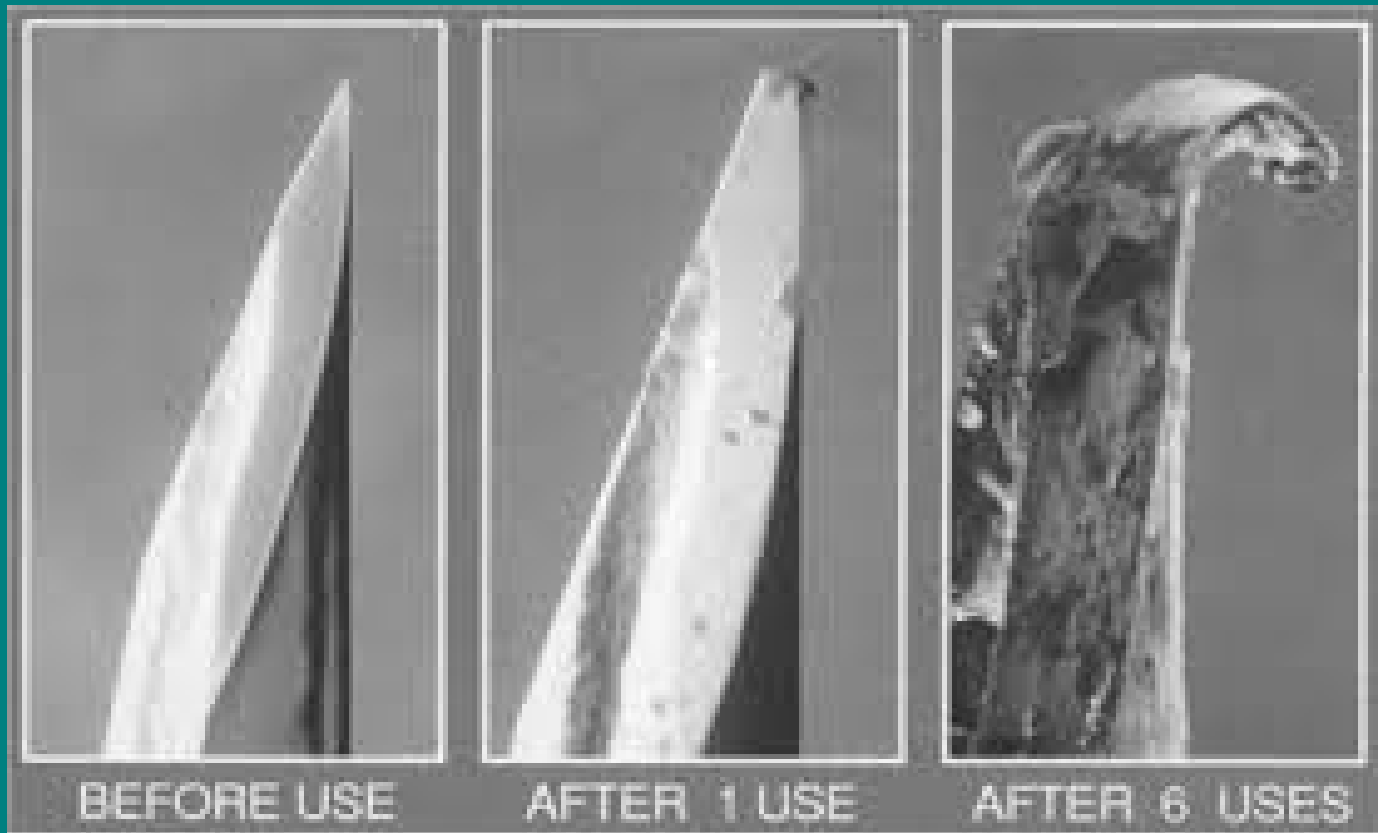


OPAT for STIs

- Though OPAT is not widely acceptable for PWID, existing outcomes data appears promising
- High quality literature supporting OPAT for PWID is needed



The Importance of Sterile Injection



Modalities of Syringe Access

- Agency based
- Mobile site
- Mobile Fixed Site
- Table Top
- Pedestrian Exchange
- Home Based Delivery
- Satellite/Peer Delivered

The Process