Hepatitis C Infection in Young Adults

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Overview

1. Substance Abuse in Michigan: How it Relates to HCV in Young Adults
2. Demographics of Young Adults with HCV
3. Perinatal HCV Infection: A Consequence of HCV in Young Adults
Hepatitis C and Substance Abuse in Young Adults
Michigan Trends of HCV in Young Adults

- 212% increase per year from 2000 to 2016
- Overall number of HCV cases (acute and chronic) has increased
Heroin Abuse and Treatment

- Treatment admission more than doubles from 2000-2016
- Heroin OD deaths in 2016 more than 7x higher than 2000
Young Adults HCV, Heroin Deaths & Opioid Deaths

2016 Young Adult Chronic HCV Rate by County (Per 100,000 Persons)

2016 Opioid Overdose Death Rate by County (Per 100,000 Persons)
- 0.00 - 2.02
- 2.02 - 6.03
- 6.03 - 10.11
- 10.11 - 17.37
- 17.37 - 29.84

2016 Heroin Overdose Death Rate by County (Per 100,000 Persons)
- 0.00 - 1.07
- 1.07 - 3.11
- 3.11 - 6.32
- 6.32 - 9.78
- 9.78 - 24.47
Demographics of Young Adults With HCV

- Median age of 25 years
- Proportion of males and females relatively similar
- Majority of cases are White
  - American Indians have the highest rate of HCV infections per 100,000 young adults
- Majority of cases not Hispanic/Latino or Arab
- Most have a history of IVDU

<table>
<thead>
<tr>
<th>Age (n = 2060)</th>
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<tbody>
<tr>
<td>Median</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>24.96</td>
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<tr>
<td>Range</td>
</tr>
<tr>
<td>18 - 29</td>
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<table>
<thead>
<tr>
<th>Sex (n = 2057)</th>
<th>Rate per 100,000</th>
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<tbody>
<tr>
<td>Female</td>
<td>967 (47.0%)</td>
</tr>
<tr>
<td>Male</td>
<td>1090 (53.0%)</td>
</tr>
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<thead>
<tr>
<th>Race (n = 1524)</th>
<th>Rate per 100,000</th>
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<tbody>
<tr>
<td>White</td>
<td>1351 (88.6%)</td>
</tr>
<tr>
<td>Black</td>
<td>139 (9.1%)</td>
</tr>
<tr>
<td>American Indian</td>
<td>22 (1.4%)</td>
</tr>
<tr>
<td>Asian</td>
<td>12 (0.8%)</td>
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</tbody>
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<thead>
<tr>
<th>Hispanic Ethnicity (n = 1163)</th>
<th>Rate per 100,000</th>
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<tbody>
<tr>
<td>Hispanic or Latino</td>
<td>40 (3.4%)</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>1123 (96.6%)</td>
</tr>
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<thead>
<tr>
<th>Arab Ethnicity (n = 803)</th>
<th>Rate per 100,000</th>
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<tbody>
<tr>
<td>Arab</td>
<td>7 (0.9%)</td>
</tr>
<tr>
<td>Non-Arab</td>
<td>796 (99.1%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>History of IVDU (n = 978)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
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Perinatal Hepatitis C
Perinatal HCV Infection

- Potential consequence of increase in HCV infection among young adults
- Occurs via vertical transmission
  - HCV-positive mother to child in utero or during childbirth
- Transmission in 5-15% of babies born to HCV positive women
- Risk factors
  - HIV co-infection
  - High viral load
  - Prolonged/ premature membrane rupture
  - Maternal blood exposure
Perinatal HCV Prevalence in MI, 2012-2016

- Perinatal HCV classified by proposed case definition
  - 2-36 months of age
  - Positive RNA result
  - Had mother known HCV positive
- 4x more perinatal HCV than perinatal HIV
- 6.6x more than perinatal HBV
Summary

- Heroin & opioid substance abuse has greatly increased
  - Especially among young adults
- Chronic HCV infection in young adults aged 18-29 in 2016 is almost 35 times higher than it was in 2000
  - Needle sharing and drug use equipment during the opioid epidemic
- Perinatal HCV prevalence is much higher than other known perinatal diseases currently under surveillance
  - Women of child bearing age part of rising rates of chronic HCV in young adults
THANKS!
Opioid Use, Overdose, and HCV in Young Injectors: Policy Impacts Public Health

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Outline

- Red Project Basics
- Opioid Use and Overdose
- A Case of Policy Impacting Public Health: Indiana
- Syringe Access in Michigan
- Moving Forward…
Red Project Basics

- A 501c3 non-profit founded in 1998
- Mission: Improve Health, Reduce Risk, Prevent HIV
- We utilize a Harm Reduction philosophy
  - The space in between prevention & treatment
  - Meeting people where they are at
  - Providing a range of options
  - Client centered
  - Low threshold approach
  - Pre-recovery supports
- Health Issues: HIV, Hepatitis C, and Overdose
Red Project Programming

- Overdose Prevention
- Rapid HIV/Hepatitis C Testing
- Risk Reduction Counseling
- Syringe Access
- HIV Linkage To Care & Case Management
- Recovery Coaching/Access To Treatment
- Support Groups

Red Project provides comprehensive programming along the continuum of care
Overdose: A National Epidemic

Drug overdose death rates in the US have more than tripled since 1990.\(^5\)

*Deaths are those for which poisoning by drugs (illicit, prescription, and over-the-counter) was the underlying cause.*
Figure 6. Decedents With a Recent Prescription Filled for the Drug Mentioned as a Cause of Death:
MI Overdose Decedents, 2009-2012

<table>
<thead>
<tr>
<th>Category</th>
<th>Total (Number of Deaths)</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Opioids-related</td>
<td>487 (52%)</td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines-related</td>
<td>246 (57%)</td>
<td></td>
</tr>
<tr>
<td>Psychostimulants-related</td>
<td>39 (21%)</td>
<td></td>
</tr>
<tr>
<td>Other sedative-related</td>
<td>78 (21%)</td>
<td></td>
</tr>
<tr>
<td>Multiple non-opioids</td>
<td>58 (24%)</td>
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1. Deaths are mutually exclusive.
Opioids

- Opioids
  - Heroin
  - Methadone – dolophine
  - Morphine
  - Oxycodone
  - Morphine Sulfate
  - Vicodin
  - Norco
  - Darvact
  - Codeine cough syrup (Lean)
  - Demerol
  - Suboxone* – buprenorphine w/naloxone
  - Subutex*– bupenorphine

- Opioids, continued
  - Oxycontin
  - MS Contin
  - Roxycodone/Roxycontin/Oxycotin IR
  - Tylenol 3 with Codeine
  - Percocet
  - Dilaudid
  - Fentanyl
  - Opana
  - Opium

- Others -non-opioids
  - Benzos
  - Alcohol
  - Cocaine
  - Amphetamines
Mortality: Michigan

Michigan Mortality Rates

- Narcotic Overdose
- Viral Hepatitis
- HIV/AIDS related
Interpreting the Graphs

- How did we get here today?
- The ‘90s
  - Pain as a vital sign & patient satisfaction as a measure of doctor performance
  - Opioid availability increases, as does overdose
- c. 2008–current
  - Opioid overdose epidemic is recognized
  - Prescription opioids become less available
  - Effective treatment options not widely available
  - Heroin use (82% begin w prescription opioids) and overdose begins to increase
- Lessons– Reactionary vs Proactive, & a focus on Comprehensive Care
The Silver Lining
Naloxone In MI: 2016
Policy Impacts Public Health

- Syringe Access: A case in point(s)…
“Impeding [the IDU] population from obtaining or using sterile syringes amounts to prescribing death as a punishment for illicit drug use.”

Case Study: Indiana 2014/15

- Scott County, Indiana
  - Small, southeastern, rural county
  - Typically <5 new HIV cases per year

- November 2014–April 2015
  - Almost 150 new cases identified
  - 96% injection risk, primarily injected prescription opioids

- Syringes are illegal in Indiana
Structural Vs Behavioral Interventions

Skin is tough!
Every time you hit, your skin barbs the point. Damaged points can lead to:
- Abrasions
- Infections
- Blown veins

Save your veins!
- If you miss your vein, re-load a new syringe and try again.
- Don't use the same point to hit over and over again.
- Trying to sharpen a used point makes more barbs.
- Don't use the tip of your needle to mix your hit.

Use a brand new syringe EVERY TIME you poke your skin or vein.

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A Word on Controversy

- Indiana governor does not “believe” in syringe access
- Scientific data says–
  - Syringe access–
  - Decreases HIV transmission
  - Does not increase drug use; often the opposite
  - Is extremely cost-effective
  - Can address other epidemics too
- Syringe access is good, solid Public Health
MCL 333.7451 defines sterile syringes as drug paraphernalia.

MCL 333.7457(g)

Sections 7451 to 7455 do not apply to any of the following:

(g) An object sold, offered for sale, or given away by a state or local governmental agency or by a person specifically authorized by a state or local governmental agency to prevent the transmission of infectious agents.
1998: 25% of all HIV/AIDS cases related to injection drug use; Mayor’s Task Force recommends establishment of a syringe access program

August 2000: City Commission resolution allows Red Project to offer syringe access from 1 location in downtown Grand Rapids

September 2011: Further resolution allows syringe access expansion to entire city

Current: 8% of current HIV/AIDS cases in KC related to injection drug use
What does the data say?

- Programs reduce the spread of HIV by up to 80% and Hepatitis C by up to 50%
- They *decrease* drug use: participants are 5 times more likely to access treatment
- They protect the community: decreasing accidental needle stick by 66% and taking used syringes off the street
- They save taxpayer dollars: cost of HIV treatment = $300–600K, Hepatitis C treatment = $100–500K, sterile syringe = 10¢
The State of Syringe Access: Michigan

- CDC Recommendation
- Drug Paraphernalia Law
  - But local communities can make their own decision
- Limited Pharmacy Access
  - Pharmacist discretion
- Legally Authorized Programs
  - Grand Rapids
  - Detroit
  - Ypsilanti
  - Flint (circa 2012?)
  - Muskegon (in 2017 woo hoo!)
What’s that federal ban?

- There has been a ban on federal funding being used for syringe access for over 20 years—recently overturned, but no additional funding, and can not purchase syringes
- State dollars can be used
  - And are in CA, CT, MN, NJ, NM, NY, OR, VT, & WA
  - State dollars accounted for 45% of cumulative syringe access program budgets in 2009
  - Michigan does not *currently* fund syringe access (syringes)
- Not publicly supported SAPs rely on private foundations and community giving
  - Resulting in 69% of SAPs in 2009 reporting their biggest problem as lack of resources/funding
  - This is not sustainable
- Where is the progress in the face of current epidemics?
The Political Climate in Michigan

- There has been **NO LITTLE** movement on this issue for 20 years
- *If not now, then when?*
- We need to take Indiana as a lesson, and exercise preventative action on a statewide level
- We need to see movement on:
  - funding for syringes– the one thing you can not run a program without
  - exemption/legalization/decriminalization
  - pharmacy access
  - drug policy in general
Negative health outcomes result from bad policy
  ◦ People live and die by often abstract idealistic decisions of public policy makers out of touch with reality “on the ground”

The system is extremely resistant to change
  ◦ Policy does not change itself, an active effort must be made and resources expended

Stigma, shame, morality, public health and policy mix to create disastrous situations
  ◦ Our policy must be made incorporating the most recent science, and reviewed regularly
Available upon request...

Thanks to those who have come before–
   - the real work has often been done by those receiving the least credit and experiencing the most backlash– the boots on the ground– people who use drugs themselves...