The Uniform Reporting System (URS) is a statewide client-level data standard designed to uniformly document the quantity and types of services provided by agencies receiving Ryan White funds, and to describe the populations receiving the services. A wide range of clinical and supportive services are reported in the URS including outpatient medical care, dental care, mental health services, case management, and medication assistance through the Drug Assistance Program. URS data may include HIV/AIDS services that are not directly funded by Ryan White, as long as the reported service is eligible to be funded. However, most services reported in the URS are at least partially funded by Ryan White resources.

There are several client-level data systems in Michigan that collect URS data. Demographic and service data from all these systems were extracted into a standard format, and these data were then combined and unduplicated to produce a URS dataset for analysis. The Out-State Michigan dataset is a subset of the unduplicated statewide dataset from all Ryan White funded programs, including the AIDS Drug Assistance Program. Clients are included in this dataset if they reside in any of the counties outside of the Detroit Eligible Metropolitan Area (EMA) and received at least one service from a Ryan White funded provider between January 1, 2009 and December 31, 2009.

Table 1 compares the demographic distribution of the 2,813 HIV-infected residents of Out-State Michigan who were served by Ryan White funded programs in 2009, to that of the 5,063 persons known to be living with HIV in the same area at the end of 2009. The comparison shows that persons receiving Ryan White services were similar to the reported population but were more likely to be between 25 and 44 years old and less likely to be 45 years and older.

The Ryan White HIV/AIDS Treatment Extension Act puts a priority on providing services to women, infants, children and youth (WICY) with HIV infection. As a result, the proportion of youth age 13 to 24, and women age 25 or older receiving care is somewhat higher than in reported cases.

Table 2 gives additional detail about the core services of outpatient medical care, oral health care, mental health care, medical case management and medication assistance delivered to Out-State Michigan residents by Ryan White programs in 2009. The service counts in the table are visits, not units of time. Only
Patterns of Service Utilization of HIV-Infected Persons

one “visit” per day is counted for any service category in this URS summary data.

Outpatient medical care services in this table are for outpatient ambulatory medical care visits ranging from a complete physical with a physician, to a brief or repeat visit with a physician or nurse practitioner, and includes adherence counseling with a medical practitioner. The annual average of 4.3 visits per client, with a median of four, is consistent with HIV care standards that recommend monitoring of health status every three to four months. Two-thirds of outstate Ryan White clients received outpatient medical care in 2009. (Table 2)

Dental care services reported in the URS are primarily provided through the statewide Michigan Dental Program, administered by the Division of Health, Wellness and Disease Control of MDCH. Dental services for clients may be extensive, and require multiple visits, but may also simply be for bi-annual or more frequent prophylaxis. The annual average of 2.8 visits per client is consistent with an initial exam to plan the care needed and one or more treatment visits following approval of the care plan. Oral health care was provided to 14 percent of outstate clients in 2009. (Table 2)

Mental Health services encompass mental health assessments, individual counseling, and group sessions for HIV+ clients with a mental health diagnosis, and must be conducted by a licensed mental health professional. Mental health services do not include substance abuse treatment. In 2009, 15 percent of the outstate clients received mental health services at an average of 3.6 visits a year. (Table 2)

Medical case management visits include intake, assessments, care planning, medication adherence counseling, and monitoring of medical status, and may be conducted in person, by phone or by mail, with the goal of linking HIV+ clients to health care services, and assisting them to remain in care. In 2009, 42 percent of outstate clients received medical case management services at an average of 14.3 visits/each. (Table 2)

The Drug Assistance Program (DAP), administered by the Division of Health, Wellness and Disease Control of MDCH pays for medications dispensed to eligible HIV+ clients throughout Michigan. The DAP covers all HIV medications and many other medications as well. The unit of service reported in Table 2 is one day in which medications were dispensed or on which DAP-reimbursed monitoring tests (CD4 or viral load) took place. This is not an indication of the number of medications dispensed or prescriptions filled during the year, as several medications can be dispensed on one day of service. In 2009, 42 percent of Out-State clients received DAP services at an average of 11.3 visits in the year. (Table 2)

Residents of the Out-State area accounted for 42 percent of all DAP clients served in 2009. Since Out-State residents make up one-third of persons living with HIV in Michigan, this is a higher proportion than expected. The reason for this apparent imbalance is that a greater percentage of Out-State residents are eligible for the DAP because they are not eligible for other medication assistance such as Medicaid and have no other

Table 2: Core Services per Ryan White Client, Out-State Michigan, 2009

<table>
<thead>
<tr>
<th>Service Category</th>
<th>No. of unduplicated clients served*</th>
<th>Percent Receiving the Service</th>
<th>Total Days of Service***</th>
<th>Average no. of visits per client</th>
<th>Median no. of visits per client</th>
<th>Range of visits per client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient Medical Care</td>
<td>1,968</td>
<td>66%</td>
<td>8,559</td>
<td>4.3</td>
<td>4</td>
<td>1-23</td>
</tr>
<tr>
<td>Oral Health Care</td>
<td>418</td>
<td>14%</td>
<td>1,151</td>
<td>2.8</td>
<td>2</td>
<td>1-11</td>
</tr>
<tr>
<td>Mental Health Care</td>
<td>455</td>
<td>15%</td>
<td>1,654</td>
<td>3.6</td>
<td>2</td>
<td>1-26</td>
</tr>
<tr>
<td>Medical Case Management</td>
<td>2,196</td>
<td>74%</td>
<td>31,379</td>
<td>14.3</td>
<td>10</td>
<td>1-120</td>
</tr>
<tr>
<td>DAP (Medication Assistance)</td>
<td>1,240</td>
<td>42%</td>
<td>14,046</td>
<td>11.3</td>
<td>10</td>
<td>1-52</td>
</tr>
</tbody>
</table>

*Clients are unduplicated for the service across all providers and may be counted in more than one service category.
prescription coverage program available (such as a county plan). In contrast, a higher proportion of DMA residents are eligible for Medicaid or a county care plan that covers prescriptions and are therefore not eligible for the DAP. The DAP is payer of last resort.

Sexually Transmitted Diseases

Several sexually transmitted diseases (STDs) are more common than HIV infection, have a short incubation period, and are curable. Reviewing their patterns of transmission can provide additional information regarding recent sexual behavior and potential risk, not available from HIV/AIDS data. Studies have shown that the risk of both acquiring and spreading HIV is two to five times greater in people with STDs. Aggressive STD treatment in a community can help to reduce the rate of new HIV infections.

Gonorrhea and Chlamydia

During 2009 alone, there were over 20,000 cases of chlamydia and over 5,000 cases of gonorrhea reported in Out-State Michigan. See Table 8, page 5-45. For both gonorrhea and chlamydia, the highest rates of infection were among persons age 15-19. This age group comprises seven percent of the Out-State population but accounted for 34 percent of gonorrhea and 39 percent of chlamydia cases. The rates of chlamydia and gonorrhea among blacks were much higher than among whites. Even though 22 percent of gonorrhea cases and 26 percent of chlamydia cases were missing race information, the rates (number of cases per population) among blacks remain higher even if all unknown cases were among whites. The rate for gonorrhea among blacks is 33 times the white rate and 13 times the white rate for chlamydia. Sixty-two percent of gonorrhea cases were female, while approximately 73 percent of reported chlamydia cases were female. This is because chlamydia screening targets females.

Syphilis

In 2009, Out-State Michigan contributed 48 percent of P&S syphilis cases statewide. Since 2006, P&S cases in Out-State Michigan have increased substantially (from 35 in 2006 to 78 to 2009). This increase is largely attributed to an outbreak in Genesee County in 2008. However, between 2008 and 2009 reported cases decreased by nearly 30 percent, largely due to a 78 percent decrease in cases reported by Genesee County. Despite this significant decrease in Out-State cases, many other counties saw increases of P&S syphilis cases, namely Kent (8 to 16 cases) and Ingham (3 to 13 cases) counties. Twenty-nine percent of the Out-State P&S cases were reported in those younger than 25 years. However, an equal percentage of cases (30 percent) are still over the age of 40, representing an older at-risk population than gonorrhea or chlamydia (as shown in Table 8 on page 5-45). Syphilis cases reported in 2009 were more likely to be white (58 percent) and male (82 percent), however the rate was still higher among African-Americans. The rate among black males was nearly six times the white male rate.

Sexual Orientation

Nationwide, there have been increases in STD cases among self-identified men who have sex with men. Michigan does not collect data on sexual orientation for gonorrhea or chlamydia cases. Sexual orientation data are collected for syphilis cases. Of male primary and secondary syphilis cases in 2009, 67 percent of males were men who have sex with men. The M:F ratio in 2009 in Out-State Michigan was 4.5:1, but increased to 7:1 when Genesee County cases are excluded. Forty-six percent of males are HIV co-infected, compared to none of the females.