Using Data to Expand Harm Reduction Programs in Michigan

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Communicable Disease Division
Michigan Department of Health and Human Services

National Alliance of State and Territorial AIDS Directors
National Technical Assistance Meeting
October 11, 2018
Outline

• Ways in which we are using data for harm reduction activities:
  • Characterize the problem / advocacy
    • Build support
    • Determination of need
  • Prioritization and allocation of funding
    • Justification to grantors
    • Vulnerability index
  • SSP process and outcome measures
    • SSP utilization
    • Progress reporting to grantors / legislators
Characterizing the Problem
Distribution of New HCV Diagnoses by Year of Birth in Michigan 2008 vs 2017

2008
Number of New HCV Diagnoses Among 18-29 years olds, Michigan 2000-2017
Demographics and County Rate Map of New HCV Diagnoses among 18-29 Year Olds, Michigan 2017

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Age (n =1985)</th>
<th>Sex (n = 1979)</th>
<th>Race (n = 1522)</th>
<th>Hispanic Ethnicity (n = 1192)</th>
<th>Arab Ethnicity (n = 733)</th>
<th>History of IVDU (n = 877)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>26</td>
<td>Male 1022(51.6%)</td>
<td>White 1332 (87.5%)</td>
<td>Hispanic or Latino 45(3.8%)</td>
<td>Arab Ethnicity 1 (0.1%)</td>
<td>Yes 747(85.2%)</td>
</tr>
<tr>
<td>Median</td>
<td>25.15</td>
<td>Female 957 (48.4%)</td>
<td>Black 143 (9.4%)</td>
<td>Not hispanic or Latino 1147(96.2%)</td>
<td>Non-Arab 732 (99.9%)</td>
<td>No 130 (14.8%)</td>
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<tr>
<td>Mean</td>
<td>26</td>
<td></td>
<td>Black 143 (9.4%)</td>
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<tr>
<td>Range</td>
<td>18 - 29</td>
<td></td>
<td>American Indian 37 (2.4%)</td>
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<td>Asian 10 (0.7%)</td>
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2017 New HCV Diagnosis Rate among 18-29 Year Olds (per 100,000 persons)
Substance Abuse Treatment Admissions due to Heroin, Michigan 2000-2017
HEPATITIS C AND OPIOID INJECTION ROSE DRAMATICALLY AMONG WHITE AMERICANS FROM 2004-2014

- HCV increased by 300%
- Admissions for opioid injection increased by 134%

Source: Centers for Disease Control and Prevention and Substance Abuse and Mental Health Services Administration
Michigan had the 5th most vulnerable counties of all the states in the U.S.
93% of these vulnerable counties don’t have any SSPs.
July 12, 2018

Michigan Association for Local Public Health
426 S Walnut St
Lansing, MI 48933

Re: Prescription Drug and Opioid Abuse Epidemic in Michigan

Dear Michigan Association for Local Public Health:

In June of 2016, Governor Snyder signed an Executive Order establishing the Michigan Prescription Drug and Opioid Abuse Commission ("PDOAC"). The PDOAC was created to ensure the implementation and monitoring of the state-wide plan, and to make further recommendations, to combat the severe and complex prescription drug and opioid abuse epidemic that faces our state. Among other things, the PDOAC was charged with developing and proposing policies and an action plan to implement the recommendations in the Report of Findings and Recommendations for Action from the Michigan Prescription Drug and Opioid Task Force; monitor and advise the Governor as to the progress of the action plan; and provide other information and advice to the Governor regarding the state of prescription drug and opioid abuse in Michigan.

I am writing to you on behalf of the PDOAC to inform you that the PDOAC endorsed the expansion of syringe service programs in Michigan. Syringe service programs help reduce the spread of infectious disease including Hepatitis A, Hepatitis B, Hepatitis C, and HIV. In addition to providing sterile syringes, syringe service programs provide vaccinations, referrals to treatment, and testing for infectious diseases.

We believe that the concerted efforts by your members will help to reduce the impact of infectious disease, increase the number of people in treatment, and will save lives. As the Chair for the Prescription Drug and Opioid Abuse Commission, I am requesting that you share this letter with your membership.

Should you have additional questions or concerns about the above request, please feel free to reach out to Weston Macintosh, Board Analyst, at macintoshw1@michigan.gov.

Linda Davis
Hon, Linda Davis, Chairperson
Michigan Prescription Drug and Opioid Abuse Commission

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Determination of Need
<table>
<thead>
<tr>
<th>Outcome(s)</th>
<th>Data source</th>
<th>Geographic area</th>
<th>Baseline period</th>
<th>Assessment period</th>
<th>Percent change between baseline and assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute HCV</strong></td>
<td>Michigan Disease Surveillance System (NNDSS)</td>
<td>State of Michigan</td>
<td>Month: Jan-Dec Year: 2009 Value: 0.28 Units: acute HCV cases per 100,000 persons</td>
<td>Month: Jan-Dec Year: 2015 Value: 0.85 Units: acute HCV cases per 100,000 persons</td>
<td>&gt;200% increase in the number of acute HCV diagnoses per year between 2009 and 2015</td>
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<td>In 2015, where data was available, 60% of cases report a history of IDU within the last 2 weeks to 6 months</td>
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<td><strong>Chronic HCV Diagnoses</strong> (18-29 year old age group)</td>
<td>Michigan Disease Surveillance System (NNDSS)</td>
<td>State of Michigan</td>
<td>Month: Jan-Dec Year: 2000 Value: 59 Units: new HCV diagnoses</td>
<td>Month: Jan-Dec Year: 2015 Value: 1,444 Units: new HCV diagnoses</td>
<td>&gt;2300% increase in the number of chronic HCV diagnoses per year in individuals aged 18-29 between 2000 and 2015</td>
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<td>In 2015, where data was available, approximately 90% of chronic HCV cases between the ages of 18 and 29 reported a lifetime history of IDU</td>
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<td><strong>Prescription Opioid Deaths</strong></td>
<td>MDHHS Vital Records</td>
<td>State of Michigan</td>
<td>Month: Jan-Dec Year: 2000 Value: 74 Units: Deaths</td>
<td>Month: Jan-Dec Year: 2014 Value: 481 Units: Deaths</td>
<td>550% increase in overdose deaths as a result of prescription opioids (without other drugs) between 2000 and 2014</td>
</tr>
<tr>
<td><strong>Heroin Overdose Deaths</strong></td>
<td>MDHHS Vital Records</td>
<td>State of Michigan</td>
<td>Month: Jan-Dec Year: 2000 Value: 89 Units: Deaths</td>
<td>Month: Jan-Dec Year: 2014 Value: 520 Units: Deaths</td>
<td>484% increase in overdose deaths as a result of heroin (with or without other drugs) between 2000 and 2014</td>
</tr>
<tr>
<td><strong>Heroin Substance Abuse Treatment Admissions</strong></td>
<td>SAMHSA Treatment Episode Data Set (TEDS)</td>
<td>State of Michigan</td>
<td>Month: Jan-Dec Year: 2000 Value: 9,023 Units: substance abuse treatment admissions with mention of heroin</td>
<td>Month: Jan-Dec Year: 2015 Value: 19,728 Units: substance abuse treatment admissions with mention of heroin</td>
<td>&gt;100% increase in the number of substance abuse treatment admissions with mention of heroin</td>
</tr>
</tbody>
</table>
CDC Determination of Need Request

• In 2016, Michigan applied for a determination of need from the CDC to allow for the redirection of federal funding to support syringe services programs

• The CDC concluded:

After careful review of your submission, CDC concurs that Michigan is experiencing an increase in viral hepatitis or HIV infections due to injection drug use. The submitted data provide sufficient evidence to determine a need for SSPs within the jurisdiction. Specifically, the requestor presents statewide data on increases in acute HCV infections and total HCV infections, and that a predominance of new cases are attributed to injection drug use. Epidemiologic trend data in other areas (deaths from heroin and prescription opioids as well as heroin substance abuse treatment admissions) indicate increases in unsafe injection of drugs consistent with risk for a significant increase in viral hepatitis or HIV.
Identification and Allocation of Funding
Strategic Partnerships

• Identified the SAMHSA Prevention Block Grant as a good candidate for budgeting for harm reduction expansion

• Conducted a survey of Local Health Officers to determine SSP readiness and barriers to implementation

• Used the survey and a data-driven approach to justify directing SAMHSA funds to jurisdictions for SSP activities

• SAMHSA approved $800,000 to fund MDHHS and 11 local health jurisdictions for SSP activities in FY 2019
“SSP Funding Justification Matrix”

**Data used to justify prioritization of funds**

- CDC vulnerable counties?
- HIV prevalence rate
- Chlamydia infection rate
- Gonorrhea infection rate
- Hepatitis A infection rate
- Acute Hepatitis B infection rate
- Acute Hepatitis C infection rate
- Chronic HCV infection rate (18-29 year old)
- HCV hospitalization rate (18-29 year old)
- Drug poisoning death rate
- Non-heroin opioid mortality rate
- Heroin mortality rate
- Neonatal abstinence syndrome rate
- Perception of SSP need
- Perceived SSP readiness
- Public Support for SSPs
- Law Enforcement support of SSPs
- Likelihood of having a program in FY2019
Local Health Department SSP Readiness Survey

If funding were not a barrier, what is the likelihood that you would be able to establish a SSP in your jurisdiction in calendar year 2019?

- Definitely not: 0
- Unlikely: 1
- Maybe: 8
- Likely: 8
- Definitely: 2
- N/A: 1
Local Health Department SSP Readiness Survey

What assistance, training, resources, or policy changes do you feel that you would need in order for a SSP to operate in your jurisdiction? Check all that apply.

- Change local law/ordinance
- Funding
- Additional staff
- Lack of substance use treatment/referral partners
- Training/technical assistance
- Administrative and/or leadership support
- Law enforcement support
- Public support
- Support among persons who inject drugs
- Education on the benefits/harms of SSPs
- Physical space
- Mobile unit
Expansion of SSP in Michigan

Counties Highly Vulnerable to Rapid Dissemination of HIV/HCV among PWIDs (CDC)

2017 New HCV Diagnosis Rate among 18-29 Year Olds (per 100,000 persons)

Jurisdictions Identified to Receive SSP Funding in FY19
State-level Vulnerability Index

Rickles et al. “Tennessee’s In-state Vulnerability Assessment for a "Rapid Dissemination of Human Immunodeficiency Virus or Hepatitis C Virus Infection" Event Utilizing Data About the Opioid Epidemic”. CID 66(11): 1722-1732. 2018
Implementation, Process and Outcome Measures
Kent County
2017-18 Acute and Chronic HCV Cases <=40 years old

Muskegon County
2016-17 Acute and Chronic HCV Cases <=35 years old
Collect data to measure impact of SSPs

**Process Data:**
- Clients served
- Needles distributed/returned
- HIV and HCV testing
- Naloxone distribution
- Clients referred to treatment
- Vaccinations provided
- Other supplies distributed
  - Sterile water
  - Cottons
  - Cookers
  - Condoms

**Outcome Data:**
- HIV infections
- HCV infections
- Skin/soft tissue infections
- Overdoses
- Overdoses reversed
- Persons engaged in treatment
Impact of Syringe Exchange in Scott County

• Reductions in sharing syringes and injection equipment (n=148)

- Sharing syringes to inject: 18% (First visit), 2% (Most recent visit)
- Sharing syringes to divide drugs: 19% (First visit), 4% (Most recent visit)
- Sharing other injection equipment: 24% (First visit), 5% (Most recent visit)

Progress in Scott County

- Total number of persons who have enrolled in addiction treatment at the SSP location
- Average number of syringes needed by clients each day, by quarter
- Number of new HIV infections diagnosed, by quarter

Source: Indiana State Department of Health, Indiana Family and Social Services Administration, and IU Fairbanks School of Public Health
SSP Event Surveillance System?

- Web-based
- Electronic form
- Secure
- Real-time reporting
- Search and export for analysis

In the meantime:
- Collecting info via fax / e-mail
- Aggregated on a monthly / quarterly basis
Thanks!

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