

# HIV TRAINING NEEDS REPORT FOR NEBRASKA

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 Nebraska. 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:

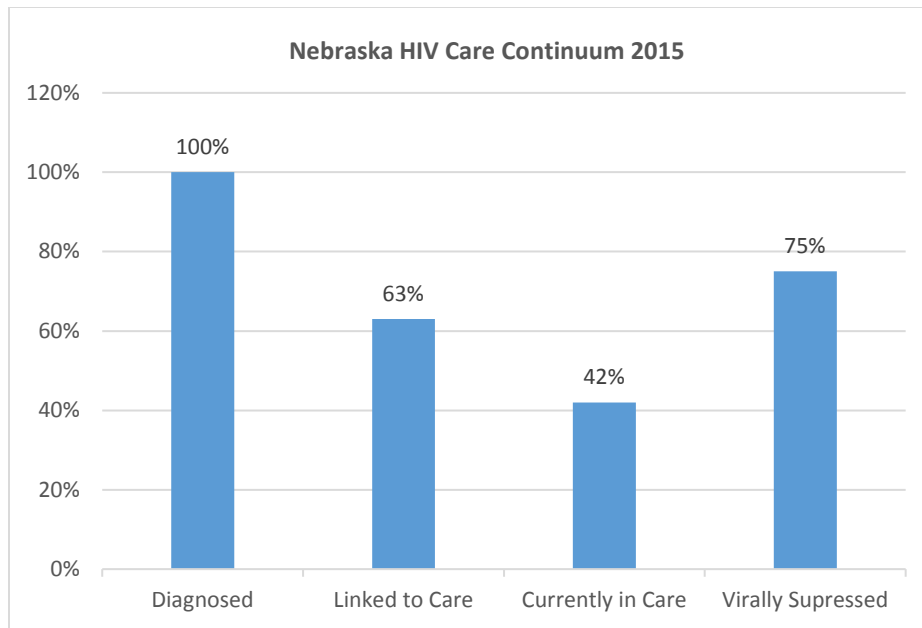
| Primary Data Sources  | Secondary Data Sources   |
|---|--|
| <ul style="list-style-type: none"> <li>• Policy Training Advisory Council (PTAC)</li> <li>• Key Informant Interviews with clinical leaders of each state</li> <li>• AETC Local Partner Program Directors</li> </ul> | <ul style="list-style-type: none"> <li>• HIV Integrated Prevention and Care Plans</li> <li>• HIV Surveillance reports from state health departments and CDC</li> <li>• AETC PIF, ER, and ACRE IP data from FY17-18</li> <li>• CDC Atlas Plus interactive database</li> <li>• amfAR Opioid and Health Indicators database</li> <li>• HRSA Data Warehouse</li> <li>• The Robert Graham Center workforce projections</li> </ul> |

## Epidemiology

Nebraska is considered a low incidence state in the Midwest AETC region, accounting for only 2% of the HIV prevalence at the end of 2015 and 2% of new diagnoses in 2016 (see Appendix, table 1). African Americans are disproportionately affected by HIV and have a prevalence rate that is ten times higher than the rate for whites (see Appendix, table 2).

## Care Continuum

The HIV Care Continuum for Nebraska shows that only 42% of PLWH are in care during the year 2015. Nebraska defines “in care” as having had at least two CD4 and/or viral load lab tests within the last year, which is a possible explanation for why the percentage of PLWH in care is so low on the care continuum. PLWH who had only one lab test are not included in the “in care” percentage, but many of them are still virally suppressed as evidenced by the viral suppression rate of 75% on the care continuum. Nebraska does not include those unaware of being HIV-infected in the denominator of the number of people diagnosed, hence the percentage of diagnosed on the continuum shows as 100%. The percentage of people linked to care is based on those newly diagnosed in 2015.



### The State of the HIV Workforce in Nebraska

Reviewing Nebraska’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 Nebraska’s workforce:

- There is a lack of HIV providers across all professions in western Nebraska. The area is currently being served by traveling physicians from Denver, CO.
- Looming retirement of current providers puts additional pressure on the existing workforce.
- There is a need to recruit a new workforce for HIV care in the Scottsbluff area as many key providers in this area are nearing retirement.
- Burnout is a major factor affecting the HIV workforce.
- Low interested in HIV exists among ID fellows.
- Focus on training NP’s while still in school as there seems to be more interest in HIV among them compared to ID fellows.

### Training Needs of Low Volume and Novice HIV Providers

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

- Providers outside of the areas of Omaha and Lincoln need to be trained in basic HIV knowledge including screening, testing, drug interactions, and primary care for PLWH. This training should be offered in a face-to-face rather than distance-based modality if feasible.
- Rural providers are best trained in HIV in combination with other topics. Staffing a table at a state or public health conference will increase MATEC's visibility with rural providers, but need resources to do this.
- Providers to the AI community need training on HIV testing, STD prevention and treatment, confidentiality, stigma, and available resources for treatment.
- There is a need to train dental providers, but many are not interested in seeing HIV patients.
- Psychiatrists need training in drug-interactions between the drugs they are prescribing for PLWH with mental health issues and these patients' HIV medication.

### **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:

- The non-clinical workforce needs training in understanding that stigma and transportation are two major barriers for PLWH to engage and retain in care.
- Mental health specialists, counselors, and substance abuse specialists need training in mental health and substance abuse issues faced by HIV patients and how this affects their ability to engage in 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 Nebraska:

- Providers need training in how to effectively link HIV-infected individuals to care.
- There is a need for training and supporting organizations in how to strengthen services, expand access to care, and coordinate services.
- Rural primary care providers as well as case managers need training in the type of services available through Ryan White and how patients can access those services.

## Training Needs around Prevention and PrEP

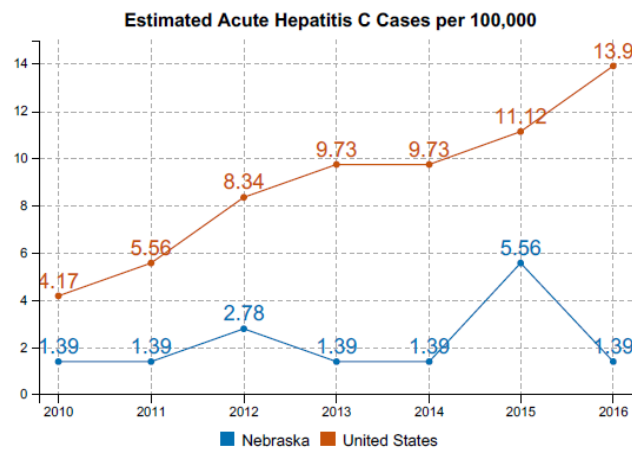
We asked key informants and members of PTAC specific questions about the needs in their state around PrEP and prevention. Based on the information they shared with us, we identified the following needs in Nebraska:

- Providers in the entire state need to be educated in PrEP in order to increase comfort level, reduce stigma, and improve uptake.
- Identify PrEP champions who are willing to take up PrEP, spread the word, and help others who want to implement PrEP.
- Consider a TelePrep program based on the model that is being used in Iowa.

## 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.<sup>1</sup>

The HCV infection rate in Nebraska is the lowest in the Midwest region at 1.39 cases per 100,000, which is well below the national average of 13.9. However, providers need to be aware of HCV and HCV/HIV co-infection, how to treat it, and how to identify the population most at risk for it.

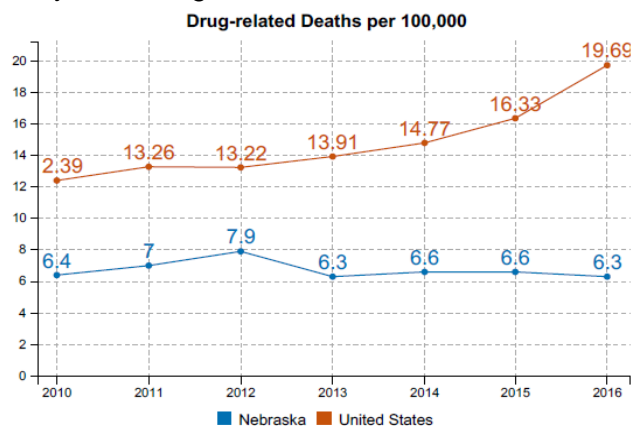


Source: <http://opioid.amfar.org>

## 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.

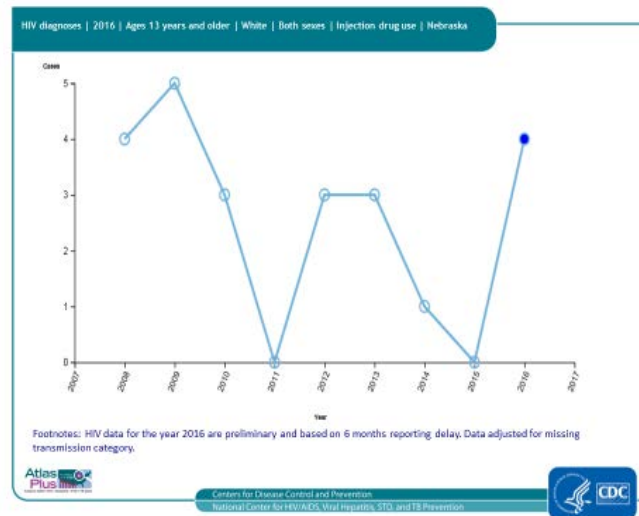
The number of drug-related deaths in Nebraska has remained stable during the time period 2010-2016 and remains well below the national average. Nebraska has the lowest rate of drug-related deaths in the 10-state Midwest region.



Source: <http://opioid.amfar.org>

<sup>1</sup> [https://www.cdc.gov/hiv/pdf/library\\_factsheets\\_HIV\\_and\\_viral\\_Hepatitis.pdf](https://www.cdc.gov/hiv/pdf/library_factsheets_HIV_and_viral_Hepatitis.pdf)

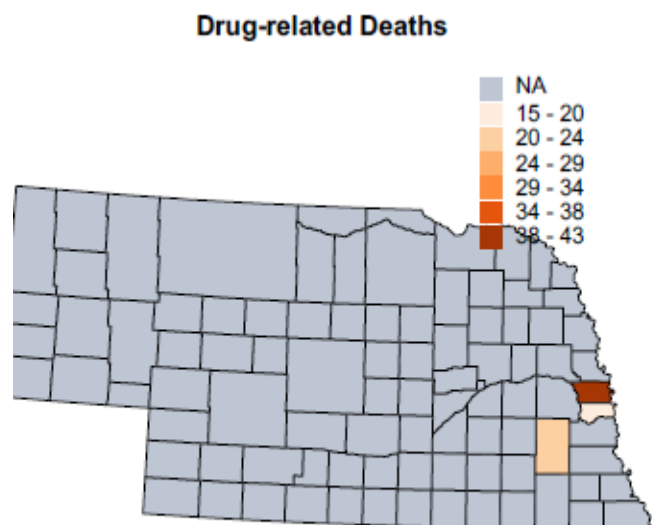
The number of HIV infections among white injection drug users in Nebraska has been on the rise since 2015, although the overall number remains relatively low with 4 new diagnoses in 2016. However, the opioid epidemic stresses the importance to raise awareness among providers of the risk of HIV and HCV infections among injection drug users. If an outbreak were to occur, Nebraska is ill-prepared, as the state currently does not have any syringe exchange programs and only 19 facilities that provide some medication assisted treatment.



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. Nebraska 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. Nebraska should remain vigilant for outbreaks due to worsening of the opioid epidemic, increases in HCV infections among the general population, and increase in HIV infection among white injection-drug users. **Rural providers should be trained in screening, testing, prevention, and 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. Nebraska 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. Midtown Health Center in Norfolk              | 1. East-Central District Health Department in Columbus  |

*“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**

| State   | Population as of 12/31/2015 |   | HIV Prevalence as of 12/31/2015          |  | HIV Incidence in 2016            |  |
|---------|-----------------------------|---|--|--|----------------------------------|--|
|         | 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 <sup>2</sup> | # of Ryan White providers as of December 31, 2015 <sup>3</sup> | # of CHCs providing clinical HIV care as of December 31, 2015 <sup>2</sup> | # of unique facilities or providers reporting CD4 and viral load in 2015 <sup>4</sup> |
|-----------------|---|--|--|---|
| 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<br>1,321 providers   |

<sup>2</sup> 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>

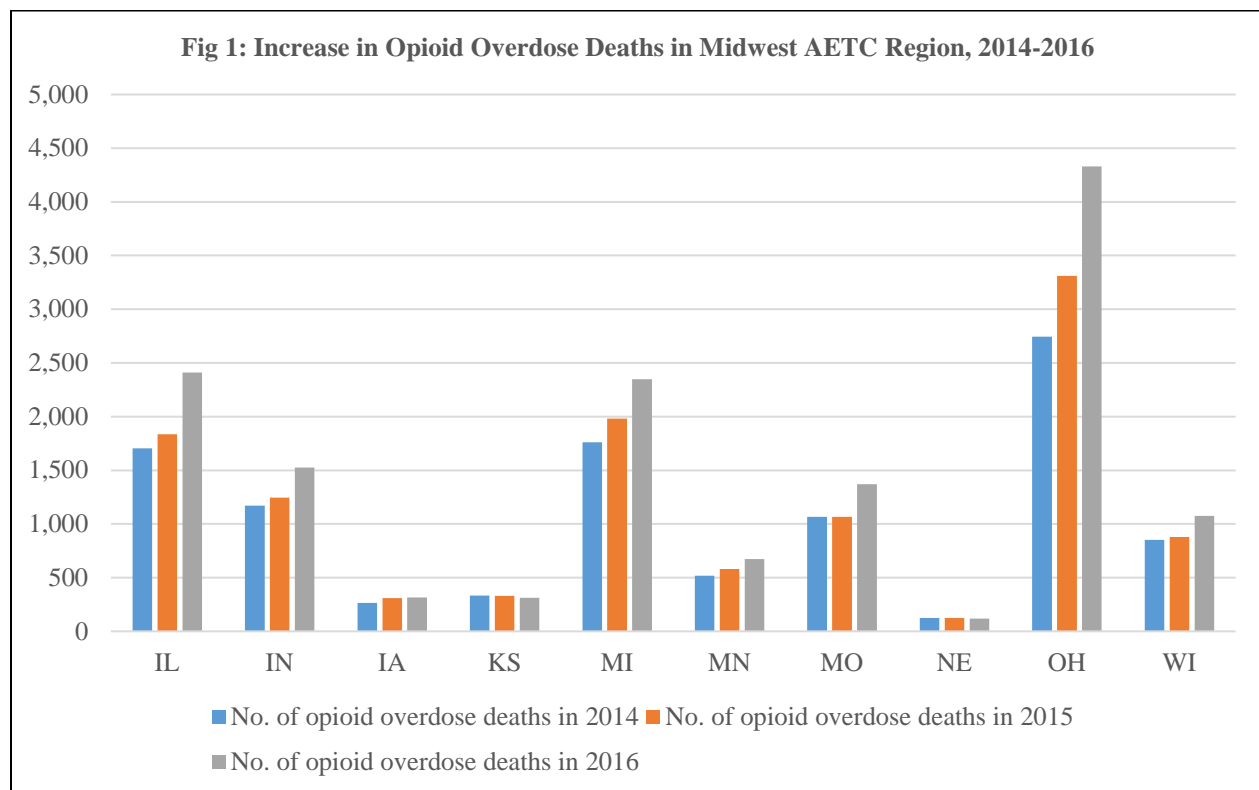
<sup>3</sup> Health Resources and Services Administration, Data Warehouse. Accessed 4/9/2018. <https://datawarehouse.hrsa.gov>

<sup>4</sup> 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                          |

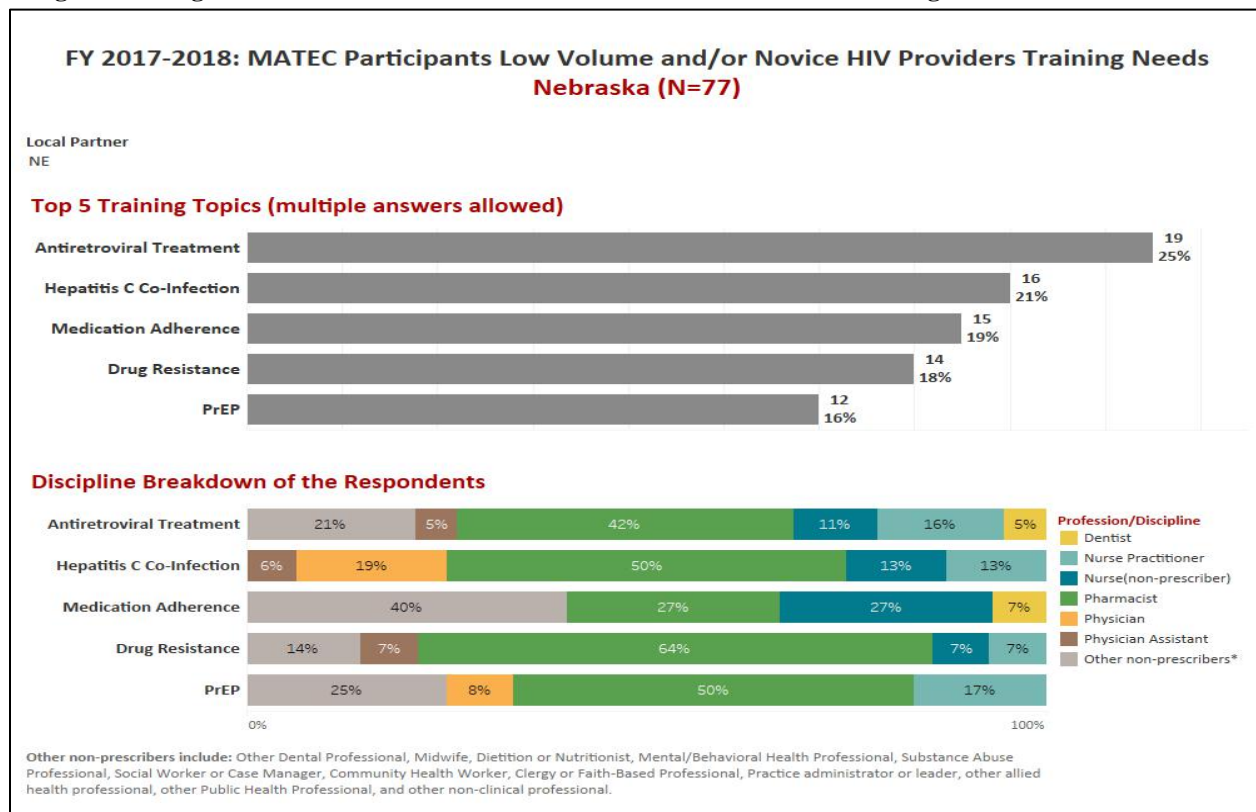
<https://www.graham-center.org/rgc/publications-reports/browse-by-topic/workforce.html>

**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**

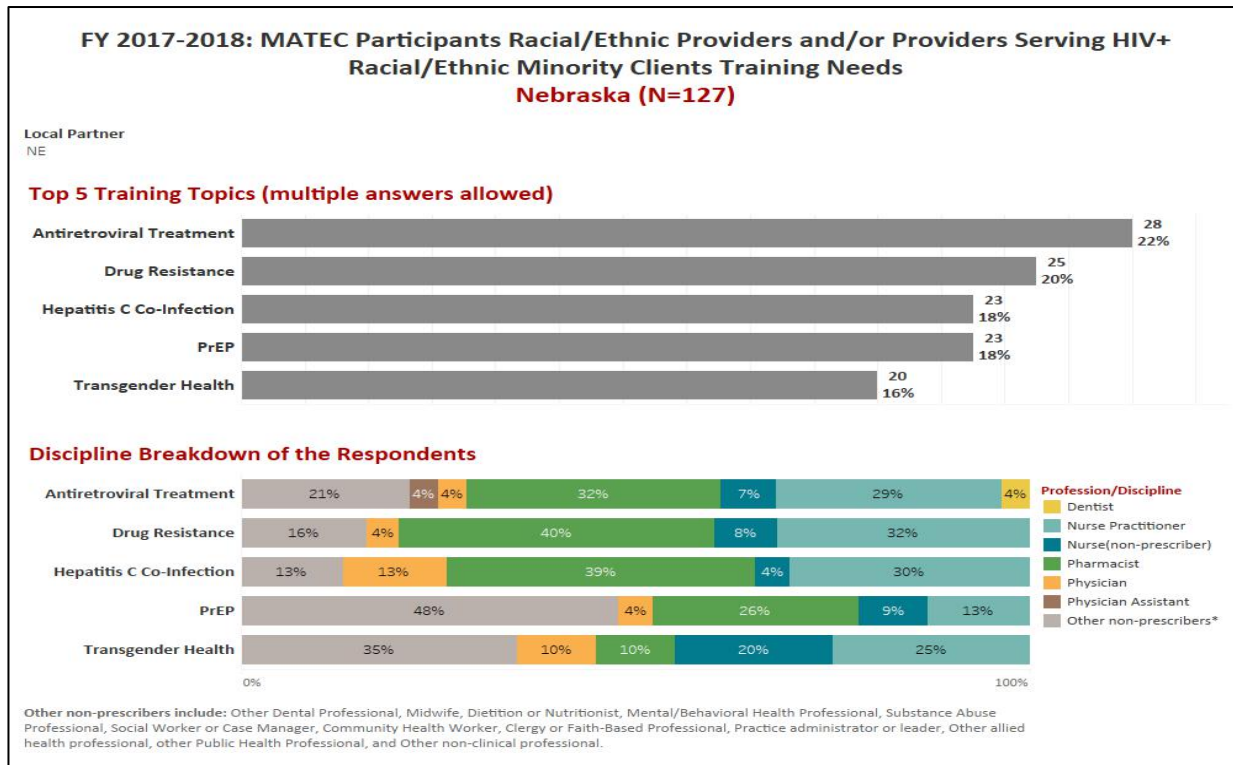
| Region/ State | Population Estimate as of 1/7/2017 <sup>1</sup> | Number of HPSAs for Primary Care (as of 4/4/2018) | Number of MUAs (as of 4/4/2018) | Number of MUPs (as of 4/4/2018) |
|---------------|---|---|---------------------------------|---------------------------------|
| United States | 325.7 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                               |

<sup>1</sup> 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 Nebraska during FY 2017-18**



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



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

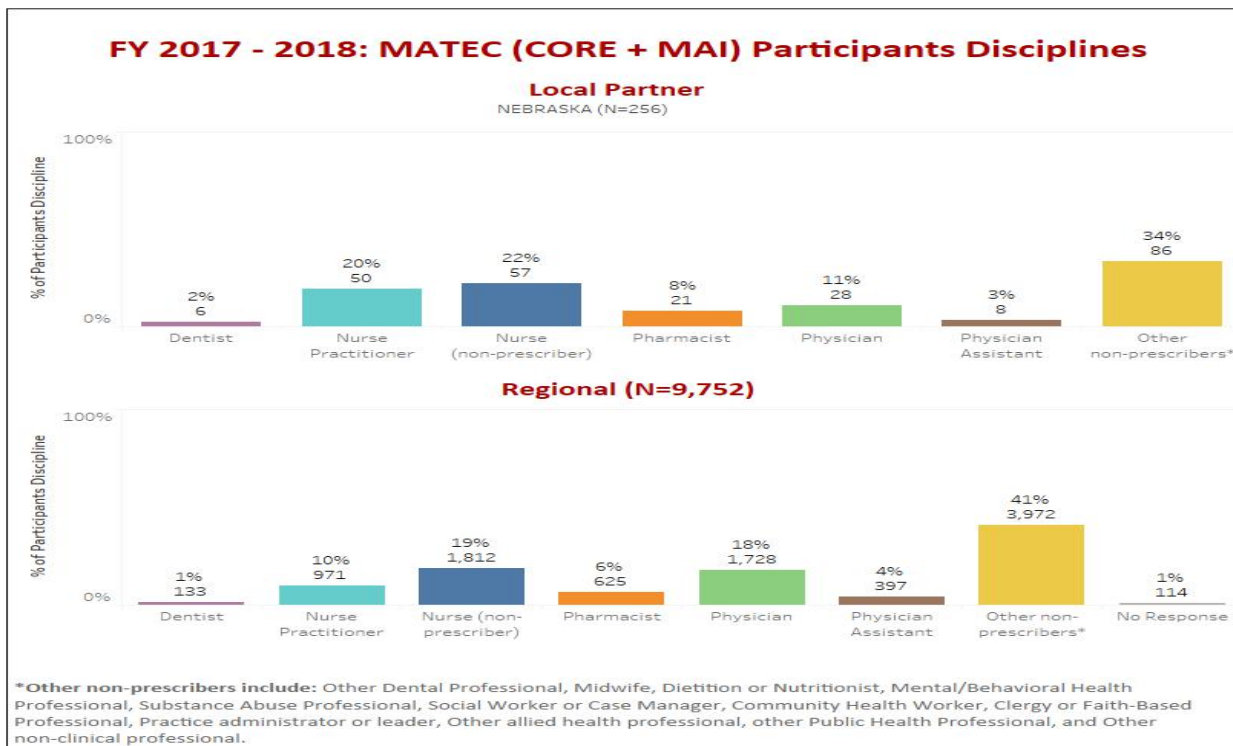


Fig 5: CORE and MAI Participants by Race and Ethnicity in Iowa and Midwest Region during FY 2017-18

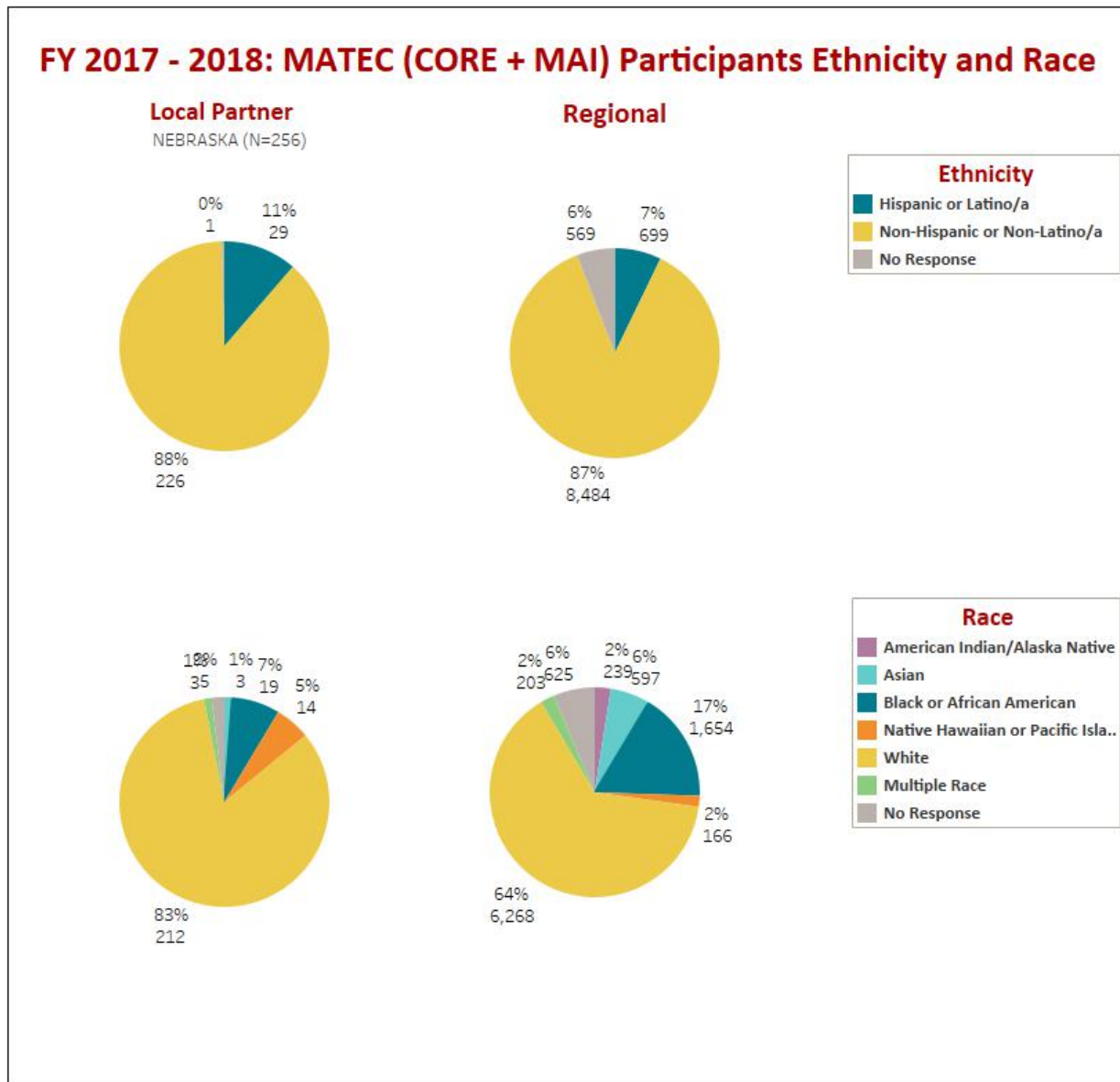


Fig 6: Map of employment zip codes of MATEC trainings who are working in Nebraska

