



FINAL REPORT

In Fulfillment of CDC-RFA-TP18-1802 Cooperative Agreement for Emergency Response: Public Health Crisis Response

2018 Opioid Crisis Cooperative Agreement



Bartkowski & Associates
Research Team

Page Left Blank Intentionally

Table of Contents

Executive Summary	5
Mississippi Jurisdictional Vulnerability Assessment	7
Syringe Services Programs in Mississippi: Assessment of Knowledge, Attitudes & Beliefs of Communities & Key Informants	17
SYRINGE SERVICES PROGRAMS	
Impact on the Spread of Communicable Diseases	41
Acknowledgements.....	53

Page Left Blank Intentionally

Executive Summary

This final report has been drafted to fulfill the requirements outlined in CDC-RFA-TP18-1802 Cooperative Agreement for Emergency Response: Public Health Crisis Response, 2018 Opioid Crisis Cooperative Agreement. Included in this report are Mississippi's Jurisdictional Vulnerability Assessment (JVA), Assessment of Knowledge, Attitudes, and Beliefs of Communities and Key Informants, and a review of all relevant State and Federal policies surrounding syringe service programs.

In consultation with the Mississippi State Department of Health, Bartkowski and Associates Research Team developed Mississippi's Jurisdictional Vulnerability Assessment (JVA). The assessment is designed to complement an earlier preliminary vulnerability assessment completed for the Mississippi State Department of Health by Tsuru Consulting.

The JVA entails an analysis of (1) the spatial distribution of specific risk factors of interest and (2) the relationships among such factors (e.g., risk factor correlations and spatial clusters). One key goal of this vulnerability assessment was the creation of a multidimensional Social Vulnerability Index (SVI) (see <https://svi.cdc.gov/>). Ideally, a robust SVI would be composed of health-related indicators and other factors (e.g., poverty, race-ethnicity, education) that are highly associated with one another and that co-occur geographically to highlight pockets of elevated vulnerability concerning specific outcomes. Based on the data analysis the research team found that efforts to create a vulnerability index among current predictor variables did reveal high risk areas among reporting counties; however, the analyses could be enhanced by additional data points that might be more strongly associated with one another.

Additionally, discerning the correct meaning of a zero value for zero-inflated measures (no incidence versus did not report) would provide a more accurate assessment of vulnerability across Mississippi.

In consultation with the Mississippi State Department of Health (MSDH) and other stakeholders, the Mississippi Public Health Institute (MSPHI) conducted a statewide environmental assessment

to gauge public knowledge and perceptions about comprehensive syringe services programs (SSPs). Twenty guided discussion groups, including 188 community members, were held across Mississippi in communities that included locations in each of the three MSDH public health regions. Thirty-four key informants were also interviewed. From the collective interviews and guided discussions three themes emerged: (1) Syringe services programs and other harm reduction activities should be available for people who inject drugs to help increase entry into substance use disorder treatment, prevent the spread of blood-borne disease, and reduce needle stick injuries; (2) Additional medical and social services are needed for people with substance use disorders and their families. Long-held beliefs about drug users are changing and communities are establishing programs to provide support and assistance; (3) Information and education on SSPs, harm reduction activities and infectious disease statistics will guide the State and communities in making informed decisions for program development and implementation.

At the request of the Mississippi State Department of Health, the Center for Mississippi Health Policy supplied a comprehensive policy report including a summary of research covering the medical effectiveness of syringe service programs (SSPs), the current Federal laws applicable to SSPs, an overview of other State SSP laws, and the current Mississippi SSP laws. The goal of this section of the report was to supplement the JVA, guided discussions, and key informant interviews to give an overview of the policy environment in Mississippi for implementing SSPs. The research showed that based on numerous studies SSPs are associated with reductions in HIV transmission, and a combination of SSPs and opioid-substitution therapy could reduce the risk of hepatitis C transmission among people who inject drugs (PWID). Currently, Mississippi law does not explicitly authorize the exchange of syringes and categorizes syringes as paraphernalia. Mississippi does not have a law prohibiting the retail sale of syringes without a prescription nor a law prohibiting sales specifically to people who inject drugs (PWID).

Page Left Blank Intentionally

Bartkowski & Associates
Research Team

Mississippi Jurisdictional Vulnerability
Assessment

August 2019

Table of Contents

Introduction	9
Purpose	9
Data & Approach	10
Key Findings	10
Recommendations	10
Rate of Hepatitis C Infection in MS, 2017-2018	11
Rate of Opioid Prescriptions in MS, 2018	12
Rank of Hepatitis C and Social Vulnerability Measures: Top Ten Counties	13
Spearman’s Rank Correlations	14
Use of the Social Vulnerability Index in Ongoing Efforts to Address Mississippi’s Opioid Crisis	15

Introduction

Mississippi is a predominantly rural state with several regions that create unique challenges for organizations dedicated to addressing public health threats. Overarching factors such as significant healthcare workforce shortages, the underutilization of preventive health services, widespread chronic disease, transportation-related access to care, and a pervasive lack of health literacy resulting from overall literacy deficits exacerbate Mississippi's healthcare system challenges throughout the state.

These state-level factors are magnified by sub-state regional patterns that include, among others, extreme poverty and social disadvantage in the Mississippi Delta, severe racial inequality in several areas of the state, and pockets of highly elevated risk factors for many of the state's most vulnerable residents (e.g., egregious infant and maternal mortality rates). These circumstances create significant risks for opioid use and abuse within the state. This constellation of factors has led to opioid-related injuries and deaths while yielding a host of negative individual, familial, community, and societal impacts. This situation presents significant challenges for systems and services that are ultimately responsible for addressing such adversities through policy, systemic, and environmental change.

The opioid-related problems present in Mississippi are among the most formidable in the nation. The 2018 Mississippi Morbidity Report (34[1], November 2018) underscores the daunting contours and scope of this problem. Despite modest declines in the state's opioid analgesic prescribing rates since 2012, Mississippi retains the unenviable ranking of having the fourth highest opioid prescription rate in the US. Mississippi's unusually high opioid prescribing rate is exceeded only by Tennessee, Arkansas, and Alabama.

Regrettably, the consequences of these intersecting prescribing trends have placed an increasingly greater number of Mississippians who consume these substances at mortal risk. Opioid overdoses have increased at an alarming rate in Mississippi during the past several years. A 2019 epidemiological report, Drug Overdose Deaths in Mississippi, 2011-2017, indicates that one Mississippian died nearly every day of the year during the 2017 calendar year. The 346 overdose deaths in 2017 compare most unfavorably with the 279 overdose deaths in 2011. This spike in overdose deaths from 2011 to 2017 reflects an increase of nearly one quarter (24.0%). Despite prodigious efforts to reverse this trend, drug overdose deaths in Mississippi remained elevated in 2016 (348 deaths) and 2017 (346 deaths). In 2017 alone, a majority of overdose deaths (52.0%) resulted from opioid use, including prescription opioids, fentanyl, heroin, and methadone. Opioid-related deaths increased a startling 136.8% (N = +104) from 2011 to 2017.

Purpose

A jurisdictional vulnerability assessment (JVA) entails an analysis of (1) the spatial distribution of specific risk factors of interest and (2) the relationships among such factors (e.g., risk factor correlations and spatial clusters). One key goal of a vulnerability assessment is the creation of a multidimensional Social Vulnerability Index (SVI) (see <https://svi.cdc.gov/>). A robust SVI would be composed of health-related indicators and other factors (e.g., poverty, race-ethnicity, education) that are highly associated with one another and that co-occur geographically to create pockets of elevated vulnerability concerning specific outcomes.

Data & Approach

This vulnerability assessment was informed by CDC's guidance on the measurement of social vulnerability (<https://svi.cdc.gov/>) with data points that were made available by the Mississippi Department of Health. The outcome (dependent) variable is hepatitis C prevalence (2017-2018 mean rates and ranks by county). Various predictor (independent) variables include: per capita income (2013-2017, American Community Survey), county-level overdose death rate (2018, Mississippi Bureau of Narcotics), county-level drug arrest rate (2018, Mississippi Bureau of Narcotics), and opioid prescriptions per capita (2018, NSPARC). This assessment is designed to complement an earlier preliminary vulnerability assessment completed for the Mississippi Department of Health by Tsuru Consulting. What follows augments that preliminary analysis by employing additional statistical analyses based on unimputed data. Unimputed data are used in this report because data points of zero (0) could reflect either valid observations of no incidents or missing data (e.g., county did not report). Non-reporting counties are unlikely to be randomly distributed. Some predictor data points had an abundance of zeros (i.e., overdose deaths, N = 23; drug arrests, N = 27) for which imputation is not recommended because it risks inflating vulnerability. A more conservative approach entails using data as reported with statistical techniques suitable for zero-inflated, over-dispersed data.

Key Findings

Key findings are reported with documentation on pages 10-14.

Recommendations

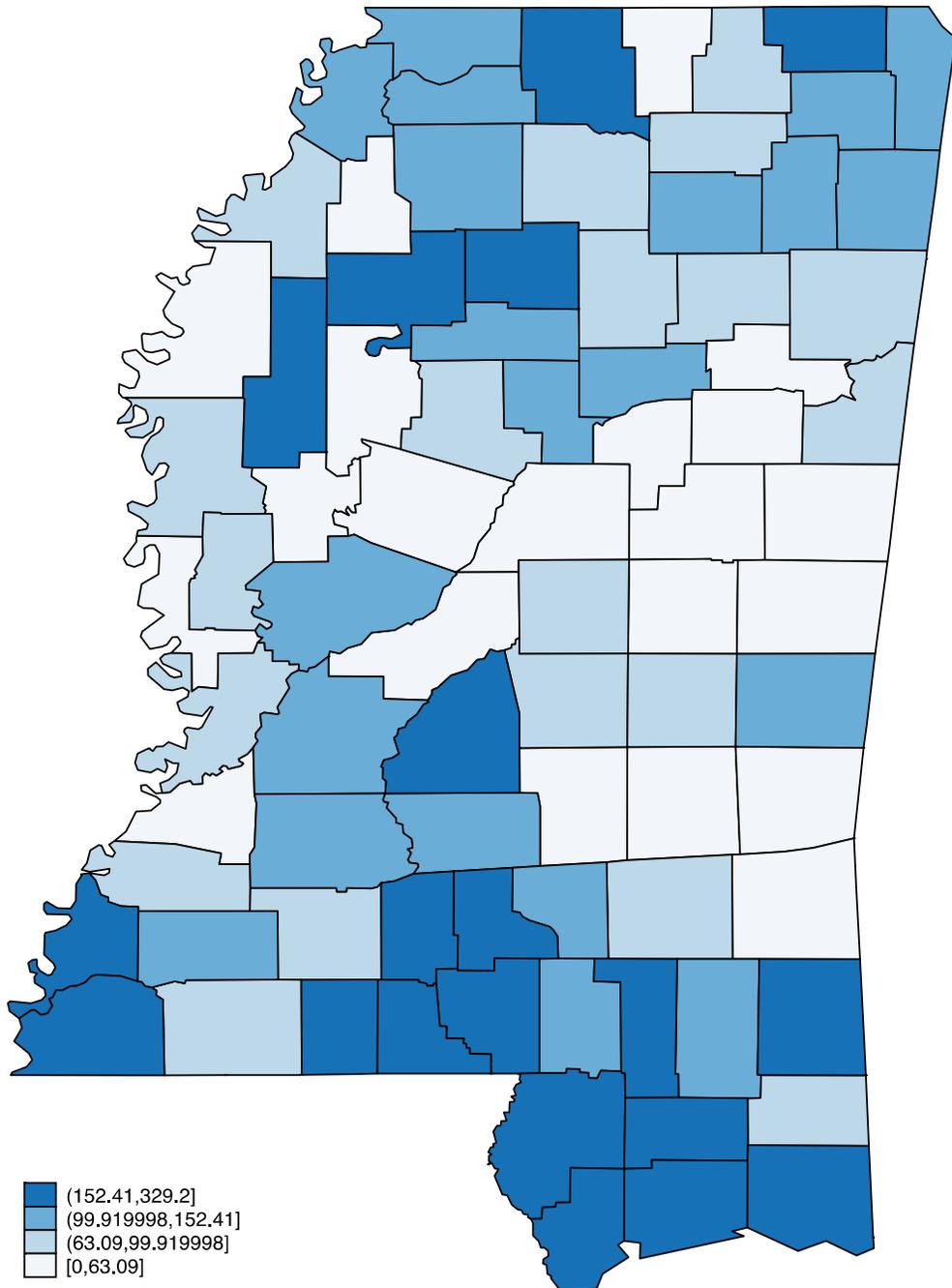
Based on the reported findings (pages 10-14), two recommendations are offered going forward.

1. The analyses presented here could be complemented by additional data points that might be more strongly associated with one another. Efforts to create a vulnerability index among current predictor variables were unsuccessful, with alpha scores of internal consistency less than 0.1. Factors that may be considered for a future vulnerability index may include racial-ethnic composition (e.g., percent African American), household composition (e.g., percent single-headed families), and education at the county level.
2. Discerning the correct meaning of a zero value for zero-inflated measures (no incidence versus did not report) would provide a more accurate assessment of vulnerability across Mississippi. Missing data points should be noted by a unique designation.

Figure 1 reveals that spatial concentrations of hepatitis C rates from 2017-2018 are most boldly evident in roughly a dozen counties along or adjacent to the Mississippi Gulf Coast.

They are also evident in select counties of the Mississippi Delta (Sunflower, Tallahatchie, Yalobusha) and a couple Mississippi-Tennessee border counties (Marshall and Alcorn).

Figure 1. Rate of Hepatitis C Infection in MS, 2017-2018

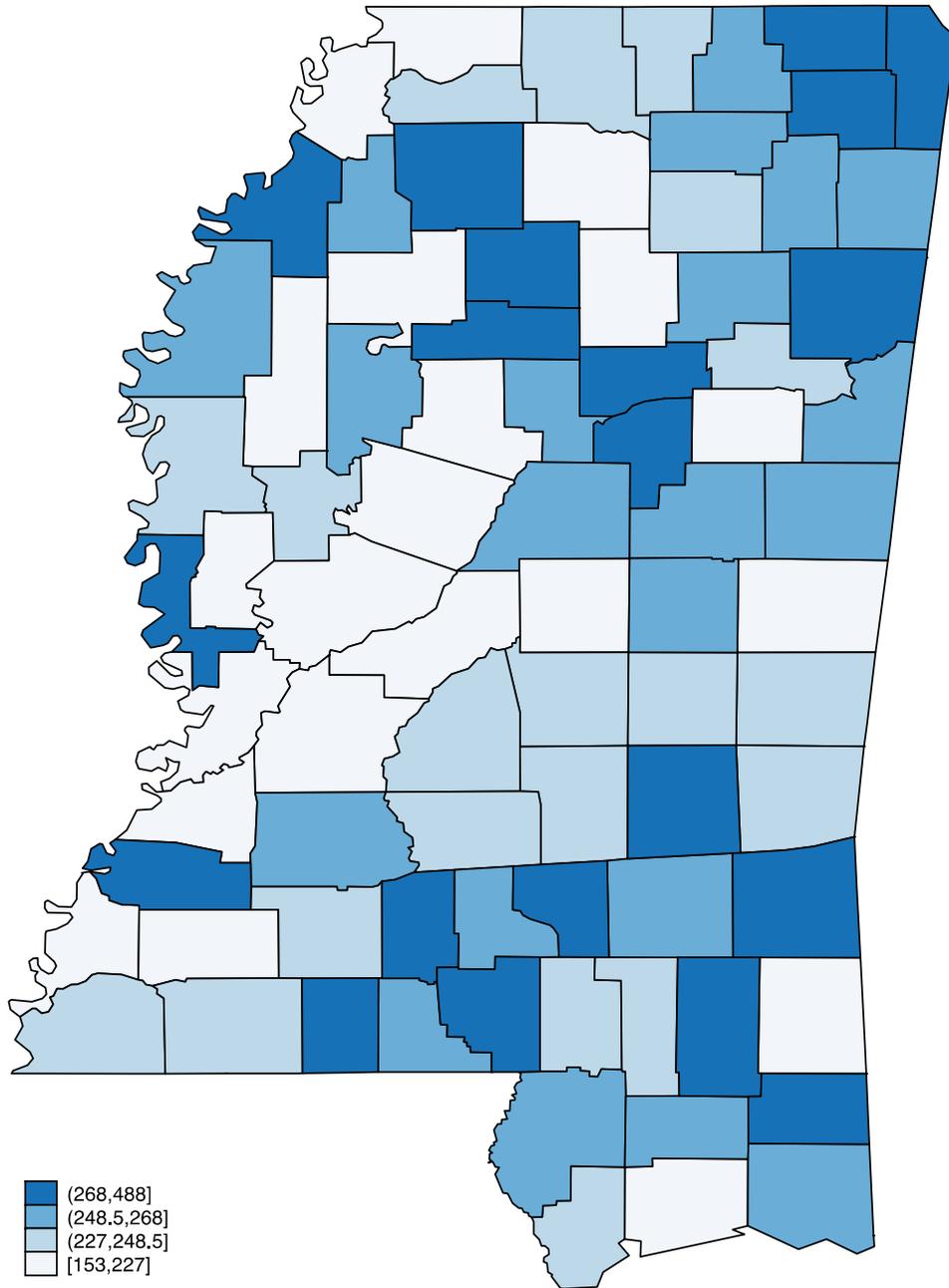


Note: Infection rate per 100,000 population.

Figure 2 displays spatial concentrations of 2018 opioid prescription rates. When compared with Figure 1, there is moderate but not robust overlap with high concentration areas of hepatitis C rates from 2017-2018. Among the counties that exhibit greatest vulnerability across these two

indicators are several near the Mississippi Gulf Coast (Pike, Laurence, and Marion), as well as select counties in the northern region of the state (Yalobusha in the Mississippi Delta, and Alcorn on the Mississippi-Tennessee border).

Figure 2. Rate of Opioid Prescriptions in MS, 2018



Note: Prescription rate per 100,000 population.

Table 1 provides county rankings across various measures for the counties that ranked in the top 10 for hepatitis C rates (population-adjusted number of cases per 100,000 residents). Higher column 1 rates indicate greater vulnerability. Column 1 reports the county’s rank among all 82 Mississippi counties, arrayed from 82 (Tallahatchie is the highest hepatitis C rate county) to 73 (Hancock is the tenth-highest rate county).

A similarly mixed pattern is evident for Greene County and, to a lesser extent, Marshall County. By contrast, consistency in vulnerability rankings across columns 1, 4, 5, and 6 is more evident in, for example, Alcorn, Jackson, and Pearl River counties.

While clear patterns of consistently elevated vulnerability are not evident for these indicators, these 10 counties would be considered for evidence-based local interventions.

Generally, clear visual associations among variables in the form of consistently high vulnerability rankings across columns do not emerge in Table 1. For example, Tallahatchie is the most vulnerable county with respect to its hepatitis C rank (column 1) but shows minimal vulnerability concerning its overdose death rate (column 4), drug arrest rate (column 5), or opioid prescriptions per capita (column 6).

Table 1. Rank of Hepatitis C and Social Vulnerability Measures: Top Ten Counties

		<u>Column 1</u> County Rank of Hep C Rate	<u>Column 2</u> County Rank of Reported Hep C Cases	<u>Column 3</u> County Rank of per Capita Income	<u>Column 4</u> County Rank of Overdose Death Rate	<u>Column 5</u> County Rank of Drug Arrest Rate	<u>Column 6</u> County Rank of Opioid Prescriptions per Capita
1	Tallahatchie	82	64	5	12	14	7
2	Greene	81	61	21	12	54	4
3	Harrison	80	82	70	64	60	21
4	Alcorn	79	72	47	69	43	66
5	Marion	78	66	36	71	14	76
6	Rankin	77	80	81	49	77	25
7	Jackson	76	79	76	74	52	51
8	Marshall	75	69	38	31	62	22
9	Pearl River	74	75	65	81	81	57
10	Hancock	73	74	75	12	61	31

Table 2 provides the results of Spearman’s rank correlations. This technique was suggested in the Tsuru Consulting report. The first substantive row of statistical analyses reveals one significant correlation between the county rank of hepatitis C rate and a predictor variable. That significant predictor variable is the county rank of overdose death rate, which is significant at the .01 level (thereby providing roughly 99% confidence that the results are not due to chance). No other factors are significantly associated with the outcome variable.

Programs that simultaneously address risk factors for transmission of hepatitis C and fatal drug overdoses would be prioritized – syringe services programs are one example of a multi-focused program.

Table 2. Spearman’s Rank Correlations

		County Rank of Hep C Rate	County Rank of per Capita Income	County Rank of Overdose Death Rate	County Rank of Drug Arrest Rate	County Rank of Opioid Rx per Capita
County Rank of Hep C Rate	Correlation Coefficient	1	0.171	.313**	0.203	0.037
	Sig. (2-tailed)	.	0.125	0.004	0.067	0.74
	N	82	82	82	82	82
County Rank of per Capita Income	Correlation Coefficient	0.171	1	0.136	.453**	0.003
	Sig. (2-tailed)	0.125	.	0.224	0	0.975
	N	82	82	82	82	82
County Rank of Overdose Death Rate	Correlation Coefficient	.313**	0.136	1	0.204	0.163
	Sig. (2-tailed)	0.004	0.224	.	0.066	0.143
	N	82	82	82	82	82
County Rank of Drug Arrest Rate	Correlation Coefficient	0.203	.453**	0.204	1	-0.15
	Sig. (2-tailed)	0.067	0	0.066	.	0.178
	N	82	82	82	82	82
County Rank of Opioid Rx per Capita	Correlation Coefficient	0.037	0.003	0.163	-0.15	1
	Sig. (2-tailed)	0.74	0.975	0.143	0.178	.
	N	82	82	82	82	82

**** Correlation is significant at the 0.01 level (2-tailed).**

Use of the Social Vulnerability Index in Ongoing Efforts to Address Mississippi's Opioid Crisis

This vulnerability assessment was informed by CDC's guidance on the measurement of social vulnerability (<https://svi.cdc.gov/>) with data points that were made available by the Mississippi State Department of Health. While variables used in this JVA are similar to those recommended for county level jurisdictional vulnerability (Van Handel, 2016), notable data limitations include the fact that hepatitis C prevalence are estimates based on extrapolated national data and are inclusive of both acute and chronic disease burden. Furthermore, some predictor variables had an abundance of zeros (i.e., overdose deaths, N=23; drug arrests, N=27) which may impact risk vulnerability.

Unlike Poisson regression, this analysis method cannot predict outcome rates or offer deeper analysis into specific variables. However, as a general analysis, this model can be performed using basic spreadsheet calculations and therefore has a distinct advantage in ease of use, transparency, and relatively simple interpretations. Jurisdictions can easily substitute their own variables to perform this kind of analysis and determine county vulnerability in a customizable fashion. Depending on needs, the spreadsheet can be expanded to include Spearman rank correlation calculations or conditional formatting for percentiles.

The best way to share the interpretation of this model with members of the public, or stakeholders less familiar with this applied method, is to describe the resulting index, as a simple vulnerability ranked position. An explanation can therefore be reduced to the basic understanding that the average rank indicates broadly, the relative vulnerability position of a county, with respect to other counties that were included in the analysis. More so than with more advanced statistical methods, the average rank output can be communicated easily, and with certain familiarity to general audiences. This is because often, journalistic coverage of national statistics often converts results into ranks for states in the U.S. (e.g. average salary rank, alcohol consumed per capita rank, education spending rank, etc.). The results of this kind of analysis can be thought of and interpreted in a similar fashion.

This report was compiled by
Bartkowski & Associates
Research Team



Syringe Services Programs in Mississippi:
Assessment of Knowledge, Attitudes & Beliefs of
Communities & Key Informants
November 2019

Table of Contents

■ Introduction + Methodology	19
■ Participants + Procedures	20
■ Facilitators + Data Analysis	22
■ Results + Overarching Themes	23
■ Discussion + Implications	27
■ Recommendations	28
■ Recommendations + Conclusion	29
■ References	30
■ Appendix	31

Introduction + Methodology

Introduction

Mississippi, along with the nation, has experienced an increase in the misuse of prescription opioid pain relievers as well as the use of illicit drugs, heroin, fentanyl and methamphetamine. The substance abuse problem has led to an increase in injection drug use (IDU) where unsafe injection practices increase the risk of overdose deaths and the transmission of blood-borne infectious diseases. Public health concerns related to the increased risk for transmission of blood-borne infectious diseases through injection drug use have prompted states to consider syringe services programs (SSPs) as a key strategy to prevent the spread of disease. According to the Center for Disease Control and Prevention (CDC), SSPs are community-based prevention programs that can provide a range of services, including linkage to substance use disorder treatment; access to and disposal of sterile syringes and injection equipment; and vaccination, testing, and linkage to care and treatment for infectious diseases (CDC, 2019).

Nearly thirty years of research has shown that comprehensive SSPs are safe, effective, and cost-saving, do not increase illegal drug use or crime, and play an important role in reducing the transmission of viral hepatitis, HIV and other infections. People who use syringe services programs are five times more likely to enter drug treatment and three times more likely to stop injecting drugs (Aspinall et al., 2014). Although there is evidence to support the effectiveness of SSPs, public perception of providing needles and syringes to individuals who are abusing drugs through injection remains controversial.

This report summarizes focus group and key informant interviews conducted as part of a feasibility assessment to inform action plans to address service gaps in opioid overdose, HIV and Hepatitis C prevention.

Methodology

In consultation with the Mississippi State Department of Health (MSDH) and other stakeholders, the Mississippi Public Health Institute (MSPHI) conducted a statewide environmental assessment from February to October 2019 to gauge public knowledge and perceptions about comprehensive SSPs. Twenty guided discussion groups were held across Mississippi in communities that included locations in each of the three MSDH public health regions. Based on available data, effort was made to include regions of the state experiencing increased opioid related morbidity and mortality indicative of opioid misuse and illicit drug use including IDU.

Guided discussion groups included 188 community members. Thirty-four key informants were also interviewed during this time period utilizing both phone and in person conversations. The key informants were people with more detailed knowledge of policy issues surrounding the development of SSPs, the disease burden of blood-borne infectious disease or had experienced family members with substance abuse disorders. Other key informants provided information on the impact of the drug crisis and services provided by their organizations to assist individuals or the community.

Participants + Procedures

Data from the MSDH Office of STD/HIV on persons living with diagnosed HIV infection 2016-2018 and information from Mississippi’s Drug Epidemic Surveillance System, Drug Overdose Deaths in Mississippi, 2011-2017 were reviewed to identify priority areas for the focus groups. Consideration was given to the locations targeted for guided discussion group activities to ensure overall statewide representativeness. Locations within the three public health regions, rural versus urban areas and conversations with key informants were also factors in choosing priority areas in which to hold discussion groups (**Table 1**). Tishomingo county in Northeast Mississippi was included in the locations for discussion groups based upon its identification in the County-level Vulnerability to Rapid Dissemination of HIV/HCV Infection Among Persons who Inject Drugs (Van Handel et al., 2016).

Map of Guided Discussion Locations

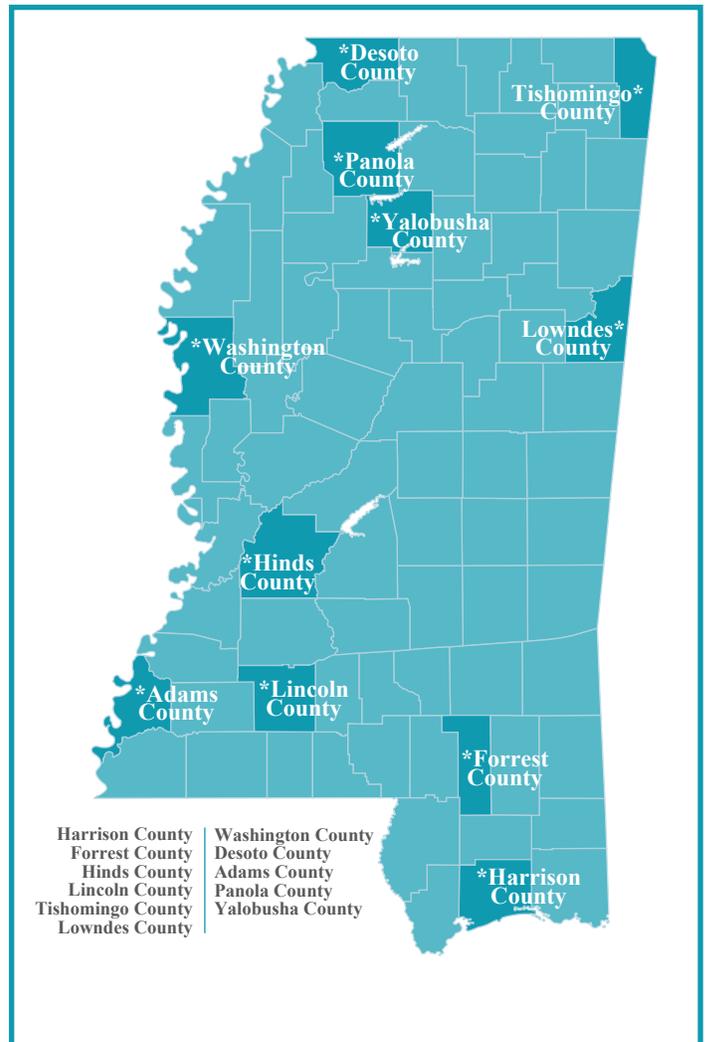


Table 1 | Guided Discussion Locations and Type

Harrison County	FQHC*, 2 Community Groups
Forrest County	2 Community Groups
Hinds County	FQHC*, Primary and Specialty Sexual/Reproductive Health Clinic, Community Group
Community Mix	2 Behavioral Health Groups
Lincoln County	Community Group, Medical Provider Group
Tishomingo County	Community Group
Lowndes County	Community Group
Washington County	2 Community Groups
Desoto County	Community Group
Adams County	Community Group
Panola County	FQHC*
Yalobusha County	Community Group
Total	20 Guided Discussions

*Federally Qualified Health Center

The participants for the guided discussions were identified according to recommendations from the World Health Organization Rapid Assessment and Response guide, and according to organizational affiliations (May 1998). This included community-based healthcare providers and government and non-government organizations that provide services to people who inject drugs (PWID) and/or have blood-borne infectious diseases. The stakeholders for each discussion group varied with every effort made to include a diverse group in the statewide assessment. Participation in the discussion groups was voluntary, anonymous and confidential. The table below (**Table 2**) provides additional information on the groups.

Table 2 | Guided Discussion Participants

Physician/Nurse Practitioner	23
Nurse	24
Pharmacist	2
Dentist	4
Social Work	5
Health Administration	6
Law Enforcement	11
First Responders	12
Faith Based Organizations	6
Behavioral Health	47
Recovery/Family	8
Community Services/ Local Government	23
Public School Personnel	8
Other	9
Total	188

Informed-consent was explained at the beginning of each discussion group and consent forms were provided to participants (**Appendix A**). Each discussion group lasted one hour and was conducted during a meal using a facilitator and a script. The discussion was documented by a designated note taker with participant anonymity protected. Gift cards were provided to participants unless prohibited by their organization's policies.

The key informants were individuals with more detailed knowledge of policy issues surrounding the development of SSPs, the disease burden of blood-borne infectious disease or had family members who had experienced drug abuse (**Table 3**). Other key informants were able to provide information on the impact of the drug crisis in Mississippi and the work of government and non-government organizations with individuals and families.

Table 3 | Key Informant Interview Participants

Health Policy	3
Healthcare Administration	4
Law Enforcement	1
Family Member	2
Mississippi Legislature	1
Nurse	7
Physician	5
Pharmacist	3
Faith Based	2
Non-Profit Associations	6
Total	34

Facilitators + Data Analysis

Facilitators

MSPHI staff facilitated the guided discussion groups using a script with open ended questions that were developed with input from the MSDH, MSPHI and The Center for Mississippi Health Policy. (**Appendix B**). The questions were designed to elicit participant knowledge, attitudes and beliefs about substance abuse, IDU and SSPs.

Prior to the meeting, the facilitators provided information through email to group participants (**Appendix C**). Some participants received the information the day of the meeting due to late identification. The facilitator briefly reviewed the information. Additional explanation on the subjects discussed was provided if the participants expressed interest or a need was identified by the facilitators. An Issue brief developed by the Center for Mississippi Health Policy on Syringe Services Programs was also provided to participants after publication in May 2019 (Center for Mississippi Health Policy, 2019). The opening statements included information on how the discussion sites were chosen, the intent of the discussion and how the information collected would be used. Key informant interviews were conducted using two to four questions that aligned with the individual's role in the drug crisis, knowledge of blood-borne infectious disease or SSPs. To facilitate conversation, interview participants were also provided with infographic copies and the Center for Mississippi Health Policy issue brief on SSPs.

Data Analysis

The facilitators began the data analysis process by debriefing after each discussion group to review the session content, lessons learned, and overall session dynamics. An individual summary report with participant quotes was composed for each discussion group session. Preliminary information from the sessions and interviews was also presented at the bi-monthly MSDH emergency risk management meetings and at the monthly MSPHI opioid work group meetings. The information from the groups and interviews was then organized into themes in order to better describe knowledge, attitudes and beliefs about substance abuse, IDU and SSPs from both community and state entities. Information from the discussion groups and key informant interviews was used to identify challenges and guide the development of recommendations about the implementation of SSPs and addressing the drug crisis in Mississippi communities.

Results + Overarching Themes

Results

Analysis of the group discussions and key informant interviews revealed 3 overarching themes. The themes correspond with the knowledge, attitudes and beliefs of the groups related to drug use and SSPs. Sub-themes were also identified and are discussed within the theme narrative.

Overarching Themes

Theme 1

The drug problem in Mississippi affects everyone across all demographic and socioeconomic backgrounds. Opioids and other illicit drugs are prevalent in Mississippi communities with injection used as one delivery method. SSPs and other harm reduction activities should be available for people who inject drugs to help increase entry into substance use disorder treatment, prevent the spread of blood-borne disease and reduce needle stick injuries.

Theme 2

Additional medical and social services are needed for people with substance abuse disorders and their families. Everyone knows someone or has a family member who has been affected by the drug crisis. Long-held beliefs about drug users are changing and communities are establishing programs to provide support and assistance. SSPs should be developed and implemented as part of a comprehensive program for PWID.

Theme 3

Information and education on SSPs, harm reduction activities and infectious disease statistics will guide the State and communities in making informed decisions for program development and implementation. State organizations and community stakeholders are exploring ways of offering education and support services for prevention as well as for drug abuse disorders.

Theme 1

The drug problem in Mississippi affects everyone across all demographic and socioeconomic backgrounds. Opioids and other illicit drugs are prevalent in Mississippi communities with injection used as one delivery method. SSPs and other harm reduction activities should be available for people who inject drugs to help increase entry into substance use disorder treatment, prevent the spread of blood-borne disease and reduce needle stick injuries.

[It was said that we may be]

“ winning the opioid battle, but losing the heroin battle. ”

Guided discussion groups unanimously voiced that they thought there was an opioid and drug crisis in their communities. Law enforcement, medical providers and family members provided details on the types of drugs they are encountering. Those most often mentioned were opioids, methamphetamine, fentanyl and heroin. Participants providing front line services such as emergency medical responders and law enforcement voiced that they have seen an increase in illegal drug use possibly related to the restrictions imposed for opioid prescribing which has led to a decrease in access. Both groups described situations they encountered including a needlestick injury requiring follow-up for exposure to infectious disease. Drug abuse and drug overdose was cited as the reason for the majority of crime and emergency medical response. It was said that we may be “winning the opioid battle, but losing the heroin battle.”

When discussing IDU in communities, some group participants were more knowledgeable about the scope of the problem. The stigma surrounding IDU was described as an issue through comments such as “nobody ever says they’re injection drug users.” It was not evident in discussions that questions about IDU were routinely asked or documented in screening interviews. Participants in the guided discussion groups and interviews often seemed unsure about the extent of IDU in communities. The availability of community level data, not just state, was expressed as a need since it could be used to foster community level support for the establishment of additional medical and social services.

“ Nobody ever says they’re injection drug users. ”

In both urban and rural areas, guided discussion group participants agreed that the drug problem was not confined to one segment of the population, but affected everyone. This problem can be found among all races, ages, professions and socioeconomic groups. It was described as affecting “the stereotypical junkie to the college professor.” In addition, drug abuse can be viewed as harmful to families in a number of ways. This includes the loss of child custody, the loss of employment, alienation of the individual and the mental stress of repeated events of use and recovery. Participants employed in providing services to people who used drugs noted that for both families and society there was an “increase in cost to deal with the same people in revolving cycle.”

Theme 2

Additional medical and social services are needed for people with substance abuse disorders and their families. SSPs should be developed and implemented as part of a comprehensive program for PWID.

It was found that knowledge, access to care and availability of service are three factors affecting the care of individuals with drug abuse problems. Some participants were unaware of what is available in their community, while others voiced that services are available regionally but not locally. They also stated that the wait time for services was too long to provide immediate care. The availability of both immediate and long-term care for people who use drugs and their families was found to be a problem statewide. Another issue facing access to care was cited as financial limitations for those who are uninsured or underinsured. The availability of inpatient facilities for detoxification was identified as one concern for law enforcement personnel and it was stated that this was a common problem for those arrested on drug offenses. Faith based organizations are attempting to fill the gap by offering counseling along with both immediate and long-term care with some providing housing during rehabilitation services. A rural faith-based organization that is seeking to provide services for people who use drugs said that “rural communities take care of their own.”

Medication-assisted treatment (MAT) was discussed as a treatment option but was described as being difficult to find MAT providers. Others stated that long term commitment to the programs was hard for individuals. Some medical providers voiced that they believed MAT was not a solution since it simply substituted one drug for another. Some participants felt that the drugs used for MAT were also being abused or sold.

Other issues facing access to care included stigma associated with seeking treatment for drug- use problems. Rural communities saw this as problem in areas where everyone knows each other and privacy was limited. Rural communities were also the areas in which services were limited and regional-level care was more than an hour away. Telehealth was mentioned as a possibility in some areas but currently only one or two communities were pursuing it as an option for MAT.

Highly populated areas of the state described services as being more readily available and supported by multiple organizations such as the faith-based communities, non-profits and government agencies. In one particular area the school system provides social work and counseling services through a school-based mental health office. It was stated that, “the county decided to put a lot of resources into serving students and staff.”

Several concerns were expressed about the implementation of comprehensive SSPs in Mississippi communities. SSPs infographics provided to participants described wrap-around services in addition to syringes and needles. Although comprehensive services were voiced as necessary for program success, participants were unsure that additional wrap-around services would be available through one program or geographic area. Methods to provide the wrap-around services by alternative methods were discussed.

The acceptance by PWID of the benefits of not sharing equipment and the need to access SSPs was also discussed. Former injection drug users and some medical providers were skeptical that users would make the effort to obtain syringes and needles. Questions were raised about how the use of clean syringes and needles was beneficial

to the individual as well as protection of the public. One success story was shared by an individual who had lived in another state where SSPs were available. After receiving services through the program, the individual entered a treatment program and has been successful with recovery from IDU.

Theme 3
Information and education on SSPs, harm reduction activities and infectious disease statistics will guide the State and communities in making informed decisions for program development and implementation. State organizations and community stakeholders are exploring ways of offering education and support services for substance abuse prevention as well as for drug abuse disorders.

“ There is a need to be proactive not reactive to an outbreak. ”

Most discussion group participants had limited knowledge about SSPs. The infographics provided and the discussion about the 2015 outbreak of HIV and Hepatitis C in Indiana helped facilitate the conversation. Most

people were familiar with the practice of providing or exchanging syringes but were unsure about program specifics. Initial comments from groups about providing harm reduction activities such as SSPs included the comments, it is a “no brainer” to have programs and it is a “step in the right direction:”

Participants familiar with blood-borne infectious disease were more likely to relate SSPs to the potential for disease prevention by providing syringes and needles to prevent sharing. It was mentioned that “there is a need to be proactive not reactive to an outbreak.” It was also determined that the acceptance of SSPs by the community would be dependent upon the provision of education, counseling and referrals with comments such as “if a syringe program provided the opportunity to educate, all for it.”

Skepticism about providing syringes and needles to PWID was expressed during most discussion groups. Two comments made were, it is basically asking users to be “a responsible drug user” and that there is “something a little unsavory about giving out needles.”

However, during all twenty discussion sessions an analogy was made between SSPs and contraception distribution programs to teens with participants expressing that those programs did not promote or increase sexually activity. The conversations during the group discussions and the information provided was described by some participants as changing their minds about drug addiction and the services provided by SSPs.

Participants expressed the need for prevention education and support services to help address issues that could lead to drug misuse. One physician stated that “there is a problem that happens to include drugs.” He went on to say that drug use is a symptom of the problem.

Education in the schools was listed as an area where an impact could be made by helping students cope with home situations that could lead to drug use. A mental health provider said that there is “grave lack of education about substance and drug abuse in this area.”

Homeless populations were also seen as an at-risk population and were also determined to be in need of both medical and social services for support. This population varied greatly across the state and appeared to be one of the most difficult to serve. Some communities provided services specifically designed to meet the needs of the homeless population while others assisted homeless individuals in relocating to other communities. Two locations in the southern part of the State experienced IDU in the homeless population with syringes and needles found in locations where homeless populations reside.

[A mental health provider
said that there is]

*“grave lack of education
about substance and drug
abuse in this area.”*

Discussion + Implications

A recent Stateline article from the Pew Charitable Trusts stated that attitudes in southern states related to harm reduction activities have shifted as the drug crises has exploded (Blau, 2019). Guided discussion groups held across Mississippi support this statement. Participants were open to discussing the public health implications of providing syringes and needles in order to reduce blood-borne infectious disease from IDU. They were also interested in the concept of providing wrap-around services in SSPs that would help increase entry into substance use disorder treatment and help reduce needlestick injuries. Although there was still concern from some that providing SSPs would condone drug use, others felt that education on the extent of the problems related to IDU and the benefits of syringe service programs would help promote acceptance and change.

Questions surrounding the establishment of SSPs in communities led to discussions about acceptance by the community, locations for programs, funding for programs and access by individuals needing the service. A report written by the Comer Family Foundation addresses these and many other questions that communities may have (La Belle, 2017). This report along with others from the Centers for Disease Control and Prevention (CDC), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the Department of Health and Human Services (HHS) are available to guide communities. Such guidance can be used to establish programs that are designed to increase entry into substance use disorder treatment and reduce the likelihood of transmission of blood-borne diseases (Syringe Services Program Development, 2012).

Recommendations

Based on the themes from the discussion groups and key informant interviews, the following recommendations are proposed to help guide further discussion of SSPs in Mississippi communities and the ongoing efforts to address the opioid and substance abuse crisis.

- **Develop and disseminate information on blood-borne infectious disease associated with IDU, harm reduction activities and SSPs to be used by Mississippi communities and organizations in the decision-making process for program development.**

Guided discussion groups statewide emphasized the need for community level data to help inform stakeholders with program development. IDU and Hepatitis C data were mentioned specifically for continued conversations on SSPs. Organizational key informants also commented on the need for additional data on issues surrounding IDU and were open to exploring options of collecting the data. Building community support for SSPs is an important part of successful SSPs implementation. Assembling the facts and intervention options to provide to law enforcement, the media and public officials will help build community support.

Medical and mental health providers in both the guided discussion groups and interviews were interested in policies related to SSPs and additional information on the structure of SSPs. As additional funding becomes available for the drug crisis, new and expanded prevention, treatment and harm reduction activities can be considered.

- **Provide organizations involved in advocacy efforts with evidence-based information on harm reduction activities and SSPs to assist with policy changes needed for SSPs.**

The Center for Mississippi Health Policy Issue Brief, Syringe Services Programs: Impact on the Spread of Communicable Diseases, provides information on syringe service laws in the US (2019) notes that state policies have a direct impact on the existence and effectiveness of SSPs. Individuals interviewed as key informants from both government and not for profit organizations were interested in Mississippi laws that might govern SSPs. Family members and organizations that provided direct care for IDUs or blood-borne infectious diseases were specifically interested in steps that would directly impact care and improve health outcomes. A Senator who was interviewed felt that legislators would be open to discussing harm reduction activities for PWID and that data for the State and SSPs would facilitate the conversation.

- **Identify methods of providing SSPs in areas where services and access to care are limited.**

A key informant summed up the feelings of many individuals and organizations by stating that Mississippi should provide syringes and needles to IDU “anywhere” the patients can access. Other participants felt that SSPs should be limited to certain healthcare settings and contain restrictions that PWID commit to treatment in order to receive syringes and needles.

Recommendations + Conclusion

Although the gold standard for SSPs may be to provide wrap-around services when providing syringes, all services may not be available. The rural harm reduction guide (La Belle, 2017) provides information specific for rural areas and assists communities by providing information on the importance of SSPs. The Syringe Services Program (SSP) Development and Implementation Guidelines for State and Local Health Departments (August 2012) identifies four types of SSPs for PWID: pharmacies, physician prescription, health care services and syringe exchange programs. Regardless of how the syringes and needles are provided, it is important for healthcare providers to establish relationships that foster trust in order to assist PWID with linkage to care and treatment.

- **Explore funding opportunities for programs to support services for drug abuse, IDU and SSPs.**

Currently there are no SSPs or services specific to IDU in Mississippi. Mental health and public health programs have historically provided education, treatment and recovery for illicit drug use but services are limited due to funding and policies. The opioid crisis has provided new funding opportunities for substance abuse disorders through federal public health and mental health programs. The new funding is being utilized for both treatment and prevention of opioid addiction and other drug use with recognition that one consequence of both is the increased incidence of blood-borne infectious diseases for PWID. As a result, funding for SSPs is now available through the Department of Health and Human Services. State health departments interested in utilizing federal funds for SSPs must work with the CDC for a determination of need (CDC, 2016). With this funding for new or existing SSPs made available in 2016, states can work with the CDC through the Consolidated Appropriations Act, 2016, (Pub. L. 114-113) to provide evidence that their jurisdiction is experiencing or at risk for significant

increases in hepatitis infections or an HIV outbreak due to injection drug use. In addition, the North American Syringe Exchange Network (NASEN) provides support and funding to encourage the expansion of a network of organizations and individuals that advocate for syringe exchange.

Conclusion

Government and non-government organizations along with Mississippi communities are interested in continuing conversations to establish SSPs in the state. The problems encountered with the drug crisis in the state have produced a strong desire to provide substance abuse services to individuals and families. Although moral and social concerns to providing syringes and needles through SSPs remain, law enforcement and medical providers did not believe that it would result in an increase in illegal drug use. Providing information on the drug crisis, infectious disease and the benefits of SSPs helps dispel concerns and builds support for harm reduction services and SSPs.

To address the state drug crisis along with HIV and Hepatitis C, policy makers and organizations seeking funding will need to review policy options and funding opportunities. State and community level data will be necessary for community stakeholders to demonstrate the need for SSPs, identify appropriate interventions and develop action plans. The history of successful programs in the nation and information from federal organizations can be used to guide the development and implementation of SSPs.

References

- Aspinall, E. J., Nambiar, D., Goldberg, D. J., Hickman, M., Weir, A., Van Velzen, E., . . . Hutchinson, S. J. (2014). Are needle and syringe programmes associated with a reduction in HIV transmission among people who inject drugs: a systematic review and meta-analysis. *Int J Epidemiol*, 43(1), 235- 248. doi:10.1093/ije/dyt243.
- Blau, M. (2019, April 15). Southern states slowly embracing harm reduction to curb opioid epidemic. (n.d.). Retrieved from <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2019/04/15/southern-states-slowly-embracing-harm-reduction-to-curb-opioid-epidemic>
- Centers for Disease Control and Prevention. Program guidance for implementing certain components of syringe services programs, 2016. (2016). Retrieved from <https://www.cdc.gov/hiv/pdf/risk/cdc-hiv-syringe-exchange-services.pdf>
- Centers for Disease Control and Prevention. (2019). Syringe services programs. Retrieved from <https://www.cdc.gov/ssp/index.html>
- La Belle, R. (2019, April 15). Guide to establishing syringe services programs in rural at risk areas. Retrieved from <http://harmreduction.org/ruralsyringe/wp-content/uploads/Guide-to-Establishing-Syringe-Services-Programs-in-Rural-At-Risk-Areas.pdf>
- World Health Organization. Rapid assessment and response guide on injecting drug use. (2012, June 11). Retrieved from <https://www.who.int/hiv/pub/idu/rar/en/>
- Syringes services program (SSP) development ... - nastad.org. (n.d.). Retrieved from https://www.nastad.org/sites/default/files/resources/docs/055419_NASTAD-SSP-Guidelines-August-2012.pdf
- Center for Mississippi Health Policy (2019, May). Syringe services programs impact on the spread of communicable diseases. [Issue Brief]. Retrieved from <https://mshealthpolicy.com/wp-content/uploads/2019/05/SSP-Report-May-2019.pdf>
- Van Handel, M. M., Rose, C. E., Hallisey, E. J., Kolling, J. L., Zibbell, J. E., Lewis, B., ... Brooks, J. T. (2016). County-level vulnerability assessment for rapid dissemination of HIV or HCV infections among persons who inject drugs, United States. *Journal of acquired immune deficiency syndromes (1999)*, 73(3), 323–331. doi:10.1097/QAI.0000000000001098

Appendix A



Informed Consent for 2019 Guided Discussions

Description

You will be asked to participate in a discussion group. There will be a facilitator who will lead the discussion and a note taker. The notes will be used for MSPHI to develop a report from this group. Each group will last 60 minutes. The information will be examined for patterns, trends, and recommendations.

Confidentiality Alternative Procedures

Your participation and responses are confidential. The facilitators will not identify any participant by name in any written reports, unless ordered to be released by a court of competent jurisdiction. All written notes, will be stored in a locked file cabinet at the MSPHI in Ridgeland, MS. The written notes will be destroyed after the study is completed. Only group information, with no personal information, will be presented at scientific meetings, published in journals and/or provided to any entity as part of reports or documentation detailing or summarizing findings.

Subjects Assurance

Your participation in this study is entirely voluntary. You may decline to answer any questions that make you uncomfortable. The information gathered will be kept confidential along with your identity (with the exception identified above). All information will be destroyed when the study is completed.

Contact Person

Questions concerning the study should be directed to Roy Hart, MSPHI Chief Executive Officer at 601-398-4406.

Legal Rights and Signature

You will receive a copy of this consent form upon request. You are not waiving any legal rights by signing this consent form. Your signature below indicates that you agree to participate in this discussion group, that you have had an opportunity to ask questions, and that you understand and agree to all provisions of this consent form.

Signature of the Participant

Date

Signature of Person Explaining the Discussion Group

Date

www.msphi.org PH 601-398-4406 TOLL FREE 1-877-740-9889 829 Wilson Drive, Suite C | Ridgeland, MS 39157

Appendix B

MSPHI Guided Discussion Groups February-September 2019 Facilitator's Script

Location:

Date:

Facilitator(s): Kay Henry
Jan Entrekin

MATERIALS

- Consent Forms
- Opioid and Syringe Services Information

BACKGROUND/INTRODUCTIONS

Facilitator will:

- Introduce yourself and thank participants for agreeing to come.
- Thank you for volunteering your time and coming this morning. I am {NAME} – and {NAME} we work with the Mississippi Public Health Institute. We'll be leading our discussion today.
- We have the discussion scheduled for one hour today. During the group, we want to get your reaction to some questions about opioid use disorder, injection drug use and syringe services programs. What we learn will help Mississippi to plan services that will help prevent transmission of HIV and other blood-borne viruses such as Hepatitis C and to assist Injection drug users with linkage to prevention, medical and social services.
- Hand out and explain **consent form**
Explain that at end of session, we will have lunch/supper
- Again, we are facilitating the session today. You won't hurt my feelings or make me feel good with whatever opinions you might give. We are interested in hearing your point of view even if it is different from what others have expressed.
- We're going to make every effort to keep the discussion focused and within our time frame. If too much time is being spent on one question or topic, we may move the conversation along so we can cover all of the questions.
- Let's talk about some ground rules for the conversation. They will help us create a safe space by establishing shared expectations and help keep us on track.

CONFIDENTIALITY AND INTRODUCTIONS

- We have a note taker here today (raise hand) because we don't want to miss any comments. But, we will only be using first names today and there will not be any names attached to the comments on the final report. You may be assured complete confidentiality.
- On that note, please introduce yourselves – first names are fine. Let's just go around the table.

DISCUSSION TOPICS

- **EXPLAIN PROCESS:**
Great. Our topic of discussion today is the Opioid/Drug Crisis and syringe services programs. We realize that each of you bring a different and unique perspective to the conversation and we want your feedback. It is important that members of the community be involved in public health interventions to reduce or prevent the transmission of infections and improve the health and well-being of the community.

BACKGROUND: THE OPIOID EPIDEMICUnited States Surgeon General

In April 2018 the Surgeon General issued a public health advisory urging Americans to carry and learn to use an opioid overdose reversing drug naloxone.

Over the past 15 years, individuals, families, and communities across our Nation have been tragically affected by the opioid epidemic, with the number of overdose deaths from prescription and illicit opioids doubling from 21,089 in 2010 to 42,249 in 2016.¹ This steep increase is attributed to the rapid proliferation of illicitly made fentanyl and other highly potent synthetic opioids. These highly potent opioids are being mixed with heroin, sold alone as super-potent heroin, pressed into counterfeit tablets to look like commonly misused prescription opioids or sedatives (e.g., Xanax), and being mixed (often unknowingly) with other illicit drugs like cocaine or methamphetamine. The resulting unpredictability in illegal drug products is dramatically increasing the risk of a fatal overdose. Another contributing factor to the rise in opioid overdose deaths is an increasing number of individuals receiving higher doses of prescription opioids for long-term management of chronic pain. Even when taking their pain medications as prescribed, these patients are at increased risk of accidental overdose as well as drug-alcohol or drug-drug interactions with sedating medications, such as benzodiazepines (anxiety or sleep medications).

President Donald J. Trump

In August 2017 President Trump directed his Administration to use all appropriate authority to respond to opioid emergency.

Some of the immediate actions the Trump administration could take to address the opioid crisis include: (1) approve state waivers to remove the Medicaid Institutions for Mental Diseases (IMD) exclusion, which prohibits the use of federal Medicaid funds for care provided to most patients in mental health and substance use disorder residential treatment facilities larger than 16 beds; (2) negotiate lower prices for naloxone (the drug that reverses opioid overdoses) as suggested by the Commission; and (3) distributing some of the \$45 million in the Public Health Emergency Fund. Earlier this week, President Trump suggested the administration would combat the epidemic by focusing on law enforcement and security on the southern border to stop illegal drugs from entering the country.

Governor Phil Bryant

In early 2017, Governor Phil Bryant convened a task force of professionals from the healthcare, legal, medical, dental, and law enforcement sectors to develop a comprehensive plan to address the opioid crisis. In response to the findings and recommendations of the task force, the Mississippi Department of Mental Health, Mississippi Department of Public Safety, Mississippi Board of Pharmacy, Mississippi Bureau of Narcotics, Mississippi Department of Human Services, Federal Bureau of Investigation, and Drug Enforcement Agency began working on multifaceted, proactive solutions to reduce the negative impact of opioid use disorder in the state.

About Stand Up, Mississippi, December 2017

Stand Up, Mississippi is a statewide initiative to end the opioid crisis and inspire all Mississippians to work together to create a stronger and healthier future. The primary goals of this comprehensive effort are to improve public perception of people dealing with substance use disorder, strengthen polices for prevention and treatment, and promote statewide partnerships to combat the opioid crisis in Mississippi.

This project is a collaborative effort by the Mississippi Department of Mental Health, Department of Public Safety, Mississippi Bureau of Narcotics, Mississippi Board of Pharmacy, Federal Bureau of Investigation, Mississippi Department of Human Services, and Drug Enforcement Agency. Funding is provided by the Substance Abuse and Mental Health Services Administration.

Discussion Questions

What do you think is occurring in your community with opioid and drug misuse? What about In Mississippi?

Do you think there is an opioid/drug crisis in your community?

How would you describe someone who is using drugs? (age, race, ethnicity, housing status, economic status.....)

How does the misuse of drugs, to include opioids, affect individuals, families and the community?

What services are available for drug users in your area?

What have you heard about injection drug use in your community? In Mississippi?

Indiana Example

In 2015, Scott County Indiana (population 24,000) saw increased rates of HCV and HIV. The increase in rates was driven by increasing rates of Injection or IV drug use. The small town of Austin (population 4,200) was the center of the outbreak.

Information on Injection Drug Use and HIV, HCV

Hepatitis C In the US: In 2015 there were an estimated 33, 900 ACUTE HCV cases. Where data were available, 64.2% reported IDU. There were 181, 871 reported cases of chronic HCV.

HIV in the US: In 2014, 955,081 Americans were living with HIV. Of these, 18.1% males and 22.6% females were living with HIV attributed to IDU.

HIV in MS: In 2014, 8,983 persons were living with HIV. 13% of males and 14.8% of females were living with HIV attributed to IDU.

Describe how you feel, in general about services designed to reduce harm from injection drug use?

How would you feel about the location of a syringe service program in your community?
(concerns, benefits, considerations for establishing?)

What is your personal opinion on providing needles and syringes for injection drug use? Is this the same or different than your professional opinion?

What questions do you think are important for the community to consider in whether or not to establish a syringe services program?

Tell me your thoughts on policies, laws and regulations that address drug misuse.

(Prompt if needed: Mississippi law defines needles and syringes as drug paraphernalia)

CLOSING

Offer an opportunity for any short final comments/advice participants would like to provide.

Thank you very much for your input today. We are just about out of time. Are there any last comments that anyone would like to make? The information you provided will help us inform Mississippi stakeholders as decisions are made to address the State opioid epidemic through interventions that reduce drug misuse, improve health outcomes and protect the community.

Appendix C

August 2017

Reducing Harms from Injection Drug Use & Opioid Use Disorder with Syringe Services Programs

What Is a Syringe Services Program (SSP)?

A community-based public health program that provides comprehensive harm reduction services such as

- Sterile needles, syringes, and other injection equipment
- Safe disposal containers for needles and syringes
- HIV and hepatitis testing and linkage to treatment
- Education about overdose prevention and safer injection practices
- Referral to substance use disorder treatment, including medication-assisted treatment
- Referral to medical, mental health, and social services
- Tools to prevent HIV, STDs, and viral hepatitis including counseling, condoms, and vaccinations

How Do SSPs Benefit Communities and Public Safety?

SSPs Increase Entry Into Substance Use Disorder Treatment:

SSPs **reduce drug use**. People who inject drugs (PWID) are 5 times as likely to enter treatment for substance use disorder and more likely to reduce or stop injecting when they use an SSP.



SSPs Reduce Needlestick Injuries:

SSPs **reduce needlestick injuries** among first responders by providing proper disposal. One in three officers may be stuck with a needle during their career. Increasing safe disposal also protects the public from needlestick injuries. SSPs do not increase local crime in the areas where they are located.



SSPs Reduce Overdose Deaths:

SSPs **reduce overdose deaths** by teaching PWID how to prevent and respond to drug overdose. They also learn how to use naloxone, a medication used to reverse overdose.



3,600 HIV Diagnoses Among PWID In 2015:

SSPs **reduce new HIV and viral hepatitis infections** by decreasing the sharing of syringes and other injection equipment. About 1 in 3 young PWID (aged 18–30) have hepatitis C.



Prevention Saves Money:

SSPs **save health care dollars** by preventing infections. The estimated lifetime cost of treating one person living with HIV is more than \$400,000. Testing linked to hepatitis C treatment can save an estimated 320,000 lives.



SSPs DON'T INCREASE DRUG USE OR CRIME.

Learn more at www.cdc.gov/hiv/risk/ssps.html

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of HIV/AIDS Prevention



Syringe Services Programs: Vital Part of Efforts to Combat Opioid, HIV, and Hepatitis Epidemics

What is an SSP? A community-based program that provides key pathway to services to prevent drug use, HIV, and viral hepatitis



Free sterile needles and syringes



Safe disposal of needles and syringes



Referral to mental health services



Overdose treatment and education



Hepatitis A and B vaccination



Other tools to prevent HIV and hepatitis, including counseling, condoms, and PrEP (a medicine to prevent HIV)



Referral to substance use disorder treatment, including medication-assisted treatment



HIV and hepatitis testing and linkage to treatment

 **SSPs DON'T** increase illegal drug use or crime **but DO** reduce HIV hepatitis risk.
Syringe services programs: <http://bit.ly/2dhkAsq> Find an SSP: <http://bit.ly/2dhktgB>

HIV diagnoses are down among PWID.
More access to SSPs could help reduce HIV and hepatitis further.

PWID - People who inject drugs

SOURCE: Vital Signs, December 2016

CS20160918

MISSISSIPPI OPIOID & HEROIN DATA COLLABORATIVE

Q4 2017-Q3 2018 Provisional Data Summary Report



2.8M+

Opioid Prescriptions Dispensed

That is 96 opioid prescriptions per 100 persons – enough for approximately every person in MS to have 1 opioid prescription.

152.4M

Opioid Dosage Units Dispensed

That is 5,107 opioid dosage units (pills) per 100 persons – enough for every person in MS to have a supply of 51 pills.



1,585

Naloxone Administrations

On average, there were 132 EMS naloxone administrations per month – or approximately 4 per day.



180

Opioid-Related Overdose Deaths

61% of all suspected overdose deaths reported to the MS Bureau of Narcotics involved opioids.



17,503

Drug-Related Arrests

On average, there were 1,458 drug-related arrests per month – or approximately 48 per day.



7,595

Opioid-Related Admissions to Facilities Certified by the MS Department of Mental Health

5,312

Admissions: "Other" Opioids

"Other opioids" – which includes all opioids other than heroin and methadone – comprised 70% of all opioid-related admissions.

2,642

Unique Patients Admitted for Opioid-Related Disorders

On average, there were 2.9 opioid-related admissions per patient.



Mississippi Board of Pharmacy

Mississippi Bureau of Narcotics

Mississippi State Department of Health

Mississippi Department of Mental Health

University of Southern Mississippi

CREDIT: Icons by Freepik and Baianat from flaticon.com, licensed by CC 3.0 BY.

This report was compiled by



MSPHI

Mississippi
Public Health
Institute



SYRINGE SERVICES PROGRAMS

Impact on the Spread of Communicable Diseases

May 2019

■ ***Table of Contents***

Syringe Services Laws in the US	43
Syringe Services Policy Effectiveness	44
Funding for Syringe Services Programs	45
Policy Considerations	46
End Notes	48

Syringe Services Programs (SSPs) are community-based programs that provide access to sterile needles and syringes free of cost and facilitate safe disposal of used needles and syringes.¹ Research has shown that SSPs are effective at reducing the transmission of diseases through injection drug use (IDU).²⁻³ Given their clinical effectiveness and the negative associations surrounding SSPs,⁴ they have produced a variety of policy responses from states.⁵ This analysis will examine the available research on the impact of policies surrounding SSPs.

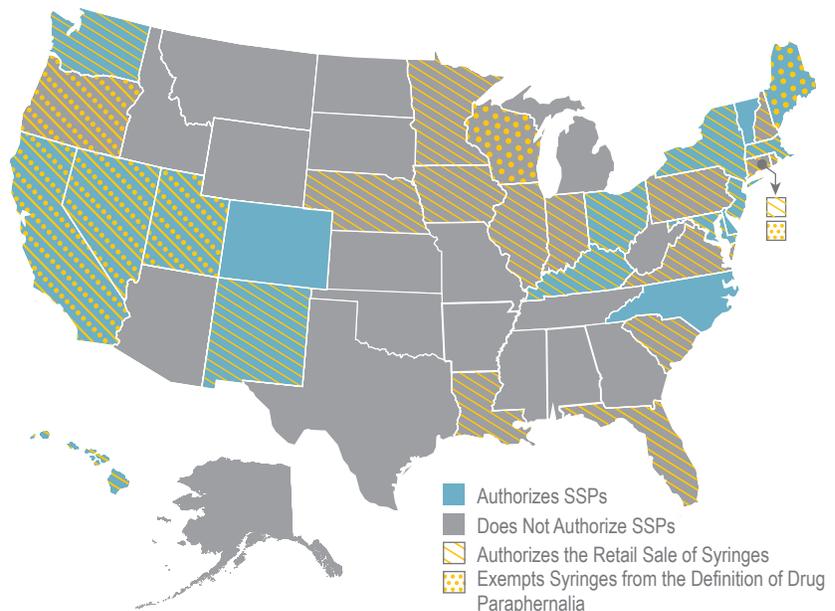
■ *Syringe Services Laws in the US*

The Centers for Disease Control and Prevention (CDC) estimated that in 2016, nine percent of human immunodeficiency virus (HIV) infections in the United States were attributable to injection drug use (IDU).⁶ IDU has been shown to be the most common means of transmitting hepatitis, and an estimated 30 percent of persons who inject illegal drugs aged 18-30 years are infected with hepatitis.⁷

Studies have shown that the availability of SSPs is associated with a greater than 60 percent reduction in the risk of contracting communicable diseases, such as hepatitis B and C, among injection drug users.⁸ Similar studies have shown that those who did not use a SSP when one was available were three times more likely to contract HIV than those who used the available SSP.⁹ In order to ensure the legal operation of SSPs several states have passed laws allowing for varying degrees of syringe services¹⁰ (Figure 1).

**MISS. CODE ANN.
SEC. 41-29-105, SEC. 41-29-139**
Prohibits the sale or distribution of drug paraphernalia, specifically defining syringes and needles as paraphernalia.

Figure 1. Syringe Services Laws by State



Sources: CDC. September 27, 2017. Retail Sale Of Syringes. <https://www.cdc.gov/hepatitis/policy/RetailSaleOfSyringes.htm>; CDC. September 27, 2017. Syringe Exchange. <https://www.cdc.gov/hepatitis/policy/SyringeExchange.htm>;

*NOTE: Indiana’s law only allows for syringe exchange and the sale of syringes during a state declared disease outbreak emergency. State law prohibits the use of state funding for syringes.

Laws relating to syringe exchange come in three primary categories: laws that allow syringe exchange statewide, laws related to the retail sale of syringes, and laws that include or exempt syringes from the classification of drug paraphernalia. Currently, 19 states have laws authorizing syringe exchange statewide, 27 states authorize the sale of syringes without a prescription, and seven states exempt syringes from their paraphernalia laws.

Currently, Mississippi law does not explicitly authorize the exchange of syringes and categorizes syringes as paraphernalia but does not have a law prohibiting the retail sale of syringes without a prescription nor a law prohibiting sales specifically to people who inject drugs (PWID).¹¹

■ *Syringe Services Policy Effectiveness*

A growing body of research indicates that SSPs can be effective in reducing the spread of infectious diseases and getting injection drug users into treatment.^{12 13 14 15} A limited number of studies have documented negative impacts of these programs, including studies showing that users of SSPs are more likely to have HIV, the utilization of SSPs increases the risk of becoming HIV positive,^{16 17} and regular use of SSPs is associated with passing of contaminated syringes.¹⁸ A few studies show no difference in the risk of becoming HIV positive between users of SSPs and non-users.

In 2010, an international literature review was conducted of 45 studies evaluating the effectiveness of SSPs. Researchers found that most of the available studies suggest SSPs do attract a high volume of HIV positive individuals, but SSPs are not associated with a higher risk of becoming HIV positive. The 2010 review also found that SSPs do attract a high volume of persons who inject drugs, but SSP attendance does not increase syringe sharing, borrowing, lending, or reuse.¹⁹ A systematic review conducted in 2013 of 15 studies²⁰ and subsequent research including a 2014 meta-analysis of 12 studies²¹ and a 2017 Cochrane review²² found evidence that syringe exchange programs are associated with reductions in HIV transmission, and a combination of SSPs and opioid-substitution therapy could reduce the risk of hepatitis C transmission among PWID.

“ *Much of the opposition to SSPs derives from moral, social, or cultural concerns.* ”

Much of the opposition to SSPs derives from moral, social, or cultural concerns. One of the primary concerns with SSPs is that federally funding SSPs would contradict law enforcement efforts to stop illegal drug use and amount to a tacit approval of drug use.²³ In 2010, the federal ban on funding SSPs was lifted for a short time until 2012, when the ban was

reinstated.^{24 25 26} Research conducted in 2015 specifically evaluated the impact of the federal policy change to allow for local funding for SSPs in the District of Columbia. Researchers found that the policy change had a significant and immediate impact on the decline in incidence of new HIV infections attributable to injection drug use (IDU), and the policy would have had a sustained impact had it remained in place.²⁷

■ *Funding for Syringe Services Programs*

Funding SSPs has been shown to be cost effective²⁸ and to have a significant impact on the performance of SSPs.²⁹ A recent national level economic evaluation of return on investment showed SSPs deliver a financial rate of return between \$6.38 and \$7.58 for every dollar spent.

³⁰ Research shows that approximately 50 percent of SSPs receive state and local government funds.

Funding from state and local government is associated with larger numbers of syringe services per year, more total services offered, and a greater likelihood

“ *A recent national level economic evaluation of return on investment for SSPs showed SSPs deliver a financial rate of return between \$6.38 and \$7.58 for every dollar spent.* ”

of offering counseling and testing. Among programs that receive state and local government funding, this funding accounted for approximately 87 percent of their budget for syringe services. Foundation grants and private donations are the two other major sources of funding for SSPs.³¹

SSP SUPPORT SERVICES OTHER THAN SYRINGES AND NEEDLES

- Counseling
- Screening
- Prevention
- Vaccinations
- Provision of Naloxone
- Mental Health Services
- Physical Health Care
- Social Services
- Recovery Support Services
- Referral to Coordinated Substance Use Disorder Services

The most recent federal guidance on using federal funds for syringe services comes from the Consolidated Appropriations Act of 2016, which maintains the prohibition on the use of federal funds to purchase syringes for the purpose of illegal drug use.^{32 33} Federal law was modified in 2016 to relax limitations on the use of federal funds by state health departments in consultation with the Centers for Diseases Control and Prevention (CDC) for SSP support services other than the purchase of needles and syringes (see sidebar), based on evidence of a demonstrated need. A state can demonstrate need by experiencing, or being at risk for, significant increases in hepatitis infections or an HIV outbreak due to injection drug use. Under CDC and Department of Health and Human Services guidance on the use of federal funds for SSPs, state laws would still control whether a SSP or the sale of syringes could be authorized.³⁴

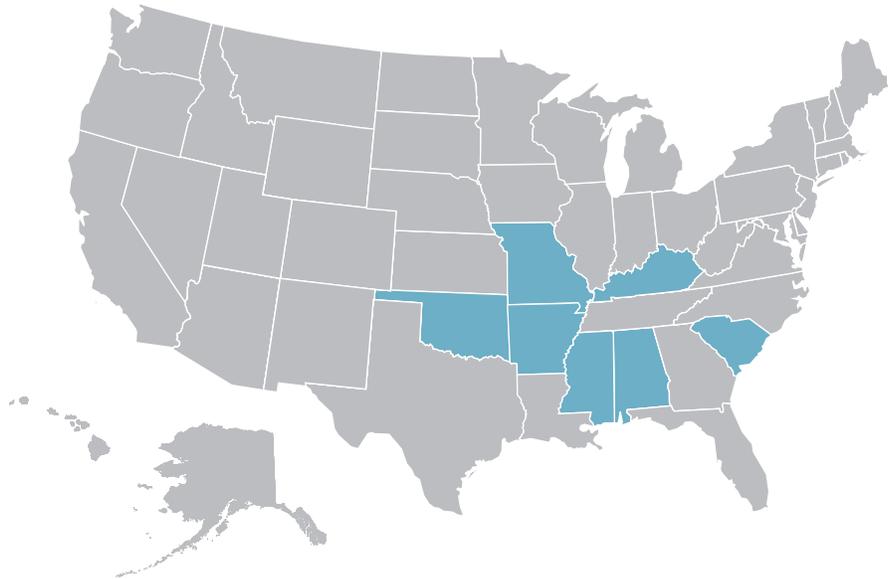
In order to be approved to use federal funds for these purposes, a state must request a determination of need for SSPs. As of 2019, 37

“ *Only ten states, including Mississippi, have not requested an at-risk designation from the CDC.* ”

states and the District of Columbia have been declared jurisdictions experiencing or at-risk of significant increases in hepatitis infection or an HIV outbreak due to injection drug use. Only ten states,

If Mississippi intends to use federal funds for SSP services, the state must request an at-risk designation from the Centers for Disease Control and Prevention as a jurisdiction experiencing significant increases in hepatitis infection or an HIV outbreak due to injection drug use.⁴⁵ As part of a recent federal initiative to eradicate HIV, Mississippi was identified by the Department of Health and Human Services as one of seven states to be targeted due to a substantial rural HIV burden⁴⁶ (Figure 3).

Figure 3. States with substantial rural HIV burden



Source: U.S. Department of Health and Human Services. (2019). What is 'Ending the HIV Epidemic: A Plan for America'? <https://files.hiv.gov/s3fs-public/ending-the-hiv-epidemic-flyer.pdf>

■ *End Notes*

- 1 Centers for Disease Control and Prevention. (2018). Syringe Services Programs. Retrieved from <https://www.cdc.gov/hiv/risk/ssps.html>.
- 2 Des Jarlais, D.C., Marmor, M. (1996). HIV incidence among injecting drug users in New York City syringe exchange programs. *The Lancet*, 348(9033), 987-91.
- 3 Hagan, H., Des Jarlais, D.C. (1995). Reduced risk of Hepatitis B and Hepatitis C among Injection Drug Users in the Tacoma Syringe Exchange Program. *American Journal of Public Health*, 85(11), 1531-1537.
- 4 Weinmeyer, R. (2016). Needle Exchange Programs' Status in US Politics. *AMA Journal of Ethics*, 18(3), 252-257, doi 10.1001/journalofethics.2017.18.3.hlaw1-1603
- 5 Centers for Disease Control and Prevention. (2017). Laws Related to Syringe Exchange. Retrieved from <https://www.cdc.gov/hepatitis/policy/SyringeExchange.htm>
- 6 Centers for Disease Control and Prevention. (2016). HIV/AIDS Among People Who Inject Drugs. Retrieved from <https://www.cdc.gov/hiv/group/hiv-idu.html>
- 7 Centers for Disease Control and Prevention. (2016). Access to clean syringes: What are policies that support access to clean syringes?. Retrieved from <https://www.cdc.gov/policy/hst/hi5/cleansyringes/index.html>
- 8 Hagan, H., Des Jarlais, D.C. (1995). Reduced risk of Hepatitis B and Hepatitis C among Injection Drug Users in the Tacoma Syringe Exchange Program. *American Journal of Public Health*, 85(11), 1531-1537.
- 9 Des Jarlais, D.C., Marmor, M. (1996). HIV incidence among injecting drug users in New York City syringe exchange programs. *The Lancet*, 348, 987-91.
- 10 Centers for Disease Control and Prevention. (2017). Laws Related to Syringe Exchange. Retrieved from <https://www.cdc.gov/hepatitis/policy/SyringeExchange.htm>
- 11 Centers for Disease Control and Prevention. (2017). Laws Related to Syringe Exchange. Retrieved from <https://www.cdc.gov/hepatitis/policy/SyringeExchange.htm>
- 12 Wodak, A., Cooney, A. (2006). Do Needle Syringe Programs Reduce HIV Infection Among Injecting Drug Users: A Comprehensive Review of the International Evidence. *Substance Use and Misuse*, 41, 777-813. doi 10.1080/10826080600669579.

- 13 Raboud, J., Boily, M.C. (2003). The Impact of Needle-Exchange Programs on the Spread of HIV Among Injection Drug Users: a Simulation Study. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 80(2), 302-320. doi 10.1093/jurban/jtg033
- 14 Des Jarlais, D.C., Marmor, M. (1996). HIV incidence among injecting drug users in New York City syringe exchange programs. *The Lancet*, 348, 987-91
- 15 Hagan, H., Des Jarlais, D.C. (1995). Reduced risk of Hepatitis B and Hepatitis C among Injection Drug Users in the Tacoma Syringe Exchange Program. *American Journal of Public Health*, 85(11), 1531-1537.
- 16 Bruneau, J., Lamothe, F. (1997). High Rates of HIV Infection among Injection Drug Users Participating in Needle Exchange Programs in Montreal: Results of a Cohort Study. *American Journal of Epidemiology*, 146(12), 994-1002.
- 17 Strathdee, S., Patrick, D. (1997). Needle exchange is not enough: lessons from the Vancouver injecting drug use study. *AIDS*, 11(8), F59-F65.
- 18 Klee, H., Faugier, J. (1991). The sharing of injecting equipment among drug users attending prescribing clinics and those using needle-exchanges. *British Journal of Addiction*, 86, 217-223. Retrieved from <https://doi.org/10.1111/j.1360-0443.1991.tb01771.x>.
- 19 Wodak, A., Cooney, A. (2010). Do Needle Syringe Programs Reduce HIV Infection Among Injecting Drug Users: A Comprehensive Review of the International Evidence. *Substance Use and Misuse*, 41, 777-813. doi 10.1080/10826080600669579
- 20 Abdul-Quader, A., Feelemyer, J. (2013). Effectiveness of Structural-Level Needle/Syringe Programs to Reduce HCV and HIV Infection among People Who Inject Drugs: A Systematic Review. *AIDS and Behavior*, 17, 2878-2892. doi 10.1007/s10461-013-0593-y.
- 21 Aspinall, E.J., Nambiar, D. (2014). Are needle and syringe programmes associated with a reduction in HIV transmission among people who inject drugs: a systematic review and meta-analysis. *International Journal of Epidemiology*, 43, 235-248. doi 10.1093/ije/dyt243.
- 22 Platt, L., Minozzi, S., Reed, J.,(2017). Needle syringe programmes and opioid substitution therapy for preventing hepatitis C transmission in people who inject drugs. *Cochrane Database Syst Rev*, 9, doi 10.1002/14651858.CD012021.pub2
- 23 Dempsey, M.A. (1997). A Shot in the Arm: Legal and Societal Obstacles to United States Needle Exchange Programs. *Boston College Third World Law Journal*, 17(31), 31-72.

- 24 Weinmeyer, R. (2016). Needle Exchange Programs' Status in US Politics. *AMA Journal of Ethics*, 18(3), 252-257, doi 10.1001/journalofethics.2017.18.3.hlaw1-1603.
- 25 Office of Management and Budget. Appendix: Budget of the US Government: Fiscal Year 2010. *Washington, DC: US Government Printing Office*. Retrieved from <https://www.govinfo.gov/content/pkg/BUDGET-2010-APP/pdf/BUDGET-2010-APP.pdf>.
- 26 Barr, S. (2011). Needle-Exchange Programs Face New Federal Funding Ban. *Kaiser Health News*. Retrieved from <https://khn.org/news/needle-exchange-federal-funding/>
- 27 Ruiz, M., O'Rourke, A. (2016). Impact Evaluation of a Policy Intervention for HIV Prevention in Washington DC. *AIDS Behav.*, 20, 22-28. doi 10.1007/s10461-015-1143-6
- 28 Nguyen, T.Q., Weir, B. (2014). Syringe Exchange in the United States: A National Level Economic Evaluation of Hypothetical Increases in investment. *AIDS Behav.*, 18(11), 2144-2155. doi 10.1007/s10461-014-0789-9
- 29 Jarlais, D.C., McKnight, C. (2004). Public Funding of US Syringe Exchange Programs. *Journal of Urban Health New York Academy of Medicine*, 81(1), 118-120.
- 30 Nguyen, T.Q., Weir, B. (2014). Syringe Exchange in the United States: A National Level Economic Evaluation of Hypothetical Increases in investment. *AIDS Behav.*, 18(11), 2144-2155. doi 10.1007/s10461-014-0789-9
- 31 Jarlais, D.C., McKnight, C. (2004). Public Funding of US Syringe Exchange Programs. *Journal of Urban Health New York Academy of Medicine*, 81(1), 118-120. doi 10.1093/jurban/jth093
- 32 Centers for Disease Control and Prevention. (2016). Program Guidance for Implementing Certain Components of Syringe Services Programs. Retrieved from <https://www.hiv.gov/federal-response/policies-issues/syringe-services-programs>.
- 33 H.R. 2029 - Consolidated Appropriations Act, 2016. Pub. L. 114-113. (2015). Retrieved from <https://www.congress.gov/bill/114th-congress/house-bill/2029/text>.
- 34 Department of Health and Human Services. Implementation Guidance to Support Certain Components of Syringe Services Programs. (2016). Retrieved from <https://www.hiv.gov/federal-response/policies-issues/syringe-services-programs>
- 35 Centers for Disease Control and Prevention. (2019). Syringe Service Program Determination of Need. Retrieved from <https://www.cdc.gov/hiv/risk/ssps-jurisdictions.html>

- 36 North America Syringe Exchange Network. (2015). Partnership for Drug-free-kids. Retrieved from <https://drugfree.org/learn/drug-and-alcohol-news/head-ondcp-promotes-needle-exchange-programs/>.
- 37 Kaiser Family Foundation. (2018). State Health Facts: Sterile Syringe Exchange Programs. Retrieved from <https://www.kff.org/hiv aids/state-indicator/syringe-exchange-programs/?currentTimeframe=0&sortModel=%7B%22collId%22:%22Location%22,%22sort%22:%22asc%22%7D>
- 38 Jarlais, D.C., McKnight, C. (2004). Public Funding of US Syringe Exchange Programs. *Journal of Urban Health New York Academy of Medicine*, 81(1), 118-120. doi 10.1093/jurban/jth093.
- 39 Nguyen, T.Q., Weir, B. (2014). Syringe Exchange in the United States: A National Level Economic Evaluation of Hypothetical Increases in investment. *AIDS Behav.*, 18(11), 2144-2155. doi 10.1007/s10461-014-0789-9.
- 40 Ruiz, M., O'Rourke, A. (2016). Impact Evaluation of a Policy Intervention for HIV Prevention in Washington DC. *AIDS Behav.*, 20, 22-28. doi 10.1007/s10461-015-1143-6
- 41 Lurie, P., Reingold, A. (1993). The Public Health Impact of Needle Exchange Programs in the United States and Abroad. *University of California San Francisco Prevention Sciences Group*. Retrieved from <https://www.issue lab.org/resource/the-public-health-impact-of-needle-exchange-programs-in-the-united-states-and-abroad-summary-conclusions-and-recommendations.html>.
- 42 The National Center on Addiction and Substance Abuse. (2017). Ending the Opioid Crisis: A Practical Guide for State Policymakers. Retrieved from <https://www.centeronaddiction.org/addiction-research/reports/ending-opioid-crisis-practical-guide-state-policymakers>.
- 43 Indiana Code Sec. 16-41-7.5-4.
- 44 The National Center on Addiction and Substance Abuse. (2017). Ending the Opioid Crisis: A Practical Guide for State Policymakers. Retrieved from <https://www.centeronaddiction.org/addiction-research/reports/ending-opioid-crisis-practical-guide-state-policymakers>.
- 45 Centers for Disease Control and Prevention. (2019). Syringe Service Program Determination of Need. Retrieved from <https://www.cdc.gov/hiv/risk/ssps-jurisdictions.html>.
- 46 U.S. Department of Health and Human Services. (2019). What is 'Ending the HIV Epidemic: A Plan for America'? Retrieved from <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>.

Center *for* Mississippi Health Policy

Plaza Building, Suite 700 | 120 N. Congress Street
Jackson, MS 39201 | Phone 601.709.2133 | Fax 601.709.2134
www.mshealthpolicy.com |  @mshealthpolicy

Acknowledgements

This report was compiled by the Mississippi Public Health Institute in association with the Mississippi State Department of Health's 2018 Opioid Crisis Cooperative Agreement through the Centers for Disease Control and Prevention, Office of Public Health Preparedness and Response Cooperative Agreement for Emergency Response: Public Health Crisis Response (CDC-RFA-TP18-1028) and does not necessarily represent official views of CDC.

Special Thanks to



Mississippi Public Health Institute (MSPHI) is a not-for-profit 501(C)(3) corporation established in 2011. The mission of MSPHI is to Engage in partnerships and activities that improve Mississippi's health. This is accomplished by developing and maintaining organizational relationships and trust, utilizing innovative strategies, mastering multi-sector data as a management tool and incorporating process and outcome evaluation as integral components of MSPHI work.

Bartkowski & Associates Research Team

Bartkowski & Associates Research Team, LLC is a program evaluation and strategic planning firm whose principals have more than 50 years of combined research experience. Led by John P. Bartkowski, the firm has evaluated more than \$80 million in federal and foundation funded projects, with key emphases on disease prevention and health promotion in Mississippi. Their research is regularly published in leading scientific journals.



The Center for Mississippi Health Policy is an independent, non-partisan, non-profit organization that provides objective information to inform health policy decisions. The mission of the Center for Mississippi Health Policy is to serve as a catalyst for health policy debate. We provide information to policymakers and the general public by communicating research findings designed to aid in health policy dialogue and inform decision-making.

We would like to thank CSTE and Tsuro Consulting for their technical assistance including data management and geospatial mapping.

Page Left Blank Intentionally

Page Left Blank Intentionally

FINAL REPORT

In Fulfillment of CDC-RFA-TP18-1802 Cooperative Agreement for
Emergency Response: Public Health Crisis Response

2018 Opioid Crisis Cooperative Agreement