Integrated Care for Individuals Living with HIV and Substance Use Disorder

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Faculty Disclosure

I have not had any relevant financial relationships during the past 12 months
Overview

Background

• Overlap between HIV and SUD
  ▪ Epidemiology
  ▪ Impact on patient-oriented outcomes
• Integrated care model
  ▪ Basic components
  ▪ Data

Sample integrated model – GLFHC’s mobile HIV/SUD care
Objectives

Upon completion of this educational activity, you will be able to:

• Describe recent epidemiologic trends in HIV incidence among persons who inject drugs, including disparities based on gender and ancestry

• Describe 2-3 key components to low-barrier, integrated HIV/SUD care

• Identify 2-3 challenges to successful integration, and potential strategies to address these challenges
HIV and SUD - Epidemiology
National Drug-Involved Overdose Deaths*
Number Among All Ages, by Gender, 1999-2019

*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2019 on CDC WONDER Online Database, released 12/2020. Downloaded from https://www.drugabuse.gov/drug-topics/trends-statistics/overdose-death-rates, 3/26/2021
National Overdose Deaths Involving Any Opioid, Number Among All Ages, by Gender, 1999-2019

*Among deaths with drug overdose as the underlying cause, the any opioid subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2), methadone (T40.3), other synthetic opioids (other than methadone) (T40.4), or heroin (T40.1). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2019 on CDC WONDER Online Database, released 12/2020. Downloaded from https://www.drugabuse.gov/drug-topics/trends-statistics/overdose-death-rates, 3/26/2021.
OUD – a National Health Crisis

HIV and overdose risk
- Risk of fatal overdose increased by ~ 75%¹
- Risk of death 2011-2015²
  - Overall decreased by 10%
  - Overdose deaths increased by 43%
- HIV and sudden cardiac death³
  - 34% due to occult drug overdose (vs. 13% in HIV uninfected individuals)

¹ Green TC et al. AIDS. 2012 Feb 20;26(4):403-17
² Bosh KA et al. CROI 2019, Abstract 149

Recent HIV Clusters and Outbreaks Across the United States Among People Who Inject Drugs and Considerations During the COVID-19 Pandemic

Since 2015, clusters/outbreaks in:

- Scott County, IN
- Miami, FL
- Northeast MA
- Boston, MA
- Hennepin and Ramsey Counties, MN
- Multnomah County, OR
- Philadelphia, PA
- Seattle, WA
- Cabell County, WV
- Alaska

https://emergency.cdc.gov/han/2020/han00436.asp, accessed 4/1/2021
Individuals Diagnosed with HIV Infection by Exposure Mode and Year of Diagnosis: Massachusetts, 2007–2017

Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 01/01/19
HIV Diagnoses Among People Who Inject Drugs in the US and Dependent Areas, 2014-2018*

**Trends by Sex** †

- Men: Stable
- Women: 7% increase

**Trends by Race/Ethnicity**

- Blacks/African Americans ‡: 11% increase
- Hispanics/Latinos **: 6% decrease
- Whites: 26% decrease
- Multiple Races **: 29% decrease

This chart does not include subpopulations representing 2% or less of all PWID who received an HIV diagnosis in 2018.

* Includes infections attributed to male-to-male sexual contact and injection drug use (men who reported both risk factors).
† Based on sex assigned at birth and includes transgender people.
‡ Black refers to people having origins in any of the Black racial groups of Africa. African American is a term often used for people of African descent with ancestry in North America.
** Hispanic/Latino people can be of any race.

Changes in subpopulations with fewer HIV diagnoses can lead to a large percentage increase or decrease.


HIV and SUD - Epidemiology

Disparities

• Lifetime risk of HIV infection for PWIDs, based on gender and race/ethnicity:

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWID (total)</td>
<td>1 in 42</td>
<td>1 in 26</td>
</tr>
<tr>
<td>Black/African American</td>
<td>1 in 11</td>
<td>1 in 7</td>
</tr>
<tr>
<td>Hispanic/Latinx</td>
<td>1 in 26</td>
<td>1 in 25</td>
</tr>
<tr>
<td>White</td>
<td>1 in 108</td>
<td>1 in 49</td>
</tr>
</tbody>
</table>

HIV and SUD – Impact on HIV Care Cascade

- Rates of engagement, retention, viral suppression may be lower in persons with SUD – but variable
- Abstinence not required: dose-dependent relationship between substance use and viral suppression

For every 100 male PMT with HIV:
- 60 retained in care
- 69 received some care

For every 100 female PMT with HIV:
- 47 retained in care
- 54 received some care

For every 100 gay and bisexual male PMT with HIV:
- 73 retained in care
- 60 received some care

For comparison, for every 100 people overall with HIV, 65 received some care, 56 were retained in care, and 56 were virally suppressed.

* Includes infections attributed to male-to-male sexual contact and injection drug use (men who reported both risk factors).
* Had ≥2 viral load or CD4 tests at least 3 months apart in a year.
* Based on most recent viral load test.


3 Figure adapted from https://www.cdc.gov/hiv/images/group/ida/cdc-hiv-ida-care-infographic-2021.png, downloaded 4/1/2021
HIV and SUD – Approach to Care

Person-centered HIV and SUD Care

Harm Reduction

Care Integration
## Harm Reduction – What It Is

<table>
<thead>
<tr>
<th>Principle</th>
<th>Definition</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humanism</strong></td>
<td>All people deserve to be treated with respect, value and dignity</td>
<td>Remember that people make choices for a reason: apparently harmful behaviors must have some benefit</td>
</tr>
<tr>
<td><strong>Pragmatism</strong></td>
<td>No one is perfect</td>
<td>Abstinence is neither prioritized nor assumed to be the goal</td>
</tr>
<tr>
<td><strong>Individualism</strong></td>
<td>Everyone has strengths and needs which influence their specific behaviors</td>
<td>Messages and interventions are tailored based on strengths/needs, and not universalized or protocolized</td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
<td>People make their own choices about their treatment and health</td>
<td>Shared decision making should drive care</td>
</tr>
<tr>
<td><strong>Incrementalism</strong></td>
<td>Any positive change is good, and may be hard to come by</td>
<td>Celebrate successes, even when small Don’t get discouraged by plateaus or regressions</td>
</tr>
<tr>
<td><strong>Accountability without termination</strong></td>
<td>Patients are responsible for their health behaviors but are not “fired” if they don’t achieve their goals</td>
<td>Help patients understand the impact of their behaviors, but don’t punish them when they slip up</td>
</tr>
</tbody>
</table>

Adapted from: Hawk et al. Harm Reduction Journal (2017) 14:70
Harm Reduction – Practical SUD-Specific Interventions

Overdose prevention

Prevention of infectious complications
• Syringe service programs (SSPs)
• Post- and Pre-exposure prophylaxis (PEP/PrEP)

Pharmacologic treatment
• Methadone
• Buprenorphine/naloxone (Suboxone®)
• Naltrexone

Outreach and education
• “Getting off right”: https://harmreduction.org/drugs-and-drug-users/drug-tools/getting-off-right/

Supervised injection facilities (SIFs)
Harm Reduction – Why is It Important?

Data – it works

- **Naloxone**
  - Overdose rates 27-46% lower in communities w OEND programs

- **PrEP**
  - Reduces risk of HIV-infection among PWIDs by 50%-84%

- **SSPs**
  - Reduce the risk of HIV infection by 50%
  - Decreases the risk of overdose death
  - Increase likelihood of getting treatment 3-fold
  - Increase public safety – fewer discarded needles, lower risk of needle stick injuries
  - NO increase in crime

- **SIFs**
  - Reduce overdose-related morbidity and mortality
  - Decrease drug-related risk behaviors
  - Increase access to OUD treatment and health care in general
  - Decreased public drug use
  - Decreased discarded needles
  - No change in crime in the neighborhoods where they are located

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1. Walley, BMJ. 2013;346:f174
3. [https://www.cdc.gov/ssp/syringe-services-programs-summary.html](https://www.cdc.gov/ssp/syringe-services-programs-summary.html)
Care Integration – Key Components

Common features of programs with integrated care models¹:

- SUD treatment
- Treatment of HIV/HCV
- Behavioral health services
- Access to PrEP
- Additional harm reduction services (SSP, naloxone, etc.)

Not every integrated program will look the same

- Local population, needs
- Local resources
- Clinic program/structure
- Staff and clinician training/experience

Impact of OUD Treatment on HIV treatment Outcomes

Fig. 5. Impact of OUD treatment on HIV treatment outcomes in PWID (expressed as change in likelihood of specific outcome). (Adapted from Low AJ, Mbaru G, Welton NJ, et al. Impact of opioid substitution therapy on antiretroviral therapy outcomes: A systematic review and meta-analysis. CID. 2016;63(8):1094-1104; with permission.)

Figure from Infect Dis Clin North Am. 2019 Sep;33(3):835-855
Embedded Navigation vs Embedded Treatment Linkage to Care Models for PWUD and HCV

- Evaluation of 2 linkage to care models to eliminate HCV among PWUD
  - **Embedded HCV Navigation model (n = 107):** HCV Navigators embedded at SUD treatment programs provide HCV screening and support to connect patients to HCV treatment providers
  - **Embedded Treatment model (n = 111):** HCV treatment provided on site at SUD treatment programs
    - *C Change* program provided clinical training and ongoing support for new treaters, as well as administrative and patient management support
  - Participants in **embedded treatment vs embedded navigation** group more likely to:
    - Have current drug use ($P < .0001$)
    - Be homeless ($P < .0001$)
    - Have ever been incarcerated ($P = .03$)
    - Have ever experienced overdose ($P = .019$)

- Greater proportion of males and non-white participants in **embedded treatment vs embedded navigation group**

Embedded HCV Navigation vs Embedded HCV Treatment: Outcomes

- **Received HCV RNA Test:** 36/107 vs 29/107 (*P < .0001*)
- **HCV RNA Positive:** 103/111 vs 73/111
- **Appointment Made***: 66/31 vs 61/31 (*P < .0001*)
- **Appointment Attended***: 69/31 vs 69/73 (*P < .0001*)
- **Treatment Started***: 12/31 vs 8/31 (*P < .0001*)
- **Treatment Completed***: 39/73 vs 26/73

*Percentage based on RNA positive individuals.


Slide credit: clinicaloptions.com
Care Integration @ GLFHC: Mobile HIV/OUD Care
HIV and SUD Syndemics in Northeast MA

- 129 HIV+ were diagnosed during 2015–2018 who met case definition criteria
- Transmission risk category was predominately injection drug use (88%)
- 90% had laboratory evidence of HCV (either HCV antibody or RNA positive)
Our Response: The 10,000 Foot View

Enhanced development and integration of:
• Programs
• Personnel
• Patient Care

- HIV
- VHC
- OUD
- BH
- Incarceration
- Homelessness
- Need for acute care (ED)
Programs

All special population grants were brought under one leadership leading to integrated programming

• Ryan White HIV/AIDS Program (RWHAP) Parts A and C, E2i (SPNS)
• DPH prevention (SSP, OEND, HIV/HC/STI testing, linkage to care, Corrections)
• DPH BSAS Office Based Addiction Treatment, Post Overdose Response Team
• Homeless care funding

Patients and programs were reviewed in combined team meetings

Adopted a common vision: low barrier, harm reduction, integrated care for people with SUD, HIV and/or HCV, and housing instability
Personnel

Community Health Worker / Medical Assistant
• Outreach worker, Insurance, Driver/Mechanic, SSP staff, MA

Nursing
• Trained in HIV, VHC, and SUD

Clinicians
• Family Practice MDs, Adult NP: all trained in SUD, 1 HIV specialist physician
Patient Care – MHU

Bring care to the patients

Densely Layered Care/Services

Harm reduction model of SUD care

All patients offered/counseled re:
• Overdose prevention (naloxone)
• HIV treatment/prevention
  ▪ If HIV negative, PrEP or PEP to PrEP
• Infection prevention: SSP, proper injection technique (“Getting Off Right”)
• Treatment for SUD
“MHU Magic”

MHU parked at/near our SSP
- CHW’s who know the people best bring/encourage clients to seek treatment; outreach

Providers and team available for any/all needs
- Primary care (contraception, vaccines, chronic disease management)
- SUD – buprenorphine
- HIV, viral hep care
- PrEP, SSP, OEND
- Skin infections
- Insurance help, detox, shelter/housing

HIV Case Management team (CHW, RN) co-located at SSP for on-demand help
Is It Working?

N = 29 (PLWHA with SUD and housing instability)
• Prior to July 2018: 11 (38%) engaged in care
• 12 additional HIV+ patients engaged through MHU
• As of 12/2019:
  ▪ 22/27 (81%) engaged in care, excludes 2 who have died
  ▪ MHU patients:
    • 12/12 prescribed ART
    • 8/12 (66%) virally suppressed
    • 9/12 (75%) started MOUD with buprenorphine/naloxone
    • 3 linked to or continued on methadone maintenance treatment

Updated data (July 2021): not as good – but getting better
• 22% of all MHU patients still engaged
• Those with HIV:
  ▪ 13/27 (48%) still engaged
  ▪ Of those 13:
    • 13/13 (prescribed ART in last 12 mos
    • 7/13 (54%) virally suppressed
    • 11/13 (85%) on OUD treatment (6 on buprenorphine/naloxone, 6 on methadone)

PrEP (March 2020):
• 75/153 (49%) offered PrEP
• 17 (11%) started
• 5 (3%) active
Challenges to Care Integration

CHALLENGES

Patient
- Double stigma of HIV and SUD?
- Hierarchy of needs
- Individual readiness

Clinicians and staff
- Lack of training, time needed to get it
- Tension b/w desire for recovery and low-barrier/harm-reduction model of care
- Limited behavioral health

Administrative and structural
- Siloed grant structures, reporting requirement -> siloed programs
- X number, OTP certification requirement for methadone (42 CFR Part 8)
- Stigma, criminalization of drug use, NIMBYism

POTENTIAL STRATEGIES

Patient
- Low-barrier, patient-centered care
- Affirm and address the hierarchy

Staff
- Incentives (loan repayment!)
- “Clinical supervision”
- Reviewing goals, successes
- Collaboration/partnership

Administrative and structural
- Know your allies – who’s willing to be flexible?
- Advocacy
Summary

Ongoing OUD epidemic poses significant threats to progress gained in reducing incident HIV in PWIDs
  • Significant disparities in risk exist based on gender, ancestry

Integrated care a promising approach to addressing these syndemics
  • SUD treatment
  • Treatment of HIV/HCV
  • Behavioral health services
  • Access to PrEP
  • Additional harm reduction services (SSP, naloxone, etc.)

Systemic/structural change imperative
  • Advocacy!
Acknowledgments

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- Amy Bositis – Director of Clinical Programs
- HIV team
- Viral hep team
- SUD team
- PICSAR team
- Homeless team
- Funders
- Clinical Care Options
Questions?