




JSI Research & Training Institute, Inc.

Annual Outcomes Report

Outcomes Measurement Summary Annual Report FY 2010

A grayscale map of Boston, Massachusetts, showing a grid of streets and a river. The map is positioned on the left side of the cover, partially overlapping a light blue background.

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Ryan White HIV/AIDS Treatment Extension Act of 2009 Boston EMA Part A Programs

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INTRODUCTION

This report summarizes outcome measurement data across all Boston Public Health Commission (BPHC) providers funded under Part A of the Ryan White HIV/AIDS Treatment Extension Act of 2009, including MAI-funded case management and psychosocial support services. The data in this report come from the four most recent reporting periods: Mid-Year FY 2009 (March – August 2009), Year-End FY 2009 (September 2009 – February 2010), Mid-Year FY 2010 (March – August 2010), and Year-End 2010 (September 2010 – February 2011).

This is the first Part A annual report that includes Part A MAI services as well as regular Part A services. Please note that there was a change in reporting periods in FY 2010, so the MAI grant period would be consistent with the Part A program application/award schedule (the MAI reporting period had been August-July, and is now March-February which is the same as Part A).

Data were collected throughout that time period; however the reporting period previously referred to as “Mid-Year 2010” was eliminated and data collected during that time are included in two new reporting periods (February 2010 – August 2010 and September 2010 – February 2011).

The data in this report include demographic, descriptive and outcomes data summaries for more than 7,400 clients served by Part A-funded providers. These data are also provided for “continuous clients” (a subset of clients who show at least one report during each reporting period included in this report). Prior to FY 2008, a similar analysis was done on a group referred to as the “cohort”; however, this included clients who were seen at least once per fiscal year (versus once per reporting period).

2010 data from Massachusetts Department of Public Health HIV/AIDS Surveillance are referenced throughout this report for comparison purposes. These data summarize demographic characteristics of all people living with HIV/AIDS in the Boston Eligible Metropolitan Area (EMA).

Outcome measurement data are collected by providers using a standardized Outcome Measurement Report form (Appendix A). The current version of this report form was introduced at the beginning of FY 2007. We would like to acknowledge Suffolk University Center for Public Management and the Boston Public Health Commission for their support and thoughtful input.

The Outcome Measurement Report form is completed by providers who receive funding by BPHC to deliver services in one or more of 11 Part A service categories (Case Management, Client Advocacy, Dental, Drug Reimbursement, Food Services/Meals, Housing, Mental Health, Psychosocial Support, Primary Medical Care, Substance Abuse, and Transportation) and two Part A MAI service categories (Case Management and Psychosocial Support). This report

summarizes the results of 27,472 individual outcome measurement reports submitted by 45 funded providers during FY 2009 (13,738) and FY 2010 (13,734 reports).

METHODS

Data Collection

The BPHC Outcome Measurement Form is completed by all Ryan White Part A providers for each of their active clients during each six-month reporting period. Providers are instructed, during annual training and in the BPHC Client Services Provider Manual, to complete the form for every client, using both a Client Code and a Unique Client Identifier. Providers are permitted to submit one report per client for each service category in which the client received a service, or to submit one report for the client summarizing all services received from that provider. Providers are instructed to indicate which service(s) the report applies to.

There are nine outcome categories on the report form, and providers are required to select a rating for the client in each of these categories, regardless of which service(s) were received by the client. Of the nine outcome categories, four are focused on health and five are focused on quality of life. The four health outcomes are: CD-4 Count; Viral Load; Maintenance of Primary Medical Care; and Adherence to Prescribed HIV Related Medical Therapies. The five quality of life outcomes include: Impact of Side Effects from HIV-related Medications; Mental Health Status; Access to Psychosocial Support; Level of Self Sufficiency; and Housing Status. These outcomes are defined in detail in the Provider Manual (<http://www.bphc.org/AIDS>).

Each outcome includes four response options for rating client status: Poor/In Crisis; Fair; Good; and Excellent. Each of these response options is defined further, for each individual outcome category, on the report form. For two of the outcome categories (Adherence to Prescribed HIV Related Medical Therapies and Impact of Side Effects from HIV-related Medications) an “N/A” option is available for clients who have not been prescribed HIV-related medical therapies.

Data Analysis

Client-level demographic and descriptive data files were prepared by BPHC staff from the Joint HIV/AIDS Client Information Form. These data were linked by JSI to Outcomes Report data, using a unique client code, to facilitate presentation of demographic data for clients served during the most recent reporting period. These data, along with raw data from the Outcome Measurement Reports were exported from Microsoft Excel files and converted into a SAS data file (SAS Institute, Inc., Cary, NC), so that client-level analysis could be conducted across the breadth of available variables.

Demographics were reported for clients served during the most recent reporting period (i.e., at least one Outcome Measurement Report was completed for the client). When demographic or descriptive data were missing for a particular client for the current reporting period, the information was drawn from the most recent previous reporting period. For example, if a client’s gender was missing from the Year-End 2010 (September 2010 – February 2011) data set, information was drawn from the Mid-Year 2010 (March 2010 – August 2010) data, then from Year-End 2009 (September 2009 – March 2010), and finally from Mid-Year 2009 (March

2009 – August 2009). In this example, data were considered “missing” only if the client did not have gender reported in any of the past four reporting periods.

Univariate analyses were conducted and reported for demographic and descriptive data from the Joint Form, as well as from the Outcome Measurement Report. Independent samples t-tests were used to evaluate significant changes in outcomes between reporting periods for the full data set, while paired t-tests were used to evaluate significant changes for continuous clients. For the purposes of this report, a p-value of < 0.05 is considered a significant difference.

Scoring of Outcome Data

As discussed above, each outcome includes four response options for rating client status: Poor/In Crisis; Fair; Good; and Excellent. The scores assigned to each category are: Poor=9, Fair=6, Good=3 and Excellent=0. As a result of this system (one in which the value descended as the outcome improved) a formula was devised to turn these into scores that ascended as the client outcome improved. The initial value was subtracted from 9, with the result of the subtraction multiplied by 11.1, and that result was rounded to an integer.

Some examples:

Poor: $(9-9) \times 11.1 = 0 \times 11.1 = 0$

Fair: $(9-6) \times 11.1 = 3 \times 11.1 = 33.3$, rounded to 33

Good: $(9-3) \times 11.1 = 6 \times 11.1 = 66.6$, rounded to 67

Excellent: $(9-0) \times 11.1 = 9 \times 11.1 = 99.9$, rounded to 100.

In reports prior to FY 2008, ascending numeric scores were assigned as follows: Poor = 0-33, Fair = 34-67, Good = 68-99 and Excellent = 100. Applying this scale to the above examples, a score of 33 (Fair) would be classified as Poor (0-33) and a score of 67 (Good) would be classified as Fair. Therefore, a reclassification of scores was made for this report, better representing the calculated scores for clients on the edges of categories. The new scores, presented in this report, are: Poor = 0-32, Fair = 33-66, Good = 67-99 and Excellent = 100. While this is a slight change, it could impact the way clients are distributed along this scale and it is important to keep in mind when comparing this Outcomes Report to any reports prior to FY 2008.

Limitations

Number of Reports per Client

Providers are permitted to submit one report per client for each service category in which the client received a service, or to submit one report for the client summarizing all services received from that provider. Providers are instructed to indicate which service(s) the report applies to. As such, the total number of reports does not line up with the number of clients served (as would be the case with one report per client, per provider), or with the number of independent service categories in which clients received services (as would be the case with one report per client, per provider, per service category).

In addition, it should also be noted that data do not necessarily reflect all services received by individual clients. Clients may be receiving services funded by other state, federal and private sources, and also at other agencies.

New vs. On-going Clients

Clients are categorized on the report form as “new” if they were seen for the first time by the provider completing the report. This category may include clients who dropped out of care (at the same provider, or at another provider) for more than one year and have returned to care. Thus, clients may be new to a particular service but not new to the larger Part A system.

Clients are categorized as “on-going” if they are continuing to use services and have been seen once or more during the reporting period. If a client was not seen during the reporting period then a form is not completed. This means that a client may be reported as “new” at one provider and “on-going” at another, even during a single reporting period. However, this distinction may still be informative because it identifies clients who are newly accessing a service, likely indicating their increased need in that specific service category.

Variations in Data Collection by Provider Agency

There are some variations in data collection by program or agency due to specific service delivery models and the inability to collect accurate data for all outcomes/all clients. For example, Dental providers were not asked to report on **Impact of Side Effects from HIV-related Medications, Mental Health Status, Access to Psychosocial Support or Level of Self-Sufficiency**, and therefore the number of clients reported on for those four outcomes is lower. In another example, a Food Services/Meals provider only reports on a sample of their clients each period.

Sometimes there is confusion within agencies that are funded to provide multiple services, in terms of understanding the distinctions between service categories. This is a training issue and on-going efforts are being made to address these concerns.

Maintenance of Primary Medical Care

Following a review of the Outcome Measurement Form, which included discussions with providers and a detailed review of the literature, it was determined that **Maintenance of Primary Medical Care** may not be an adequate measure of access to medical care and as such should be reviewed with consideration to its limitations. This measure will no longer be collected after September 2011, when a new version of the form will be introduced.

Clients will instead be asked to report the month and year of their last appointment with an HIV primary medical care provider, along with more detailed information about receipt of case management services. It is anticipated that this method will more accurately reflect access to medical care.

RESULTS

Data Summary

Figure 1 provides a summary of total outcome reports received, unduplicated clients represented, and number of providers submitting data during each reporting period.

Figure 1. Totals for All Reporting Periods

Fiscal Year		Outcome Reports	Unduplicated Clients (Part A+MAI)	Providers Submitting Data
March 2009-August 2009	Mid-Year FY 2009	6821	4720	45
September 2009-February 2010	Year-End FY 2009	6917	4761	45
March 2010-August 2010	Mid-Year FY 2010	6669	4626	44
September 2010-February 2011	Year-End FY 2010	7065	4978	44
Total (March 2009-February 2011)		27472	7405	45

Figure 2 shows the number of outcome reports submitted, and the number of unduplicated clients represented, for each funded service category. As discussed under Methods, providers are permitted to submit one report per client for each service category in which the client received a service, or to submit one report for the client summarizing all services received from that provider. Variations within service categories were relatively minor, with the exception of a decrease in reports and clients in Housing in March-August 2010.

Figure 2. Number of Outcome Reports and Unduplicated Clients by Service Category

Service Category		March 2009-August 2009	Sept 2009-Feb 2010	March 2010-August 2010	Sept 2010-Feb 2011
CM & MAI CM	Outcome Reports	1537	1691	1746	1801
	Unduplicated Clients	1489	1612	1670	1725
Client Advocacy	Outcome Reports	830	774	714	733
	Unduplicated Clients	814	728	685	707
Dental	Outcome Reports	870	906	863	808
	Unduplicated Clients	870	905	859	795
Drug Reimbursement	Outcome Reports	0	58	43	50
	Unduplicated Clients	0	58	43	50
Food Services /Meals	Outcome Reports	1836	1926	1704	1783
	Unduplicated Clients	1439	1484	1357	1611
Housing	Outcome Reports	1241	1295	829	1385
	Unduplicated Clients	1163	1199	762	1281
Mental Health	Outcome Reports	435	380	374	368
	Unduplicated Clients	422	371	365	360
Psychosocial Support & MAI PS	Outcome Reports	348	352	399	381
	Unduplicated Clients	347	352	399	379
Primary Medical Care	Outcome Reports	1559	1580	1762	1856
	Unduplicated Clients	1222	1230	1429	1488
Substance Abuse	Outcome Reports	280	277	312	266
	Unduplicated Clients	221	241	263	244
Transportation	Outcome Reports	839	832	737	957
	Unduplicated Clients	828	805	718	951

Figure 3 shows the number of providers funded to provide services during each reporting period, by funded service category. The greatest number of providers that submitted reports was funded to provide case management services, followed by psychosocial support and housing and services.

Figure 3. Number of Providers by Service Category*

Service Category	March 2009- August 2009	September 2009- February 2010	March 2010- August 2010	September 2010- February 2011
Case Management & MAI Case Management	23	23	23	23
Client Advocacy	6	6	6	6
Dental	1	1	1	1
Drug Reimbursement	0	1	1	1
Food Services/Meals	9	9	9	9
Housing	10	10	10	10
Mental Health	7	7	7	7
Primary Medical Care	7	7	7	7
Psychosocial Support and MAI Psychosocial Support	12	12	10	12
Substance Abuse	6	6	6	6
Transportation	7	7	7	7

* Data in this table are based on the BPHC Client Services Handbook.

Figure 4 shows the number of outcome reports submitted, and the number of unduplicated clients represented, by Outcome Category. Most providers are required to report on all nine outcomes for all of their clients, however Dental providers were not asked to report on **Impact of Side Effects, Mental Health Status, Access to Psychosocial Support** or **Level of Self-Sufficiency**.

Figure 4. Number of Outcome Reports and Unduplicated Clients by Outcome Category

Outcomes Category		March 2009- August 2009	Sept 2009- Feb 2010	March 2010 August 2010	Sept 2010- Feb 2011
CD-4 Count	Outcome Reports	6768	6834	6560	6964
	Unduplicated Clients	4689	4713	4574	4909
Viral Load	Outcome Reports	6764	6808	6541	6936
	Unduplicated Clients	4687	4693	4563	4893
Maintenance of Primary Medical Care	Outcome Reports	6784	6894	6530	6886
	Unduplicated Clients	4700	4751	4560	4876
Adherence to Prescribed HIV Related Medical Therapies	Outcome Reports	6782	6896	6532	6885
	Unduplicated Clients	4696	4750	4563	4873
Impact of Side-Effects From HIV-Related Medications	Outcome Reports	6546	5980	5670	6079
	Unduplicated Clients	4543	4151	3996	4365
Mental Health Status	Outcome Reports	5884	5983	5672	6088
	Unduplicated Clients	4116	4154	3997	4370
Access to Psychosocial Support	Outcome Reports	5885	5981	5678	6093
	Unduplicated Clients	4116	4154	4001	4373
Level of Self-Sufficiency	Outcome Reports	5879	5983	5676	6092
	Unduplicated Clients	4116	4154	4001	4372
Housing Status	Outcome Reports	6113	6893	6532	6892
	Unduplicated Clients	4266	4748	4562	4880

Figure 5 shows the number of clients reported as “New Intakes” and the number of clients reported as “On-going.” The “New Intake” category shows the total number of clients who were seen for the first time by a provider agency. This category may include clients who dropped out of care (at the same provider, or at another provider) for more than one year and have returned to care. “On-going” clients are those that had been seen by the provider before, and were seen at least once during the reporting period.

Figure 5. Status of Clients

Client Status	March 2009- August 2009		September 2009- February 2010		March 2010- August 2010		September 2010- February 2011	
	Clients	Percent	Clients	Percent	Clients	Percent	Clients	Percent
New Intake Only	425	9.4%	481	10.5%	430	10.0%	333	8.1%
On-Going Only	3810	83.8%	3812	82.9%	3547	82.8%	3444	83.4%
Both New & On-Going	309	6.8%	307	6.7%	306	7.1%	352	8.5%

Demographic and Descriptive Characteristics of Clients with Outcomes Reports

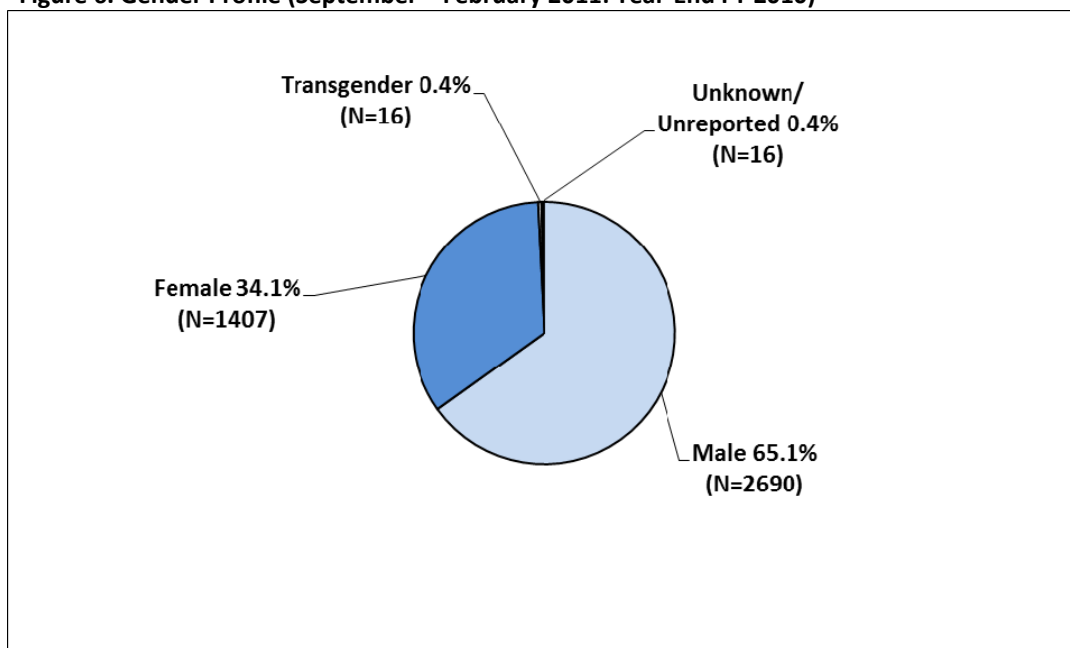
This section summarizes the demographic and descriptive characteristics of unduplicated clients with one or more outcomes reports. Demographic data were drawn from data reported by BPHC providers using the *Joint HIV/AIDS Client Information Form*. Data for the year-end FY 2010 reporting period (September 1, 2010 – February 28, 2011) are presented below. Eighty-three percent of all unduplicated clients had demographic data available, for a total of 4129 clients.

Gender and Age

The majority (65.1%) of clients with outcome reports during the Year-End FY 2010 reporting period were male, and about one-third (34.1%) were female. Transgender clients represented 0.4% of total clients served. This is fairly consistent with the data for the Boston EMA, where 71% of people living with HIV/AIDS are male and 29% are female (state surveillance data does not capture individuals who identify as transgender).¹

The average age of clients was 46.3 years, with a range of 5-83 years.

Figure 6. Gender Profile (September – February 2011: Year-End FY 2010)



¹ Massachusetts Department of Public Health: HIV/AIDS Surveillance Program. Data as of 7/1/2008.

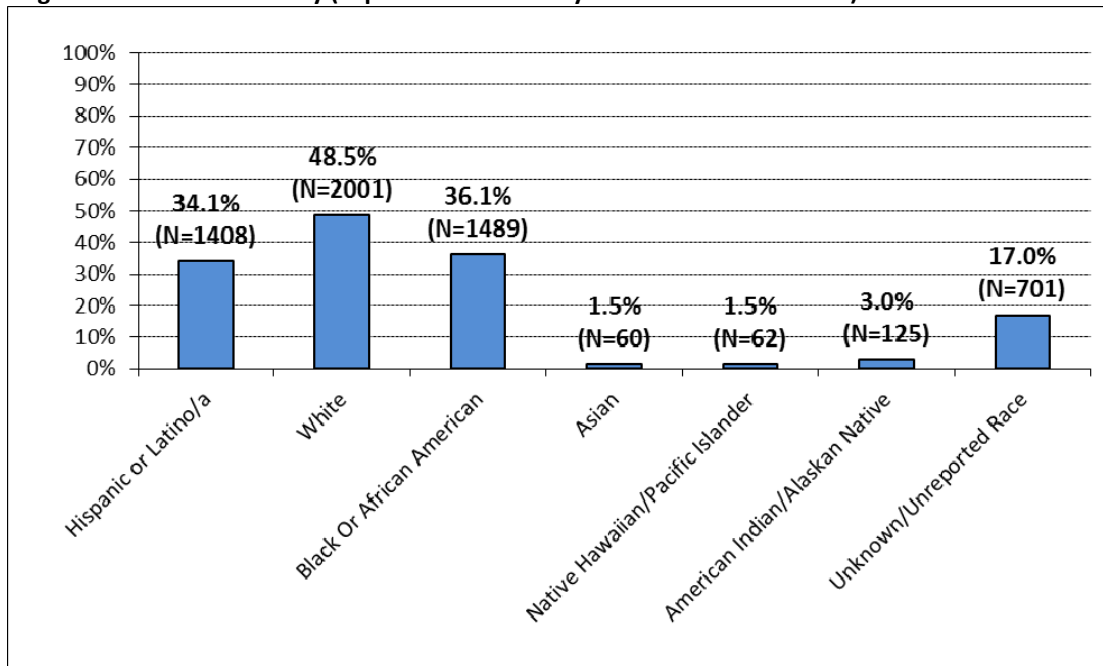
Ethnicity and Race

Just over one-third (34.1%) of clients identified their ethnicity as Hispanic or Latino during the Year-End FY 2010 reporting period, as compared to 21% in the Boston EMA. It should be noted that Hispanic/Latino ethnicity is asked separately from questions about race, due to federal data collection requirements. For all clients, providers are required to document first whether the client is of Hispanic/Latino ethnicity, and then document one or more race categories for the client.

Just under half of clients (48.5%) were reported as White, and over one-third (36.1%) were reported as Black or African American. A small percentage of clients were reported as Asian (1.5%, n=60), Native Hawaiian/Pacific Islander (1.5%, n=62) and American Indian/Alaskan Native (3.0%, n=125). Again, this is relatively similar to the Boston EMA where 47% are White and 31% are Black. The surveillance data groups the remaining races in a slightly different way: 2% Asian/Pacific Islander and <1% American Indian.

Unknown/Unreported Race was reported for only 17% of clients. For this report, all those clients who had 'Unknown/Unreported' and another Race checked had the 'Unknown/Unreported' selection removed. Compared to earlier reports, where around one-third of clients were Unknown/Unreported, this data cleaning step has helped to more accurately reflect how clients have most recently self-identified. This category typically includes a larger number of Hispanic/Latino/a clients. In Year-End 2010, 46% (n=675) of clients with an Unknown/Unreported Race were Hispanic/Latino/a

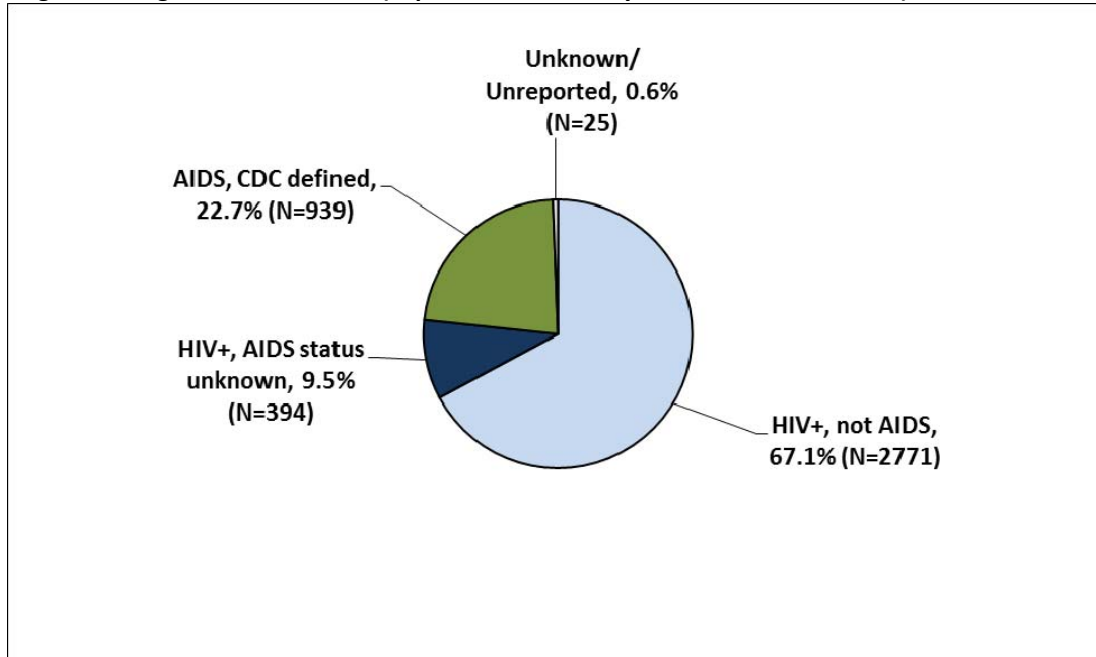
Figure 7. Race and Ethnicity (September – February 2011: Year-End FY 2010)



Diagnostic Information

Diagnostic information summarizes the HIV/AIDS status of clients reporting outcomes during the Year-End FY 2010 reporting period. Just over two-thirds of clients (67.1%) were categorized as HIV positive, not AIDS. Less than one-quarter (22.7%) were categorized as AIDS, CDC defined. About a tenth (9.5%) of clients were categorized as HIV positive, AIDS status unknown and 0.6% had unknown/unreported status. According to the surveillance data in the Boston EMA, 43.8% of those 15,179 living with HIV/AIDS are categorized as HIV positive, not AIDS. More than half (56.2%), are living with AIDS, CDC defined.

Figure 8. Diagnostic Information (September – February 2011: Year-End FY 2010)

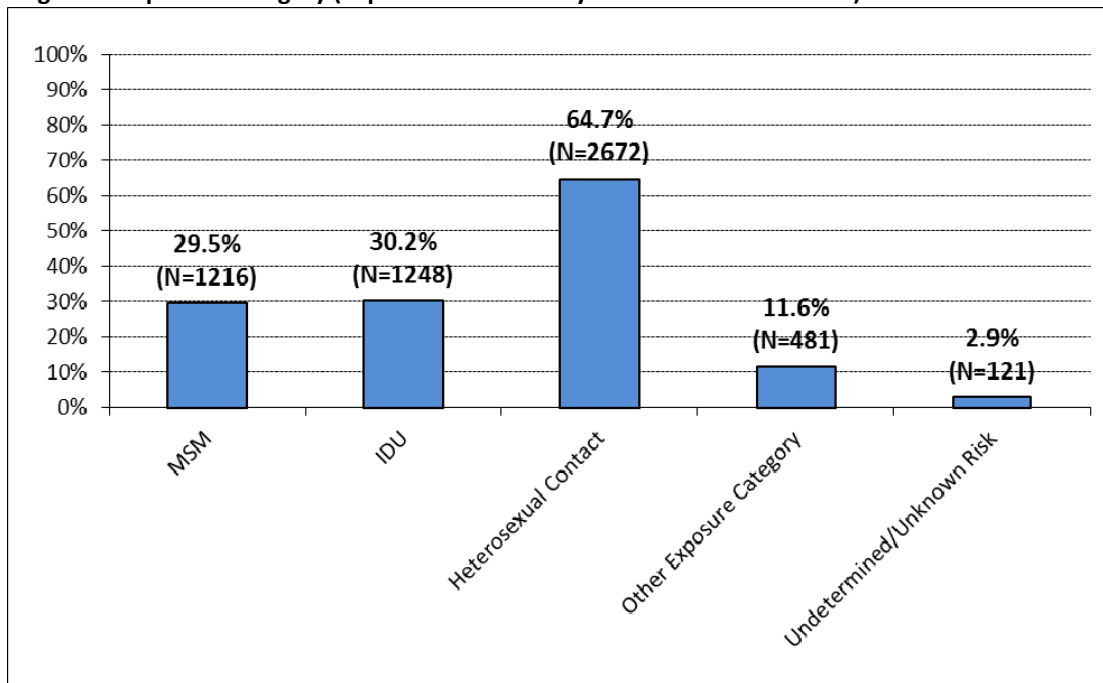


Exposure Category

Clients were categorized according to one or more HIV exposure categories, which were largely self-reported. The majority of clients (64.7%) were reported as having heterosexual exposure, while about one-third were reported as MSM (29.5%) and injection drug users (30.2%), respectively. Other exposure categories (including perinatal transmission, hemophilia/coagulation disorder, blood/blood products/tissue, and other risk) were identified for 11.6% of clients, and 2.9% were categorized as undetermined/unknown risk. In this round of data analysis, all those clients who had 'Unknown/Unreported' and another Exposure category checked had the 'Unknown/Unreported' checkbox removed. Compared to earlier reports, where around 16% of clients were Unknown/Unreported, this data cleaning step has helped to more accurately reflect the population of clients whose exposure risk is actually unknown.

While there are slight differences in the way exposure is categorized in the state surveillance data, the breakdown for the Boston EMA is as follows: 38% MSM, 18% IDU, 3% MSM/IDU, 23% heterosexual (including presumed heterosexual), 2% perinatal, <1% other risk, and 15% undetermined/unknown risk.

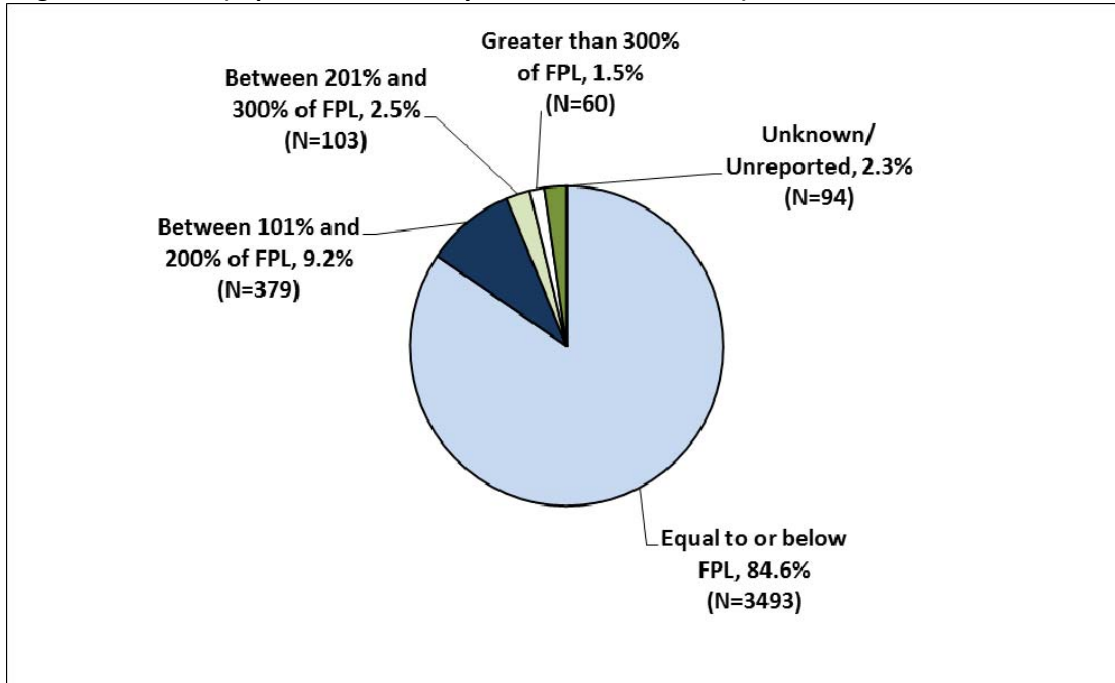
Figure 9. Exposure Category (September – February 2011: Year-End FY 2010)



Income

The income level of most clients (84.6%) was equal to or below the Federal Poverty Line (FPL). Almost ten percent of clients (9.2%) had incomes between 101% and 200% of the Federal poverty line. A few clients (2.5%) had incomes between 201% and 300% of the Federal poverty line or greater (1.5%). Income level data was unknown/unreported for 2.3% of clients.

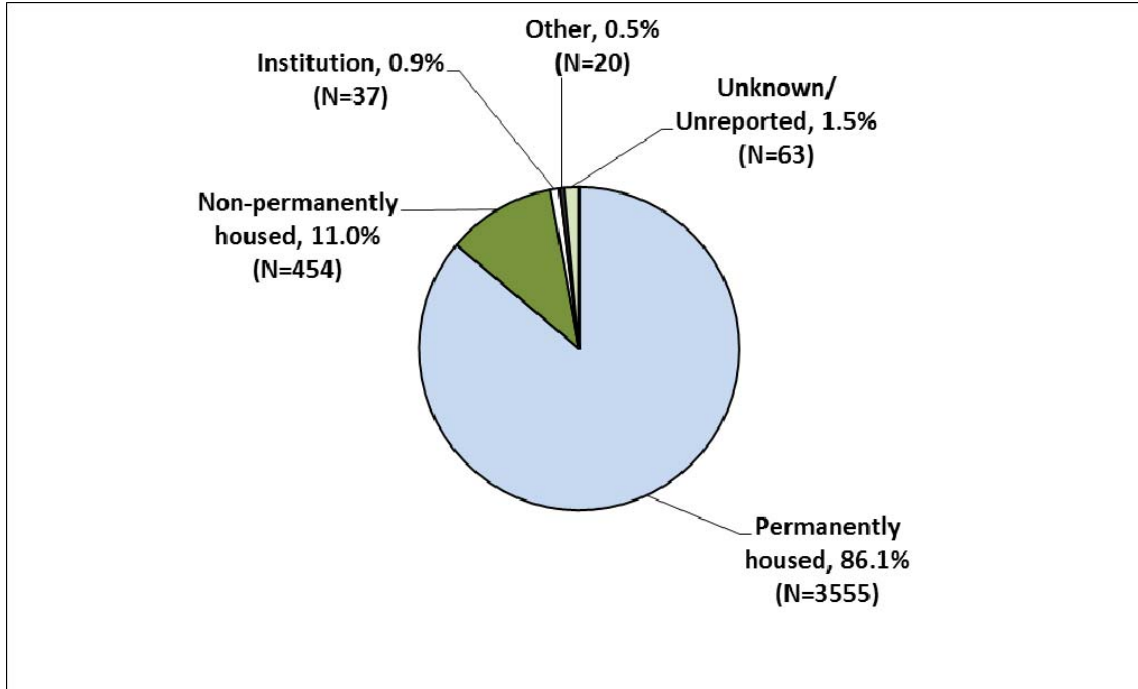
Figure 10. Income (September – February 2011: Year-End FY 2010)



Housing/Living Arrangement

Most clients (86.1%) were in permanent housing during this reporting period. Another 11.0% reported non-permanent housing (this category includes homeless as well as transient or transitional housing). A small portion of clients (0.9%) were in institutional settings (residential, health care and correctional facilities) or other settings (0.5%). Housing status was unknown/unreported for 1.5% of clients.

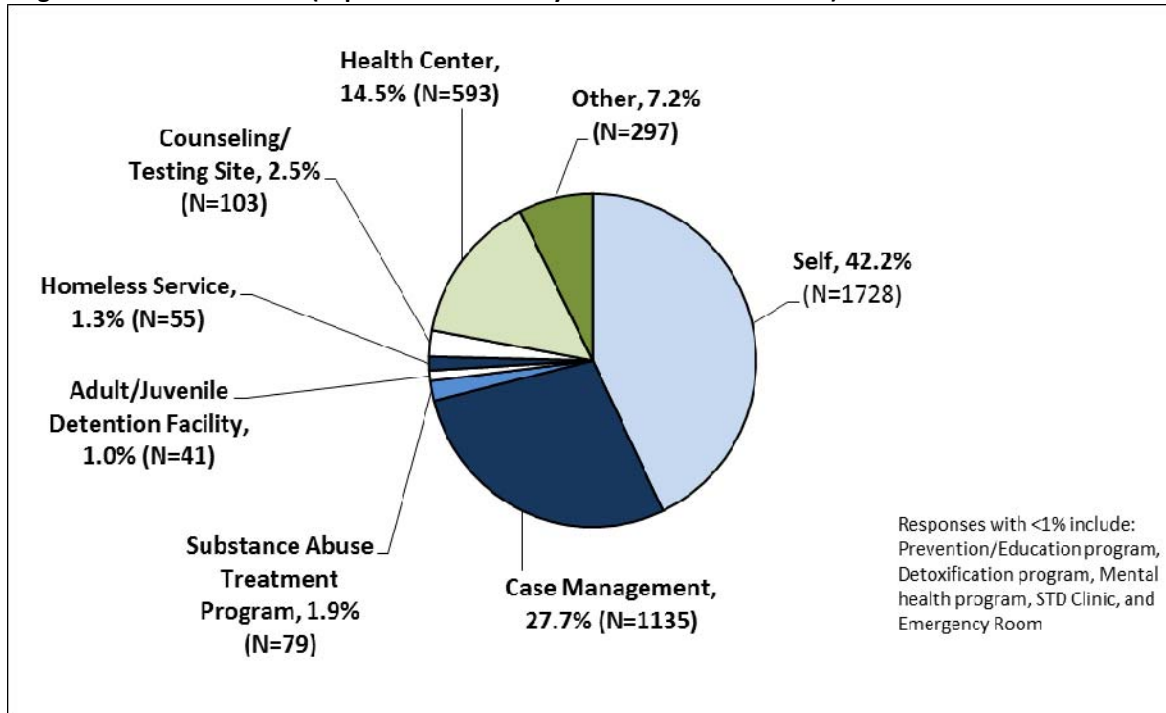
Figure 11. Housing/Living Arrangement (September – February 2011: Year-End FY 2010)



Referral Source

Most clients were either self-referred to the reporting provider (42.2%) or referred by case management (27.7%) or a health center (14.5%). A smaller percentage of clients were referred from other (not-specified) programs (7.2%), or from specific services such as counseling and testing (2.5%), substance abuse treatment (1.9%), or homeless services (1.3%). Note: the current data show only the most recent referral source for each client.

Figure 12. Referral Source (September – February 2011: Year-End FY 2010)



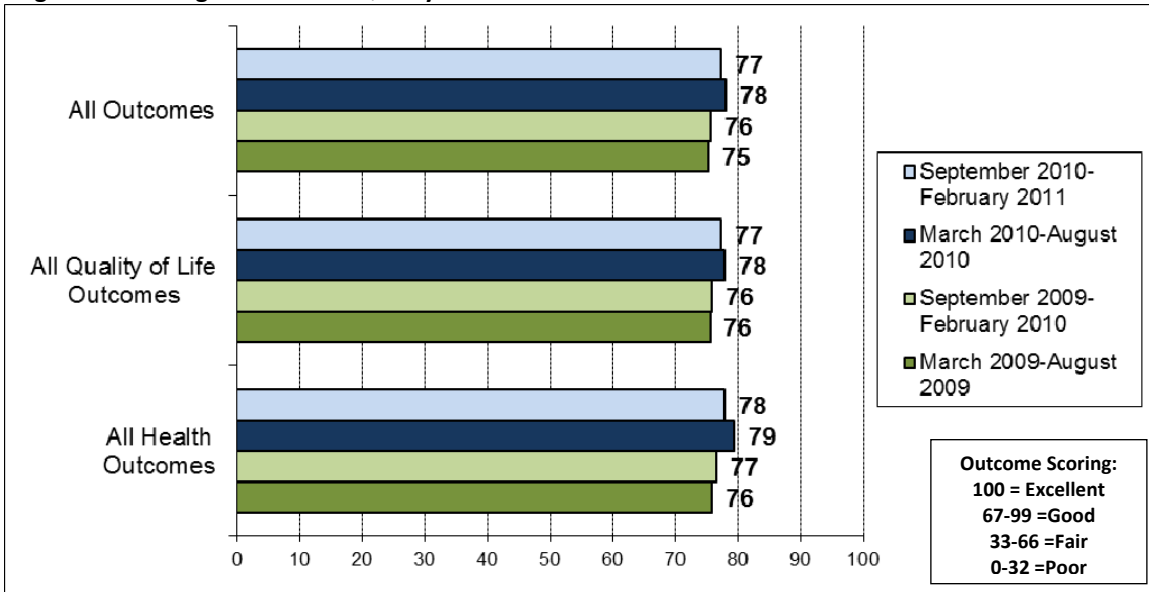
Outcome Scores: All Clients

The following tables show average outcome scores, by outcome category, for unduplicated clients across the four reporting periods. Individual outcome scores are categorized as: Excellent (scores of 100 only); Good (67-99), Fair (33-66) and Poor (0-32).

All Outcomes

Overall outcomes for health and quality of life were stable across reporting periods, with the average scores for both remaining solidly in the “good” category.

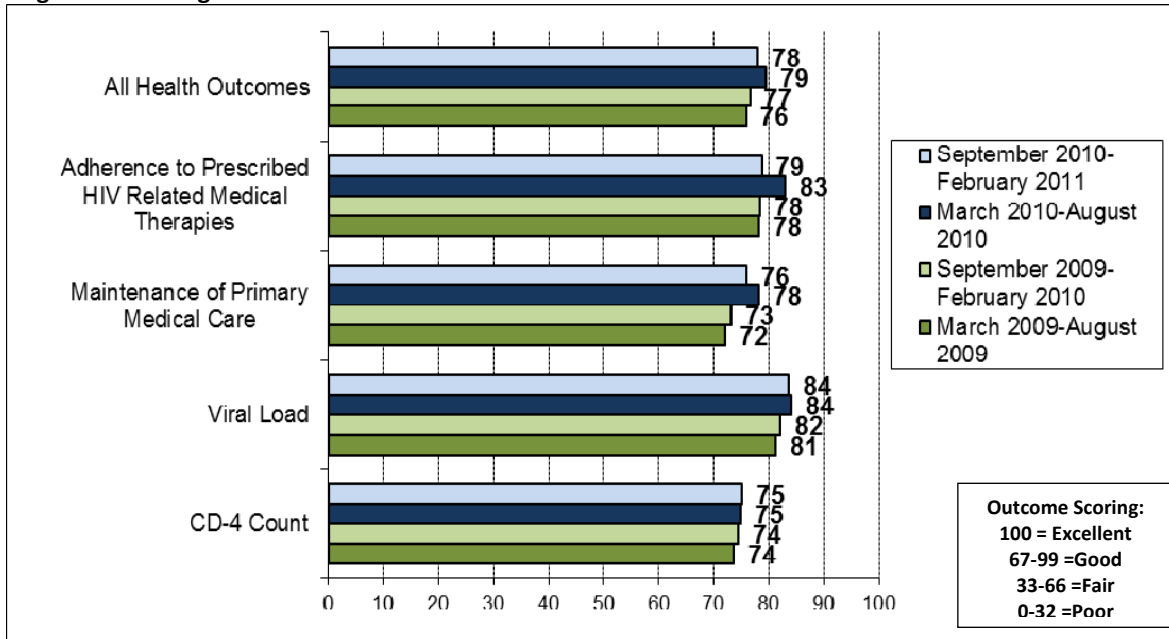
Figure 13. Average Health and Quality of Life Outcome Scores for All Clients



All Health Outcomes

Figure 14 shows a comparison of average health outcome scores for unduplicated clients across reporting periods. Scores were categorized as “good” across all reporting periods. Note that the data presented for each reporting period include only clients with one or more Outcome Measurement Reports submitted during that period, and therefore individual clients may not be included in every period.

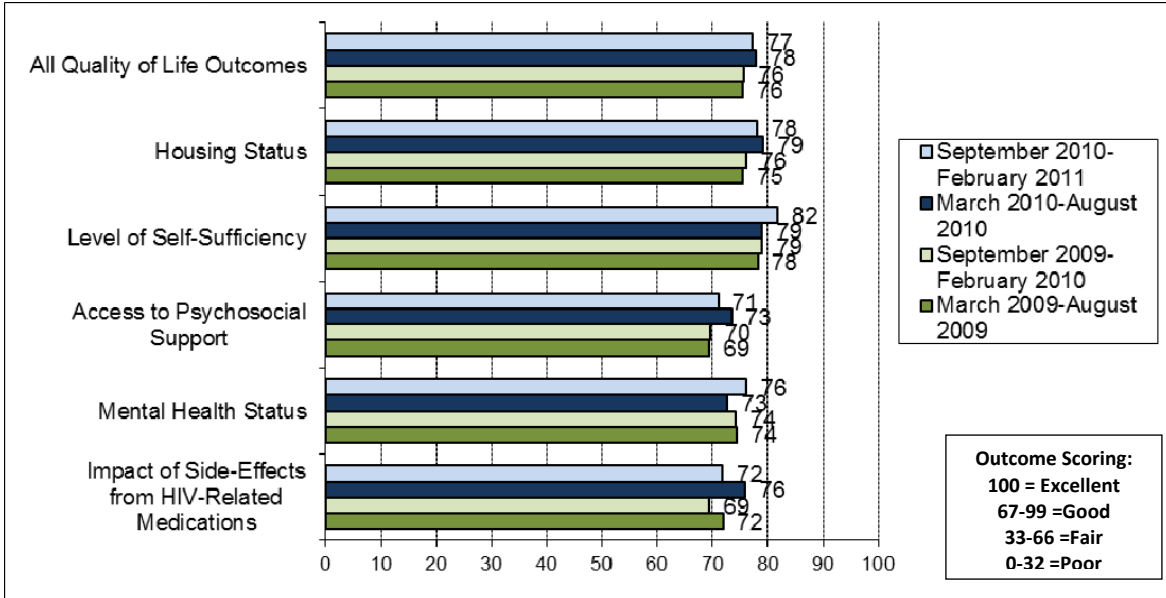
Figure 14. Average Health Outcome Scores for All Clients



All Quality of Life Outcomes

Figure 15 shows a comparison of average quality of life outcome scores for unduplicated clients across reporting periods. Quality of life outcomes were in the “Good” range for all four reporting periods.

Figure 15. Average Quality of Life Outcome Scores for All Clients



Average Health Outcome Scores: Tests of Significance

Figure 16 shows where statistically significant changes were measured across average health outcomes. Significant improvement ($p < .05$) was seen across **All Health Outcomes, Viral Load, Maintenance of Primary Medical Care, and Adherence to Prescribed HIV-Related Medical Therapies** between Year-End 2009 and Mid-Year FY 2010. However, in the following reporting period each of these categories had a significant decrease in outcome scores, with the exception of **Viral Load**.

Figure 16. Change in Average Health Outcome Scores for All Clients (Independent Samples T-tests)

Health Outcomes	March 2009- August 2009		September 2009- February 2010		Change		Sig*	March 2010- August 2010		Change		Sig*	September 2010 -February 2011		Change		Sig*
	Clients	Avg. Score	Clients	Avg. Score				Clients	Avg. Score				Clients	Avg. Score			
CD-4 Count	4688	73.5	4711	74.4	↑	0.9	NS	4571	74.9	↑	0.5	NS	4906	75.1	↑	0.2	NS
Viral Load	4686	81.3	4691	82.0	↑	0.7	NS	4560	84.1	↑	2.1	0.0001	4890	83.5	↑	-0.6	NS
Maintenance of Primary Medical Care	4699	72.1	4751	73.1	↑	1.0	NS	4560	78.2	↑	5.1	<.0001	4873	76.0	↓	-2.2	0.0001
Adherence to Prescribed HIV Related Medical Therapies	4385	78.1	4418	78.4	↑	0.3	NS	4228	82.9	↑	4.5	<.0001	4585	78.7	↓	-4.2	<.0001
All Health Outcomes	4710	75.9	4755	76.5	↑	0.6	NS	4618	79.4	↑	2.9	<.0001	4942	77.9	↓	-1.5	0.0002

*Level of significance $p < .05$

Average Quality of Life Outcomes: Tests of Significance

Figure 17 shows where statistically significant changes were measured across average quality of life outcomes. Significant improvement ($p < .05$) was seen across **All Quality of Life Outcomes** between Year-End FY 2009 and Mid-Year FY 2010. **Impact of Side-Effects from HIV-Related Medications** fluctuated between reporting periods, decreasing significantly ($p < .05$) at Year-End FY 2009, increasing at Mid-Year FY 2010, and decreasing again at Year-End FY 2010. This may be explained by on-going changes for clients related to medication adjustments. A significant decrease was seen in **Mental Health Status** between Year-End FY 2009 and Mid-Year FY 2010, followed by a significant increase at Year-End FY 2010. **Access to Psychosocial Support** increased significantly between Year-End FY 2009 and Mid-Year FY 2010, followed by a significant decrease at Year-End FY 2010. **Level of Self-Sufficiency** increased significantly at Year-End FY 2010 while **Housing Status** increased significantly between Year-End 2009 and Mid-Year 2010.

Figure 17. Change in Average Quality of Life Outcome Scores for All Clients (Independent Samples T-tests)

Quality of Life Outcomes	March 2009- August 2009		September 2009- February 2010		Change		Sig*	March 2010- August 2010		Change		Sig*	September 2010- February 2011		Change		Sig*
	Clients	Avg. Score	Clients	Avg. Score				Clients	Avg. Score				Clients	Avg. Score			
Impact of Side-Effects from HIV-Related Medications	4224	71.9	3788	69.5	↓	-2.4	<.0001	3640	75.9	↑	6.4	<.0001	4055	71.8	↓	-4.1	<.0001
Mental Health Status	4116	74.4	4154	74.3	↓	-0.1	NS	3996	72.6	↓	-1.7	0.0022	4368	76.1	↑	3.5	<.0001
Access to Psychosocial Support	4116	69.4	4154	69.6	↑	0.2	NS	4000	73.5	↑	3.9	<.0001	4371	71.0	↓	-2.5	<.0001
Level of Self-Sufficiency	4116	78.2	4154	78.9	↑	0.7	NS	4001	78.9	↑	0.0	NS	4370	81.8	↑	2.9	<.0001
Housing Status	4266	75.5	4748	76.1	↑	0.6	NS	4562	79.2	↑	3.1	<.0001	4878	78.1	↓	-1.1	NS
All Quality of Life Outcomes	4706	75.5	4752	75.8	↑	0.3	NS	4565	77.9	↑	2.1	<.0001	4880	77.3	↓	-0.6	NS

Health Outcome Distribution for All Clients

Figures 18 - 21 show the distribution of scores for unduplicated clients, for each of the four health outcomes at Year End FY 2010: **CD-4 count**, **Viral Load**, **Maintenance of Primary Medical Care**, and **Adherence to Prescribed HIV Related Medical Therapies**. A table showing health outcome score distribution for the most recent four reporting periods is included in Appendix B.

Figure 18 shows that over one-third of clients (37.9%) were categorized as Excellent and nearly half (47.5%) were categorized as Good in the outcome category of **CD-4 count** at the end of the most recent reporting period. A smaller percentage of clients were categorized as Fair (11.5%) or Poor (3.2%).

Figure 18. Outcome Score Distribution Year-End FY 2010: CD-4 count

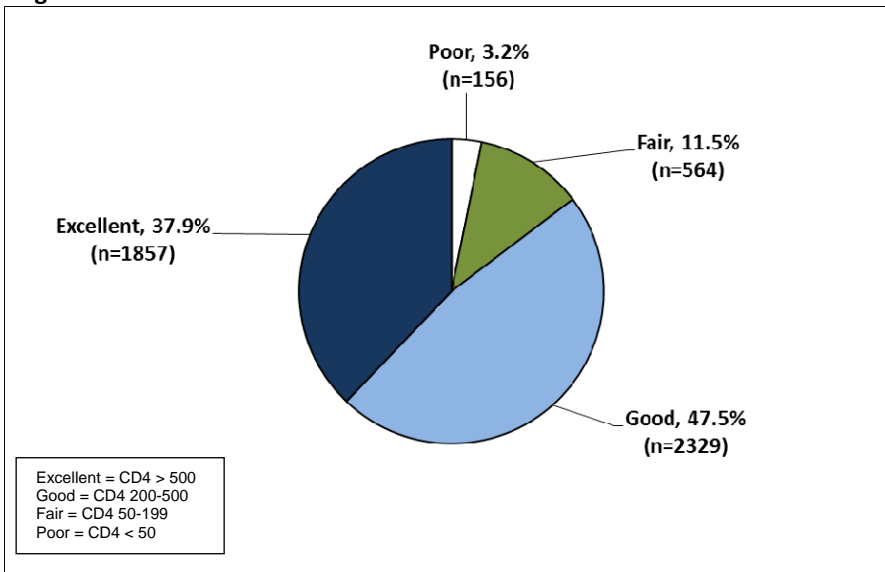


Figure 19 shows that the majority of clients (61.5%) were categorized as Excellent and just over one-quarter (26.0%) were categorized as Good in the outcome category of **Viral Load**, while a relatively small percentage of clients were categorized as Fair (9.2%) or Poor (3.3%).

Figure 19. Outcome Score Distribution Year-End FY 2010: Viral Load

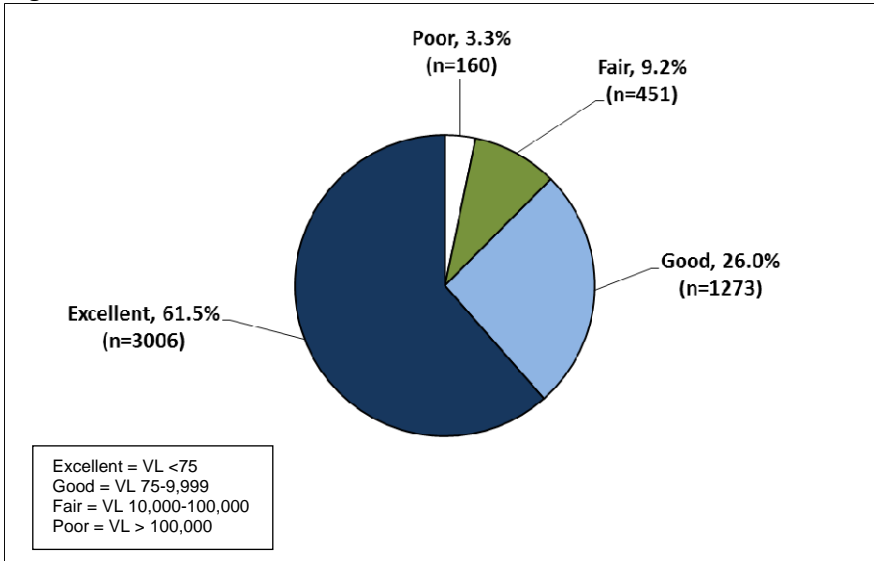


Figure 20 shows 45.7% of clients in the Excellent category, and 35.3% of clients in the Good category, for **Maintenance of Primary Medical Care**. Compared to **CD-4 count** and **Viral Load** categories above, a slightly larger percentage of clients were categorized as Fair (13.4%) or Poor (5.6%).

Figure 20. Outcome Score Distribution Year-End FY 2010: Maintenance of Primary Medical Care

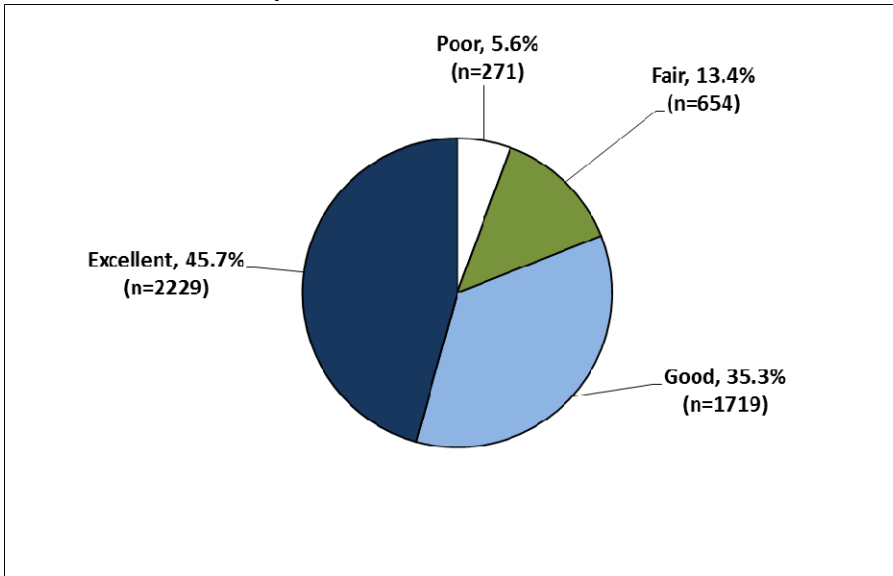
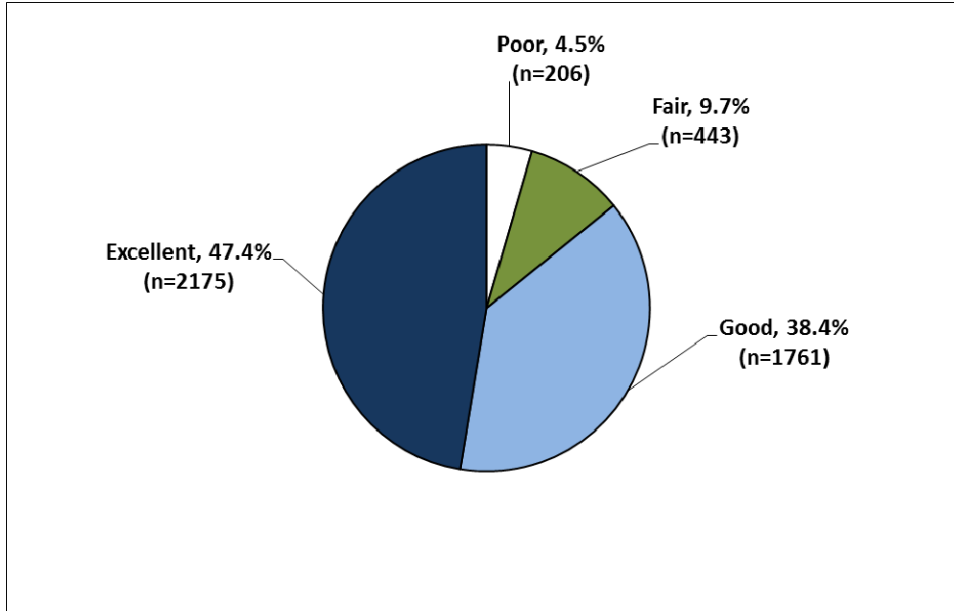


Figure 21 shows 47.4% of clients in the Excellent category for **Adherence to Prescribed HIV Related Medical Therapies**, and 38.4% of clients in the Good category. A smaller percentage of clients were categorized as Fair (9.7%) or Poor (4.5%).

**Figure 21. Outcome Score Distribution Year-End FY 2010:
Adherence to Prescribed HIV Related Medical Therapies**



Demographic and Descriptive Characteristics of Continuous Clients

Continuous clients (n=2551) are those clients who had at least one outcomes report during each of the four most recent reporting periods. Demographic data were available for 2523 continuous clients. The demographic characteristics of the continuous clients March 2009 – February 2011 do not differ notably from the non-continuous group (at Year-End FY 2010) on most parameters (Figure 22). For example, the continuous group contains similar percentages of females (34.9% vs. 34.1%), Hispanics (36.0% vs. 34.1%), and Blacks/African Americans (36.9% vs. 36.1%), as well as similar percentages of clients who were HIV-positive, not AIDS (68.0% vs. 67.1%). With respect to HIV exposure, the clients exposed through injection drug use (32.6% vs. 30.2%) heterosexual exposure (67.3% vs. 64.7%) and MSM (28.3% vs. 29.5%) were also similar.

Figure 22. Selected Demographic Characteristics: Continuous Clients vs. All Clients

Response	Continuous Clients (March 2009 - February 2011)		All Clients (Year-End 2010)	
	Clients	Percent	Clients	Percent
ALL UNDUPLICATED CLIENTS	2551		4978	
Clients With No Demographic Data	28	1.1%	849	17.1%
Clients With Demographic Data	2523	98.9%	4129	82.9%
Number Of Clients And Mean Age	2523	46.82	4129	46.31
Gender				
Male	1624	64.4%	2690	65.1%
Female	880	34.9%	1407	34.1%
Transgender	9	0.4%	16	0.4%
Unknown/Unreported	10	0.4%	16	0.4%
Ethnicity				
Hispanic or Latino/a	908	36.0%	1408	34.1%
Federal Race Categories				
White	1214	48.1%	2001	48.5%
Black Or African American	931	36.9%	1489	36.1%
Asian	37	1.5%	60	1.5%
Native Hawaiian/Pacific Islander	43	1.7%	62	1.5%
American Indian/Alaskan Native	85	3.4%	125	3.0%
Unknown/Unreported Race	422	16.7%	701	17.0%
Diagnostic Information				
HIV+, not AIDS	1716	68.0%	2771	67.1%
HIV+, AIDS status unknown	205	8.1%	394	9.5%
AIDS, CDC defined	585	23.2%	939	22.7%
Unknown/Unreported	17	0.7%	25	0.6%
Exposure Category				
MSM	713	28.3%	1216	29.5%
IDU	822	32.6%	1248	30.2%
Heterosexual Contact	1699	67.3%	2672	64.7%
Other Exposure Category	305	12.1%	481	11.6%
Undetermined/Unknown Risk	67	2.7%	121	2.9%

Individual Health Outcomes: Tests of Significance (Continuous Clients)

Figure 23 shows where statistically significant changes were measured for health outcomes for Continuous Clients. Paired t-tests were used to measure significance for continuous clients because by definition continuous clients have records in all comparison periods. Each health outcome had at least one statistically significant change in average outcome score in the four reporting periods. Continuous clients showed significant improvement ($p < .05$) in average outcome score for **CD-4 count** between Mid-Year and Year-End 2009. Significant improvements in **Viral Load** and **Maintenance of Primary Medical Care** are shown from Mid-Year 2009 to Year-End 2009 and from Year-End 2009 to Mid-Year 2010. **Adherence to Prescribed HIV Related Medical Therapies** was the only Health Outcome category with a significant decrease in average outcome score, which was seen at Year-End 2010 after a significant improvement in the previous reporting period (Mid-Year 2010). Continuous clients showed statistically significant improvement across **All Health Outcomes** between Mid-Year FY 2009 and Year-End FY 2009, and again at Mid-Year 2010.

Figure 23. Continuous Clients: Average Health Outcome Scores

Health Outcome	Mid-Year 2009 March 2009- August 2009		Year-End 2009 September 2009- February 2010		Change		Sig*	Mid-Year 2010 March 2010- August 2010		Change		Sig*	Year-End 2010 September 2010- February 2011		Change		Sig*
	Clients	Avg. Score	Clients	Avg. Score				Clients	Avg. Score				Clients	Avg. Score			
	CD-4 Count	2541	74.1	2536	74.8	↑	0.7	0.0466	2534	75.4	↑	0.6	NS	2533	75.9	↑	0.5
Viral Load	2540	82.6	2535	83.9	↑	1.3	0.0022	2532	85.7	↑	1.8	<.0001	2533	85.0	↓	-0.7	NS
Maintenance of Primary Medical Care	2546	75.0	2550	76.6	↑	1.6	0.0007	2523	78.1	↑	1.5	0.0032	2521	77.8	↓	-0.3	NS
Adherence to Prescribed HIV Related Medical Therapies	2386	80.1	2418	80.9	↑	0.8	NS	2376	82.8	↑	1.9	<.0001	2406	81.1	↓	-1.7	0.0002
All Health Outcomes	2551	77.6	2551	78.7	↑	1.1	<.0001	2551	80.0	↑	1.3	<.0001	2551	79.6	↓	-0.4	NS

*Level of significance $p < .05$

Individual Quality of Life Outcomes: Tests of Significance (Continuous Clients)

Figure 24 shows where statistically significant changes were measured, using the paired t-test, for quality of life outcomes for Continuous Clients. Quality of life Outcome Scores for Continuous clients showed significant changes ($p < .05$) at least once for each of the outcomes. A statistically significant improvement in **Impact of Side-Effects from HIV-Related Medications** was seen between Year-End 2009 and Mid-Year 2010, but scores then decreased significantly between Mid-Year 2009 and Year-End 2010. After no change in average outcome score for three reporting periods, a significant improvement in **Mental Health Status** was seen between Mid-Year and Year-End 2010. A statistically significant increase was seen between Year-End 2009 and Mid-Year FY 2010 in **Access To Psychosocial Support**, followed by a decrease at Year-End 2010. Significant improvement was seen in **Level Of Self-Sufficiency** between Mid-Year and Year-End 2010. Significant improvement was also seen in **Housing Status** between Year-End 2009 to Mid-Year 2010 and again at Year-End 2010. Average outcome scores across **All Quality of Life Outcomes** increased significantly in each of the last three reporting periods.

Figure 24. Continuous Clients: Average Quality of Life Outcome Scores

Quality of Life Outcome	Mid-Year 2009 March 2009- August 2009		Year-End 2009 September 2009- February 2010		Change		Sig*	Mid-Year 2010 March 2010- August 2010		Change		Sig*	Year-End 2010 September 2010- February 2011		Change		Sig*
	Clients	Avg. Score	Clients	Avg. Score				Clients	Avg. Score				Clients	Avg. Score			
Impact of Side-Effects from HIV-Related Medications	2344	74.4	2202	73.0	↓	-1.4	NS	2162	76.4	↑	3.4	<.0001	2203	74.3	↓	-2.1	0.0002
Mental Health Status	2362	72.5	2356	72.5	↓	0.0	NS	2329	72.5	↓	0.0	NS	2330	74.8	↑	2.3	<.0001
Access to Psychosocial Support	2363	73.1	2357	72.8	↓	-0.3	NS	2332	74.6	↑	1.8	0.0007	2332	74.3	↓	-0.3	NS
Level of Self-Sufficiency	2362	78.1	2357	77.4	↓	-0.7	NS	2332	77.9	↑	0.5	NS	2331	81.0	↑	3.1	<.0001
Housing Status	2397	76.8	2549	78.7	↑	1.9	NS	2525	80.8	↑	2.1	0.0001	2526	82.3	↑	1.5	0.0009
All Quality of Life Outcomes	2550	76.2	2551	76.3	↑	0.1	NS	2526	77.7	↑	1.4	<.0001	2526	78.6	↑	0.9	0.0010

*Level of significance $p < .05$

Health Outcome Score Distribution among Continuous Clients

Figures 25-28 show the distribution of health outcome scores of continuous clients at Year-End FY 2010. Clients' outcome scores were categorized as Excellent between one-third and two thirds of the time: **CD-4 Count** (37.2%), **Viral Load** (62.4%), **Maintenance of Primary Medical Care** (44.5%) and **Adherence to Prescribed HIV Related Medical Therapies** (48.0%). Most of the remaining clients were categorized as Good in all categories, including: **CD-4 Count** (48.6%); **Viral Load** (26.5%); **Maintenance of Primary Medical Care** (38.8%); and **Adherence to Prescribed HIV Related Medical Therapies** (40.3%). Around one-tenth of the clients in each category were categorized as Fair, with **Maintenance of Primary Medical Care** having slightly more clients in the "Fair" category. Fewer than four percent of clients were categorized as Poor for each category.

Figure 25. CD4 Count

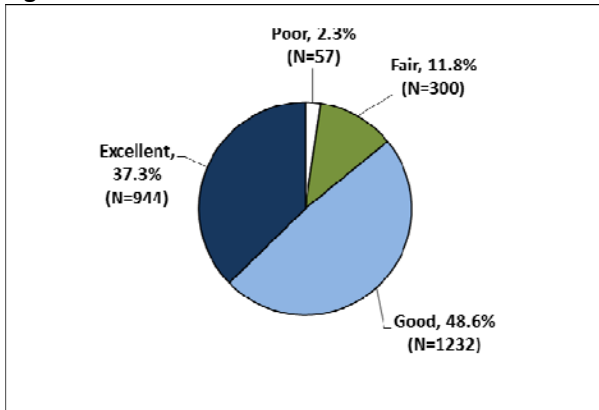


Figure 26. Viral Load

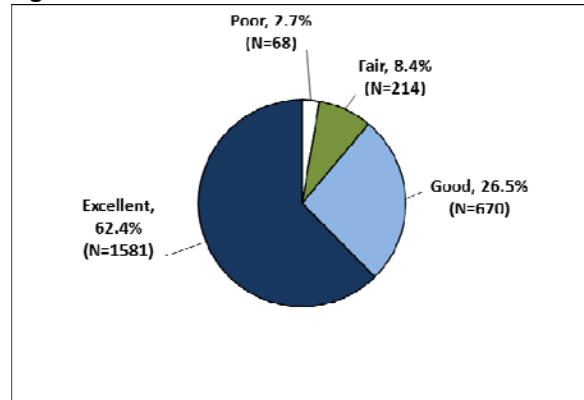


Figure 27. Maintenance of Primary Medical Care

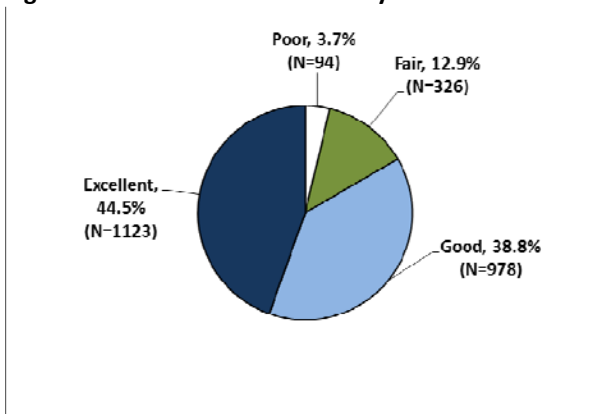
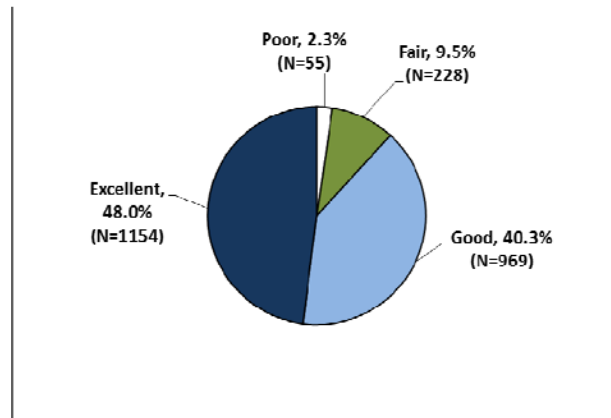


Figure 28. Adherence to Prescribed HIV-Related Medication



Change in Severity for Continuous Clients

Figures 29-32 show change in severity among continuous clients in a comparison between the most recent (September 2010-February 2011, “final”) outcome and the first reporting period included in this report (March-August 2009, “initial outcome”). Half of these clients had no change in outcome score between comparison periods, more than one-quarter of clients improved, and about one-fifth to one-quarter of clients worsened. For **CD-4 Count** the percentage of clients that improved was greater (25.9%) than the percent of clients that got worse (20.2%), and the same was true for **Viral Load** and **Adherence to Prescribed HIV Related Medical Therapies**. The exception was **Maintenance of Primary Medical Care** where similar percentages of clients improved and worsened; however as discussed above, under “limitations” this may not be of concern as this category may not be an adequate measure of access to medical care. Also, some clients only had one score reported for the particular outcome category, and so change in score could not be calculated within the category. These clients are shown as “only one score.”

Figure 29. CD4 Count

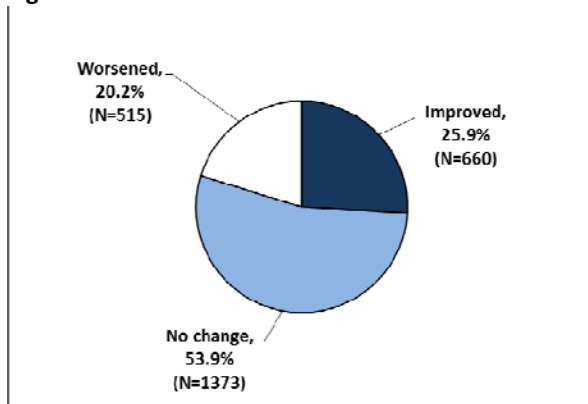


Figure 30. Viral Load

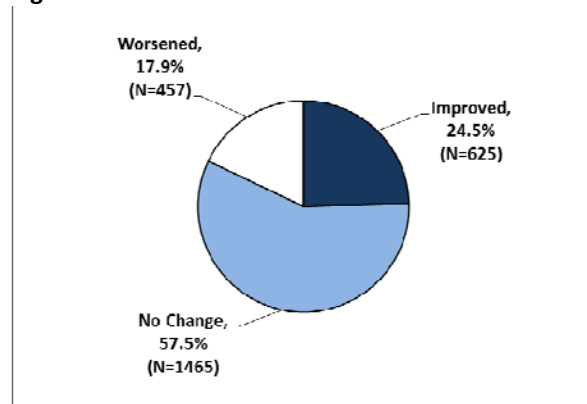


Figure 31. Maintenance of Primary Medical Care

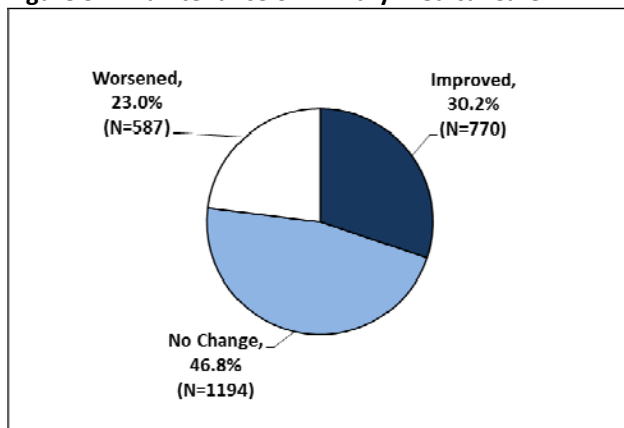
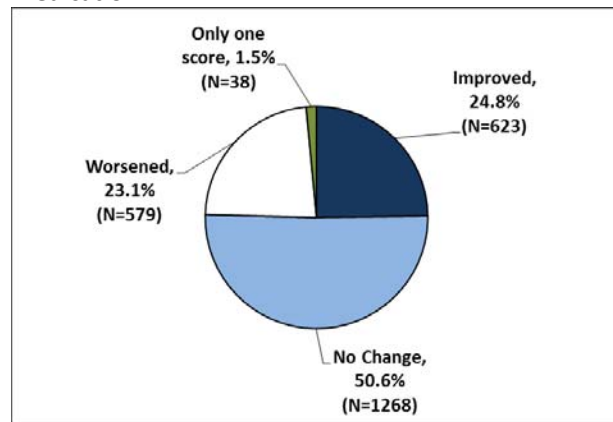


Figure 32. Adherence to Prescribed HIV-Related Medication



DISCUSSION

Outcome Scores: All Clients

Average outcome scores for health and quality of life were stable across reporting periods, with the average scores for both remaining solidly in the “good” category for across **All Health Outcomes** and **All Quality of Life Outcomes**, and for nearly all individual outcome categories.

Tests of Significance

Significant improvement ($p < .05$) was seen across **All Health Outcomes, Viral Load, Maintenance of Primary Medical Care, and Adherence to Prescribed HIV-Related Medical Therapies** between Year-End 2009 and Mid-Year FY 2010. In the following reporting period each of these categories had a significant decrease in outcome scores, with the exception of **Viral Load**.

Significant improvement ($p < .05$) was seen across **All Quality of Life Outcomes** between Year-End FY 2009 and Mid-Year FY 2010. **Impact of Side-Effects from HIV-Related Medications** fluctuated between reporting periods, decreasing significantly ($p < .05$) at Year-End FY 2009, increasing at Mid-Year FY 2010, and decreasing again at Year-End FY 2010. This may be explained by on-going changes for clients related to medication adjustments. A statistically significant decrease was seen in **Mental Health Status** between Year-End FY 2009 and Mid-Year FY 2010, followed by a significant increase at Year-End FY 2010. **Access to Psychosocial Support** increased significantly between Year-End FY 2009 and Mid-Year FY 2010, followed by a significant decrease at Year-End FY 2010. **Level of Self-Sufficiency** increased significantly at Year-End FY 2010 while **Housing Status** increased significantly between Year-End 2009 and Mid-Year 2010.

Health Outcome Score Distribution for All Clients

Over 80% of clients were categorized as either Excellent or Good in the outcome categories of **CD-4 count, Viral Load** and **Adherence to Prescribed HIV Related Medical Therapies**, and **Maintenance of Primary Medical Care**.

Outcome Scores: Continuous Clients

The demographic characteristics of the continuous clients do not differ notably from the non-continuous group on most parameters; as such, this group may be an appropriate barometer of the impact of comprehensive care on client outcomes over time.

Tests of Significance

Paired t-tests were used to measure significance for continuous clients because by definition continuous clients have records in all comparison periods. Each health outcome had at least one statistically significant change in average outcome score in the four reporting periods. Continuous clients showed significant improvement ($p < .05$) in average outcome score for **CD-4 count** between Mid-Year and Year-End 2009. Significant improvements in **Viral Load** and **Maintenance of Primary Medical Care** are

shown from Mid-Year 2009 to Year-End 2009 and from Year-End 2009 to Mid-Year 2010. **Adherence to Prescribed HIV Related Medical Therapies** was the only Health Outcome category with a significant decrease in average outcome score, which was seen at Year-End 2010 after a significant improvement in the previous reporting period (Mid-Year 2010). Continuous clients showed statistically significant improvement across **All Health Outcomes** between Mid-Year FY 2009 and Year-End FY 2009, and again at Mid-Year 2010.

Quality of life Outcome Scores for Continuous clients showed significant changes ($p < .05$) at least once for each of the outcomes. A statistically significant improvement in **Impact of Side-Effects from HIV-Related Medications** was seen between Year-End 2009 and Mid-Year 2010, but scores then decreased significantly between Mid-Year 2009 and Year-End 2010. After no change in average outcome score for three reporting periods, a significant improvement in **Mental Health Status** was seen between Mid-Year and Year-End 2010. A statistically significant increase was seen between Year-End 2009 and Mid-Year FY 2010 in **Access To Psychosocial Support**, followed by a decrease at Year-End 2010. Significant improvement was seen in **Level Of Self-Sufficiency** between Mid-Year and Year-End 2010. Significant improvement was also seen in **Housing Status** between Year-End 2009 to Mid-Year 2010 and again at Year-End 2010. Average outcome scores across **All Quality of Life Outcomes** increased significantly in each of the last three reporting periods.

Health Outcome Score Distribution for Continuous Clients

This report examined the distribution of health outcome scores among continuous clients at Year-End FY 2010. Clients' outcome scores were categorized as Excellent between one-third and two thirds of the time: **CD-4 Count** (37.2%), **Viral Load** (62.4%), **Maintenance of Primary Medical Care** (44.5%) and **Adherence to Prescribed HIV Related Medical Therapies** (48.0%). Most of the remaining clients were categorized as Good in all categories, including: **CD-4 Count** (48.6%); **Viral Load** (26.5%); **Maintenance of Primary Medical Care** (38.8%); and **Adherence to Prescribed HIV Related Medical Therapies** (40.3%). Around one-tenth of the clients in each category were categorized as Fair, with **Maintenance of Primary Medical Care** having slightly more clients in the "Fair" category. As mentioned earlier in the report, this category was reviewed and will be removed from the newest version of the Outcome Measurement form, starting in September 2011. Fewer than four percent of clients were categorized as Poor for each category.

Change in Severity

Clients that moved from one outcome score category to another (Excellent, Good, Fair or Poor) were measured among continuous clients between Mid-Year FY 2009 and Year-End FY 2010 (initial vs. final reporting period). Half of these clients had no change in average outcome score between comparison periods, more than one-quarter of clients improved, and about one-fifth to one-quarter of clients worsened. For **CD-4 Count** the percentage of clients that improved was greater (25.9%) than the percent of clients that

got worse (20.2%), and the same was true for **Viral Load** and **Adherence to Prescribed HIV Related Medical Therapies**. Again, the exception was **Maintenance of Primary Medical Care** where similar percentages of clients improved and worsened; however this may not be of particular concern due to limitations with this outcome measure discussed earlier. Also, some clients only had one score reported for the particular outcome category, and so change in score could not be calculated within the category. These clients are shown as “only one score.”

RECOMMENDATIONS AND NEXT STEPS

This is the third year of JSI’s work with BPHC on Outcome Measurement reporting, and efforts continue to focus on data quality improvement and assessment of analytic methods. JSI is also engaged in a process of assessing potential improvements to Outcome Measurement system overall, including how outcome data are collected, possible revisions to the Outcomes Measurement Report Form itself, and soliciting feedback from providers about how the form is completed.

Continuing analyses of the data will support ongoing attention to the *completeness* and *accuracy* of data across the Part A program – as well as for individual providers – and will inform methods, results and conclusions in future reports. Further, individual providers’ data are now being analyzed to identify specific opportunities for data quality improvement at the provider level.

Demographic and descriptive data are being explored at the raw data level. Some improvements have already been made, and we will continue to explore possibilities for improving the clarity and relevance of these data.

Finally, we worked with BPHC and the funded agencies to revise the data collection methods and improve elements of the Outcomes Measurement form. The goal of this process was to create a more meaningful and standardized approach in which client input is directly incorporated, and all the relevant background factors related to outcome variation can be measured. Following a literature review and focus group discussions, a modified approach was developed. The new version will be in use after September 1, 2011. Changes to the form include removing Maintenance of Primary Medical Care. Clients will now be asked to report the month and year of their last appointment with an HIV primary medical care provider, along with more detailed information about receipt of case management services.

A new Microsoft Access database was developed to correspond to this form, in order to facilitate data entry while minimizing errors and improving overall data quality. The development process included gathering feedback through a technology assessment, and a piloting process with a subset of funded. It is currently being installed at all funded agencies, and providers are being trained on data collection, entry, and export for the next reporting period (September 2011-February 2012).

Appendix A



Boston Public Health Commission AIDS Program - Ryan White Part A

OUTCOME MEASUREMENT REPORT

Date: _____

Reporting Period: March - August or September - February

Agency: _____

Contact Name: _____

Client Code:

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The client: is a new intake (date __/__/__) is an on-going client

**** IF THE CLIENT WAS NOT SEEN DURING THE REPORTING PERIOD, DO NOT COMPLETE THE FORM ****

Check all Part A funded services that this report applies to:

- Case Management; Client Advocacy; Dental; Drug Reimbursement; Food Services/Meals;
 Housing; Mental Health; Peer Support; Primary Medical Care; Substance Abuse; Transportation; MAI

Check the one (1) box for each outcome that most appropriately describes the client's status at the time of this review:

	Poor/In Crisis	Fair	Good	Excellent
1. <u>CD-4 Count</u>	<input type="checkbox"/> Less than 50	<input type="checkbox"/> 50 – 199	<input type="checkbox"/> 200 – 500	<input type="checkbox"/> >500
2. <u>Viral Load</u>	<input type="checkbox"/> >100,000	<input type="checkbox"/> 10,000 – 100,000	<input type="checkbox"/> 75 – 9,999	<input type="checkbox"/> <75/virus undetectable
3. <u>Maintenance of Primary Medical Care</u>	<input type="checkbox"/> Missed all or had no scheduled primary medical care appointments in the past 6 months	<input type="checkbox"/> Kept some scheduled primary medical care appointments in the past 6 months	<input type="checkbox"/> Kept most scheduled primary medical care appointments in the past 6 months	<input type="checkbox"/> Kept all scheduled primary medical care appointments in the past 6 months
4. <u>Adherence to Prescribed HIV Related Medical Therapies</u> <input type="checkbox"/> N/A because not on ART	<input type="checkbox"/> Rarely adheres to HIV-related medical therapies as prescribed	<input type="checkbox"/> Sometimes adheres to HIV-related medical therapies as prescribed	<input type="checkbox"/> Frequently adheres to HIV-related medical therapies as prescribed	<input type="checkbox"/> Always adheres to HIV-related medical therapies as prescribed
5. <u>Impact of Side Effects from HIV-related Medications</u> <input type="checkbox"/> N/A because not on ART	<input type="checkbox"/> Side effects are severely impacting activities of daily living	<input type="checkbox"/> Side effects are moderately impacting activities of daily living	<input type="checkbox"/> Side effects are minimally impacting activities of daily living	<input type="checkbox"/> No side effects or side effects are not impacting activities of daily living
6. <u>Mental Health Status</u>	<input type="checkbox"/> Is danger to self and others and needs immediate psychiatric evaluation/assessment	<input type="checkbox"/> Needs high level of emotional support or counseling due to acute crises, mental health episodes, or severe stress in relationships	<input type="checkbox"/> Needs some emotional support or counseling but otherwise functioning	<input type="checkbox"/> No indication of mental health problems
7. <u>Access to Psychosocial Support</u>	<input type="checkbox"/> Has no access to psychosocial support when needed	<input type="checkbox"/> Has limited access to psychosocial support when needed	<input type="checkbox"/> Has moderate access to psychosocial support when needed	<input type="checkbox"/> Fully connected to psychosocial support when needed
8. <u>Level of Self Sufficiency</u>	<input type="checkbox"/> Unable to manage day to day activities	<input type="checkbox"/> Able to manage some day to day activities	<input type="checkbox"/> Able to manage most day to day activities	<input type="checkbox"/> Able to manage all day to day activities
9. <u>Housing Status</u>	<input type="checkbox"/> Homeless, recently evicted, or home is uninhabitable	<input type="checkbox"/> Limited stability in housing (e.g., facing eviction or will need housing placement)	<input type="checkbox"/> Housing is stable but may need assistance (e.g., rental or utility assistance)	<input type="checkbox"/> Stable and satisfactory housing

Appendix B

Appendix B.1: Outcome Score Distribution for All Part A-only Clients

Outcome	Unduplicated Part A only Clients							
	Mid-Year FY 2009		Year-End FY 2009		Mid-Year FY 2010		Year-End FY 2010	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Outcomes								
Poor	45	1.0%	51	1.1%	60	1.3%	46	1.0%
Fair	1071	23.4%	1005	21.7%	754	16.9%	930	19.4%
Good	3174	69.4%	3275	70.7%	3243	72.5%	3425	71.5%
Excellent	283	6.2%	303	6.5%	414	9.3%	387	8.1%
Total	4573	100.0%	4634	100.0%	4471	100.0%	4788	100.0%
CD-4 Count								
Poor	147	3.2%	159	3.5%	151	3.4%	153	3.2%
Fair	606	13.3%	510	11.1%	481	10.8%	546	11.5%
Good	2201	48.4%	2282	49.7%	2129	48.0%	2228	46.9%
Excellent	1597	35.1%	1638	35.7%	1675	37.8%	1824	38.4%
Total	4551	100.0%	4589	100.0%	4436	100.0%	4751	100.0%
Viral Load								
Poor	141	3.1%	159	3.5%	145	3.3%	157	3.3%
Fair	531	11.7%	440	9.6%	380	8.6%	432	9.1%
Good	1296	28.5%	1315	28.8%	1073	24.2%	1160	24.5%
Excellent	2582	56.7%	2653	58.1%	2827	63.9%	2990	63.1%
Total	4550	100.0%	4567	100.0%	4425	100.0%	4739	100.0%
Maintenance of Primary Medical Care								
Poor	343	7.5%	324	7.0%	189	4.3%	274	5.8%
Fair	767	16.8%	708	15.3%	481	10.9%	617	13.1%
Good	1540	33.7%	1613	34.8%	1569	35.5%	1604	34.0%
Excellent	1914	41.9%	1986	42.9%	2176	49.3%	2222	47.1%
Total	4564	100.0%	4631	100.0%	4415	100.0%	4717	100.0%
Adherence to Prescribed HIV Related Medical Therapies								
Poor	120	2.8%	166	3.9%	78	1.9%	204	4.6%
Fair	444	10.4%	381	8.9%	295	7.2%	424	9.6%
Good	1800	42.3%	1779	41.3%	1452	35.5%	1650	37.2%
Excellent	1892	44.5%	1977	45.9%	2270	55.4%	2154	48.6%
Total	4256	100.0%	4303	100.0%	4095	100.0%	4432	100.0%
All Health Outcomes								
Poor	94	2.1%	113	2.4%	98	2.2%	98	2.0%
Fair	913	20.0%	850	18.3%	602	13.5%	811	16.9%
Good	2950	64.5%	3030	65.4%	2944	65.8%	3069	64.1%
Excellent	616	13.5%	640	13.8%	827	18.5%	809	16.9%
Total	4573	100.0%	4633	100.0%	4471	100.0%	4787	100.0%

Appendix B.2 (continued): Outcome Score Distribution for All Part A – only Clients

Outcome	Unduplicated Part A only Clients							
	Mid-Year FY 2009		Year-End FY 2009		Mid-Year FY 2010		Year-End FY 2010	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Impact of Side-Effects from HIV-Related Medications								
Poor	73	1.8%	78	2.1%	67	1.9%	60	1.5%
Fair	1085	26.5%	1070	29.2%	690	19.7%	1105	28.4%
Good	1337	32.7%	1240	33.8%	1155	33.0%	1165	29.9%
Excellent	1597	39.0%	1280	34.9%	1584	45.3%	1565	40.2%
Total	4092	100.0%	3668	100.0%	3496	100.0%	3895	100.0%
Mental Health Status								
Poor	69	1.7%	86	2.1%	78	2.0%	60	1.4%
Fair	566	14.2%	584	14.5%	630	16.4%	577	13.7%
Good	1915	48.2%	1911	47.5%	1838	47.9%	1887	44.9%
Excellent	1424	35.8%	1444	35.9%	1294	33.7%	1680	40.0%
Total	3974	100.0%	4025	100.0%	3840	100.0%	4204	100.0%
Access to Psychosocial Support								
Poor	231	5.8%	137	3.4%	173	4.5%	151	3.6%
Fair	868	21.8%	974	24.2%	648	16.9%	1056	25.1%
Good	1561	39.3%	1640	40.7%	1549	40.3%	1433	34.1%
Excellent	1314	33.1%	1274	31.7%	1473	38.3%	1567	37.2%
Total	3974	100.0%	4025	100.0%	3843	100.0%	4207	100.0%
Level of Self-Sufficiency								
Poor	61	1.5%	60	1.5%	70	1.8%	56	1.3%
Fair	574	14.4%	516	12.8%	503	13.1%	494	11.7%
Good	1532	38.6%	1591	39.5%	1442	37.5%	1386	33.0%
Excellent	1807	45.5%	1858	46.2%	1829	47.6%	2270	54.0%
Total	3974	100.0%	4025	100.0%	3844	100.0%	4206	100.0%
Housing Status								
Poor	388	9.4%	441	9.5%	309	7.0%	441	9.3%
Fair	468	11.3%	469	10.1%	416	9.4%	451	9.6%
Good	1207	29.2%	1360	29.4%	1224	27.7%	1153	24.4%
Excellent	2064	50.0%	2356	50.9%	2467	55.9%	2677	56.7%
Total	4127	100.0%	4626	100.0%	4416	100.0%	4722	100.0%
All Quality of Life Outcomes								
Poor	74	1.6%	56	1.2%	63	1.4%	49	1.0%
Fair	1092	23.9%	1074	23.2%	884	20.0%	1043	22.1%
Good	2524	55.2%	2627	56.7%	2464	55.8%	2682	56.8%
Excellent	880	19.3%	873	18.9%	1008	22.8%	950	20.1%
Total	4570	100.0%	4630	100.0%	4419	100.0%	4724	100.0%

Appendix B.2: Outcome Score Distribution for All MAI Clients

Outcome	Unduplicated MAI Clients							
	Feb 2009-Jul 2009		Aug 2009-Jan 2010		Feb 2010-Aug 2010		Sep 2010-Feb 2011	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Outcomes								
Poor	4	1.4%	1	0.3%	3	0.9%	6	1.4%
Fair	57	19.9%	63	19.2%	65	18.7%	95	22.0%
Good	216	75.3%	251	76.5%	264	76.1%	311	72.0%
Excellent	10	3.5%	13	4.0%	15	4.3%	20	4.6%
Total	287	100.0%	328	100.0%	347	100.0%	432	100.0%
CD-4 Count								
Poor	7	2.4%	8	2.4%	12	3.8%	12	2.8%
Fair	33	11.5%	35	10.7%	37	11.7%	54	12.6%
Good	135	47.0%	159	48.5%	153	48.6%	213	49.5%
Excellent	112	39.0%	126	38.4%	113	35.9%	151	35.1%
Total	287	100.0%	328	100.0%	315	100.0%	430	100.0%
Viral Load								
Poor	8	2.8%	5	1.5%	7	2.2%	10	2.4%
Fair	30	10.6%	27	8.2%	28	8.9%	45	10.8%
Good	110	38.7%	127	38.7%	112	35.8%	174	41.7%
Excellent	136	47.9%	169	51.5%	166	53.0%	188	45.1%
Total	284	100.0%	328	100.0%	313	100.0%	417	100.0%
Maintenance of Primary Medical Care								
Poor	6	2.1%	3	0.9%	6	1.7%	8	1.9%
Fair	52	18.5%	71	21.8%	66	19.2%	90	20.9%
Good	131	46.6%	154	47.2%	162	47.1%	197	45.7%
Excellent	92	32.7%	98	30.1%	110	32.0%	136	31.6%
Total	281	100.0%	326	100.0%	344	100.0%	431	100.0%
Adherence to Prescribed HIV Related Medical Therapies								
Poor	2	0.8%	5	1.7%	9	2.8%	9	2.2%
Fair	38	14.5%	36	12.0%	30	9.4%	38	9.3%
Good	129	49.2%	155	51.7%	163	51.3%	209	51.2%
Excellent	93	35.5%	104	34.7%	116	36.5%	152	37.3%
Total	262	100.0%	300	100.0%	318	100.0%	408	100.0%
All Health Outcomes								
Poor	7	2.4%	8	2.4%	13	3.7%	16	3.7%
Fair	62	21.6%	57	17.4%	59	17.0%	80	18.5%
Good	173	60.3%	217	66.2%	215	62.0%	265	61.3%
Excellent	45	15.7%	46	14.0%	60	17.3%	71	16.4%
Total	287	100.0%	328	100.0%	347	100.0%	432	100.0%

Appendix B.2 (continued): Outcome Score Distribution for All MAI Clients

Outcome	Unduplicated MAI Clients							
	Feb 2009-Jul 2009		Aug 2009-Jan 2010		Feb 2010-Aug 2010		Sep 2010-Feb 2011	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Impact of Side-Effects from HIV-Related Medications								
Poor	2	0.8%	2	0.7%	0	0.0%	3	0.7%
Fair	20	7.6%	16	5.3%	17	5.3%	25	6.2%
Good	144	55.0%	175	58.3%	150	47.2%	203	50.0%
Excellent	96	36.6%	107	35.7%	151	47.5%	175	43.1%
Total	262	100.0%	300	100.0%	318	100.0%	406	100.0%
Mental Health Status								
Poor	4	1.4%	3	0.9%	6	1.7%	8	1.9%
Fair	56	19.7%	60	18.3%	74	21.5%	92	21.3%
Good	165	58.1%	192	58.5%	187	54.4%	234	54.3%
Excellent	59	20.8%	73	22.3%	77	22.4%	97	22.5%
Total	284	100.0%	328	100.0%	344	100.0%	431	100.0%
Access to Psychosocial Support								
Poor	0	0.0%	1	0.3%	6	1.7%	4	0.9%
Fair	8	2.8%	12	3.7%	11	3.2%	34	7.9%
Good	94	33.1%	115	35.1%	103	29.9%	151	35.0%
Excellent	182	64.1%	200	61.0%	225	65.2%	243	56.3%
Total	284	100.0%	328	100.0%	345	100.0%	432	100.0%
Level of Self-Sufficiency								
Poor	1	0.4%	2	0.6%	4	1.2%	5	1.2%
Fair	27	9.5%	34	10.4%	26	7.6%	31	7.2%
Good	120	42.3%	138	42.1%	123	35.8%	170	39.4%
Excellent	136	47.9%	154	47.0%	191	55.5%	226	52.3%
Total	284	100.0%	328	100.0%	344	100.0%	432	100.0%
Housing Status								
Poor	15	5.3%	25	7.6%	24	7.0%	42	9.7%
Fair	24	8.5%	20	6.1%	27	7.8%	26	6.0%
Good	93	32.7%	108	32.9%	101	29.3%	151	35.0%
Excellent	152	53.5%	175	53.4%	193	55.9%	213	49.3%
Total	284	100.0%	328	100.0%	345	100.0%	432	100.0%
All Quality of Life Outcomes								
Poor	1	0.4%	1	0.3%	3	0.9%	4	0.9%
Fair	46	16.2%	50	15.2%	48	13.9%	89	20.6%
Good	206	72.5%	247	75.3%	260	75.4%	289	66.9%
Excellent	31	10.9%	30	9.1%	34	9.9%	50	11.6%
Total	284	100.0%	328	100.0%	345	100.0%	432	100.0%