HIV TRAINING NEEDS REPORT FOR MINNESOTA

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

Fall 2018

Introduction

This report provides the results of the needs assessment for the state of Minnesota. 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.

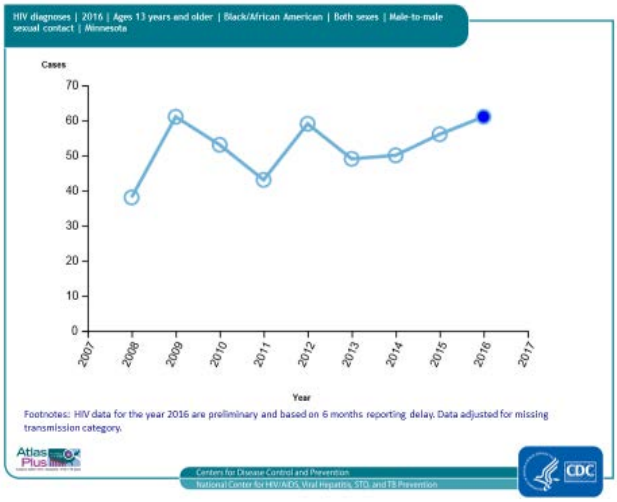
The needs assessment results in this report are organized by workforce category (i.e. clinical versus non-clinical providers, low volume/novice providers, minority & minority-serving providers) as well as by topics that deserve special attention (i.e. PrEP, Hepatitis C, and the opioid epidemic). The 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

Minnesota is considered a mid-level incidence state in the Midwest AETC region, accounting for 7% of HIV prevalence in 2015 and 6% of HIV incidence in 2016. African Americans/Blacks in Minnesota have the highest prevalence rate (1141 per 100,000) compared to African Americans/Blacks in the other 9 states in our region. They are ten times more likely to have HIV compared to whites and three times more likely to have HIV compared to Hispanics. Rates of new HIV infections among Black/African American MSM have increased since 2013 as shown in the chart on the right.

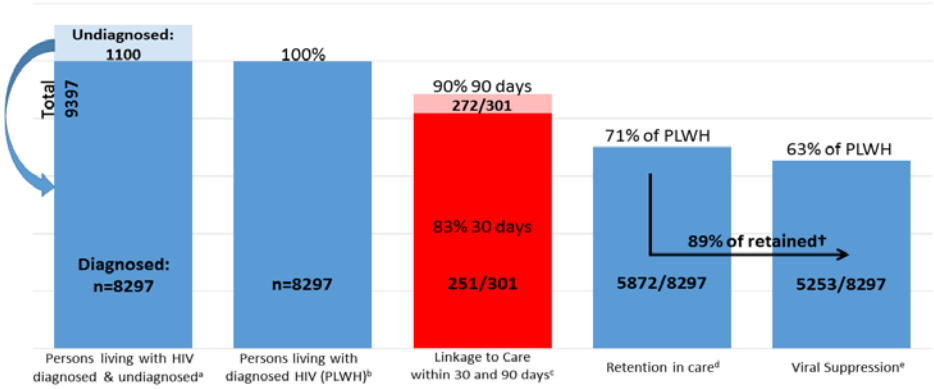


Source: https://gis.cdc.gov/grasp/nchhstpatlas/charts.html

Care Continuum

Minnesota's Care Continuum shows that 63% of diagnosed PWLH achieved viral suppression in 2016. This percentage increases drastically for those who are retained in care, underscoring how important retention in care is for achieving viral suppression. Minnesota is linking 83% of its newly diagnosed patients to care within 30 days after receiving a diagnosis and 90% are linked to care by 3 months.

Percentages of Persons with HIV Engaged in Selected Stages of the Continuum of Care in Minnesota, 2016



Linkage to care is based on the number of persons diagnosed during 2015 and is therefore shown in a different color than the other bars with a different denominator

[a]Defined as persons undiagnosed (estimate 1,100 (570-1,500), 95% CI) and persons diagnosed (n=8297) aged 13 or more with HIV infection (regardless of stage at diagnosis) through year end 2015, who were alive at year end 2016.
[b]Defined as persons diagnosed aged 13 or more with HIV infection (regardless of stage at diagnosis) through year end 2015, who were alive at year end 2016.
[c]Calculated as the percentage of persons linked to care within 30 and 90 days after initial HIV diagnosis during 2015. Linkage to care is based on the number of persons diagnosed during 2015 and is therefore shown in a different color than the other bars with a different denominator.
[d]Calculated as the percentage of persons who had ≥1 CD4 or viral load test results during 2016 among those diagnosed with HIV through year end 2015 and alive at year end 2016.
[e]Calculated as the percentage of persons who had suppressed viral load (≤200 copies/mL) at most recent test during 2016, among those diagnosed with HIV through year end 2015 and alive at year end 2016.
[†]Calculated as number of persons who had suppressed VL (≤200 copies/mL) at most recent test during 2016, among those who were retained in care during 2016 (5,253/5,872).

The State of Minnesota's HIV Workforce

Reviewing Minnesota'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 Minnesota's workforce:

- The HIV workforce is under pressure from retiring providers and high turnover rates, especially at CHC's as a result of burnout
- The infections disease specialty is among the lowest paid specialties, making it hard to attract new specialists to HIV
- Many ID fellows who have an interest in HIV end up moving out of state because there are no HIV jobs open at the exact time that they graduate
- Creating HIV fellowships for NP's would be a great way to create more providers in the pipeline. It would be great if MATEC could do this with a funder

Training Needs of Low Volume and Novice HIV Providers

The training needs of low volume and novice providers who attended training events in Minnesota 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 LGBTQ populations, drug resistance, ART, mental health, 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 Minnesota 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 Minnesota indicated that they would like more training on mental health, substance use, Native American patients, cultural competency, 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.

- Primary care providers need training in routing testing and risk assessment, as well as in how to provide primary care for HIV patients
- There is a need for geriatric providers who can provide primary care to aging HIV patients
- Minnesota needs more dental providers trained in providing high quality dental care to HIV patients
- Training needs to target students while still in school to put HIV as a career choice in their minds before they graduate
- There is a need for HIV experts in rural parts of the state

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:

- There is a need for case managers who can help PLWH access services.
- There is a need for mental health and substance abuse providers who can work with PLWH.
- There is a need for providers who understand housing and transportation issues faced by PLWH
- There is a need for providers of support services who can call PLWH who have fallen out of care.
- There is a need for rapid care access models for bringing people back into care

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 Minnesota:

- All providers need training in stigma and cultural responsiveness, specifically in regard to decreasing the barriers to ART among African born populations.
- Training should include targeting leaders of African born immigrant communities who can broach the topic of HIV in their communities.
- Providers need training in learning what services are available through Ryan White
- All providers need training in the concept of interprofessional collaborative HIV care teams
- Develop centers of excellence that work with the state to help providers and patients elsewhere feel like they are being seen quickly with expertise and ancillary resources. These centers of excellence should be partners to other clinics that don't have all the resources
- HIV providers need training in medication-assisted treatment options for opioid abuse disorders and methamphetamine addition among HIV patients as well as Naloxone training for reversing the effects of an opioid overdose.

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 Minnesota:

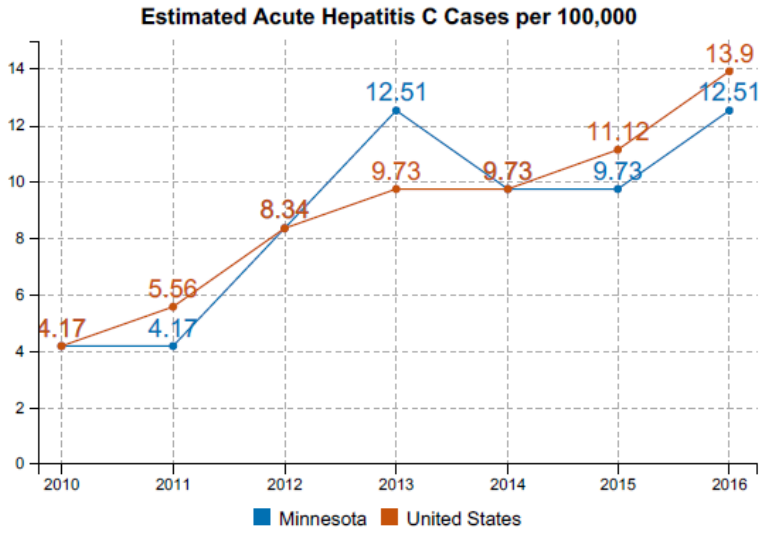
- Prevention training needs to be targeted towards Black MSM as HIV infections are rising among this subpopulation
- Primary care providers who provide care to high risk populations need to be trained in PrEP to increase their knowledge and comfort level
- PrEP is not finding much uptake outside of the Twin Cities. Non-prescriber dependent PrEP could help, meaning there are protocols that have a prescriber, but a pharmacist or nurse is really doing the PrEP. Look at Iowa's TelePrEP model as an example for this.
- There is a need for accurate and comprehensive sex education for youth to replace the abstinence until marriage curricula that leave many, especially LGBTQ youth, uninformed about HIV. This should include information on PrEP

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]

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

Minnesota's rate of acute HCV cases is closely aligned with the national average. In 2016, 12.51 new cases of acute HCV were reported per 100,000 individuals at risk, compared to 13.9 new HCV cases nationally. Minnesota's HCV incidence rate increased by 29% in 2016 compared to the previous year.

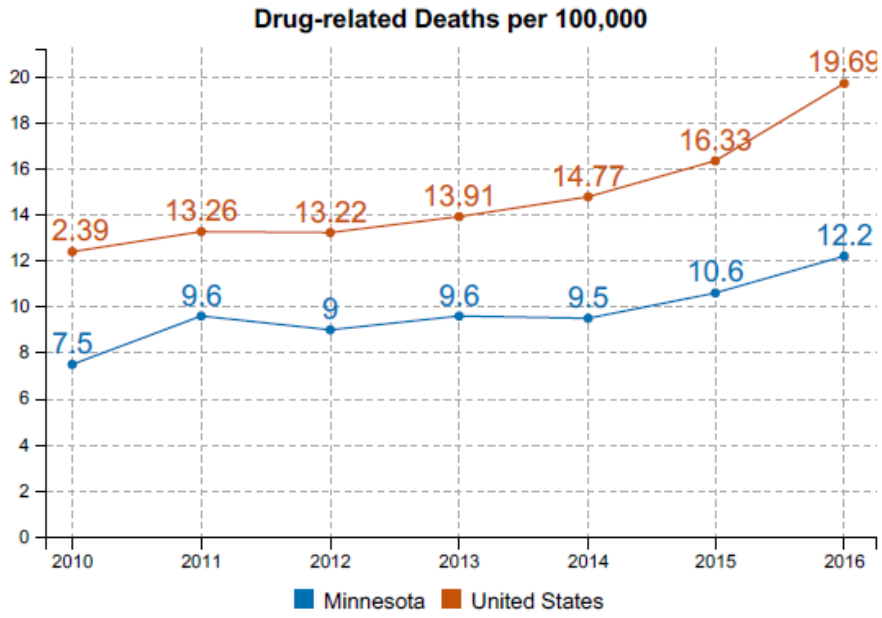


Source: http://opioid.amfar.org

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.

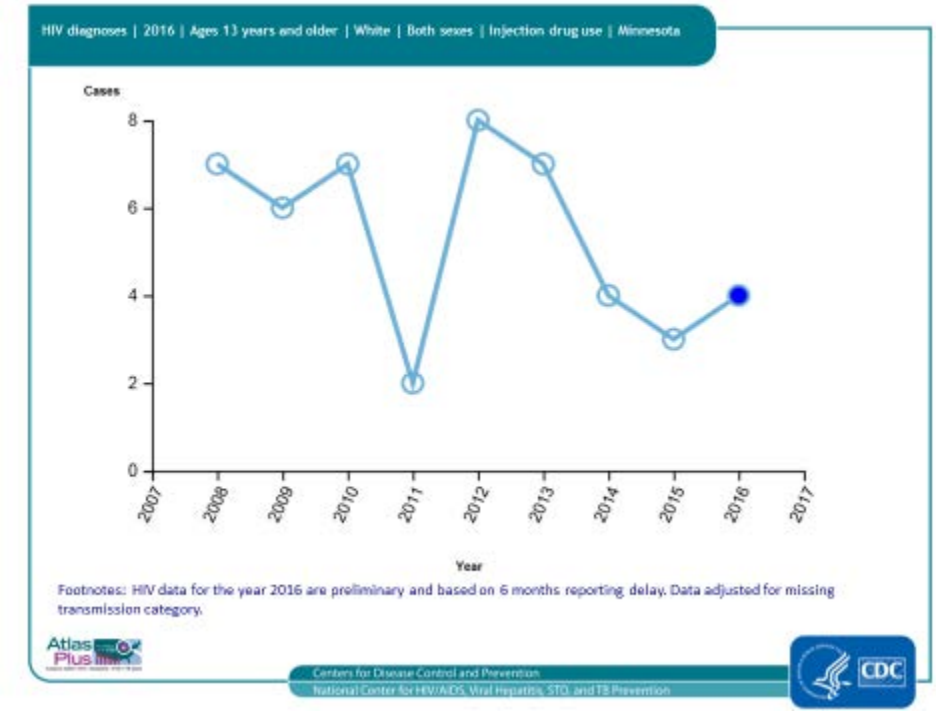
In 2016, Minnesota reported 12.2 drug-related deaths per 100,000 compared to the national average of 19.69. While Minnesota's incidence is well below the national average, the incidence rate has been on the rise since 2014. Minnesota is home to 10 syringe exchange programs and 91 facilities that provide some medication assisted treatment.



Source: http://opioid.amfar.org

While Minnesota has one of the lowest drug overdose mortality rates in the nation, Minnesota also has some of the worst race rate disparities in drug overdose mortality in the nation. African American Minnesotans were two times more likely to die from a drug overdose than white Minnesotans. Native American Minnesotans were six times more likely to die from a drug overdose than white Minnesotans. Other states have disparities based in race, however, the rate disparity between Native Americans/whites is the greatest rate disparity based on race in the United States; the rate disparity between African Americans/whites is the second greatest rate disparity based on race in the United States. The racial disparity can also be noticed in the age distribution of drug overdose deaths. For whites, drug overdose deaths occur primarily within the 25-54 year age groups. Among American Indians, the greatest percentage of deaths has been in the 25-34 year age group, while for African Americans, the 45-54 year age group has had the greatest percentage of deaths.[2]

The number of HIV infections among white injection drug users in Minnesota rose in 2016 compared to the previous year, which stresses the importance to increase awareness among providers of the risk the opioid epidemic presents for HIV and HCV infections.



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

Methamphetamine

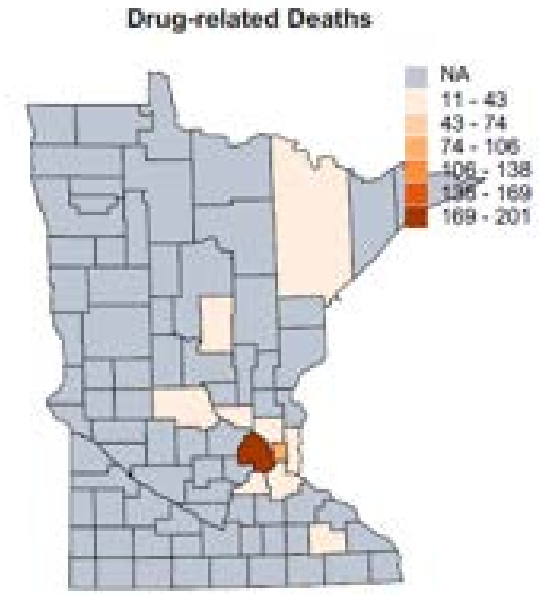
While the opioid epidemic seems to be getting all of the media attention, the Greater Minnesota area is facing a more eminent threat from a resurgence of methamphetamine. The drug is brought in through Mexican drug cartels, who have taken over the void after many in-state meth labs shut down a decade ago when the state implemented restrictions to the sale of over-the-counter pseudoephedrine. Treatment admissions due primarily to methamphetamine

[2] Minnesota Department of Health. http://www.health.state.mn.us/divs/healthimprovement/opioid-dashboard/racedisparity.html#Example1

abuse numbered 12,050 residents in 2016, up from 9,967 in 2015.[3] There were 78 deaths from "psychostimulants with abuse potential", a class of drugs that includes methamphetamine, in the year 2015 compared to only 18 deaths in 2010.[4] Methamphetamine addiction remains a bigger problem in rural Minnesota than opioid abuse.

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. Minnesota does not have any counties that have been identified by the CDC as vulnerable to an outbreak. The counties that experienced the highest number of drug-related deaths in 2016 are shown in the picture to the right. ***Rural providers in Minnesota should be trained in screening, testing, prevention, and knowing resources for when such outbreaks occur. This should include knowledge about MAT and Naloxone for PLWH.***



Source: http://opioid.amfar.org

[3] Minnesota Department of Human Services. https://www.minnpost.com/politics-policy/2017/06/while-minnesota-authorities-focus-opioid-abuse-meth-making-comeback/

[4] Minnesota Department of Public Health. https://www.minnpost.com/politics-policy/2017/06/while-minnesota-authorities-focus-opioid-abuse-meth-making-comeback/

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. Minnesota 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. Cedar Riverside People's Center in Minneapolis 2. Community-University Health Care Center (U of M) in Minneapolis 3. Indian Health Board of Minneapolis in Minneapolis 4. Neighborhood HealthSource in Minneapolis 5. NorthPoint Health & Wellness in Minneapolis 6. Open Door Health Center in Mankato 7. United Family Medicine in St. Paul	None were identified by Minnesota

"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[5]	# of Ryan White providers as of December 31, 2015[6]	# of CHCs providing clinical HIV care as of December 31, 2015[2]	# of unique facilities or providers reporting CD4 and viral load in 2015[7]
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

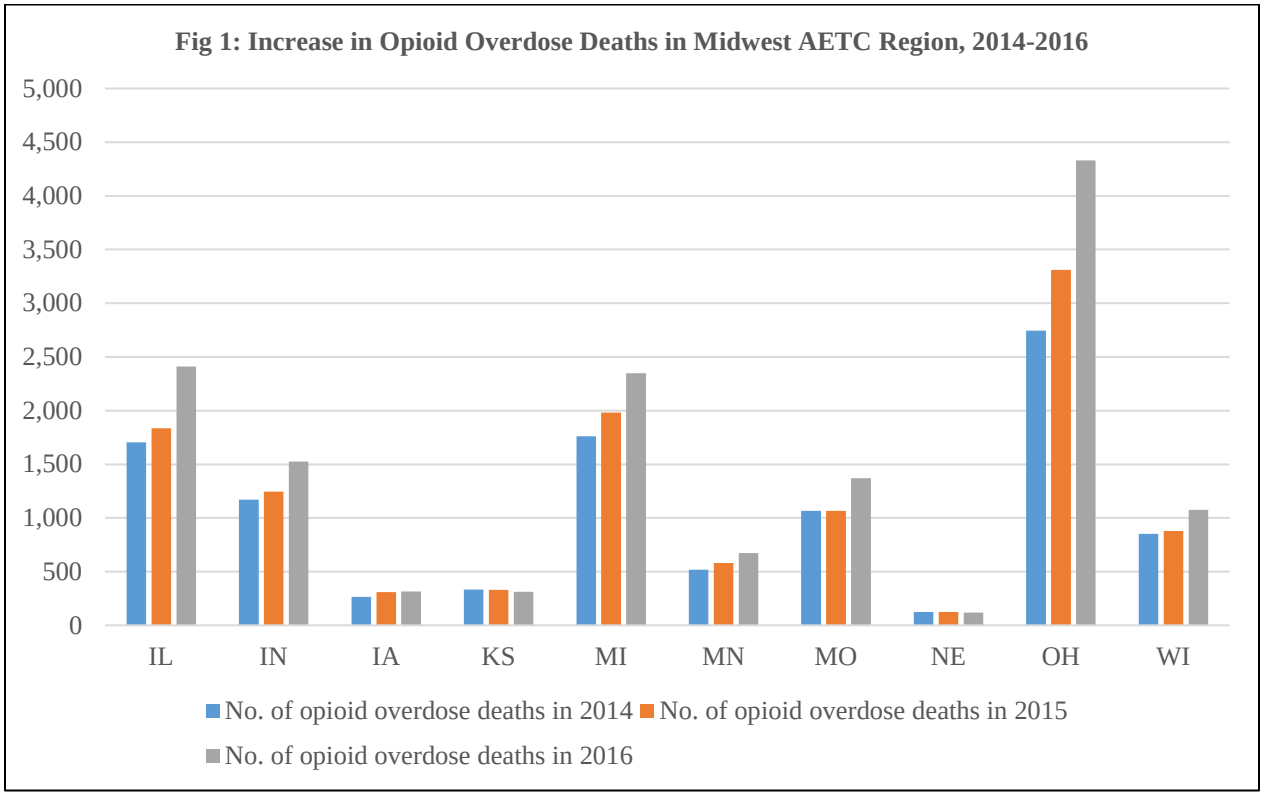
[5] Centers for Disease Control and Prevention, HIV Surveillance Report, Volume 28. Diagnoses of HIV Infection in the United States and Dependent Areas, 2016. https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2016-vol-28.pdf

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

[7] 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 Minnesota during FY 2017-18

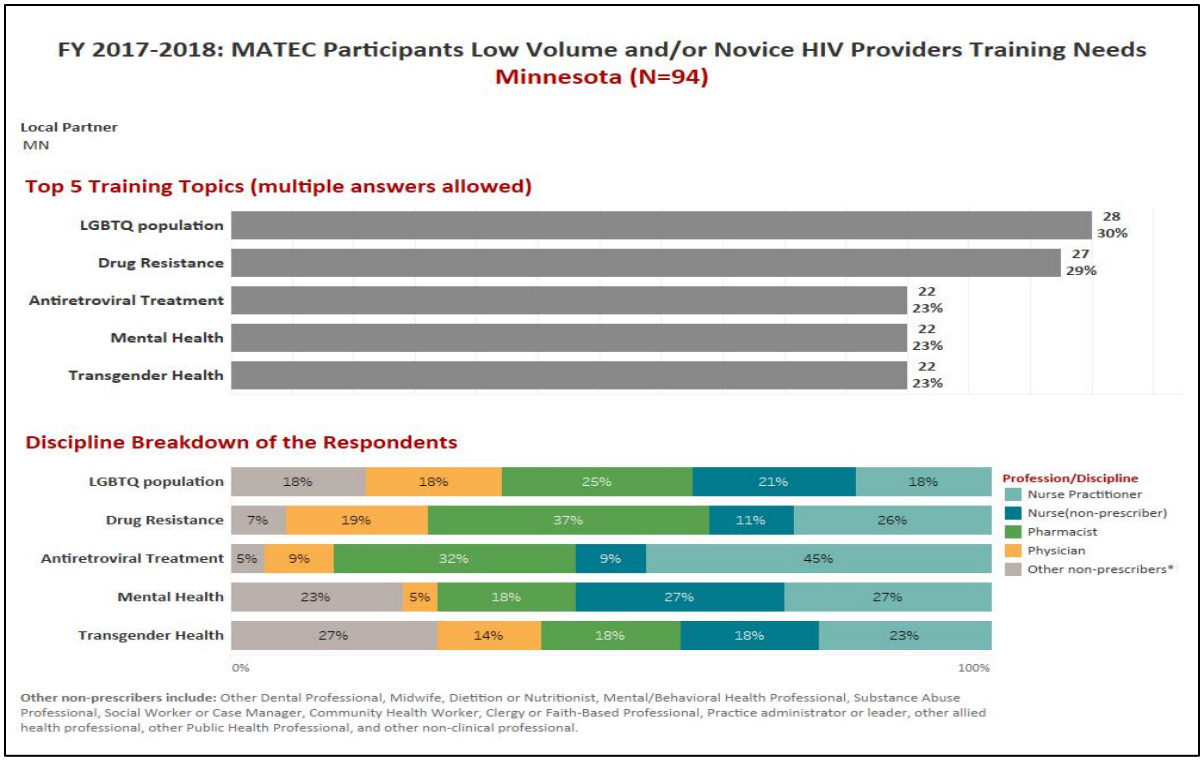


Fig 3: Training Needs of Minority and/or Minority Serving Providers in Minnesota during FY 2017-18

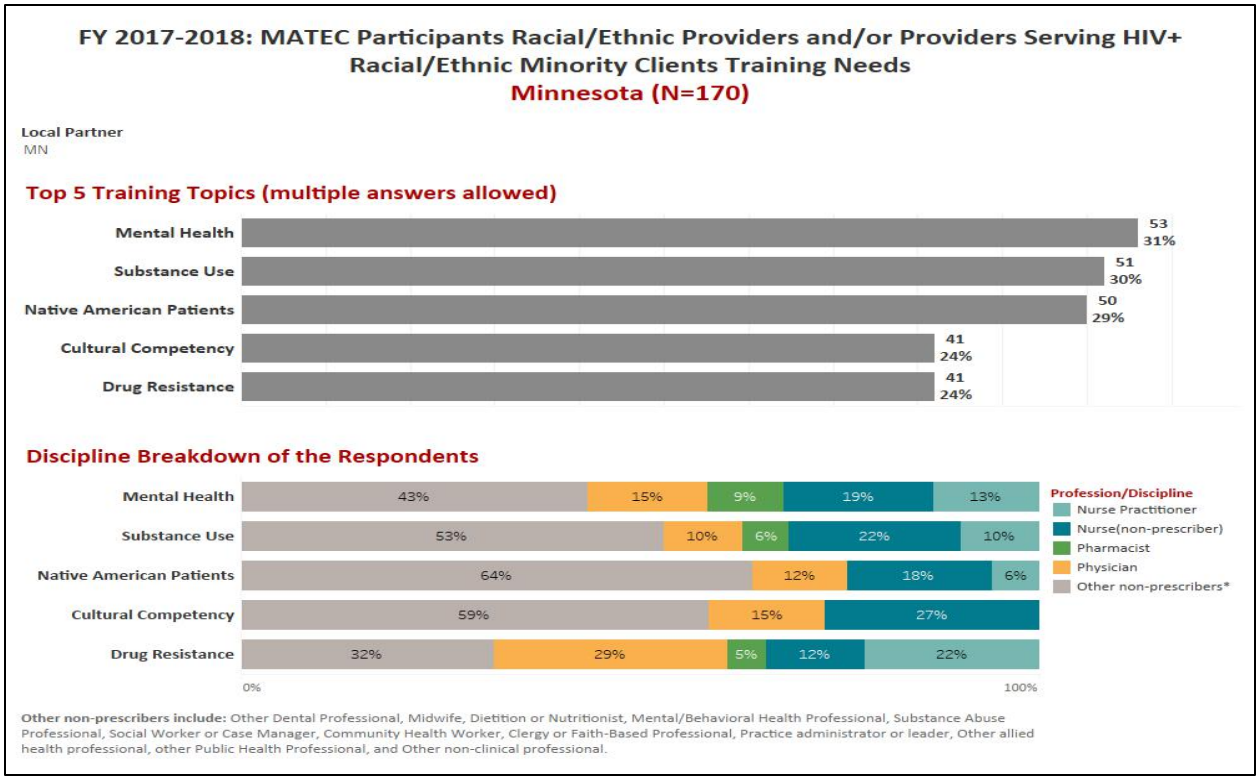


Fig 4: CORE and MAI Participants by Discipline in Minnesota and Midwest Region during FY 2017-18

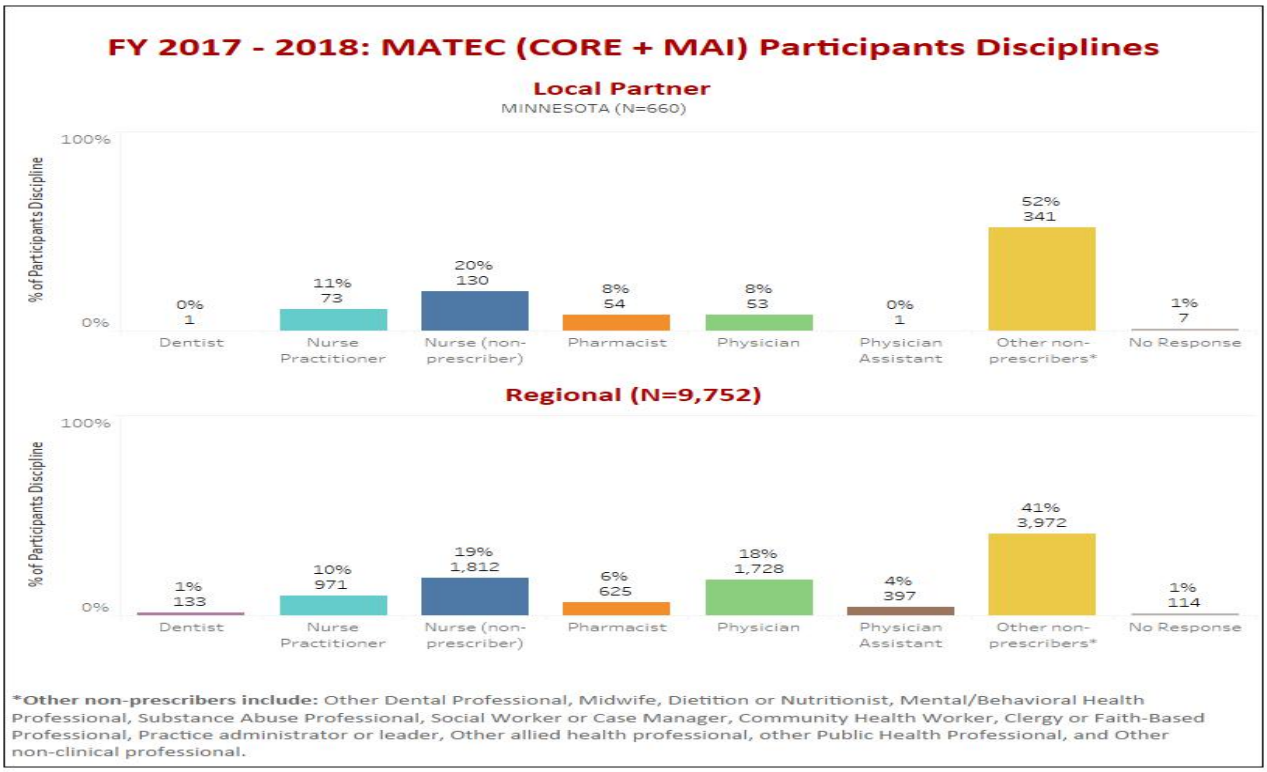


Fig 5: CORE and MAI Participants by Race and Ethnicity in Minnesota and Midwest during FY 2017-18

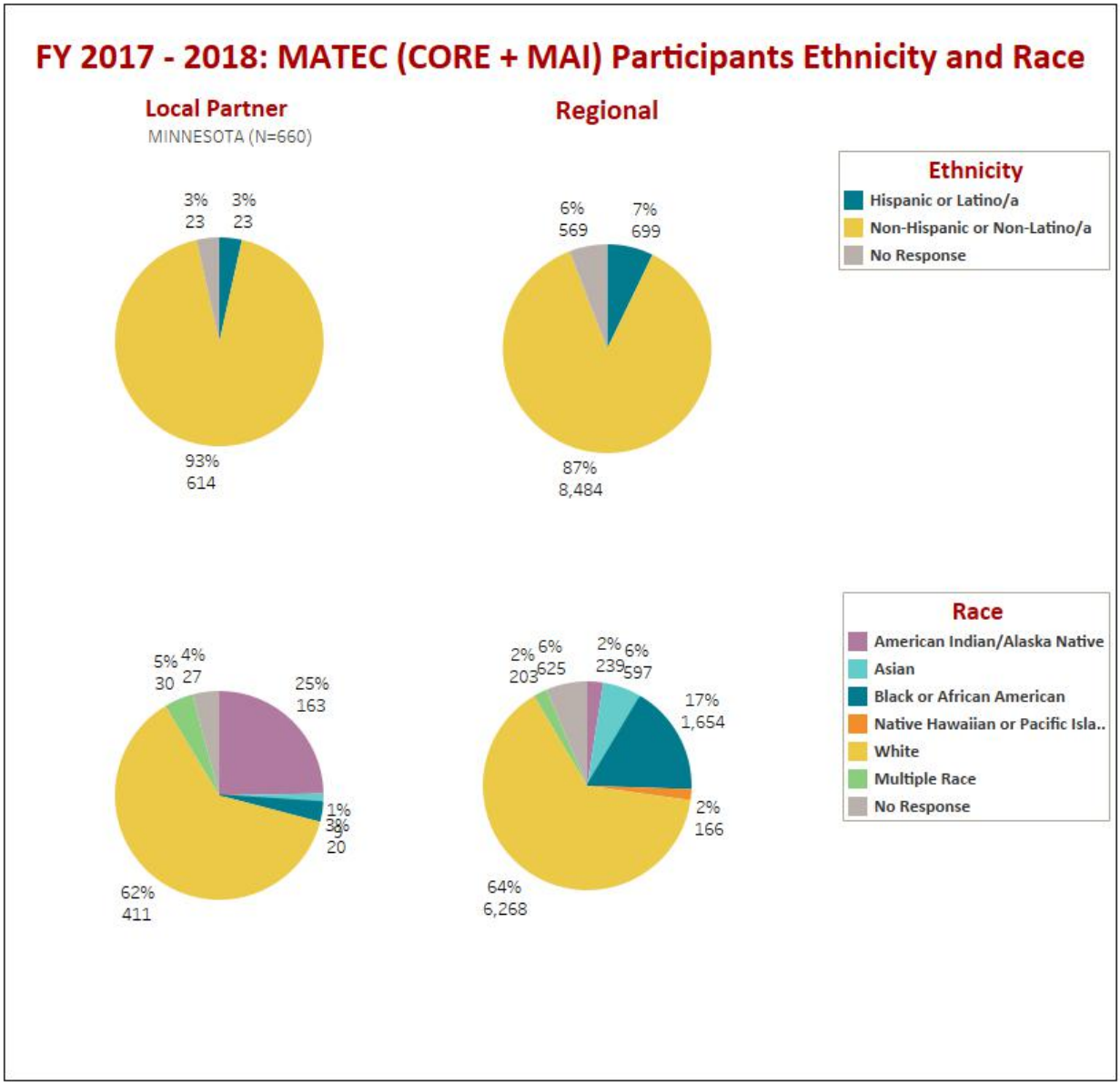


Fig 6: Map of employment zip codes of MATEC trainings who are working in Minnesota