HIV TRAINING NEEDS REPORT FOR IOWA

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 Iowa. 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:

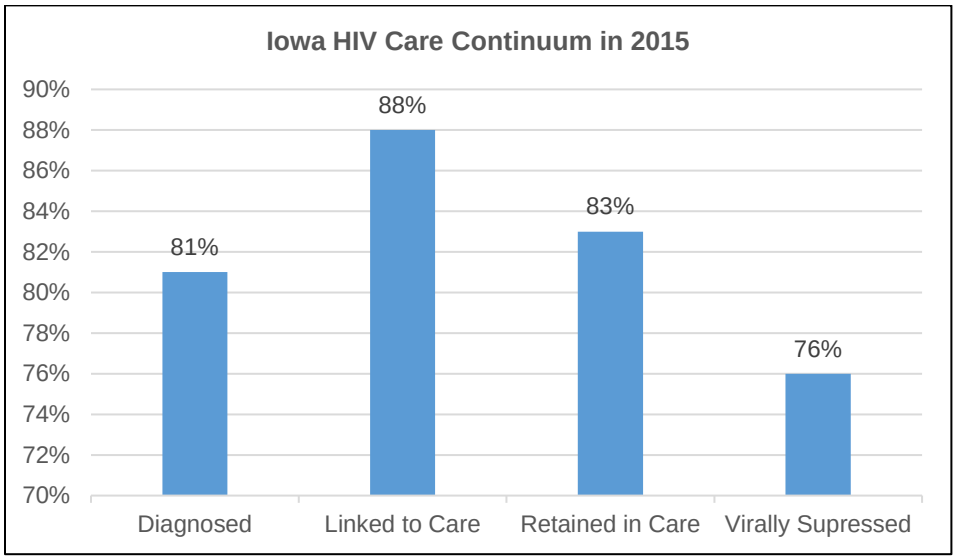
Primary Data Sources	Secondary Data Sources
• Policy Training Advisory Council (PTAC) • Key Informant Interviews with clinical leaders of each state • AETC Local Partner Program Directors	• HIV Integrated Prevention and Care Plans • HIV Surveillance reports from state health departments and CDC • AETC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

Iowa is considered a low incidence state in the Midwest AETC region and accounts for only 2% of the HIV prevalence rate as of 12/31/15, and 3% of new HIV diagnoses in 2016 (Appendix, table 1). Iowa lacks a strong epicenter of HIV and most medical providers fall below the CDC testing guidelines threshold for testing. This is illustrated by the fact that 70% of PLWH in Iowa live in 10 mid-sized cities with the remaining 30% living in rural areas. The unique epidemiology of having HIV spread throughout the entire state rather than concentrated in a few urban areas is intertwined with migration dynamics caused by meat-packing plants, which are located throughout the state. This leads to challenges in the distribution of services, with many PLWH having to travel to reach a provider.

Care Continuum

Iowa's HIV Care Continuum shows that 81% of all PLWH in Iowa are diagnosed as of 2015, which is lower than the national percentage of 85%. Of those that are diagnosed with HIV, 88% are linked to care, 83% were retained in care, and 76% were virally suppressed (compared to 49% for the entire PLWH population in the United States). The percentage of people diagnosed in Iowa is based on the total estimate of HIV-infected individuals, diagnosed and undiagnosed. The percentage of people linked to care, retained in care, and virally suppressed is based on the number of people living with diagnosed HIV.



The State of Iowa's HIV Workforce

Reviewing Iowa'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 Iowa's workforce:

- There is a looming shortage resulting from providers that are retiring as well as high turnover rates at CHC's due to burnout.
- There is a need to focus on targeting students from various health professional programs, including medicine, nurse practitioners, and physician assistants in order to increase the number of graduates from these programs who enter the HIV workforce
- The Clinician Scholars Program has been great for meeting the needs of new providers
- Iowa has seven HIV pharmacists, which is enough to cover the state
- Several urban areas such as Dubuque and Waterloo do not have any HIV providers anymore and depend on outreach clinics that occur once or twice a month.

Training Needs of Low Volume and Novice HIV Providers

The training needs of low volume and novice providers who attended training events in Iowa 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 patients > 55 years old, ART, co-morbidities, drug resistance, and adherence. The discipline breakdown of the respondents helps clarify some of these responses considering that most providers were pharmacists.

Training Needs of Minority/Minority-Serving HIV Providers

The training needs of minority and minority-serving providers who attended training events in Iowa 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 Iowa indicated that they would like more training on drug resistance, HCV co-infection, opportunistic infections, PrEP, and rural populations.

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.

- Clinical providers need to be trained to increase testing, which is lagging behind due to the lack of an HIV epicenter in Iowa.
- Focus of training should be on primary care and family medicine providers
- Pharmacists in community pharmacies should be trained in HIV testing to help reduce the number of PLWH who receive a late diagnosis
- Geographic areas that need training are Burlington, Dubuque, Waterloo, and Ottumwa

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:

- Training in harm reduction strategies including syringe exchange programs to reduce transmission of HIV and HCV among IDUs
- Training for mental health, substance abuse, and social services providers in rural areas to ensure PLWH in these areas remain in care and follow their drug regimens.

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 Iowa:

- Providers need to be trained in how to divide resources to support infrastructure, staff, and supplies in many different areas of the state.
- MATEC-MN should continue to promote the Lifelong Learners Program among Iowa providers.
- Providers need to be trained in special populations that are disproportionally affected by HIV, which include African born, African American, Latinx, MSM, and migrant stream communities. These populations have unique needs that require training in cultural sensitivity, stigma, discrimination, and trauma-informed care.
- 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

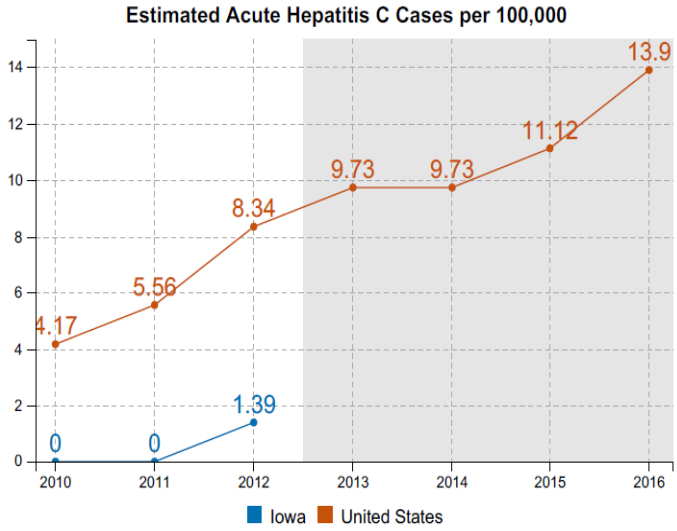
We asked key informants and members of PTAC specific questions about the needs in their state around PrEP and prevention. Based on the information they shared with us, we identified the following needs in Iowa:

- Primary care providers need training in PrEP services to increase their knowledge and comfort level. PrEP uptake in Iowa has been slow due to stigma and fear among providers.
- Providers should be trained in TelePrEP, an innovative program which serves as a gap for people in rural areas who cannot find a PrEP provider. The program includes video consults to patients, labs, and a protocol for a physician to sign off on a prescription for PrEP that can then be filled locally (Dena Dillon is leading this)
- Train outreach liaisons employed by IDPH to spread the word about PrEP throughout the state

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]

Iowa has not been reporting Hepatitis C incidence data to the CDC's surveillance unit since 2013, limiting our ability to characterize Iowa's HCV rate. Through 2012, the incidence rate of HCV infection in Iowa was substantially lower than the national average. A total of 2,287 people in Iowa were diagnosed with HCV in 2016, which is the largest number since reporting began. While the majority of those infected with HCV were born between 1945 and 1965, the number of diagnoses among people under 30 is rapidly increasing due to the expanding number of people who inject drugs related to the opioid epidemic. There are 361 reported cases of HIV and HCV co-infection in Iowa since reporting began in 2000, with 50 co-infected cases diagnoses in 2016.



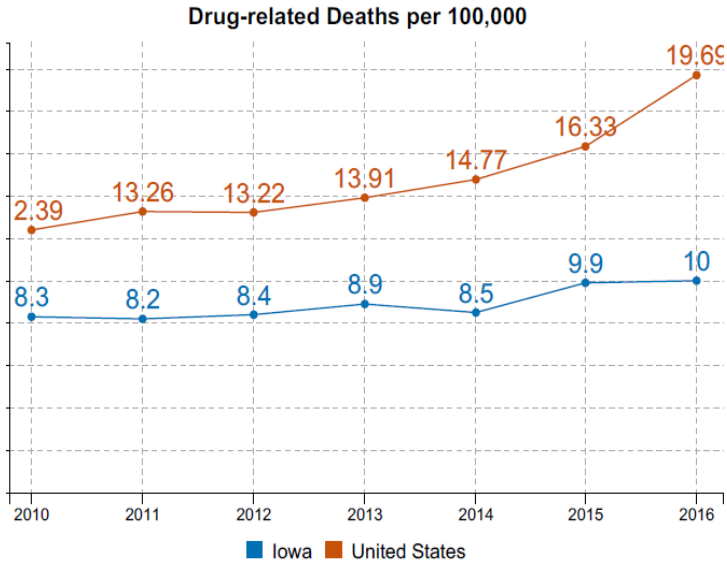
Source: http://opioid.amfar.org

[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.

In 2016, Iowa reported 10 drug-related deaths per 100,000 compared to the national average of 19.69. While prescription opioids are responsible for most opioid abuse disorders in Iowa, other opioids such as heroin and synthetic opioids including fentanyl and its derivatives are on the rise. Iowa currently has 1 syringe exchange program and 28 facilities that provide medication assisted treatment.



Source: http://opioid.amfar.org

Methamphetamine

Similar to other states, methamphetamine is making a resurgence in Iowa. Supply is coming from Mexico rather than local labs and is purer and more potent than the home-cooked methamphetamine that was prevalent ten year ago. From 2011 to 2017, methamphetamine-related deaths in Iowa increased from 12 to 96 deaths, an eight-fold increase. The rate of methamphetamine-related treatment admissions has nearly doubled since 2012. In 2016, more than 6,900 Iowans were admitted for methamphetamine use treatment. The rate of methamphetamine-related treatment admissions increased from 183.4 per 100,000 population in 2012 to 273.9 in 2016.[2] In addition, the Governor's Office of Drug Control Policy released a report in 2016 indicating Iowa's methamphetamine use treatment rate is the 11th highest in the United States, with 26.3% of all admissions for substance abuse treatment reporting methamphetamine as primary, secondary, or tertiary drug of choice (compared to 6.6% nationally).[3]

Since both opioids and methamphetamine can be injected, a possible outbreak of HIV or HCV looms among Iowans who inject drugs. With only one needle exchange program in the entire state, Iowa is ill-equipped to prevent a potential outbreak from happening.

[2] Iowa Department of Public Health, Substance Abuse Brief. June 2018, issue 6.

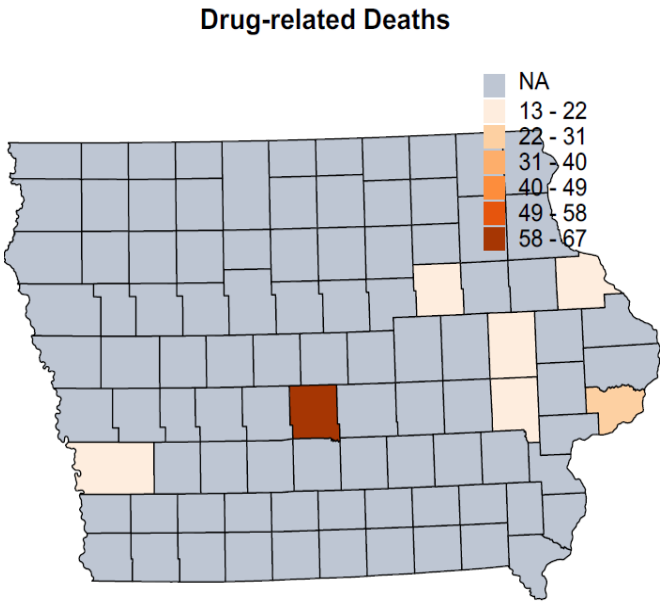
[3] http://www.state.ia.us/odcp/docs/Meth%20Trends%20in%20Iowa%20March%202016%203-1-16.pdf.

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. Iowa 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.

While HIV infection due to IDU is currently not a large problem in Iowa, providers need to remain vigilant that outbreaks can occur as a result of needle sharing among injection drug users.

Rural providers 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

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. Iowa 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**
There are no clinics in Iowa that meet the existing criteria for PT	1. Genesis Infectious Disease Clinic, Davenport 2. Primary Health Care, Des Moines 3. River Hills Community Health Center, Ottumwa 4. Siouxland Community Health Center, Sioux City 5. University of Iowa Hospitals and Clinics, AIDS/HIV Clinic, Iowa City

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

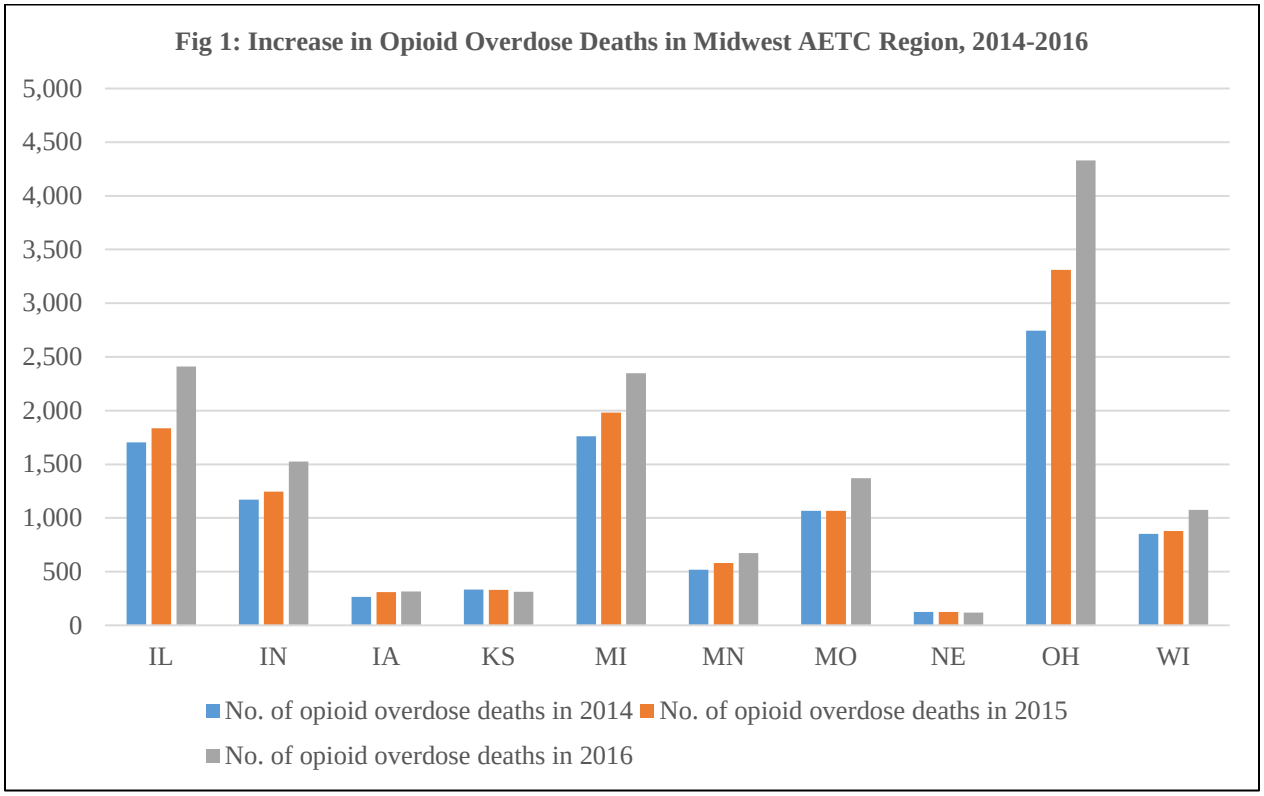
[4] Centers for Disease Control and Prevention, HIV Surveillance Report, Volume 28. Diagnoses of HIV Infection in the United States and Dependent Areas, 2016. https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2016-vol-28.pdf

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

[6] 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

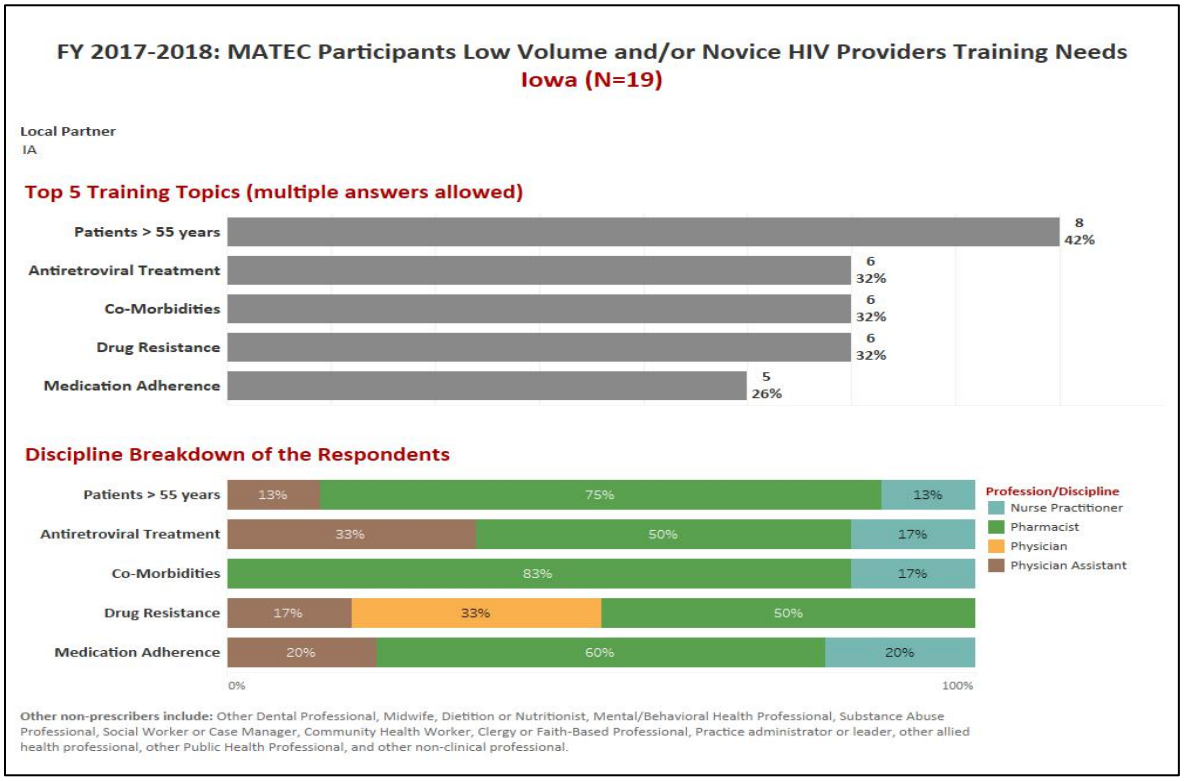


Fig 3: Training Needs of Minority and/or Minority Serving Providers in Iowa during FY 2017-18

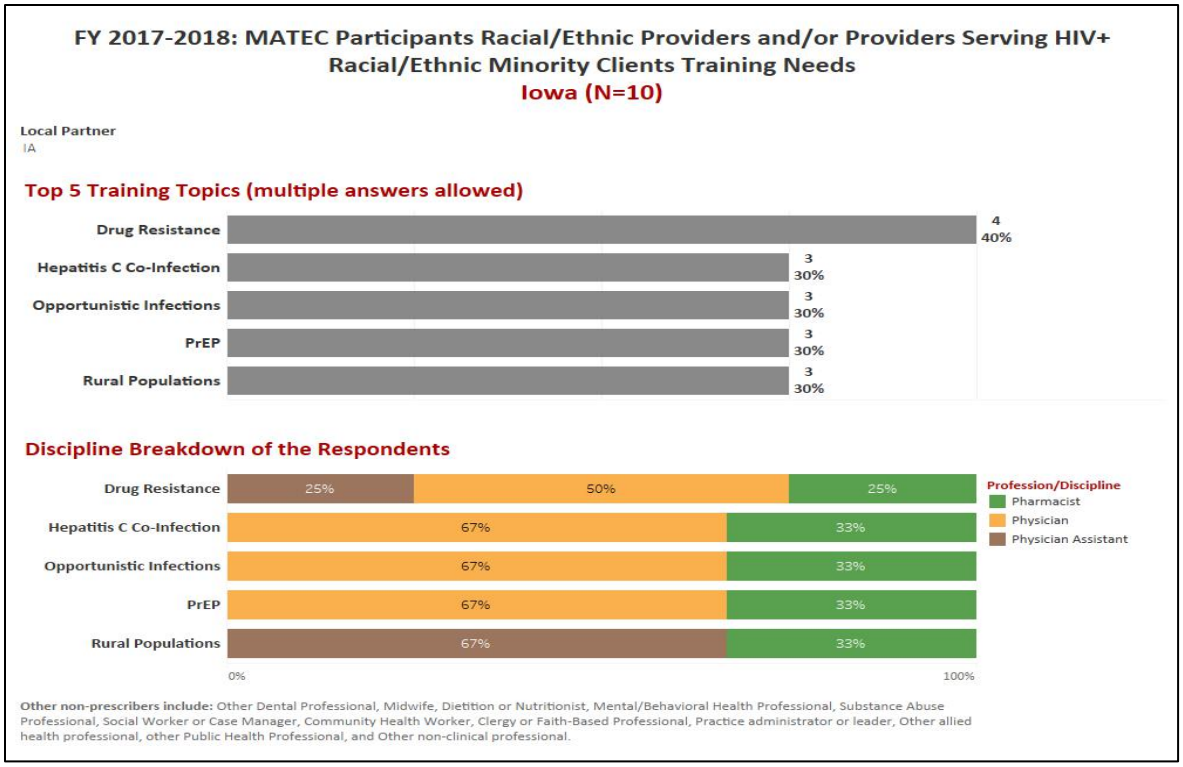


Fig 4: CORE and MAI Participants by Discipline in Iowa and Midwest Region during FY 2017-18

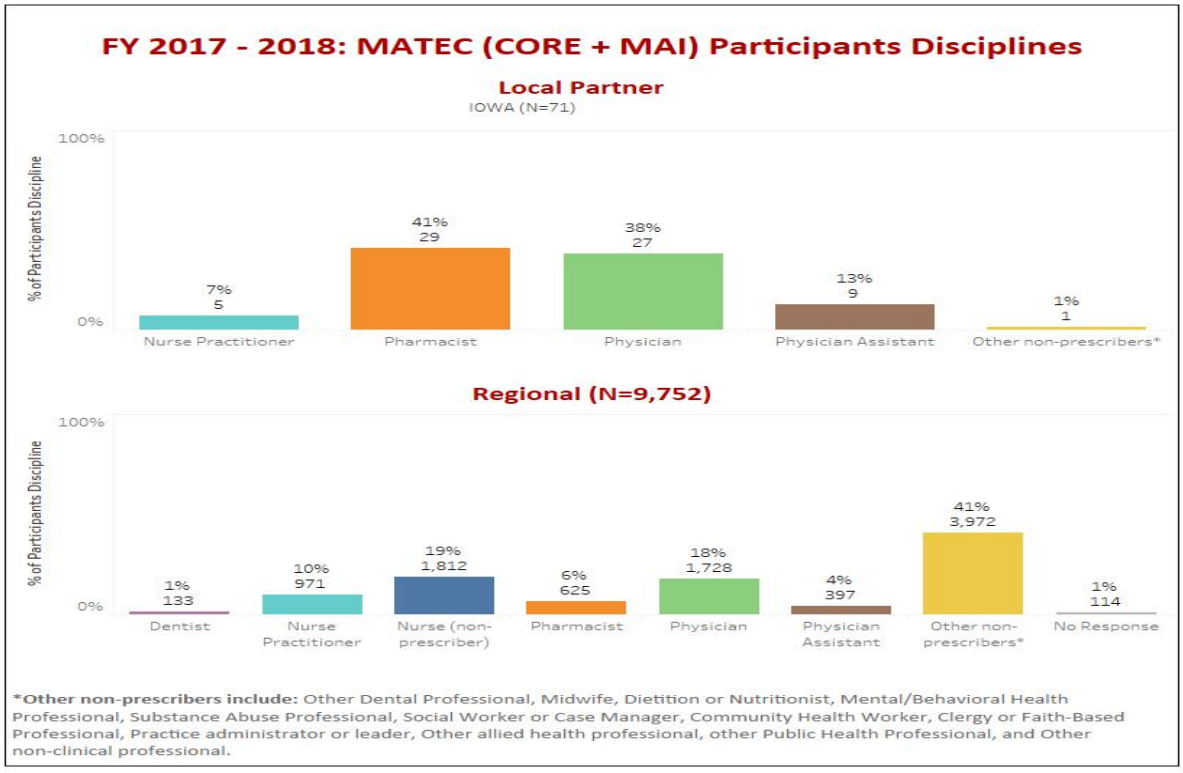


Fig 5: CORE and MAI Participants by Race and Ethnicity in Iowa and Midwest Region during FY 2017-18

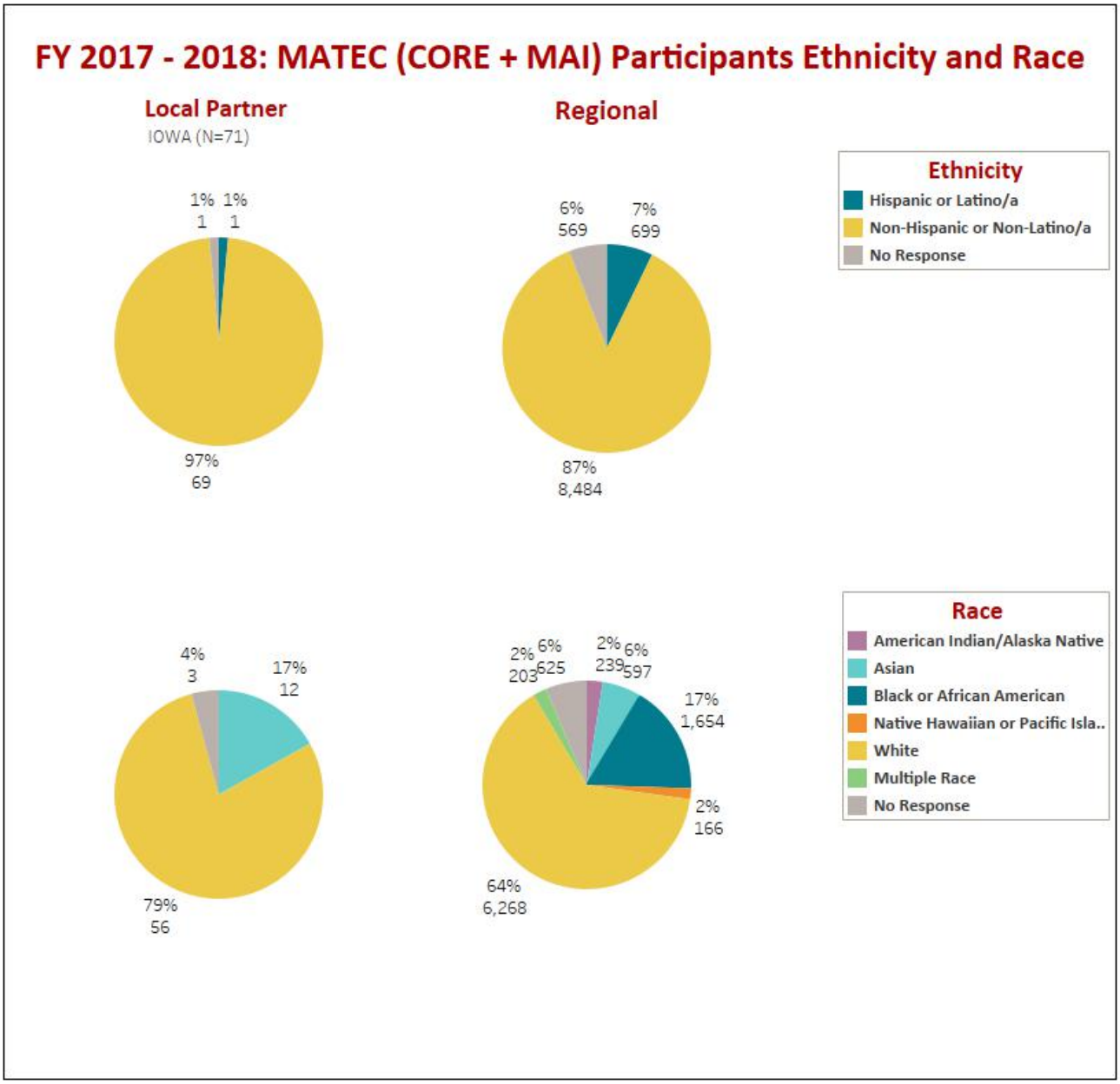


Fig 6: Map of employment zipcodes of MATEC trainings who are working in Iowa