HIV TRAINING NEEDS REPORT FOR MICHIGAN

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

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Introduction

This report provides the results of the needs assessment for the state of Michigan. 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:

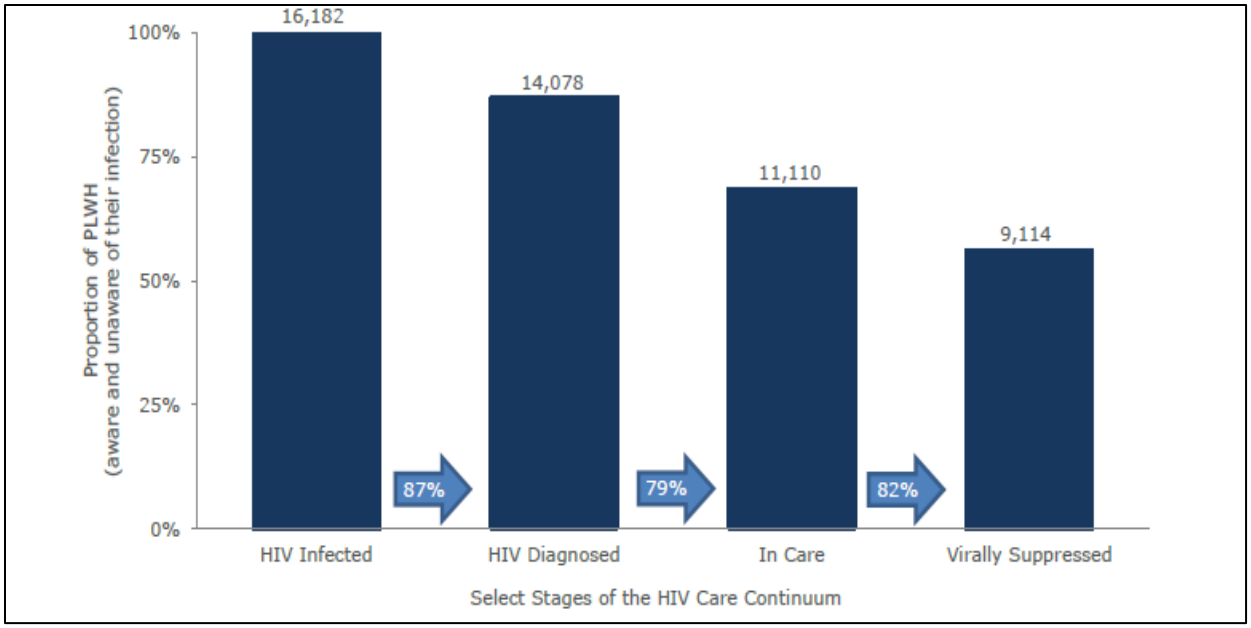
Primary Data Sources	Secondary Data Sources
• Policy Training Advisory Council (PTAC) • Key Informant Interviews with clinical leaders of each state • AETC Local Partner Program Directors	• HIV Integrated Prevention and Care Plans • HIV Surveillance reports from state health departments and CDC • AETC 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

Based on surveillance data (see Appendix, table 1), Michigan accounts for 13% of the HIV prevalence in the Midwest AETC region as of 12/31/15, and 15% of HIV incidence in the region in 2016. The rate of new HIV infections among African Americans is ten times higher than the rate among whites, and twice as many African Americans live with HIV compared to whites. Most of the HIV epidemic in Michigan is concentrated in the Detroit area.

Care Continuum

Michigan's Care Continuum does not measure the percentage of newly diagnosed HIV patients that are linked to care, which prevents us from adequately assessing whether there are any gaps in this area of the Continuum that need to be addressed. The percentage of PLWH who are virally suppressed is calculated based on the number of PLWH who are in care instead of the number of PLWH who are diagnosed. This explains why the viral suppression rate is high at 82%. If we use the number of diagnosed PLWH as the denominator, the viral suppression rate is reduced to 70%, which is still well above the national average. Thirteen percent of HIV infected people are unaware of their status.



The State of the HIV Workforce in Michigan

Reviewing Michigan'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 the HIV workforce in Michigan:

- Older ID specialists are retiring, exacerbating the shortage of specialists in the HIV field.
- There is a need for more primary care providers as a result of the increased life expectancy of HIV patients.
- It is difficult to find ID specialists who are interested in a career in HIV. They perceive HIV as more complicated and less lucrative.
- There is fear that fewer medical students will choose to go into ID. IDSA is involved in programs to mentor students at an early stage of medical school to engage them into going into ID.
- There is a need to work with medical and nursing schools to increase the number of providers that choose to work in HIV in order to address the provider.
- Focus on NP's to help increase the workforce.
- Rural parts of Michigan do not have many providers. Many patients in rural parts of the state have to travel hours to see an HIV provider.
- Mobile clinics and telemedicine can help with alleviating the shortages in rural areas.
- One Lansing provider travels to 4-5 locations in mid-Michigan but when he retires, there is nobody else who is doing that.

Training Needs of Low Volume and Novice HIV Providers

The training needs of low volume and novice providers who attended training events in Michigan 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, Hepatitis C co-infection, ART, mental health, and PrEP. 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 Michigan 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 Michigan indicated that they would like more training on mental health, drug resistance, ART, LGBTQ population, and PrEP. 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.

- Train primary care providers, including PA's and NP's, in screening and testing anyone at risk for HIV. Target specifically providers in ER's, pharmacies, mental health clinics, mobile vans, and plasma donation sites in order to expand the number of testing sites.
- Focus on rural providers, high school clinics, and clinics community colleges.
- Use innovative technologies and programs (telehealth, ECHO) to reach rural providers.
- Jails and prisons should offer HIV testing as part of routine care upon entry into the system.
- There is a need to train dental providers in providing dental care to PLWH.
- Additional topics providers need training in are co-morbidities and STI's.
- Integrate care and prevention trainings: train providers that are doing testing in PrEP and how to integrate it into their practice for those who test negative. Train providers that are offering ART also in how to do prevention and PrEP.

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:

- Case managers at testing sites need to be trained in how to link newly diagnosed HIV patients to care.
- Train mental health providers in counseling newly diagnosed patients and in addressing mental health conditions such as depression as well as substance abuse.

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 Michigan

- All providers need training in cultural sensitivity and stigma.
- Promote interprofessional collaborative practice for HIV care and prevention.

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 Michigan:

- Offer prevention and PrEP training throughout the state for providers of primary care, OB/GYN care, and adolescent and pediatric medicine. Focus on populations most affected by new diagnoses (young people, black MSM).
- Include the following target audiences in your PrEP training: pharmacy schools, pharmacies, and FQHC's.
- Stimulate innovative delivery of PrEP via pharmacies and community colleges. Look at the TelePrEP model of Iowa as an innovative way to offer PrEP.
- Distribute PrEP pamphlets in dental offices to increase awareness among dentists.
- As a result of the opioid epidemic and the rising rate of HIV and HCV infections, providers need to be trained in HIV/HCV co-infection risks among IDU's, harm reduction, and prevention.

Needs of AI/AN Population

Michigan is home to 11 tribal communities who have unique challenges and needs with regard to HIV and other infectious diseases. The most pressing health problem among the American Indian population at this time is Hepatitis C (HCV) resulting from drug use and to some lesser degree sexual transmission. MATEC and tribal clinic leadership are acutely aware of the associated HIV risks**.** In the fall of 2017, the Indian Health Service (IHS), Inter-Tribal Council of Michigan, and MATEC-MI formed a partnership to establish an ECHO HCV program for tribal clinics and identify insurance work-arounds to ensure substance abuse management and HCV treatment are more readily available to tribal members. The partnership hopes to initiate the HCV ECHO program by January 2019 and concurrently take advantage of IHS opportunities to obtain free or low-cost HCV treatment for all tribal clinics.

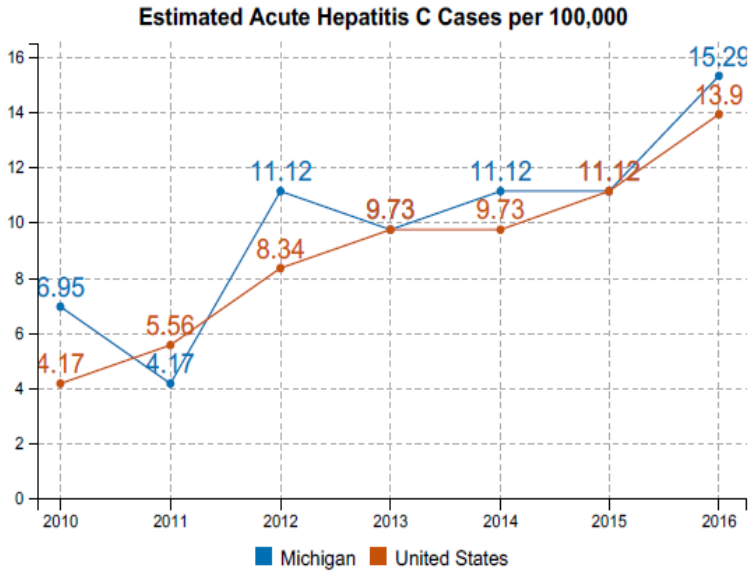
Based on information obtained from clinical leaders and PTAC members, and preliminary results from a local needs assessment survey conducted by the local LP, the following needs were identified for Michigan's AI population:

- The needs in the AI community are along the early side of the HIV Care Continuum, i.e. screening, testing, and prevention.
- Training should focus on stigma, cultural competency, confidentiality, substance abuse, mental health, sexual abuse of adults and children, and social determinants of health.
- Providers need training in sexual risk assessment and drug/alcohol abuse risk assessment.
- Providers need training in basic HIV care and prevention, including testing guidelines, how to prevent HIV and HCV, and how to treat it.
- Use Telehealth and Telemedicine to train American Indian providers in HIV and HCV.
- Wherever possible, the four states that receive AI funding should share best practices for how to approach training in the AI communities.

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]

Michigan's rate of acute HCV cases is closely aligned with the national average. In 2016, 15.29 new cases of acute HCV were reported per 100,000 individuals at risk compared to 13.9 new HCV cases nationally. Michigan's HCV incidence rate in 2016 represents an almost 40% increase compared to the previous year. ***This prompts a need to train providers in HCV screening, testing, and treatment of HIV/HCV co-infections.***

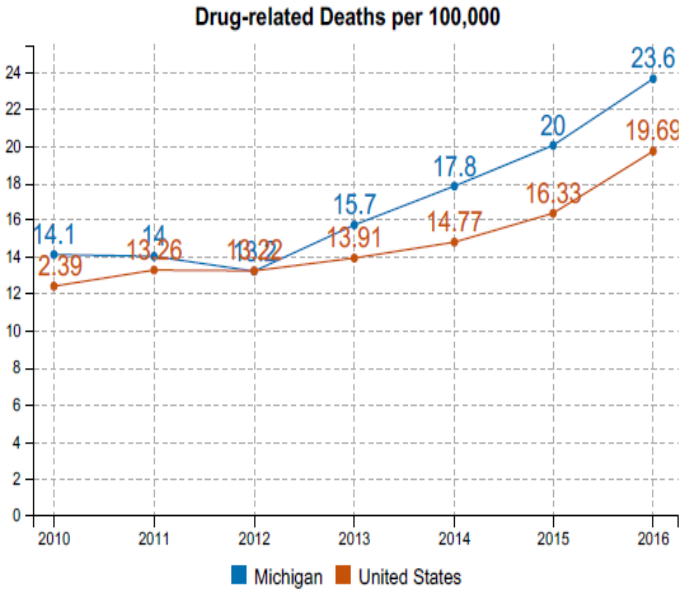


Source: http://opioid.amfar.org

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.

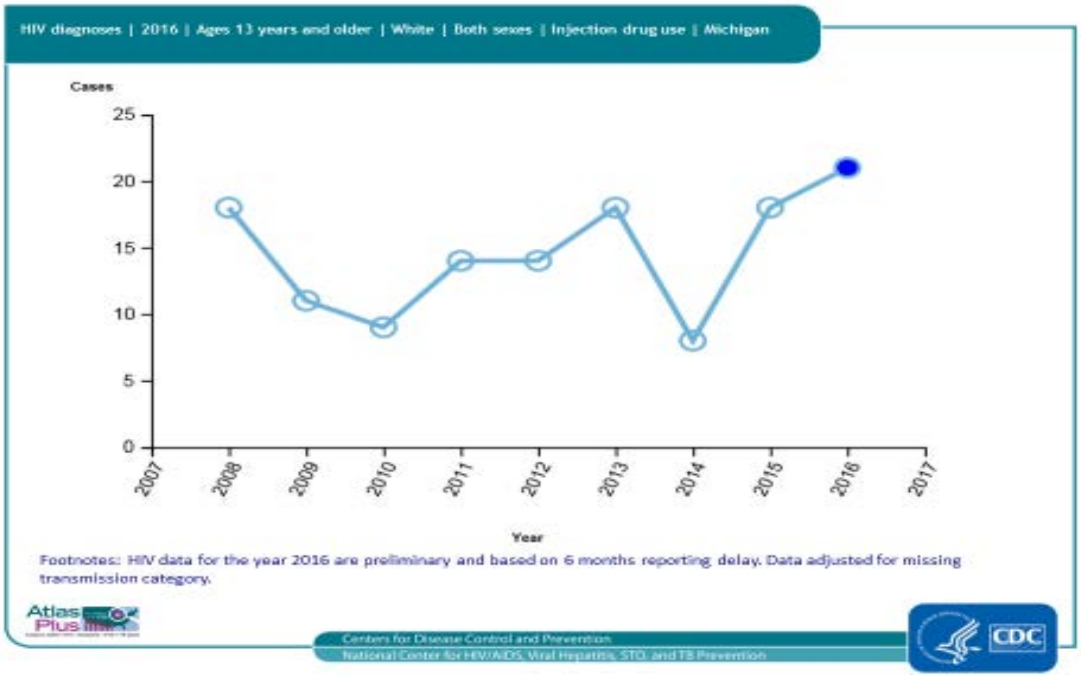
The opioid epidemic in Michigan has led to an increase in the drug-related death rate from 15.7 per 100,000 in 2013 to 23.6 per 100,000 in 2017, outpacing the national average of 19.6 deaths per 100,000.



Source: http://opioid.amfar.org

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

The figure below shows that the number of new HIV infections among white injection drug users in Michigan is on the rise since 2014. This alarming fact stresses the importance to ***increase awareness among providers of the confluence of the opioid epidemic, HIV, and HCV.***



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. Michigan is home to 11 vulnerable counties, all located in the northern part of the state. These include Omegaw, Clare, Oscoda, Montmorency, Lake, Presque Isle, Alcona, Roscommon, Crawford, Kalkaska, and Cheboygan counties. Michigan has seven syringe exchange programs located throughout the state and 121 facilities that offer some medication assisted treatment. ***Michigan needs to train providers in rural areas that are at high risk for the triple threat: HIV and HCV infection among injection drug users. Training should include screening, testing, prevention, and knowing resources for when such outbreaks occur. This should include knowledge about MAT and Naloxone for PLWH.***

CDC Vulnerable Counties

Source: http://opioid.amfar.org/MI

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. Michigan 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. Corktown Health Center, Detroit 2. Nimkee Memorial Health Center (IHS clinic), Mt. Pleasant 3. Detroit Public Health STD Clinic, Detroit	No clinics that do not meet the existing PT criteria were selected

"This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U1OHA29293 (AIDS Education and Training Centers). This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government."

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

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

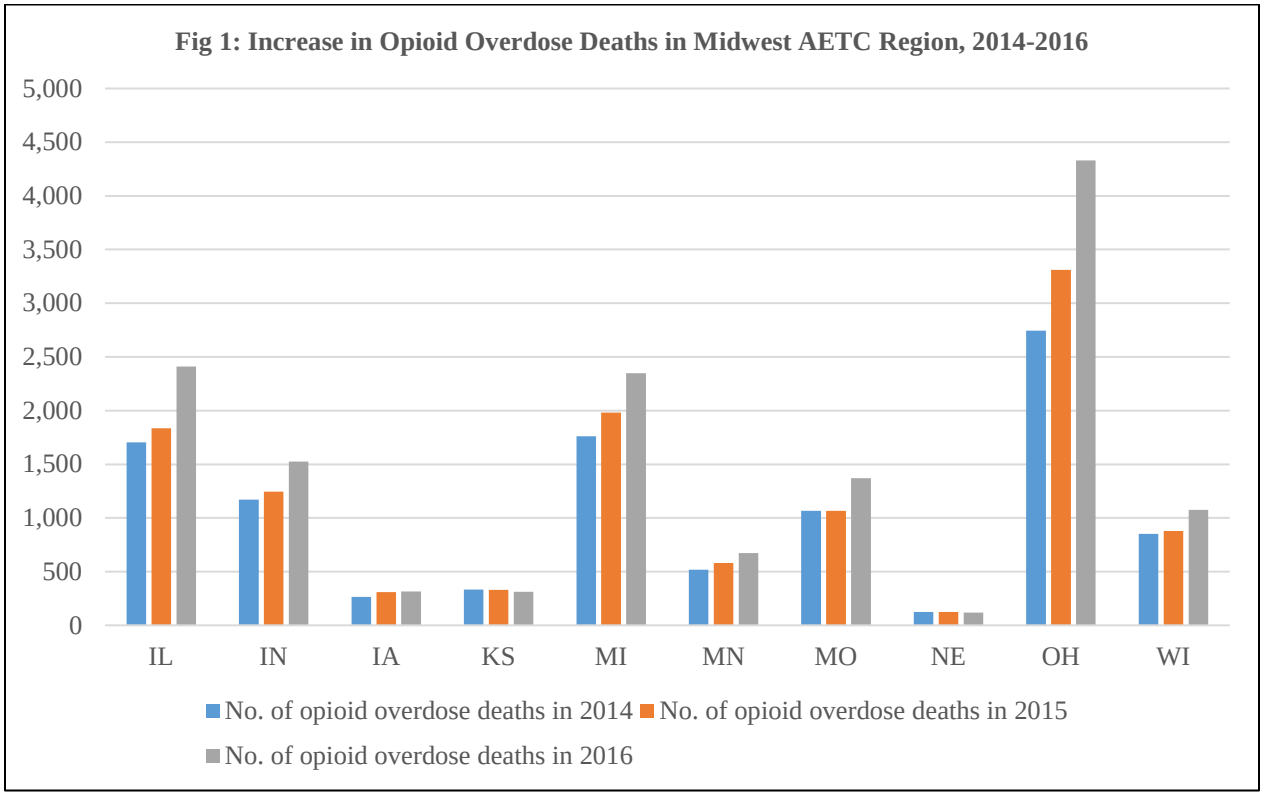
[2] Centers for Disease Control and Prevention, HIV Surveillance Report, Volume 28. Diagnoses of HIV Infection in the United States and Dependent Areas, 2016. https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2016-vol-28.pdf

[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 Iowa during FY 2017-18

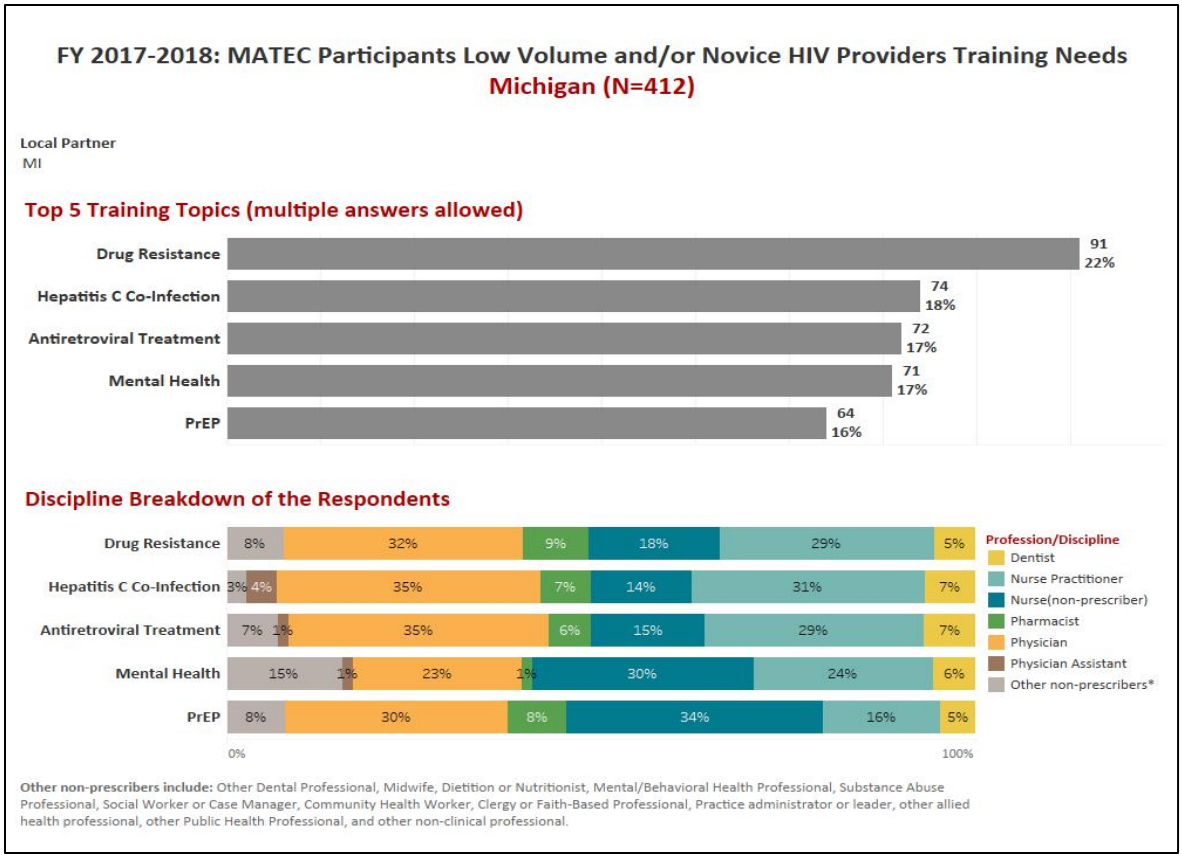


Fig 3: Training Needs of Minority and/or Minority Serving Providers in Iowa during FY 2017-18

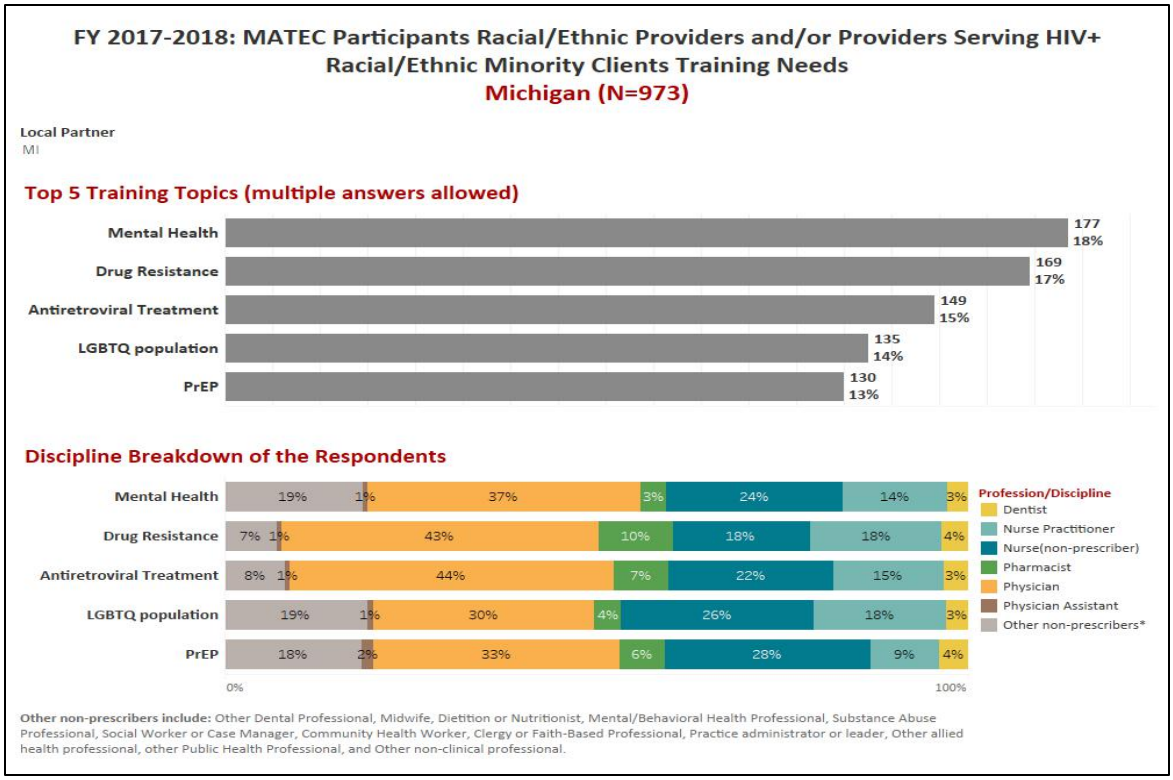


Fig 4: CORE and MAI Participants by Discipline in Iowa and Midwest Region during FY 2017-18

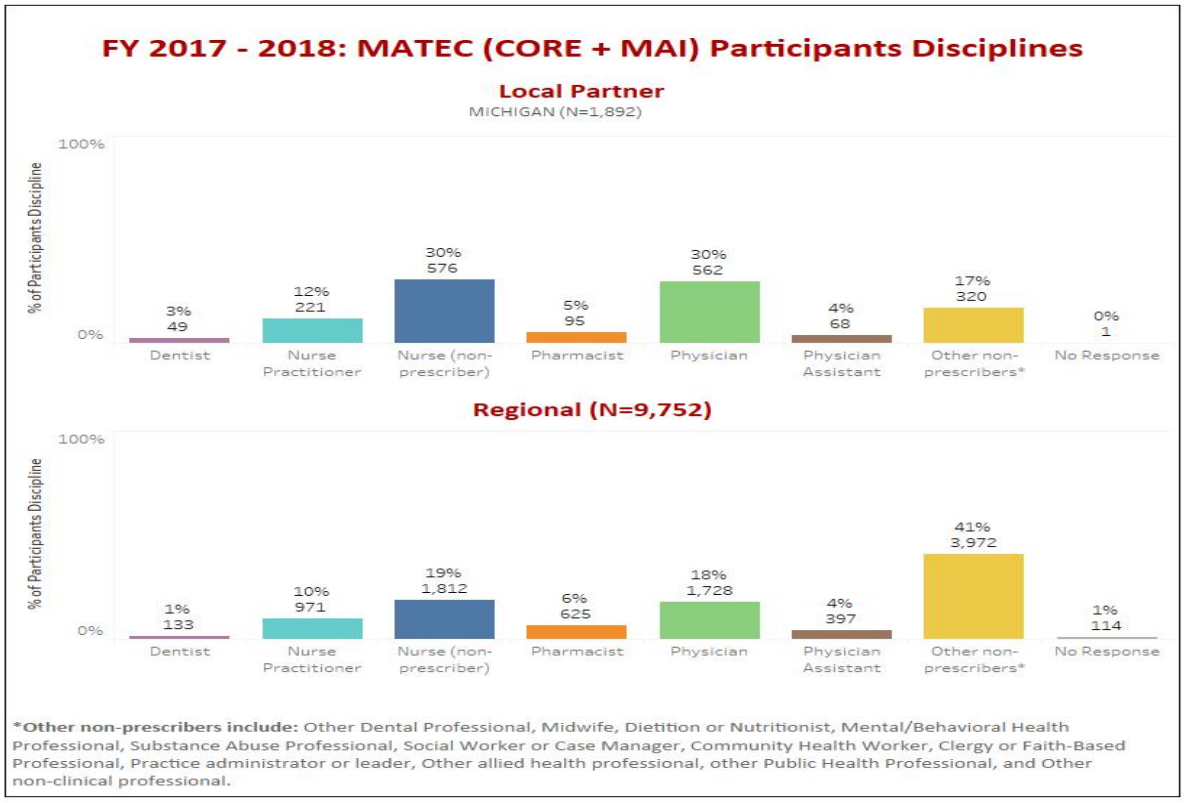


Fig 5: CORE and MAI Participants by Race and Ethnicity in Iowa and Midwest Region during FY 2017-18

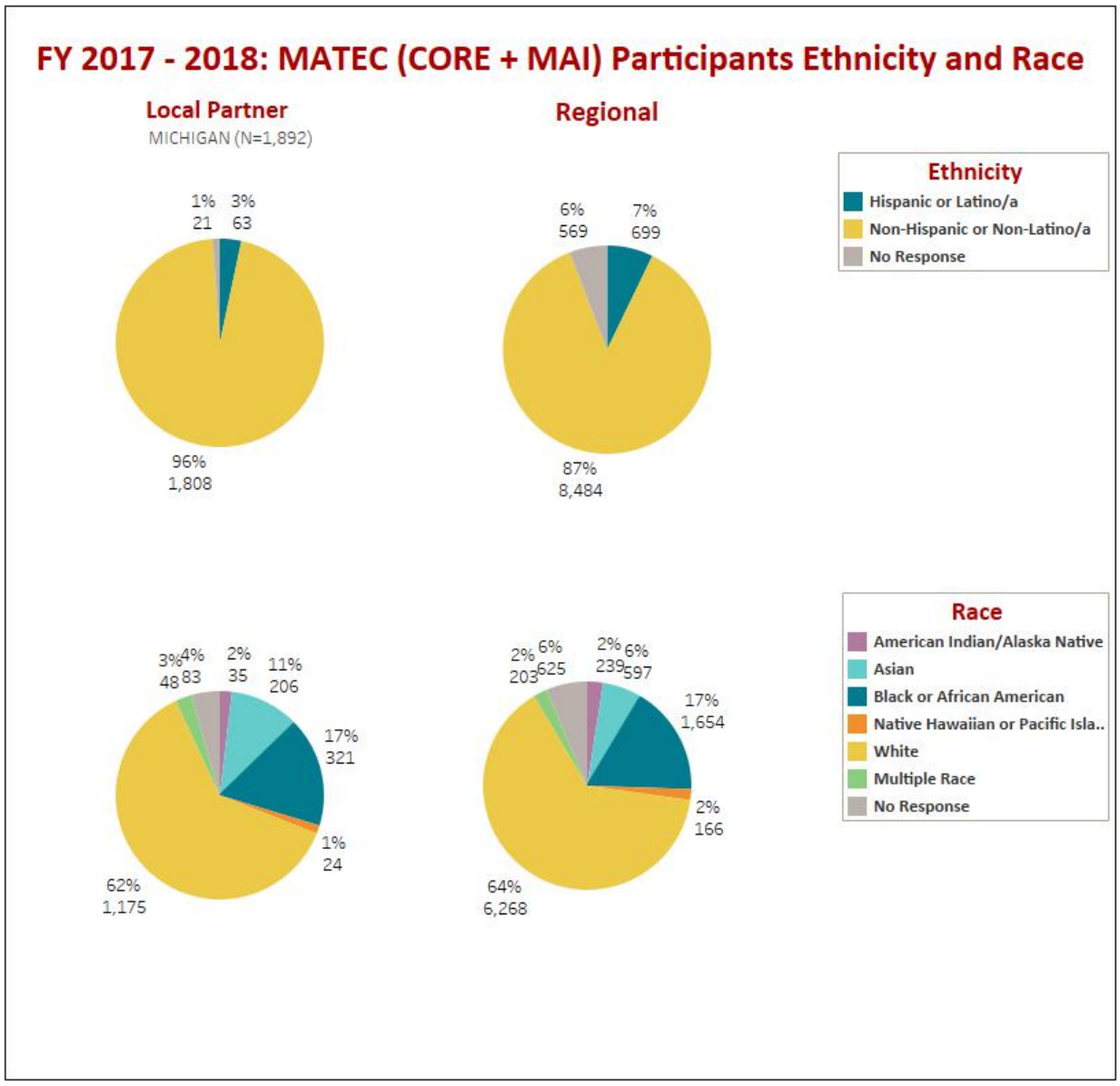


Fig 6: Map of employment zip codes of MATEC trainings who are working in Michigan