

## **Section 3: Special Questions and Considerations for Ryan White HIV/AIDS CARE Act Grantees**

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Section 3 presents patterns of utilization of the 2009 Ryan White HIV/AIDS Treatment Extension Act (RWHATEA) funded HIV/AIDS services by HIV-infected persons in Ohio during 2014. The analyses are based upon demographic characteristics of clients and the types of services accessed.

**Question 1: Using epidemiologic and related health data, what is the impact of the care and treatment services of the Ryan White HIV/AIDS Programs on people living with HIV?**

**Question 2: What are some things to keep in mind as a Ryan White HIV/AIDS Program grantee prepares the epidemiologic profile document for HRSA's HIV/AIDS Bureau?**

**Question 1**

**Using epidemiologic and related health data, what is the impact of the care and treatment services of the Ryan White HIV/AIDS Programs on people living with HIV?**

## Overview of the Ryan White Treatment Extension Act

According to the Health Resources and Services Administration (HRSA), the RWHATEA of 2009 (Public Law 111-87, October 30, 2009) is federal legislation that addresses the unmet health needs of people living with HIV/AIDS by funding primary health care and support services that enhance access to and retention in care. First enacted by Congress in 1990, the act was amended and reauthorized in 1996, 2000, 2006 and again in 2009. Services funded by the RWHATEA aim to reduce medical costs, increase access to care for underserved populations and improve the quality of life for those living with HIV/AIDS. The Ryan White HIV/AIDS Program (RWHAP) implements the RWHATEA and works toward these goals by appropriating funds to local and state programs that provide primary medical care and support services; assisting with healthcare provider training; and by providing technical assistance to help funded programs address implementation and emerging HIV care issues.

The RWHAP Parts are:

### Ryan White Part A

Ryan White Part A allocates emergency assistance funds directly to urban areas hit hardest by the HIV/AIDS crisis. To be an Eligible Metropolitan Area (EMA), a region must have reported more than 2,000 AIDS cases in the most recent five years and have a population of at least 50,000. To be eligible as a Transitional Grant Area (TGA), an area must have reported at least 1,000 but fewer than 2,000 new AIDS cases in the most recent five years. Historically, Ohio has had one Part A, Cleveland, since April 1, 1996. With the 2006 reauthorization, Cleveland's eligibility changed from that of an EMA to a TGA. The Cuyahoga County Board of Commissioners is the designated grantee for Part A funding in the Cleveland TGA, which includes Lake, Cuyahoga, Lorain, Medina, Geauga and Ashtabula counties in the northeastern geographical area of the state. In 2013 Columbus was designated a TGA, which includes Union, Delaware, Licking, Fairfield, Pickaway, Franklin, Madison, and Marrow counties. The City of Columbus is the designated grantee for Part A funding in the Columbus TGA. In each TGA, a planning council works in partnership with the grantee to assess service needs of people living with HIV/AIDS (PLWHA) in the region, to develop a continuum of care and to establish resource allocation priorities. Representatives of city government, consumers, other RWHAP-funded agencies and representatives of Part B are all included in planning council memberships. Services provided through Part A to PLWHA in the both Ohio TGAs include basic care needs such as housing, nutrition, and transportation, as well as medication, laboratory and primary care or HIV-specific medical services, mental health or substance abuse treatment, child care and dental care.

### Ryan White Part B

Ryan White Part B provides financial assistance to all 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands and five U.S. Pacific territories and associated jurisdictions to enable them to provide a variety of services for individuals living with HIV infection and their families. In Ohio, Part B funds are administered by the HIV Care Services Section (HCS) at the Ohio Department of Health (ODH).

Part B funds, centrally managed at ODH, ensure the availability of local medical case management services along with the Ohio HIV Drug Assistance Program (OHDAP) The Ohio case management model is based upon the principle that linking PLWHA to ambulatory and community-based services is vital to an effective community response. The HIV Care Services (HCS) Section at ODH assures provision of services through activities such as facilitating

collaboration among service providers, identifying gaps in available medical care, and actively recruiting healthcare providers. Primary medical care is provided through authorized Part B providers who are reimbursed for covered services rendered to eligible clients. Part B case managers help ensure clients can access appropriate care and assist clients with maintaining medication adherence and consistent medical care over time. In addition, personnel in HIV Care Services cooperate with ODH HIV/STD Prevention services to ensure maintenance of linkage-to-care collaboration with CDC-funded prevention initiatives.

A portion of Part B funds are set aside for a state AIDS Drug Assistance Program, which provides medications for the treatment of HIV and AIDS-associated conditions. Through this earmark funding, OHDAP provides medications related to HIV infection for persons living with HIV who are unable to obtain medications through any other source. Medications covered under this program are limited to those included in the formulary designated by the Part B Advisory Group comprised of physicians, nurses, social workers, pharmacists and consumers. Within HCS, the OHDAP staff also administers the Health Insurance Premium Payment (HIPP) and Medicaid Spenddown Payment Programs to assist low-income individuals living with HIV to pay premiums, medication co-payments and to meet deductibles and spenddowns. Additional data, including data related to OHDAP and case management are available on the Ohio Department of Health Website and also upon request by calling HCS at (614) 466-6374.

### **Ryan White Part C**

Ryan White Part C funds fall into three categories: the Capacity Development Grant Program, the Planning Grant Program and Early Intervention Services (EIS). The Part C Capacity Building Grant program funds eligible entities for a fixed period of time (one to three years) in their efforts to strengthen their organizational infrastructure and enhance their capacity to develop, enhance or expand high quality HIV primary health care services in rural or urban underserved areas and communities of color. In 2015, two agencies received funding for Part C Capacity development; AIDS Resource Center Ohio and the Research Institute at Nationwide Children's Hospital. Part C EIS funds comprehensive primary health care for individuals living with HIV disease. In 2015, there were eight agencies receiving EIS funds; The Ursuline Center, The Cincinnati Health Network, Care Alliance, University Hospitals of Cleveland, AIDS Resource Center Ohio, Research Institute at Nationwide Children's Hospital, the Portsmouth Health Department, and the University of Toledo. Part C services include: risk-reduction counseling on prevention, antibody testing, medical evaluation, and clinical care; antiretroviral therapies; protection against opportunistic infections; and ongoing medical, oral health, nutritional, psychosocial, and other care services for HIV-infected clients; case management to ensure access to services and continuity of care for HIV-infected clients; and attention to other health problems that occur frequently with HIV infection, including tuberculosis and substance abuse.

### **Ryan White Part D**

Grantees of Part D funds specifically address the needs of the populations of women, infants, and children affected by HIV/AIDS by providing them with enhanced access to care, as well as clinical trials and research. There are two agencies receiving Part D funds in the state of Ohio: the University of Toledo Medical Center and University Hospitals of Cleveland. These agencies improve and expand comprehensive care services to increase access for HIV/AIDS-affected women, infants, children, and youth in a comprehensive, community-based, and family-centered system of care that is linked to research.

### **Ryan White Part E**

Part E of the Ryan White HIV/AIDS Program (RWHAP) gives the Secretary of HHS the authority to use up to 5 percent of supplemental funds appropriated under Parts A and B for addressing the needs of public health emergencies, such as aiding people requiring HIV/AIDS care and treatment in disaster areas.

### **Ryan White Part F**

This portion of the RWHAP encompasses the AIDS Education and Training Centers (AETC) Program, the Dental Reimbursement Program and the Special Projects of National Significance (SPNS) Grant Program. Considered the research and development arm of the RWHATEA, SPNS grants fund innovative models of care and support the development of effective delivery systems for HIV care.

The AETC is a network of 11 regional centers (and more than 70 associated sites) that train health care providers to treat persons with HIV/AIDS. The Mid-West AETC covers the region to which Ohio belongs, with two local performance sites: The Ohio State University and the University of Cincinnati. The program goal is to increase the number of health care providers who are educated and motivated to counsel, diagnose, treat, and medically manage individuals with HIV infection and to help prevent high risk behaviors that lead to HIV transmission. Training targets health care providers who serve minority populations, the homeless, rural communities, incarcerated persons, and RWHAP-funded sites. Clinicians trained by AETCs have been shown to be more competent with regard to HIV issues and more willing to treat persons living with HIV than other primary care providers.

The HIV/AIDS Dental Reimbursement Program of the RWHAP supports access to oral health care for individuals living with HIV infection, by reimbursing dental education programs for non-reimbursed costs incurred in providing such care. Ohio has one Dental Reimbursement Program, located at Case Western Reserve University in Cleveland. This program supports access to oral health care for individuals with HIV infection by reimbursing dental education programs for non-reimbursed costs incurred in providing such care, including diagnostic, preventive, oral health education and health promotion, restorative, periodontal, prosthodontic, endodontic, oral surgery, and oral medicine services.

# Ryan White HIV/AIDS Treatment Extension Act - 2014 Data

## 1. Source of Data for this Section

This section uses two sources:

- I. HIV/AIDS Surveillance data
- II. All-Parts Quality Management Database

The detailed description of Ohio's HIV/AIDS Surveillance can be found in the surveillance section of the profile. The All-Parts Quality Management Database is a central repository for the data from all the Ryan White Grantees in Ohio. It is currently hosted in the HIV Care Services (HCS) Program at the Ohio Department of Health (ODH) on behalf of the Ohio All-Parts Group (a.k.a. Ohio H4C Response Team). The Ryan White program at ODH is supported by Part B funds and maintains database systems containing client-level data—the same type of data that is required for the Ryan White Services Report (RSR). CAREWare is the system used to maintain to All-Parts Quality Management Database and Ryan White partners submit data to HCS retroactively so that data can be analyzed for care continuum data points, QI projects and performance measurement.

The development of the All-Parts Quality Database has greatly facilitated in the preparation of the HIV Care section of the *Epidemiologic Profile* for the state. In the 2015 edition of the *HIV/AIDS Integrated Epidemiologic Profile for Ohio*, pattern of service utilization for HIV-infected persons was based on data collected from nine Ryan White HIV/AIDS grantees, representing all the Ryan White Parts in Ohio.

## 2. Data Analysis

The goal of the Care Section of the *HIV/AIDS Integrated Epidemiologic Profile for Ohio* is to:

1. Describe the clients that accessed (or utilized) the Ryan White services in Ohio during calendar year 2014.
2. Analyze and describe the services utilized by Ryan White Program clients in Ohio during the calendar year 2014.
3. Analyze and describe the key health outcomes for the Ryan White Program clients in Ohio during calendar year 2014.
4. Estimate and describe the unmet need for HIV primary care among person living with diagnosis of HIV infection in Ohio for calendar year 2013.
5. Describe the groups with special needs and estimate the unmet need for HIV primary care in the said groups for calendar year 2013.

### **(a) Who Is Utilizing Ryan White Services?**

The demographic characteristics including age, ethnicity and race, sex, household income at the end of reporting period, HIV/AIDS status of each client at the end of reporting period and the housing status of each client at the end of reporting period are described for the clients utilizing Ryan White Services.

**Table 115. People living with a diagnosis of HIV served by Ryan White Programs as of December 31, 2014, by selected demographics, Ohio**

Characteristic	No.	%
<b>Gender</b>		
Males	7156	76.6
Females	2080	22.3
Transgender	110	1.2
Unknown/Unreported	0	0.0
<b>Age at the end of Reporting Period (year)</b>		
Under 2 years	50	0.5
2-12 years	42	0.5
13-24 years	655	7.0
25-44 years	3803	40.7
45-64 years	4510	48.3
65 years or older	286	3.1
Unknown/Unreported	0	0.0
<b>Race/Ethnicity</b>		
White, not Hispanic	4080	43.7
Black/African American, not Hispanic	4489	48.0
Hispanic/Latino	552	5.9
Asian/Pacific Islander	49	0.5
More than one race reported	123	1.3
American Indian/Alaska Native	17	0.2
Unknown/Unreported	36	0.4
<b>Household Income at the end of Reporting Period ( as % of FPL)</b>		
≤ 100% of FPL	4347	46.5
101-138% of FPL	670	7.2
139-200% of FPL	912	9.8
201-300% of FPL	1005	10.8
>300 of FPL	356	3.8
Unknown/Unreported	2056	22.0
<b>HIV/AIDS Status at the end of Reporting Period</b>		
HIV Positive, not AIDS	4805	51.4
HIV Positive, AIDS status unknown	1602	17.1
CDC defined AIDS	2890	30.9
HIV Indeterminate (under age 2)	49	0.5
<b>Housing Status/Living arrangements at the end of Reporting Period</b>		
Stable/Permanent	7593	81.2
Non Permanently Housed	833	8.9
Institution	103	1.1
Other	9	0.1
Unknown/Unreported	808	8.7
<b>Total</b>	<b>9346</b>	

Notes:

Source: Ohio Department of Health HIV Care Services Program. Data reported through December 31, 2014.

The total number of HIV-positive clients who utilized services provided by Ryan White Programs in Ohio during calendar year 2014 was 9,346. This included 7,156 (76.6 percent) male clients, 2,080 (22.3 percent) female clients and 110 (1.2 percent) transgender clients. Most of the clients served by Ryan White Programs in Ohio were between 25 to 64 years of age at the end of reporting period. This group accounts for 89 percent of all the clients served by Ryan White Programs during the reporting period. Ryan White Programs served 4,489 (48.0 percent) Black/African American clients, 4,080 (43.7 percent) White clients and 552 (5.9 percent) Hispanic/Latino clients. There were 123 (1.3 percent) Ryan White clients who reported more than one race and 36 (0.4 percent) Ryan White clients with unknown or unreported race served during the reporting period. The remaining race categories account for <1 percent of clients served by Ohio's Ryan White Programs during the reporting period (**Table 115**).

Analysis of the most recent household income shows that 4,347 (46.5 percent) clients served by the Ryan White Programs during the reporting period were at or below 100 percent of Federal Poverty Level (FPL), 670 (7.2 percent) clients were between 101 percent and 138 percent of FPL and 2,273 (24.3 percent) clients were at or above 138 percent of FPL. The prevalence of unknown or unreported data for Ryan White Client's household income was high, with 2,056 (22 percent) clients with no data reported at the end of reporting period.

Also 4,805 (51.4 percent) clients served by the Ryan White Programs in Ohio had a HIV/AIDS disease status of HIV Positive, not AIDS; 2,890 (30.9 percent) clients served by the Ryan White Programs in Ohio had a HIV/AIDS disease status of CDC-defined AIDS; 1,602 (17.1 percent) clients served by the Ryan White Programs in Ohio had a HIV/AIDS disease status of HIV Positive, AIDS status unknown; and 49 (0.5 percent) clients served by the Ryan White Programs in Ohio had a HIV/AIDS disease status of HIV Indeterminate (under age 2) at the end of reporting period. The data for Housing status/Living arrangement shows that, 7,593 (81.2 percent) clients reported stable housing as their current housing status, 833 (8.9 percent) clients reported non-permanent housing as their current housing status, 111 (1.2 percent) clients reported institution or other as their current housing status, and 770 (8.7 percent) clients reported no data on their current housing status by the end of reporting period. The data on the insurance status of Ryan White clients was not analyzed and described. We had initially planned to include the data but after performing simple analysis, we realized issues with the validity of data. We are working diligently towards fixing the issues and plan to include the insurance status of Ryan White Clients in future reports (**Table 115**).

The clients utilizing Ryan White Services and people living with a diagnosis of HIV infection have similar proportional distribution of various demographic characteristics. Comparing the distribution of gender, age, race and other demographic factors, we do not find any differences between the people who are living with diagnosis of HIV infection in Ohio and those who are utilizing Ryan White Services.

***(b) How were clients exposed to HIV?***

Table 116 summarizes the risk factor/exposure categories for HIV reported by clients served by Ryan White Programs of Ohio during the calendar year 2014. The categories are mutually exclusive and the clients with more than one mode of exposure to HIV are counted in the risk factor/exposure category that appears first in the hierarchy, except for males with a history of both sex with men and injection drug use. They are counted in the separate category, 'MSM and IDU'.

**Table 116. Clients served by Ryan White Programs as of December 31, 2014, by HIV risk factors/exposure category, Ohio**

<b>Risk Factor/Exposure Category<sup>a</sup></b>	<b>No.</b>	<b>%</b>
Male-to-male sex (MSM) only	5355	57.3
Injection drug use (IDU) only	304	3.3
Heterosexual contact only	3103	33.2
MSM & IDU	46	0.5
Hemophilia/coagulation disorder	13	0.1
Receipt of transfusion of blood, blood components or tissue	64	0.7
Perinatal exposure	183	2.0
Other/unknown	278	3.0
<b>Total</b>	<b>9346</b>	

*Notes:*

<sup>a</sup>Risk Factors are mutually exclusive risk categories. Clients with more than one reported mode of exposure to HIV are counted in the exposure category listed first in the hierarchy, except for males with a history of both sex with men and injection drug use. They are counted in the separate category, 'MSM and IDU'.

*Source:* Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

The most common risk factor/exposure category reported was the history of men having sex with men, which accounts for 5,084 (57.7 percent) clients served by Ryan White Programs in Ohio. The second most commonly reported risk factor/exposure category in the clients served by Ryan White Programs was heterosexual contact, which was reported as a risk factor/exposure category by 2,879 (32.7 percent) clients. There were 285 (3.2 percent) clients who reported injection drug use as their risk factor/exposure category, 37 (0.4 percent) clients reported history of men having sex with men and injection drug use as their risk factor/exposure category and 278 (3.0 percent) of the clients had no risk factor/exposure category reported. The remainder of risk factor/exposure category account for <1 percent of the clients served by Ryan White Programs in Ohio.

**(c) Which Ryan White Services Are Being Utilized?**

**Table 117. Services utilized and number of clients served by Ryan White Program as of December 31, 2014, Ohio**

<b>Services</b>	<b>No.<sup>a</sup></b>	<b>%</b>
<b>Core Services</b>		
Outpatient/ambulatory medical care	6673	71%
Local AIDS Pharmaceutical Assistance/dispense pharmaceuticals	48	1%
Oral health care	896	10%
Early intervention services (Parts A and B)	475	5%
Home health care	33	0%
Home and community-based health services	24	0%
Hospice services	5	0%
Mental health services	761	8%
Medical nutrition therapy	501	5%
Medical case management (including treatment adherence)	6200	66%
Substance abuse services-outpatient	96	1%
<b>Support Services</b>		0%
Case management (non-medical)	1364	15%
Child care services	97	1%
Pediatric developmental assessment/early intervention services	3	0%
Emergency financial assistance	220	2%
Food bank/home-delivered meals	386	4%
Health education/risk education	2182	23%
Housing services	418	4%
Legal services	238	3%
Linguistics services	20	0%
Medical transportation services	1882	20%
Outreach services	406	4%
Psychosocial support services	251	3%
Referral for health care/support services	368	4%
Rehabilitation services	0	0%
Respite care	0	0%
Substance abuse services-residential	0	0%
Treatment adherence counseling	2419	26%
<b>Total</b>	<b>9346</b>	<b>100%</b>

Notes:

<sup>a</sup> # of Unduplicated Clients who received the service using Ryan White Funds

Source: Ohio Department of Health HIV Care Services Program. Data reported through December 31, 2014.

Table 117 describes the core services and the support services utilized by Ryan White clients during the calendar year 2014. The number of clients in each service category is an unduplicated number of clients who received the service at any of the Ryan White funded Providers during the reporting period. This report was possible due to collection of client-level data in the All-Parts Database. The two most utilized core services are outpatient/ambulatory medical care (OAMC) and medical case management (MCM), which were utilized by 6,673 (71 percent) and 6,200 (66 percent) Ryan White clients respectively. Other core services like Oral Health care and Mental Health Services were also utilized by Ryan White clients. There were 896 (10 percent) Ryan White clients who utilized oral health care services and 761 (8 percent) Ryan White clients who utilized mental health services provided by the Ryan White Programs in Ohio. All the other core services provided by Ryan White Parts in Ohio were utilized by less than 5 percent of Ryan White Clients during the reporting period.

Support services including health education/risk education, medical transportation services and treatment adherence counseling were the most commonly utilized support services. During the reporting period 2,182 (23 percent) Ryan White clients utilized health education/risk education, 1,882 (20 percent) Ryan White clients utilized medical transportation services and 2,419 (26 percent) Ryan White clients utilized treatment adherence counseling.

The services that are reported in Table 117 represent most of the services that are included on the Ryan White Services Report (RSR) submitted to HRSA. The services provided under the OHDAP program at HCS are not included in the table. We are hopeful to combine the OHDAP service utilization data with other Ryan White Parts in the future edition of *HIV/AIDS Integrated Epidemiologic Profile for Ohio*. The core and support services described in table 3 are not provided by all the Ryan White Grantees in Ohio. The services provided by the Grantees differ significantly and are based on the needs identified in the region. This is one of the key limitations of service utilization data presented in Table 117 and should be considered while deriving any conclusions from the data presented.

**(d) What outcomes are monitored in clients served by Ryan White programs?**

The outcomes discussed in this section are adopted from the Ryan White Services Report (RSR) and the Performance measures suggested by HAB. All of the outcome measures described in table 4 are for Ryan White clients with at least one outpatient ambulatory medical care (OAMC) visit, unless otherwise specified.

**Table 118. Selected outcome of interest for clients served by Ryan White Programs as of December 31, 2014, Ohio**

Outcomes	No.	%
<b>Outpatient Ambulatory Medical Care (OAMC)</b>		
1 outpatient/ambulatory medical care visit	2209	33.1
2 visits	1712	25.7
3-4 visits	1768	26.5
5 or more visits	984	14.8
Total	6673	100.0
<b>Outcomes in Clients with OAMC services</b>	<b>6673</b>	<b>100.0</b>
Clients on ART	5077	76.1
Hepatitis B Screening since HIV diagnosis	1823	27.3
Hepatitis C Screening since HIV diagnosis	1365	20.5
Tuberculosis Screening since HIV diagnosis	1855	27.8
Completed Hepatitis B Vaccine Series	117	1.8
Substance Abuse Screening	5374	80.5
Mental Health Screening	5581	83.6
Syphilis Screening <sup>^</sup> (Clients with OAMC ≥18 years= 6563)	2863	43.6
Most recent Viral Load Value		
<50 copies/ml	4680	70.1
50-199 copies/ml	415	6.2
200-1000 copies/ml	299	4.5
1001-5000 copies/ml	216	3.2
>500 copies/ml	754	11.3
Unknown/Unreported	390	4.6
Most recent CD4 Count		
CD4 count <200	681	10.2
CD4 count 200-349	917	13.7
CD4 count 350-499	1158	17.4
CD4 count 500 or greater	3568	53.5
Unknown/Unreported	349	5.2
<b>PCP Prophylaxis</b>		
Clients who received PCP prophylaxis	545	28.4
Clients where status of PCP prophylaxis was not documented	1376	71.6
Clients in whom PCP prophylaxis was indicated anytime during the reporting period	1921	100.0

**Notes:**

<sup>^</sup> the denominator for number of clients who were screened for syphilis is different from other outcomes reported. The denominator only includes clients with age ≥ 18 years and had at least one OAMC

Source: Ohio Department of Health HIV Care Services Program. Data reported through December 31, 2014.

There were 6,673 Ryan White Clients who received OAMC during the reporting period. Of these 1,892 (30.9 percent) Ryan White clients had one OAMC visit, 1,562 (25.9 percent) had two OAMC visits, 1,689 (27.6 percent) had 3-4 OAMC visits and 972 (15.9 percent) had five or more OAMC visits. Of the Ryan White Clients with at least one OAMC visit, 4,593 (75.1 percent) Ryan White clients were prescribed Anti-retroviral Therapy (ART) at some point during the reporting period; 1,715 (28.0 percent) Ryan White clients have been screened for Hepatitis B since their HIV diagnosis; 1,294 (21.2 percent) Ryan White clients have been screened for Hepatitis C since their HIV diagnosis; and 1,854 (30.3 percent) Ryan White clients have been screened for Tuberculosis since their HIV diagnosis. Only 105 (1.7 percent) Ryan White clients have completed a Hepatitis B vaccine series at the end of reporting period. There were 5,084 (83.1 percent) Ryan White clients who received screening for mental health issues and 5,146 (84.2 percent) who received screening for substance abuse issues during the reporting period. There were 2,393 (39.1 percent) clients screened for syphilis during the reporting period.

The most recent viral load and CD4 count value of clients who had at least one OAMC visit during the reporting period are also shown in table 4. There were 4,666 (76.3 percent) Ryan White clients whose viral load was less than 200 copies/ml on their most recent viral load test. Only 284 (4.5 percent) Ryan White clients had a viral load value that was not reported or unknown during the reporting period. The proportion of missing viral load data for the reporting period was much lower than it has been in previous years and is one of major benefit of having a centralized repository for all the Ryan White Grantee data. The analysis of the most recent CD4 count shows that 622 (10.2 percent) Ryan White clients had a CD4 count of <200 cells/mm<sup>3</sup> on their most recent test during the reporting period and 5,643 (84.6 percent) Ryan White clients had a CD4 count value ≥200 cells/mm<sup>3</sup> on their most recent test during the reporting period. Only 315 (5.2 percent) Ryan White clients had a CD4 count that was unreported or unknown during the reporting period. This proportion is slightly higher than the number of clients with missing viral load value. The last outcome measure in table 4 shows PCP Prophylaxis in clients who had an indication for the treatment at some point during the reporting period. There were 482 (26.5 percent) Ryan White clients who received PCP prophylaxis and 1,334 (73.5 percent) Ryan White clients who either did not receive PCP Prophylaxis or provision of PCP prophylaxis in these clients was not documented.

The outcome measures that need further discussion are the number of clients who received ART and the number of clients who had completed Hepatitis B vaccine series. The result reported for both outcome measures is lower than the expected result based on other data sources. These results could be due to several factors. The ADAP module in the All-Parts Database maintains ART data and was not functional at the time data was pulled. This could have affected the clients on ART outcome measure. We expect that the number of clients on ART would increase as we have more complete data from OHDAP and other Ryan White Grantees in the All-Parts Database. In addition, due to implementation of ACA and Medicaid expansion in Ohio, fewer Ryan White clients are getting their medication directly through OHDAP and more are receiving assistance with insurance copayments instead. The data from these non-OHDAP providers are not always reported back to various Ryan White Parts and could affect the outcome measure of clients on ART. Similarly, missing data on vaccination has resulted in fewer people being reported as having completed the Hepatitis B vaccine. The Hepatitis B vaccination outcome measure is expected to improve in future as we focus on getting complete data on the Hepatitis B vaccination rate on Ryan White clients. Finally, the outcome measures reported here are calculated using data reported from all the Ryan White Parts in Ohio. The data was further analyzed and described to present the outcome measures for all of the Ryan White clients. We suggest that readers exercise caution while comparing the data to outcome measures reported by individual Ryan White Grantees.

### Continuum of Care for Ryan White Clients, Calendar Year 2014:

The collection of data from all the Ryan White Funded Programs in Ohio into a single database provided a unique opportunity to create a Continuum of Care for Ryan White clients in Ohio. The continuum only includes the clients who received services through the Ryan White Funded Programs in Ohio during the calendar year 2014 and should not be confused with a statewide continuum of care for Ohio. The clients included in the continuum are not representative of all PLWHA in Ohio. Table 5 describes the definitions of components of the continuum of care for clients who received services through Ryan White Funded Programs during calendar year 2014. The definitions used to calculate the continuum of care were adapted from Ohio's H4C response team's definition for RW Continuum of care for Ohio. These definitions differ from CDC's definition of a prevalence- or diagnosis-based continuum of care. The addition of Ryan White Clients and OAMC visits to the figures was made with the intent of highlighting the services provided by Ryan White Parts in Ohio and the value of having a centralized repository of data like the All Parts Database. These outcome measures, though not included on a traditional continuum of care, are important for presenting a complete picture of Ryan White care provided in the state.

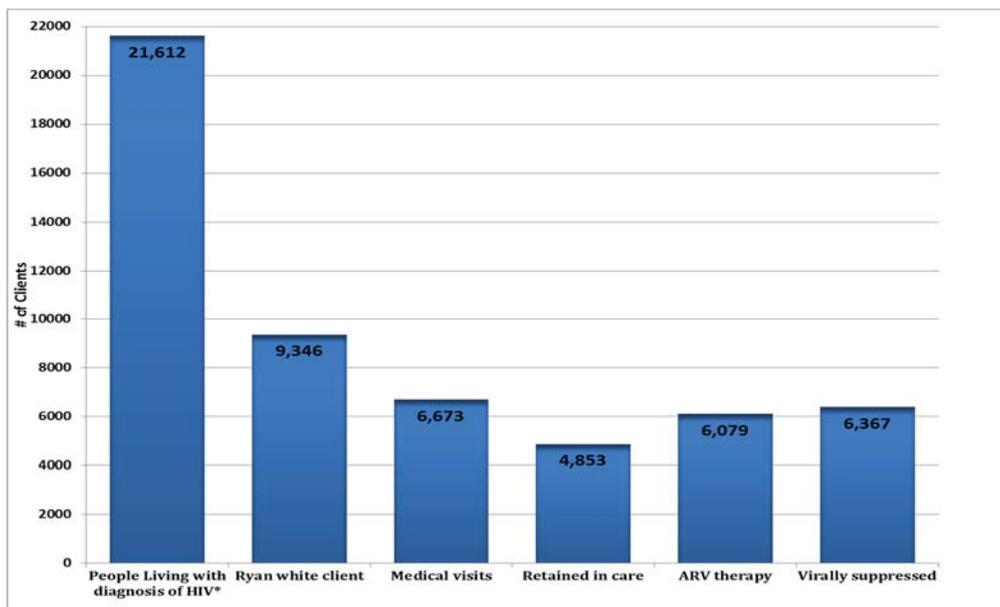
**Table 119. Definitions for RW Continuum of Care measures**

	Numerator	Denominator
People Living with diagnosis of HIV infection	People Living with a diagnosis of HIV infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died	
Ryan White Clients	Clients who received any Ryan White Funded service during the reporting period (RW Clients)	People living with diagnosis of HIV infection
Received Medical care (Medical Visits)	Clients who had at least one Outpatient/ambulatory medical care visit during the reporting period	
Retained in Care	Clients who had 2 or more OAMC visits, viral load (VL) measures or CD4 counts at least 3 months apart during the reporting period	
Prescribed ART (ARV Therapy)	Clients who were prescribed ART at any time during the reporting period	
Virally Suppressed	Clients whose viral load value was <200 copies/ml on their most recent viral load test during the reporting period	

This is the first attempt to create a continuum of care for Ryan White Clients in Ohio. We would like to caution the readers about the limitations of the data presented. The amount of data missing for key elements of the traditional continuum of care model was high. We did not have enough information to analyze and describe the linkage to care for people living with diagnosis of HIV infection in Ohio. We do expect to include the linkage to care measure on future continuum of care reports. The number of people on ART was lower than the number of people living with HIV infection who are virally suppressed. This was an unusual finding and there are a number of factors that could have led to this artifact. We had difficulty in uploading OHDAP data into the All Parts database. In addition, due to implementation of ACA and Medicaid expansion in Ohio fewer Ryan White Clients are getting their medication directly through OHDAP and are receiving assistance with their insurance copayments for formulary medication instead. The data from these non-OHDAP providers are not always reported back to various Ryan White Parts and could affect the outcome measure of clients on ART. In addition, we had more complete viral load information than ever before. The higher proportion of missing data on ART combined with a lower proportion of missing data on viral load effect on the following findings are not known.

The bar graphs in Figures 26 and 27 represent the Continuum of Care among Ryan White Program Clients in Ohio for calendar year 2014. Figure 26 describes the number of clients in each of the care continuum steps and Figure 27 represents the percentage of clients in each of the care continuum steps out of the people living with diagnosis of HIV in the state of Ohio at the end of calendar year 2014.

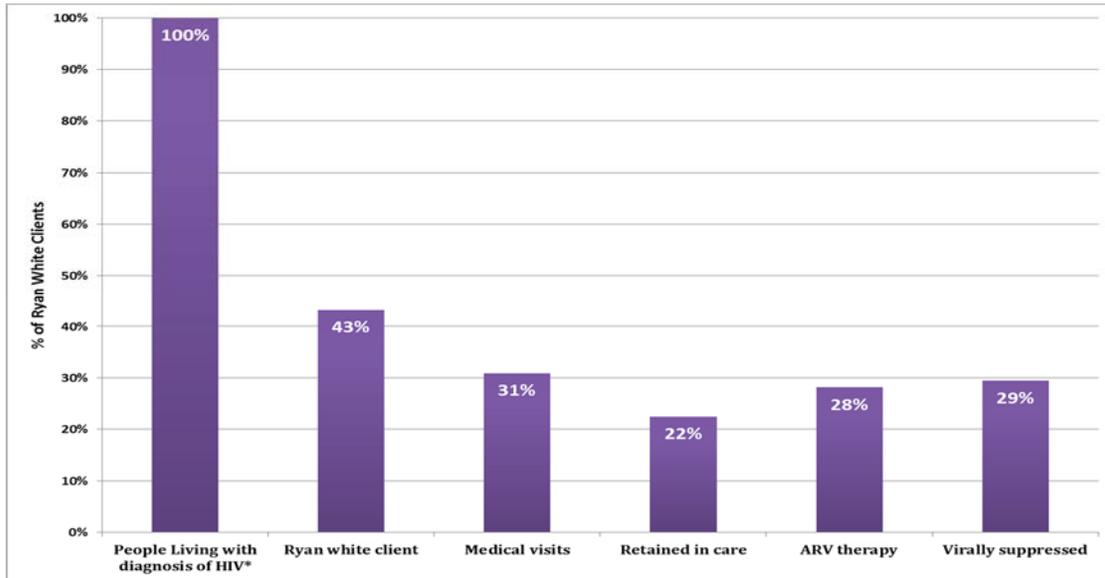
**Figure 27. Continuum of Care - number of clients served by Ryan White Programs, Ohio, 2014**



\* Living with a diagnosis of HIV infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2014. Data source: Ohio Department of Health HIV Surveillance. Data reported through December 31, 2014.

Source of all other data: Ohio Department of Health HIV Care Services Programs.

**Figure 28. Continuum of Care – percent of clients served by Ryan White Programs, Ohio, 2014**



\* Living with a diagnosis of HIV infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2014. Data source: Ohio Department of Health HIV Surveillance. Data reported through December 31, 2014.

Source of all other data: Ohio Department of Health HIV Care Services Programs.

The number of people living in Ohio with diagnosis of HIV infection as of December 31, 2014 was 21,612. The Ryan White Programs in Ohio collectively served 9,346 (43 percent) people living with the diagnosis of HIV/AIDS at some point of time during calendar year 2014 (**Figure 26**). The number of clients who received at least one OAMC visit through Ryan White Programs was 6,673, which accounts for 31 percent of people living with the diagnosis of HIV infection in Ohio. Similarly, using the data from the All-Parts database we can show that 6,079 (28 percent) people living with diagnosis of HIV infection were prescribed Antiretroviral Treatment (ART) and 6,367 (29 percent) people living with diagnosis of HIV infection were virally suppressed at the end of calendar year 2014 (**Figure 28**).

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Question

**2**

**What are some things to keep in mind as a Ryan White HIV/AIDS Program grantee prepares the epidemiologic profile document for HRSA's HIV/AIDS Bureau?**

## ***What is the number of persons who know they are HIV-positive but who are not receiving HIV primary medical care?***

### **Background**

Amendments made to the Ryan White (RW) HIV/AIDS Treatment Extension Act (RWHATEA) of 2009 require Part A and Part B programs to estimate the number of people living with HIV or AIDS who know their status but are not receiving regular HIV-related primary health care. Estimates of unmet need are used to guide state and national planning and resource allocations, including awarding discretionary grant funds for capacity development, to ensure those not currently in care can obtain medical care and support services through the different Ryan White HIV/AIDS Programs (RWHAP) and from other sources.

The ODH HIV Care Services (HCS) section used “A Practical Guide to Measuring Unmet Need for HIV-Related Primary Medical Care: Using the Unmet Need Framework” developed by University of California at San Francisco, as jointly recommended by CDC and the Health Resources and Services Administration (HRSA), to address the RWHAP requirements to estimate unmet need in Ohio. Care data pertaining to HIV-related primary medical care was solicited from All-Parts programs in Ohio by ODH HIV Care Services and was used in conjunction with ODH HIV/AIDS Surveillance data. One All-Parts region did not submit data and not all CD4 and viral load counts were reportable during the data collection period; therefore, Ohio’s estimate of unmet need should be interpreted with caution.

### **Definition**

Unmet need for HIV primary medical care is defined by HRSA’s HIV/AIDS Bureau as an individual with HIV or AIDS having no evidence of receiving one of the following three components of HIV primary medical care during a defined 12-month timeframe:

- 1) Viral load testing
- 2) CD4 count
- 3) Provision of anti-retroviral therapy (ART)

### **Methodology**

Following HRSA’s guidelines, ODH HIV Care Services used the following methodology to estimate unmet need: Ohio’s estimate was calculated by subtracting the total number of individuals with evidence of having received care during Calendar Year (CY) 2013 from the total number of people living with a diagnosis of HIV infection in Ohio in CY 2013. ODH’s HIV surveillance data was used to determine the number of individuals living with a diagnosis of HIV infection in Ohio in 2013 and was matched against Ohio’s Ryan White Parts services data to identify the number of individuals who received care in Ohio in 2013.

Persons living with a diagnosis of HIV infection (PLWHA) in 2013 were defined as persons reported in the electronic HIV/AIDS Reporting System (eHARS) through June 30, 2014 who had been diagnosed with HIV as of December 31, 2013, and were not known to have died as of December 31, 2013. A database was created to include 19,529 persons who met this definition of PLWHA in CY 2013. Individuals in this database were identified as having received HIV primary medical care in CY2013 by using several methods.

The following three steps were used to identify persons with unmet need:

- 1) All cases in eHARS with a CD4 or viral load reported in 2013 were identified as receiving care.
- 2) All persons in eHARS who were known to be incarcerated in an Ohio correctional facility in 2013 were identified as having received HIV primary medical care. This is based upon the Ohio Department of Rehabilitation and Correction (ODRC) Office of Correctional Health Care HIV Treatment Guidelines, which requires prisoners to be tested for HIV upon entering the state prison system and to receive HIV treatment or care on a regular basis (every three to six months). State prisoners are included in the Ohio estimate, but are not included in regional estimates (e.g. county, consortia) because their current residence is a correctional facility and their care services are provided by the Ohio Department of Rehabilitation and Correction.
- 3) Ryan White All-Parts data was then matched to the remainder of persons in the database to determine if they had received care. HIV Care Services staff performed these matches using personal identifiers (name, date of birth, and SSN when available). Once a person was identified as having received care, they were not matched against subsequent databases.

**Table 120. Data source information used to identify Ohio persons receiving HIV primary medical care (in care) in Calendar Year 2013**

<b>Data Source Name</b>	<b>Match Order</b>	<b>Records Received*</b>	<b>Records Matched (Persons in Care)</b>
Surveillance eHARS CD4/ML	1	19,527	8,958
Ryan White Part B	2	7,098	952
All Other Ryan White Parts	3	8,240	1,081
<b>Total Persons Identified as in Care</b>			<b>10,991</b>

\*Once a record is identified as being in care, it is not matched against subsequent databases.

## Results

**Table 121. Estimates of unmet need for HIV primary medical care in Ohio for Calendar Year 2013**

Ohio Ryan White HIV/AIDS Program Unmet Need Framework Calendar Year 2013		
Input Population Sizes	Value	Data Source
A. Number of persons living with AIDS (PLWA), recent time period	9,425	Enhanced HIV/AIDS Reporting System (eHARS) reported through 06/30/2014 for Calendar Year 2013
B. Number of persons living with HIV (PLWH) non-AIDS/aware, recent time period	10,102	Enhanced HIV/AIDS Reporting System (eHARS) reported through 06/30/2014 for Calendar Year 2013
Care Patterns		
C. Number of PLWA who received the specified HIV primary medical care services in 12-month period	5,929	VL/CD4 Lab Reports from eHARS, Prisoners from eHARS, Ryan White Parts and Private Care for Calendar Year 2013
D. Number of PLWH (aware, non-AIDS) who received the specified HIV primary medical care services in 12-month period	5,062	VL/CD4 Lab Reports from eHARS, Prisoners from eHARS, Ryan White Parts and Private Care for Calendar Year 2013
Calculated Results	Value	Calculation
E. Number of PLWA who did not receive primary medical services	3,496	$9,425 - 5,929 = 3,496$
F. Number of PLWH (non-AIDS, aware) who did not receive primary medical services	5,040	$10,102 - 5,062 = 5,040$
G. Total HIV+/aware not receiving specified primary medical care services (quantified estimate of unmet need)	8,536	8,536 out of 19,527 (or 44 percent with unmet need)

There were 19,527 reported persons living with a diagnosis of HIV infection in Ohio and an estimated 10,991 (56 percent) received care in Ohio. It is estimated that 44 percent of persons living with a diagnosis of HIV infection (PLWHA) have unmet need for primary HIV medical care in Ohio (Table 121).

**Table 122. Estimates of unmet need for HIV primary medical care among persons living with a diagnosis of HIV infection, Ohio, Calendar Year 2013**

Disease Status	Unmet need		Met need		Total	R.R. of Unmet Need <sup>#</sup>	95% CI of R.R.
	No.	%	No.	%	No.		
HIV Infection	5,040	50%	5,062	50%	10,102	1.34*	1.30-1.39
AIDS	3,496	37%	5,929	63%	9,425	R.G.	

\*The p value for chi square test is < 0.05.

R.G. = Referent Group

<sup>#</sup>R.R= Relative Risk

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through June 30, 2014.

Of the 10,102 persons living with HIV (PLWH), not AIDS, an estimated 5,040 (50 percent) had unmet need for primary HIV medical care in Ohio. Of the 9,425 persons living with AIDS (PLWA) an estimated 3,496 (37 percent) had unmet need for primary HIV medical care in Ohio (**Table 122**).

**Table 123. Estimates of unmet need for HIV primary medical care among persons living with a diagnosis of HIV infection by Ohio Ryan White Part B consortia and HIV disease status, Calendar Year 2013**

Ryan White Part B Regions	Reported Persons Living with HIV, not AIDS (PLWH)			Reported Persons Living with AIDS (PLWA)			Reported Persons Living with a Diagnosis of HIV Infection <sup>2</sup> (PLWHA)		
	PLWH Unmet Need	PLWH	% Unmet Need	PLWA Unmet Need	PLWA	% Unmet Need	PLWHA Unmet Need	PLWHA	% Unmet Need
Cleveland	1,111	2,368	47%	765	2,235	34%	1,876	4,603	41%
Columbus	1,243	2,539	49%	741	2,060	36%	1,984	4,599	43%
Cincinnati	853	1,557	55%	727	1,568	46%	1,580	3,125	51%
Dayton	393	797	49%	340	872	39%	733	1,669	44%
Toledo	225	547	41%	168	555	30%	391	1,102	35%
Akron	284	490	58%	193	427	45%	477	917	52%
Youngstown	154	324	48%	88	308	29%	242	630	38%
Canton	118	252	47%	72	213	34%	190	465	41%
Lima	64	152	42%	55	164	34%	119	316	38%
Mansfield	75	147	51%	65	189	34%	140	336	42%
Athens	101	227	44%	75	262	29%	176	489	36%
Ohio	5,040	10,102	50%	3,496	9,425	37%	8,536	19,527	44%

Note: Ohio numbers include prison data which are not included in the county data. County data were based on persons county of residence at diagnosis.

<sup>2</sup>Reported persons living with a diagnosis of HIV infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2013.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through June 30, 2014.

Among PLWHA, the largest proportion of estimated unmet need (52 percent) for primary medical care in 2013 is in the Akron region. Akron, however, only accounts for 4.7 percent of PLWHA in Ohio. Cincinnati accounts for a much larger proportion (16 percent) of PLWHA in Ohio and has the second highest (51 percent) unmet need for HIV primary medical care. On the other hand, Toledo (35 percent) and Athens (38 percent) have a significantly lower unmet need for HIV primary medical care than the state average (**Table 123**).

**Table 124. Estimated unmet need for HIV primary medical care among persons living with a diagnosis of HIV infection, by selected demographics, Ohio, 2013**

Characteristic	Reported Persons Living with HIV, not AIDS (PLWH)			Reported Persons Living with AIDS (PLWA)			Reported Persons Living with a Diagnosis of HIV Infection*		
	PLWH Unmet Need	PLWH	% Unmet Need	PLWA Unmet Need	PLWA	% Unmet Need	PLWHA Unmet Need	PLWHA	% Unmet Need
<b>Sex</b>									
Males	3940	7912	50%	2852	7592	38%	6792	15504	44%
Females	1099	2189	50%	644	1833	35%	1743	4022	43%
<b>Age as of 12/31/2013</b>									
<13	14	41	34%	8	24	33%	22	65	34%
13-24	233	860	27%	48	254	19%	281	1114	25%
25-39	1329	3097	43%	553	1843	30%	1882	4940	38%
40-64	3220	5726	56%	2646	6855	39%	5866	12581	47%
65+	244	378	65%	241	449	54%	485	827	59%
<b>Race/Ethnicity</b>									
White, not Hispanic	2328	4724	49%	1727	4452	39%	4055	9176	44%
Black, not Hispanic	2274	4534	50%	1493	4218	35%	3767	8752	43%
Hispanic	246	467	53%	214	484	44%	460	951	48%
Asian/Pacific Islander	32	55	58%	18	33	55%	50	88	57%
American Indian/Alaska Native	6	10	60%	7	10	70%	13	20	65%
Multiracial	154	312	49%	37	228	16%	191	540	35%
<b>Race/Gender</b>									
White, not Hispanic Males	1,939	3,982	49%	1519	3,916	39%	3458	7898	44%
White, not Hispanic Females	389	742	52%	208	536	39%	597	1278	47%
Black, not Hispanic Males	1665	3287	51%	1126	3100	36%	2791	6387	44%
Black, not Hispanic Females	609	1247	49%	367	1118	33%	976	2365	41%
Other Males	336	643	52%	207	576	36%	543	1219	45%
Other Females	101	200	51%	69	179	39%	170	379	45%
<b>Total</b>	<b>5,040</b>	<b>10,102</b>	<b>50%</b>	<b>3,496</b>	<b>9,425</b>	<b>37%</b>	<b>8,536</b>	<b>19,527</b>	<b>44%</b>

Note: Total numbers include persons with unknown data which are not included in the demographic data.

\*Reported persons living with a diagnosis of HIV infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2013.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through June 30, 2014.

The estimated unmet need for HIV primary medical care for males (44 percent) and females (43 percent) is similar to the state average. Both age groups 13-24 (25 percent) and 25-39 (38 percent) have an estimated unmet need for HIV primary medical care that is lower than the state average (44 percent). On the other hand, age groups 40-64 (47 percent) and 65+ (59 percent) have a significantly higher unmet need for HIV primary medical care than the state average (44 percent). Hispanics (48 percent) and people categorized as multiracial (35 percent) have a significantly different unmet need for HIV primary medical care than the state average (44 percent). The estimated unmet need for HIV primary medical care in Asian/Pacific Islander (57 percent) and American Indian/Alaska Native (65 percent) is higher than the state average (44 percent) however; they make up less than one percent of PLWHA in Ohio. While black females are disproportionately affected by HIV/AIDS (12 percent of PLWHA) compared to white females (6.5 percent) their estimated unmet need (41 percent) is significantly lower than the unmet need for white females (47 percent) (Table 124).

**Table 125. Estimated unmet need for HIV primary medical care among black and white females living with a diagnosis of HIV infection, Ohio, 2013**

Race and Gender	Unmet need		Met need		Total	R.R. of Unmet Need <sup>#</sup>	95% CI of R.R.
	No.	%	No.	%	No.		
<b>Black Females</b>	976	41%	1,389	59%	2,365	0.88*	0.82-0.95
<b>White Females</b>	597	47%	681	53%	1,278	R.G.	

\*The p value for chi square test is < 0.05.

R.G. = Referent Group

<sup>#</sup>R.R= Relative Risk

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through June 30, 2014.

Black females living with HIV/AIDS have 12 percent lower risk of having an unmet need for HIV primary medical care than white females living with HIV/AIDS in Ohio. Further investigation needs to be performed to determine the underlying causes of this observation (Table 125).

**Table 126. Estimated unmet need for HIV primary medical care among persons living with a diagnosis of HIV infection, by exposure category, Ohio, 2013**

Exposure Category	Reported Persons Living with HIV, not AIDS (PLWH)			Reported Persons Living with AIDS (PLWA)			Reported Persons Living with a Diagnosis of HIV Infection <sup>#</sup> (PLWHA)		
	PLWH Unmet Need	PLWH	% Unmet Need	PLWA Unmet Need	PLWA	% Unmet Need	PLWHA Unmet Need	PLWHA	% Unmet Need
<b>Male adult or adolescent</b>									
Male-to-male sexual contact	2,131	5,029	42%	1,811	5,118	35%	3,942	10,147	39%
Injection drug use (IDU)	160	268	60%	205	394	52%	365	662	55%
Male-to-male sexual contact	105	237	44%	153	397	39%	258	634	41%
Heterosexual Contact	213	450	47%	204	625	33%	417	1,075	39%
Perinatal	12	24	50%	9	28	32%	21	52	40%
Other/Unknown	1,311	1,882	70%	466	1,020	46%	1,777	2,902	61%
<b>Female adult or adolescent</b>									
Injection drug use (IDU)	94	184	51%	97	231	42%	191	415	46%
Heterosexual Contact	557	1,333	42%	440	1,324	33%	997	2,657	38%
Perinatal	9	31	29%	12	39	31%	21	70	30%
Other/Unknown	433	622	70%	91	225	40%	524	847	62%
<b>Child (&lt;13 yrs)</b>									
Perinatal	14	32	44%	7	23	30%	21	55	38%
Other/Unknown	0	9	0%	1	1	*	1	10	10%
<b>Total</b>	<b>5,039</b>	<b>10,101</b>	<b>50%</b>	<b>3,496</b>	<b>9,425</b>	<b>37%</b>	<b>8,535</b>	<b>19,526</b>	<b>44%</b>

Note: Total numbers include persons with unknown data which are not included in the demographic data.

<sup>#</sup>Reported persons living with a diagnosis of HIV Infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2013.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through June 30, 2014.

Regardless of gender, PLWHA with an unknown exposure category have a higher unmet need for HIV primary medical care compared to other exposure categories. Similarly, males and females living with HIV/AIDS in Ohio and an exposure category of Injection Drug Use (IDU) (55 percent and 46 percent) have a higher unmet need compared to all other exposure categories except unknown exposure category. Injection drug users living with HIV/AIDS in Ohio are a difficult population to engage and retain in care, so it is not surprising that they have the higher

unmet need. On the other hand, adult or adolescent males with an exposure category of MSM (39 percent) and males (39 percent) and females (38 percent) with heterosexual contact have the lowest unmet need for primary HIV medical care in Ohio. Much of Ohio's efforts to engage PLWHA in care have been directed towards MSMs so it is possible that the difference is the result of those efforts (**Table 126**).

In summary, a greater proportion of those with HIV, not AIDS (PLWH) than those with a diagnosis of AIDS (PLWA) had an unmet need for HIV primary medical care in Ohio in 2013. The regions with the greatest unmet need for HIV primary medical care in Ohio in 2013 included Akron and Cincinnati. Those living with HIV/AIDS (PLWHA) over the age of 40 are at higher risk for having an unmet need for primary HIV medical care than other age groups. Hispanics are at a significant higher risk for having an unmet need for primary HIV medical care than other races/ethnicities. As far as exposure categories, PLWHA with an unidentified exposure, exposure due to injection drug use (IDU) or men who have sex with men (MSM) are at greatest risk of having an unmet need for primary HIV medical care in Ohio in 2013.

Ohio's overall 2013 estimate of unmet need for HIV primary medical care should be interpreted with caution, as not all HIV Care data is included, and not all CD4 and viral load counts were reportable during the data collection period. Ohio law changed July 1, 2014 and now requires all labs to submit all CD4 and viral load measures to ODH. Prior to this, only CD4 counts with a value of 200 or below and detectable viral loads were reportable. Moving forward, this requirement will support data that are more complete and a more accurate estimate.