MIDWEST AIDS TRAINING + EDUCATION CENTER

HIV TRAINING NEEDS REPORT FOR MISSOURI

Midwest AIDS Training + Education Center,
University of Illinois at Chicago

Fall 2018

AETC AIDS Education & Training Center Program

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Introduction

This report provides the results of the needs assessment for the state of Missouri. The needs assessment workgroup conducted a series of activities between January and September of 2018. These activities involved data collection from primary and secondary data sources, data analysis, and reporting of regional as well as local (state-level) results.

The needs assessment results in this report are organized by workforce category (i.e. clinical versus non-clinical providers, low volume/novice providers, minority & minority-serving providers) as well as by topics that deserve special attention (i.e. PrEP, Hepatitis C, and the opioid epidemic). The clinics that each LP selected as potential candidates for Practice Transformation are shown at the end of the report.

Data sources used for the needs assessment include the following:

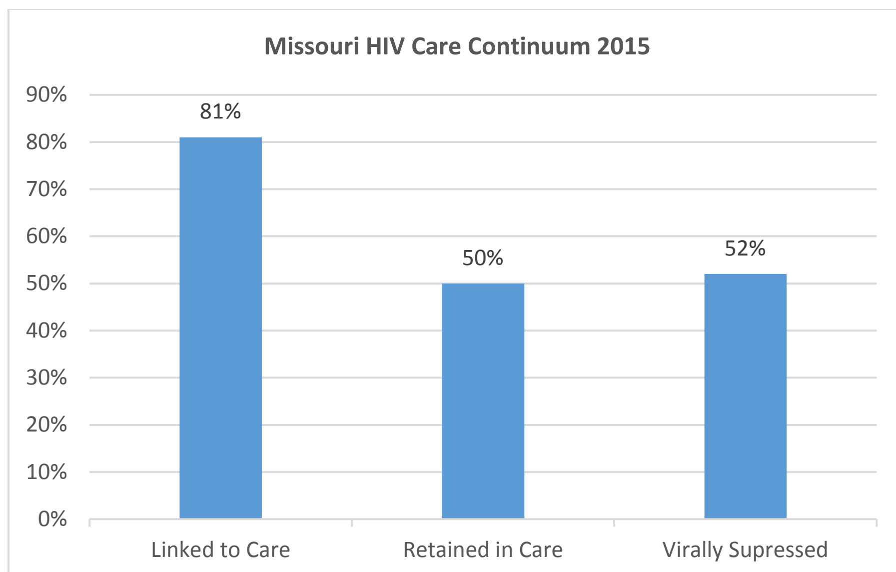
Primary Data Sources	Secondary Data Sources
• Policy Training Advisory Council (PTAC) • Key Informant Interviews with clinical leaders of each state • AETC Local Partner Program Directors	• HIV Integrated Prevention and Care Plans • HIV Surveillance reports from state health departments and CDC • AETC PIF, ER, and ACRE IP data from FY17-18 • CDC Atlas Plus interactive database • amfAR Opioid and Health Indicators database • HRSA Data Warehouse • The Robert Graham Center workforce projections

Epidemiology

Missouri is considered a medium incidence state in the Midwest AETC region. The state accounts for 10% of the region's HIV prevalence as of 12/31/15 and 10% of the region's new HIV diagnoses in 2016 (Appendix, table 1). The rate of new HIV infections among Blacks/African Americans is close to ten times higher than the rate among whites in 2016 (Appendix, table 3)

Care Continuum

Missouri's HIV Care Continuum in 2015 shows that 81% of newly diagnosed people are linked to care. The percentages of those retained in care and virally suppressed are lower than in most other states in the Midwest region and indicate that the Missouri should focus on increasing the rates for these bars of the care continuum. Missouri does not calculate the number of people diagnosed, which is why their continuum only contains three bars. The percentage of people linked to care is based on those newly diagnosed in 2015. The percentages of people retained in care and virally suppressed are based on the number of people ≥ 13 years diagnosed with HIV by the end of 2014 and living in 2015.



The State of Missouri's HIV Workforce

Reviewing Missouri's Integrated Plan for HIV Prevention and Care and summarizing data obtained from key informant interviews and members of PTAC revealed the following information about the state of Missouri's workforce:

- Infections Disease physicians and nurse practitioners are retiring and creating a gap in the workforce
- High turnover among providers is straining the workforce
- Low interest in HIV care exists among those coming out of residency programs
- Workforce shortages can be addressed by enrolling people in the Clinician Scholars Program
- The providers that have been trained by MATEC are adding HIV to their general practice, which demonstrates the role MATEC can play in meeting the workforce capacity needs

Training Needs of Low Volume and Novice HIV Providers

The training needs of low volume and novice providers who attended training events in Missouri during FY2017-2018 were assessed by analyzing their responses to the needs assessment question on the ACRE-IP form. Figure 2 in the Appendix shows the results of this analysis. Low volume and novice providers indicated that they would like more training on drug resistance, medication adherence, mental health, retention in care, and transgender health. The discipline breakdown of the respondents helps clarify which professional disciplines were more likely to suggest each one of these training topics.

Training Needs of Minority/Minority-Serving HIV Providers

The training needs of minority and minority-serving providers who attended training events in Missouri during FY2017-2018 were assessed by analyzing their responses to the needs assessment question on the ACRE-IP form. Figure 3 in the Appendix shows the results of this analysis. Minority and minority-serving providers in Missouri indicated that they would like more training on mental health, retention in care, PrEP, transgender health, and drug resistance. The

discipline breakdown of the respondents helps clarify which professional disciplines were more likely to suggest each one of these training topics.

Training Needs of the Clinical Workforce

The clinical HIV workforce includes physicians, nurse practitioners, pharmacists, physician assistants, and dentists. The following needs apply to the clinical workforce only. Needs that apply to both clinical and non-clinical providers are listed in a separate paragraph.

- Training in CDC testing guidelines and knowing the availability of innovative testing sites such as mobile labs
- Training in trauma-informed care to increase case identification and integration in standards of care
- Train prescribers in prescribing at least the initial dose for newly diagnosed patients to establish linkage and engagement in care
- Train clinicians in the rural southeastern part of the state in HIV and the opioid epidemic, including risk assessment, testing, prevention, and harm reduction
- Consider an HIV ECHO to address training needs in rural parts of the state
- Build an infrastructure of providers that know whom to contact in case of out outbreak, especially in southeastern Missouri
- Training in HCV and HBV treatment
- Train primary care doctors that see uninsured and underinsured patients in low-resource settings such as FQHC's, non-profits, and Planned Parenthood in HIV prevention and care

Training Needs of the Non-Clinical Workforce

The non-clinical HIV workforce includes nurses (RN), mental health professionals, substance abuse professionals, social workers, and case managers. The following needs apply specifically to the non-clinical workforce:

- Increase training for mental health and substance abuse service providers, case managers, and peer navigators in retention in care strategies. Housing and transportation are two major barriers for PLWH to engage and remain in care in Missouri
- Focus on increasing sexual health education for youth that includes information about HIV/AIDS, STI's, and Hepatitis

Training Needs of All HIV Providers (Clinical and Non-Clinical)

The following training needs apply to both the clinical as well as non-clinical HIV workforce in Missouri:

- More training on stigma and cultural competency
- MATEC needs to move away from random community dinner events and target specific organizations, FQHC's, and work on organizational capacity building. Then if you lose a provider due to turnover, the work does not stop. Need to have systems in place at the organizational level of these targeted clinics to do recurrent trainings

Training Needs around Prevention and PrEP

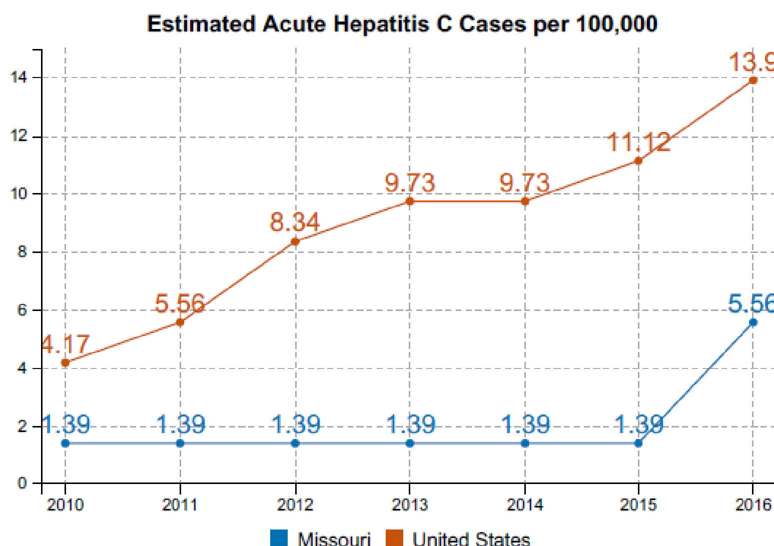
We asked key informants and members of PTAC specific questions about the needs in their state around PrEP and prevention. Based on the information they shared with us, we identified the following needs in Missouri:

- Teach primary care providers across the state about PrEP: increase awareness of PrEP, train providers how to prescribe it, how to identify who is eligible, and how to link patients for prevention and PrEP
- Consider hosting a PrEP Summit similar to the one done by Illinois, Indiana, an Wisconsin
- MATEC has to play a role in translating PrEP awareness to actually getting it implemented. Better to talk to fewer clinics and help them open up PrEP, than to a lot of clinics and nothing gets done
- Pharmacists need training in how to do the paperwork to make sure patients can get PrEP at no cost
- Train PrEP navigators in how to provide PrEP to uninsured and underinsured patients
- Centralize coordination of PrEP provision by creating a neutral website that is standardized across state and county health department

Hepatitis C

In the United States, 25% of PLWH are co-infected with Hepatitis C (HCV). About 80% of PLWH who inject drugs also have HCV. HIV/HCV co-infection more than triples the risk for liver disease, liver failure, and liver-related death. Liver disease, most of it related to HCV and HBV, has become the leading cause of non-AIDS-related deaths among the HIV population. African Americans are twice as likely to have HCV as whites.[1]

Missouri's estimated rate of acute HCV cases is low compared to the national average. In 2016, only 5.56 new cases of acute HCV were estimated per 100,000 individuals at risk, compared to 13.9 new HCV cases nationally. However, the estimated rate of new cases quadrupled from 2015 to 2016, warranting a close watch of the trend of new HCV cases in 2017 and forward.



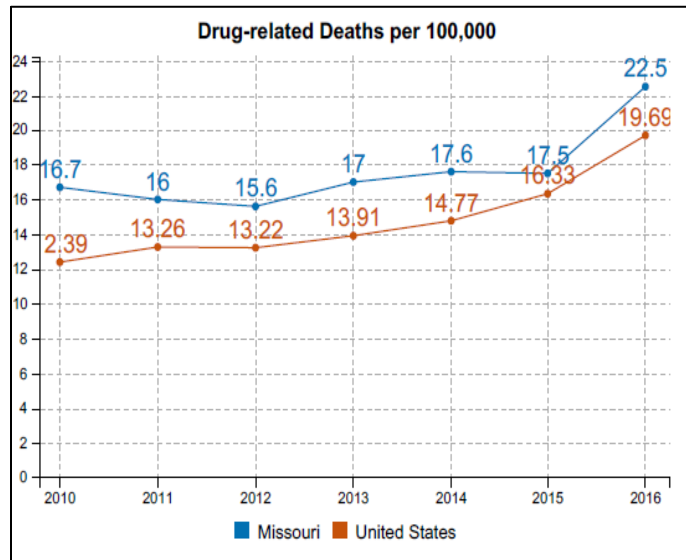
Source: http://opioid.amfar.org

[1] https://www.cdc.gov/hiv/pdf/library_factsheets_HIV_and_viral_Hepatitis.pdf

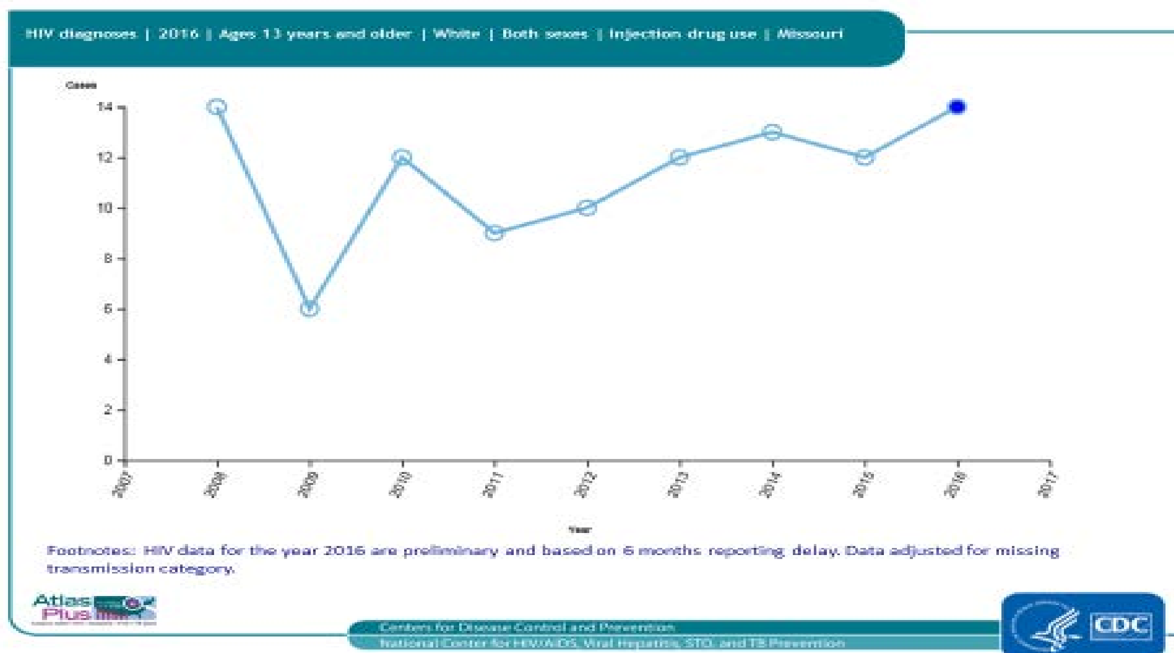
Opioid Epidemic

Many of the Midwestern states have seen a sharp rise in the number of opioid-related overdose deaths since 2013. As the number of injection drug users continues to rise, the risk increases for the spread of infectious diseases such as HIV and HCV as a result of needle sharing. Several states in the country, including some in the Midwest, are seeing an increase in new HIV infections among white injection drug users.

The opioid epidemic in Missouri has led to an increase in the drug-related death rate from 17 per 100,000 in 2013 to 22.5 per 100,000 in 2017, outpacing the national average. The number of new HIV infections among white injection drug users has been on the rise since 2012 and reached a total of 14 new cases in 2016. Missouri has only 2 syringe exchange programs and is home to 107 facilities that provide some medication assisted treatment in 2018



Source: http://opioid.amfar.org

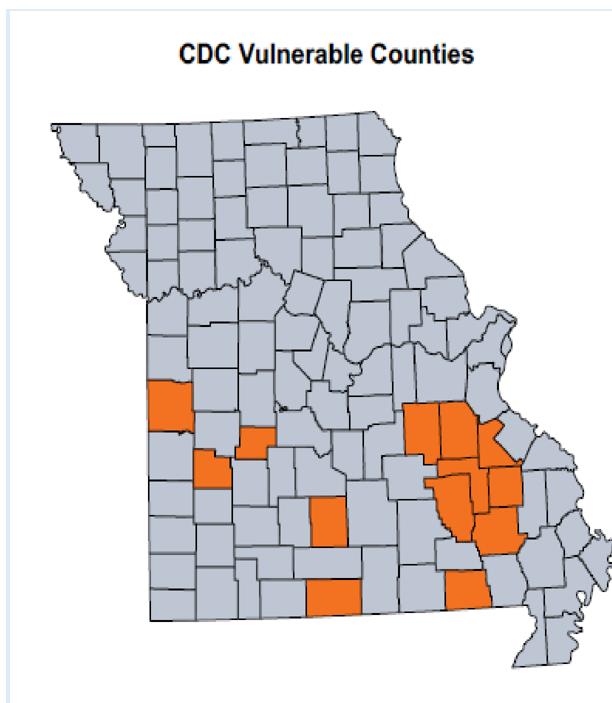


Source: https://gis.cdc.gov/grasp/nchhstpatlas/charts.html

Rural Counties at High Risk for HIV and HCV Outbreaks

The CDC has identified 220 counties at risk of HIV and/or HCV outbreaks as a result of the opioid epidemic. Missouri is home to 13 vulnerable counties, including Reynolds, Madison, St. Francois, Cedar, Iron, Wayne, Washington, Crawford, Hickory, Bates, Ripley, Ozark, and Wright. These 13 counties currently do not offer syringe exchange programs. St Francois and Bates counties are the only two counties that have a facility that provides some medication assisted treatment (MAT) among the list of vulnerable counties.

With HIV infections among white injection drug users on the rise, ***rural providers should be trained in HIV screening, testing, and prevention, as well as knowing resources for when outbreaks occur. This should include knowledge about MAT and Naloxone for PLWH.***



Source: http://opioid.amfar.org

Potential Practice Transformation Clinics

We asked our LP's to identify clinics in their state that could be potential candidates for Practice Transformation during the next grant cycle. While identifying these clinics, we asked the LP's to select clinics that would meet the strict criteria from the 2015 AETC guidance (existing criteria) as well as clinics that did not meet the existing criteria but would be excellent candidates if the criteria are loosened during the next grant cycle. Missouri identified the following clinics as potential candidates for Practice Transformation.

Potential clinics that meet existing PT criteria	Potential clinics that do not meet existing PT criteria
1. Betty Jean Kerr-People's Health Centers , St. Louis 2. Family Care Health Centers, St. Louis	1. Affinia Healthcare, St. Louis 2. Health Care Coalition of Rural Missouri, Lexington 3. Northwest Health Services, St. Joseph

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APPENDIX

Table 1: HIV Incidence and Prevalence for 10 states in Midwest AETC Region, 2016						
	Population as of 12/31/2015		HIV Prevalence as of 12/31/2015		HIV Incidence in 2016	
State	Total population in numbers	Total Population as % of Midwest Region	HIV prevalence in numbers as of 12/31/15	HIV prevalence as % of Midwest Region as of 12/31/15	HIV incidence in numbers in 2016	HIV incidence as % of Midwest Region in 2016
IL	12,835,726	19%	35,441	31%	1,391	28%
IN	6,634,007	10%	10,741	9%	484	10%
IA	3,130,869	5%	2,427	2%	137	3%
KS	2,907,731	4%	2,830	2%	142	3%
MI	9,933,445	15%	14,615	13%	748	15%
MN	5,525,050	8%	7,803	7%	289	6%
MO	6,091,176	9%	11,887	10%	518	10%
NE	1,907,603	3%	2,040	2%	76	2%
OH	11,622,554	18%	20,709	18%	973	20%
WI	5,772,917	9%	5,916	5%	224	4%
Midwest	66,361,078	100%	114,409	100%	4,982	100%

Source: https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2016-vol-28.pdf

Table 2: People Living with HIV by State, Compared by Racial Population Percentages, as of 12/31/2015									
State	Total population in millions in 2015	White		AA, Black		Latino		Multiple Races	
		Number of People Living with HIV	Rate per 100,000	Number of People Living with HIV	Rate per 100,000	Number of People Living with HIV	Rate per 100,000	Number of People Living with HIV	Rate per 100,000
IA	3.12	1565	68.2	458	574	224	180.6	118	423.9
IL	12.86	9963	144.6	16508	1101.9	6629	405.7	1849	1527.8
IN	6.61	5410	120.5	3817	780.6	960	306.6	380	564.2
KS	2.91	1441	76.6	704	519.5	487	205.8	152	346.3
MI	9.92	4869	75.3	8294	736.4	811	230.6	500	378.2
MN	5.48	3812	100.3	2710	1141.7	778	392.4	248	362.3
MO	6.07	5615	135.7	5202	913.8	636	361.9	341	456.6
NE	1.89	1059	82.8	569	836.7	306	223.7	51	269.8
OH	11.61	9357	118.0	9072	783.1	1255	422.0	801	584.1
WI	5.76	2648	64.9	2177	772	817	304.6	163	305.4
US	321.22	298,373	174.2	404,375	1238.3	213,428	496.8	37810	890.0

Source: https://gis.cdc.gov/grasp/nchhstpatlas/tables.html

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Table 3: Number of HIV Diagnoses by State, Absolute Numbers and Rates per 100,000, (2016)								
State	White		AA, Black		Latino		Multiple Races	
	Number of HIV diagnosis	Rate per 100000	Number of HIV diagnosis	Rate per 100000	Number with HIV diagnosis	Rate per 100000	Number with HIV diagnosis	Rate per 100000
IA	72	3.1	43	51.9	10	7.8	4	13.7
IL	284	4.2	741	49.6	291	17.5	28	22.4
IN	190	4.2	217	43.9	55	17.0	7	10
KS	77	4.1	32	23.6	23	9.5	5	11
MI	234	3.6	430	38.2	46	12.7	19	13.9
MN	116	3.0	129	52.3	23	11.1	6	8.4
MO	207	5.0	248	43.3	40	22.0	11	14.2
NE	38	3.0	15	21.7	16	11.3	2	10.1
OH	380	4.8	499	42.8	52	16.9	29	20.4
WI	78	1.9	109	38.4	24	8.7	8	14.4
US	10329	6.0	17450	52.9	9750	22.2	871	19.8

Source: https://gis.cdc.gov/grasp/nchhstpatlas/tables.html

Table 4: HIV/AIDS Prevalence, Number of Ryan White Providers, Number of Community Health Centers (CHCs) providing HIV Care, and Number of Unique Facilities/Providers reporting CD4 and Viral Load in 10 Midwestern States (2015)				
State	# of PLWHA as of December 31, 2015[2]	# of Ryan White providers as of December 31, 2015[3]	# of CHCs providing clinical HIV care as of December 31, 2015[2]	# of unique facilities or providers reporting CD4 and viral load in 2015[4]
Illinois	35,441	121	37	318 facilities
Indiana	10,741	21	20	N/A
Iowa	2,427	10	11	80 facilities
Kansas	2,830	11	13	88 facilities
Michigan	14,615	36	33	N/A
Minnesota	7,803	20	15	85 facilities
Missouri	11,887	27	19	352 providers
Nebraska	2,040	17	6	121 providers
Ohio	20,709	38	36	267 providers
Wisconsin	5,916	22	13	581 providers
Total 10 states	114,409	323	203	571 facilities 1,321 providers

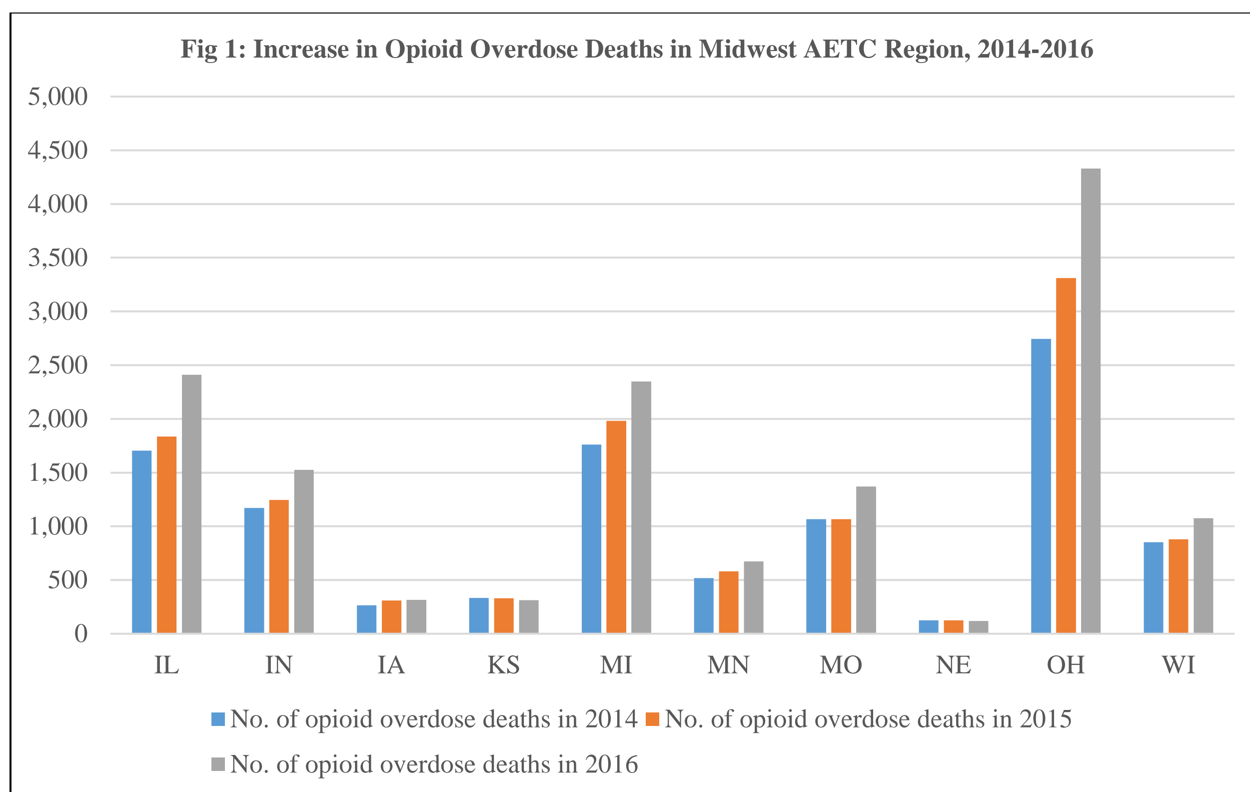
[2] Centers for Disease Control and Prevention, HIV Surveillance Report, Volume 28. Diagnoses of HIV Infection in the United States and Dependent Areas, 2016. https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2016-vol-28.pdf

[3] Health Resources and Services Administration, Data Warehouse. Accessed 4/9/2018. https://datawarehouse.hrsa.gov

[4] Data provided by State Health Departments upon MATEC's request.

Table 5: Drug-related deaths, HCV incidence, HIV incidence, and HIV prevalence rates in 10 Midwestern States and the United states, 2015-2016				
States	Drug-related deaths per 100,000 in 2016	Acute HCV cases per 100,000 in 2015	New HIV diagnoses per 100,000 in 2016	HIV prevalence per 100,000 as of 2015
IA	10.0	N/A	5.1	93.5
IL	18.8	2.8	12.9	330.1
IN	23.0	30.6	8.8	195.7
KS	10.8	7.0	5.9	118.6
MI	23.6	15.3	8.9	174.6
MN	12.2	12.5	6.2	171.3
MO	22.5	5.6	10.0	234.0
NE	6.3	1.4	4.9	131.6
OH	37.3	22.2	9.9	212.5
WI	18.6	25.0	4.6	122.0
US	19.7	13.9	14.7	362.3

Source: http://opioid.amfar.org



Source: https://www.cdc.gov/drugoverdose/data/statedeaths.htm

Table 6: Syringe Exchange Programs and Facilities Providing Some Medication Assisted Treatment (MAT) in 10 Midwestern States in 2018		
States	Syringe Exchange Programs in 2018	Facilities providing MAT (2018)
IA	1	29
IL	9	178
IN	7	108
KS	0	42
MI	4	121
MN	10	89
MO	2	107
NE	0	19
OH	7	215
WI	15	101

Source: http://opioid.amfar.org

Table 7: Additional PCPs needed in 10 Midwestern States by 2030			
State	Additional PCPs required by 2030	% increase compared to state's current PCP workforce	Current population to PCP ratio
Illinois	1,063	12%	1462:1
Indiana	817	20%	1659:1
Iowa	119	5%	1507:1
Kansas	247	13%	1561:1
Michigan	862	12%	1400:1
Minnesota	1,187	28%	1258:1
Missouri	687	18%	1564:1
Nebraska	133	11%	1489:1
Ohio	681	8%	1482:1
Wisconsin	942	22%	1364:1

https://www.graham-center.org/rgc/publications-reports/browse-by-topic/workforce.html

Table 8: Number of Health Professional Shortage Areas (HPSAs), Medically Underserved Areas (MUAs), and Medically Underserved Populations (MUPs) in 10 Midwestern States, HHS Regions V and VII, and the United States in 2018				
Region/ State	Population Estimate as of 1/7/2017[1]	Number of HPSAs for Primary Care (as of 4/4/2018)	Number of MUAs (as of 4/4/2018)	Number of MUPs (as of 4/4/2018)
United States	325.7 million	7,176	3586	426
HHS V and VII	66.6 million	1,831	935	96
Illinois	12.8 million	234	147	17
Indiana	6.7 million	159	45	22
Iowa	3.1 million	132	87	1
Kansas	2.9 million	169	90	14
Michigan	10.0 million	361	89	11
Minnesota	5.6 million	128	97	10
Missouri	6.1 million	250	115	5
Nebraska	1.9 million	111	81	1
Ohio	11.7 million	150	114	13
Wisconsin	5.8 million	137	70	4

[1] United States Census Bureau, Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2017. https://www.census.gov/data/tables/2017/demo/popest/state-total.html

Fig 2: Training Needs of Low Volume and Novice Providers in Missouri during FY 2017-18

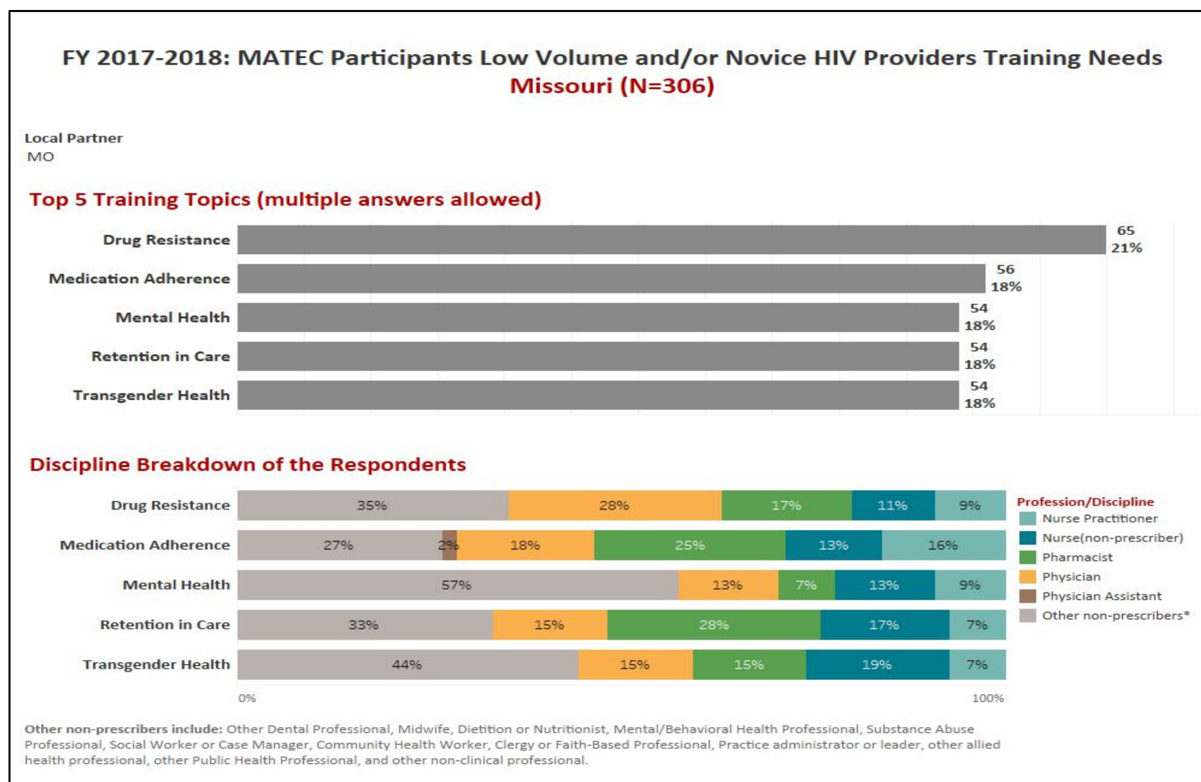


Fig 3: Training Needs of Minority and/or Minority Serving Providers in Missouri during FY 2017-18

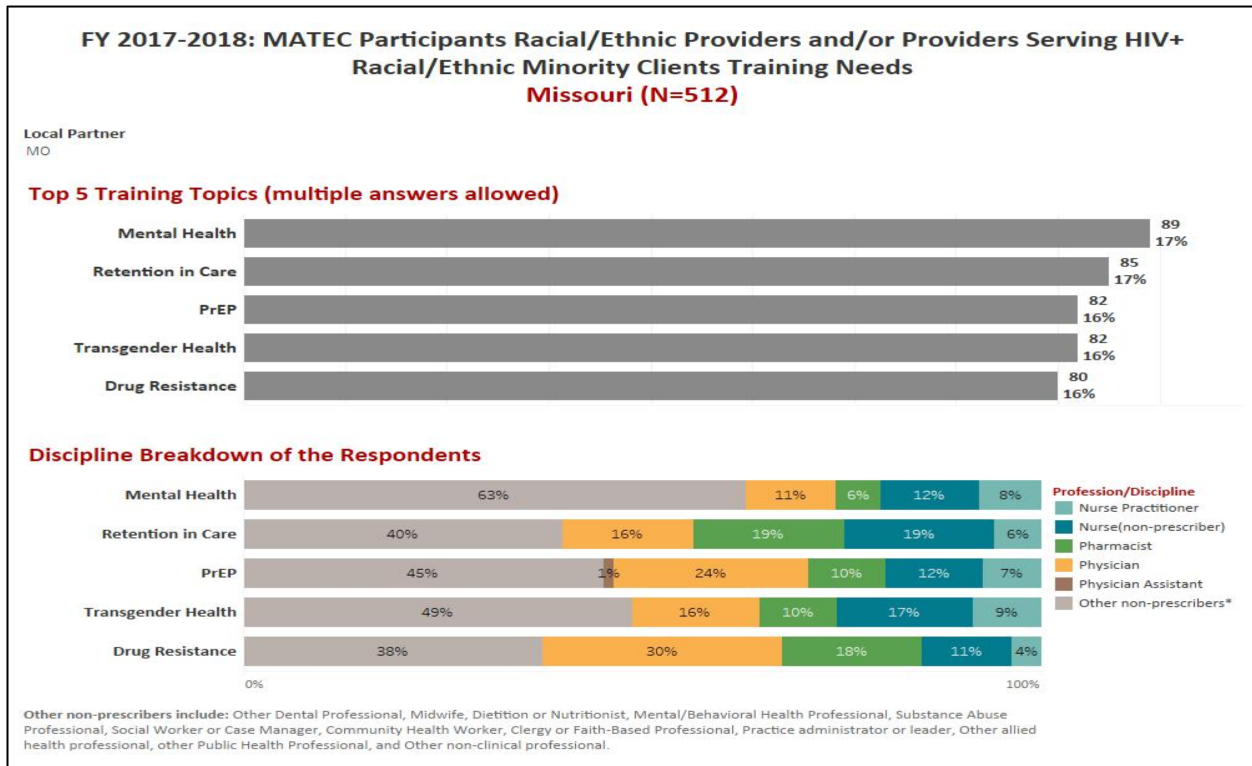


Fig 4: CORE and MAI Participants by Discipline in Missouri and Midwest Region during FY 2017-18

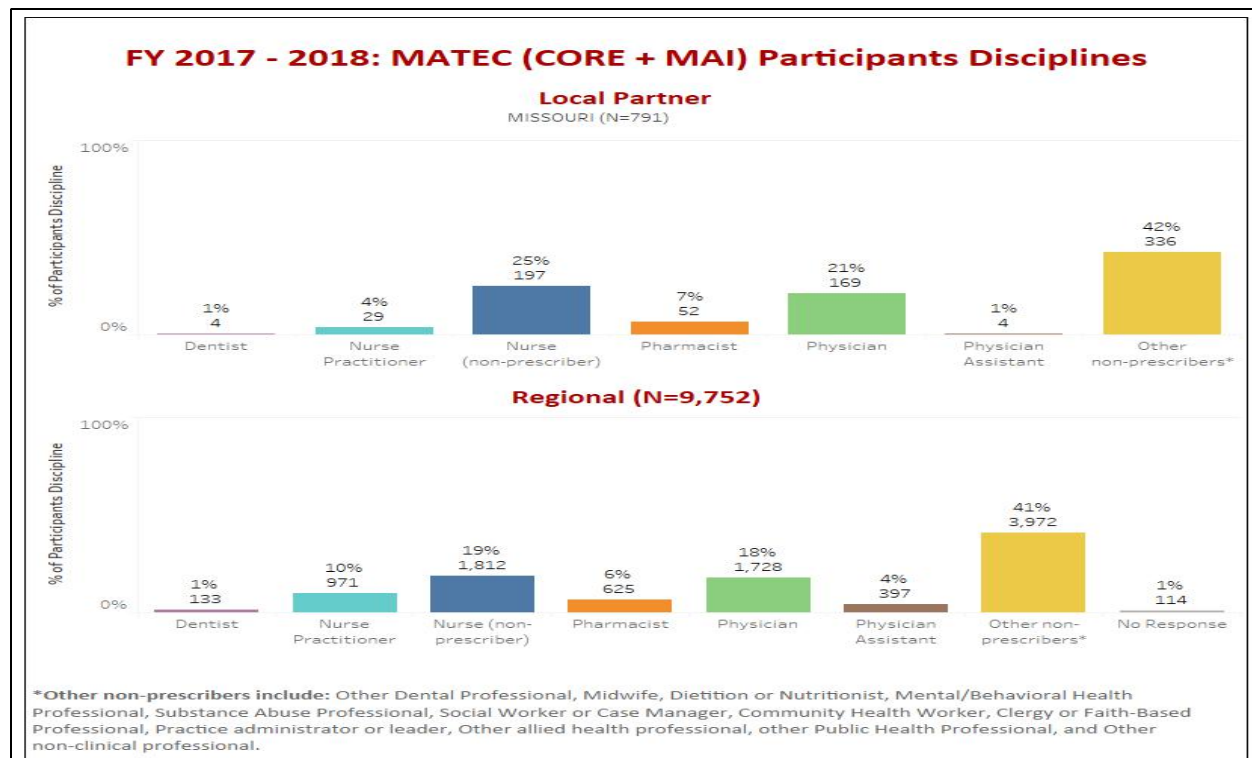


Fig 5: CORE and MAI Participants by Race and Ethnicity in Missouri and the Midwest during FY 2017-18

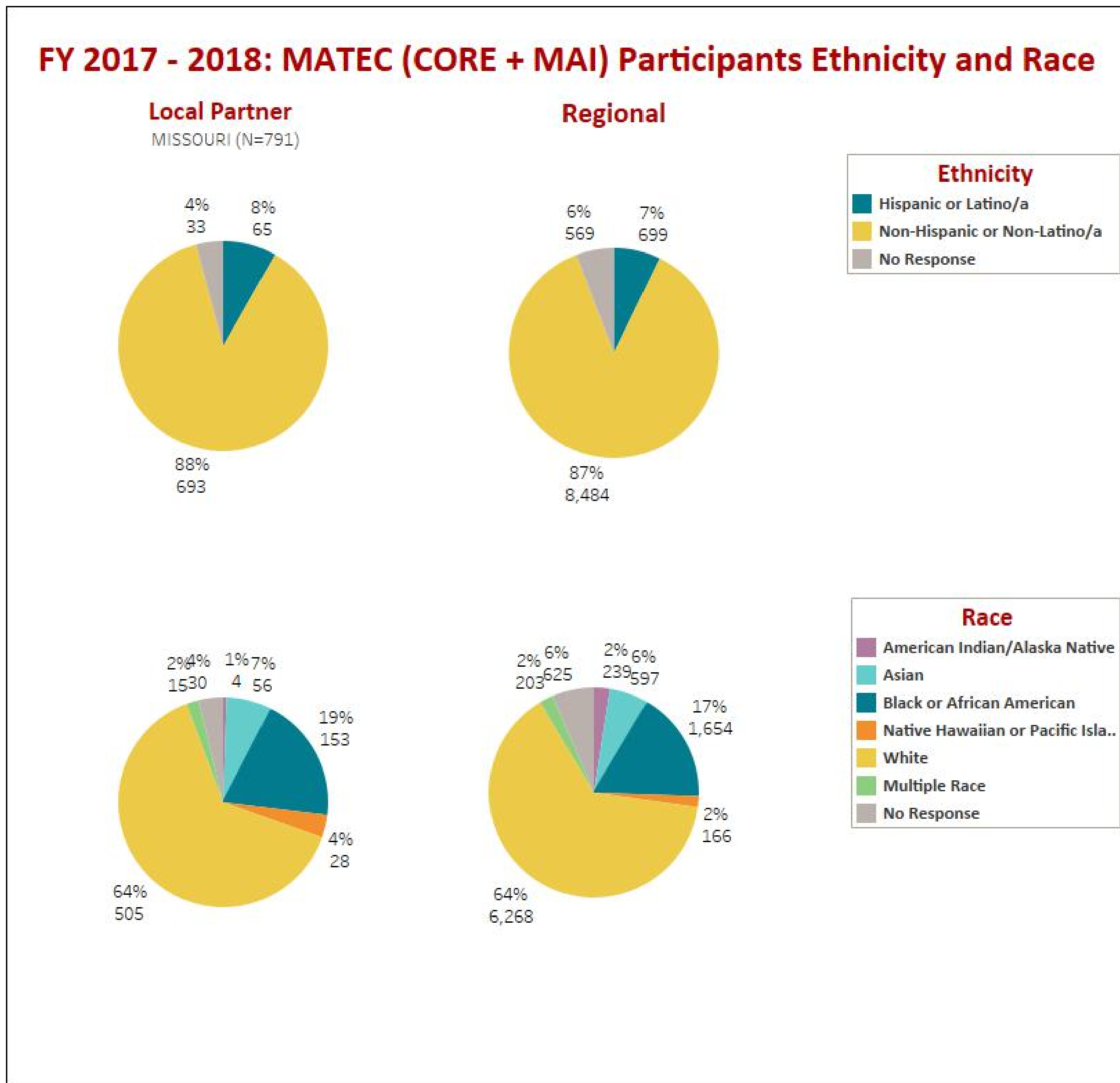


Fig 6: Map of employment zip codes of MATEC trainings who are working in Missouri