



JSI Research & Training Institute, Inc.

# **Minority AIDS Initiative**

## **Outcomes Measurement Summary Annual Report FY 2009**

A grayscale map of a city grid, showing streets and building footprints, positioned on the left side of the cover.

**Mid-Year FY 2008 — Year-End FY 2009**

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

**February 2011**

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**This project is supported by funding provided by the Boston Public Health Commission through the Ryan White HIV/AIDS Treatment Extension Act of 2009**

## **INTRODUCTION**

This report summarizes outcome measurement data across all Boston Public Health Commission (BPHC) providers funded to provide MAI services under Part A of the Ryan White HIV/AIDS Extension Modernization Act of 2009. The data in this report come from the four most recent reporting periods: Mid-Year FY 2008 (August 2008 – January 2009), Year-End FY 2008 (February 2009 – July 2009), Mid-Year FY 2009 (August 2009 – January 2010), and Year-End 2009 (February 2010 – July 2010).

The data in this report include demographic, descriptive and outcomes data summaries for 489 clients served by Part A MAI funded providers. These data are also provided for “continuous MAI clients” (a subset of clients who show at least one report during each reporting period included in this report). In past reports, 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).

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. This is the second MAI Annual Outcomes Report that includes two full years (all four reporting periods) of data collected using this new form. We would like to acknowledge Suffolk University Center for Public Management and the Boston Public Health Commission for their support and thoughtful input during the report development process.

The Outcome Measurement Report is completed by providers who receive Part A MAI funds from BPHC to deliver services in Case Management and Peer Support. This report summarizes the results of 1322 individual outcome measurement reports submitted by eight funded providers during FY 2008 (618 reports) and FY 2009 (704 reports).

## **METHODS**

### **Data Collection**

The BPHC Outcome Measurement Form is completed by all Ryan White Part A and MAI 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 were prepared by BPHC staff from the Joint HIV/AIDS Client Information Form. These data were linked 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, JSI drew the information from the most recent previous reporting period. For example, if a client’s gender was missing from the Year-End 2009 data set, JSI looked to Mid-Year 2009 for this information, and if it was not reported there we looked back to Year-End 2008 and then to Mid-Year 2008. 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, better representing the calculated scores for clients on the edges of categories. The revised scores, presented in all reports starting in FY 2008, 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 private, state and federal sources (including other Ryan White program-funded 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.

## **RESULTS**

### **Data Summary**

**Figure 1** provides a summary of total unduplicated MAI clients represented, as well as the number of outcome reports submitted, during each reporting period. Total clients ranged from a low of 295 in Year-End 2008 to a high of 361 at Year-End FY 2009. There were 489 unduplicated MAI clients in the four most recent reporting periods. Total outcome reports ranged from a low of 297 in Year-End FY 2008 to a high of 365 at Year-End FY 2009. A total of 1322 reports were submitted in the last four reporting periods.

**Figure 1. Number of Clients and Outcome Reports by Reporting Period**

	Mid-Year FY 2008	Year-End FY 2008	Mid-Year FY 2009	Year-End FY 2009	All Periods
Unduplicated Clients	311	295	338	361	489
Outcome Reports	321	297	339	365	1322

**Figure 2** details the number of outcome reports and unduplicated MAI clients, by reporting period, according to service category. MAI-funded programs are permitted to use funds to provide **Case Management** and **Peer Support** services. 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. In this report the number of outcome reports is only slightly higher than the number of unduplicated clients, indicating that most providers submitted only one report per client.

**Figure 2. Number of Outcome Reports and Clients by Service Category and Reporting Period**

Service Category		Mid-Year FY 2008	Year-End FY 2008	Mid-Year FY 2009	Year-End FY 2009
Case Management	Outcome Reports	268	257	305	336
	Unduplicated Clients	255	249	294	320
Peer Support	Outcome Reports	126	103	101	110
	Unduplicated Clients	125	103	101	110

**Figure 3** shows the number of outcome reports and unduplicated MAI clients, by reporting period, according to outcomes category. There is very little variation between categories, indicating that sites reported on all outcomes categories for nearly all MAI clients during each reporting period. Providers are required to report on all nine outcomes for all of their clients, so minor variations in reports submitted or clients served are likely due to missing data on individual Outcome Measurement Report forms.

**Figure 3. Number of Outcome Reports and Clients by Outcome Category.**

Outcomes Category		Mid-Year FY 2008	Year-End FY 2008	Mid-Year FY 2009	Year-End FY 2009
CD-4 Count	Outcome Reports	316	296	339	331
	Unduplicated Clients	303	287	328	315
Viral Load	Outcome Reports	315	293	339	329
	Unduplicated Clients	302	284	328	313
Maintenance of Primary Medical Care	Outcome Reports	317	290	337	360
	Unduplicated Clients	306	281	326	344
Adherence to Prescribed HIV Related Medical Therapies	Outcome Reports	317	293	339	360
	Unduplicated Clients	304	284	328	344
Impact of Side-Effects from HIV-Related Medications	Outcome Reports	318	293	339	359
	Unduplicated Clients	305	284	328	343
Mental Health Status	Outcome Reports	317	293	339	360
	Unduplicated Clients	305	284	328	344
Access to Psychosocial Support	Outcome Reports	318	293	339	361
	Unduplicated Clients	305	284	328	345
Level of Self-Sufficiency	Outcome Reports	318	292	339	360
	Unduplicated Clients	305	284	328	344
Housing Status	Outcome Reports	318	293	339	361
	Unduplicated Clients	305	284	328	345

**Figure 4** shows the number of outcome reports where clients were listed as “New Intakes” and the number of reports where clients were listed as “On-going.” “On-going” clients are those that had been seen by the provider before, and were seen at least once during the reporting period. The “New Intake” category shows the total number of reports submitted on clients who were seen for the first time by the provider agency completing the form. 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.

**Figure 4. Status of Outcome Reports by Reporting Period**

Status	Outcome Reports							
	Mid-Year FY 2008		Year-End FY 2008		Mid-Year FY 2009		Year-End FY 2009	
	Reports	Percent	Reports	Percent	Reports	Percent	Reports	Percent
New Intake	19	6%	46	16%	26	8%	31	9%
On-going	302	94%	251	85%	313	92%	334	92%
Total	321	100%	297	100%	339	100%	365	100%

**Figure 5** shows the number of MAI clients, by reporting period, and indicates the number of clients that were categorized only as “New” or only as “Ongoing.” A very small number of clients are listed as “Both New and On-going”, most likely because they were seen as new clients at one or more agencies, and as on-going clients at one or more agencies. This is likely to be the case, for example, when a client is referred to a new service that is not provided by the agency where the client currently receives most of his or her services.

**Figure 5. MAI Client Status by Reporting Period**

Status	MAI Clients							
	Mid-Year FY 2008		Year-End FY 2008		Mid-Year FY 2009		Year-End FY 2009	
	Clients	Percent	Clients	Percent	Clients	Percent	Clients	Percent
New Intake Only	16	5%	38	13%	26	8%	29	9%
On-going Only	290	94%	242	85%	302	92%	308	91%
Both New & On-going	2	1%	6	2%	0	0%	1	0%
Total	308	100%	286	100%	328	100%	338	100%

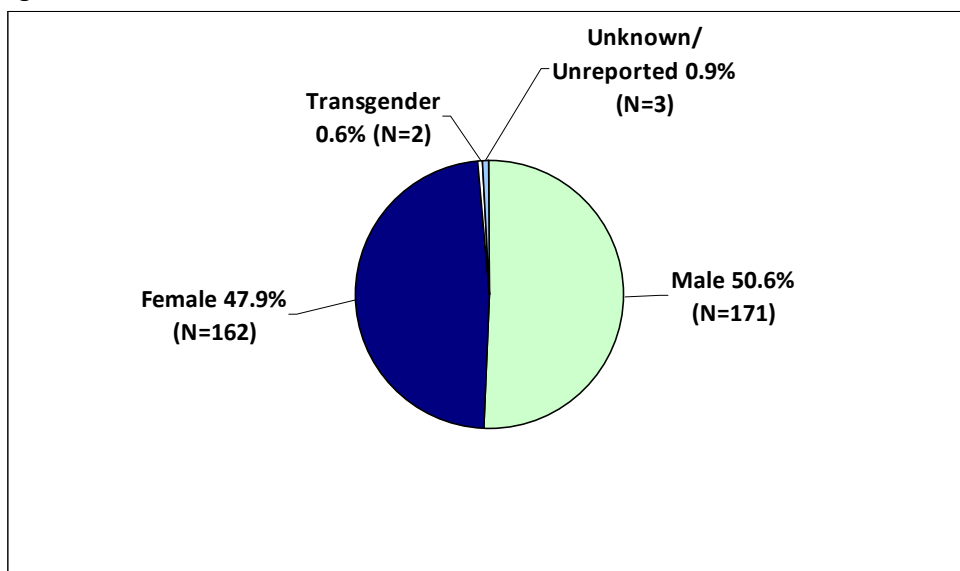
### Demographic and Descriptive Characteristics of MAI Clients with Outcome Reports

This section summarizes the demographic and descriptive characteristics of unduplicated MAI clients with one or more outcomes reports. Demographic data were available for 338 MAI clients in Year-End 2009, and were drawn from data reported by BPHC providers using the *Joint HIV/AIDS Client Information Form*. Data for the Year-End FY 2009 reporting period (February 1, 2010 – July 31, 2010) are presented below.

#### Gender and Age

About 50% of clients with outcome reports during the Year-End FY 2009 reporting period were male, and 48% were female. Transgender clients represented 0.6% of total clients served. The average age of clients was 46.5 years, with a range of 6 years to 82 years old.

**Figure 6. Gender**



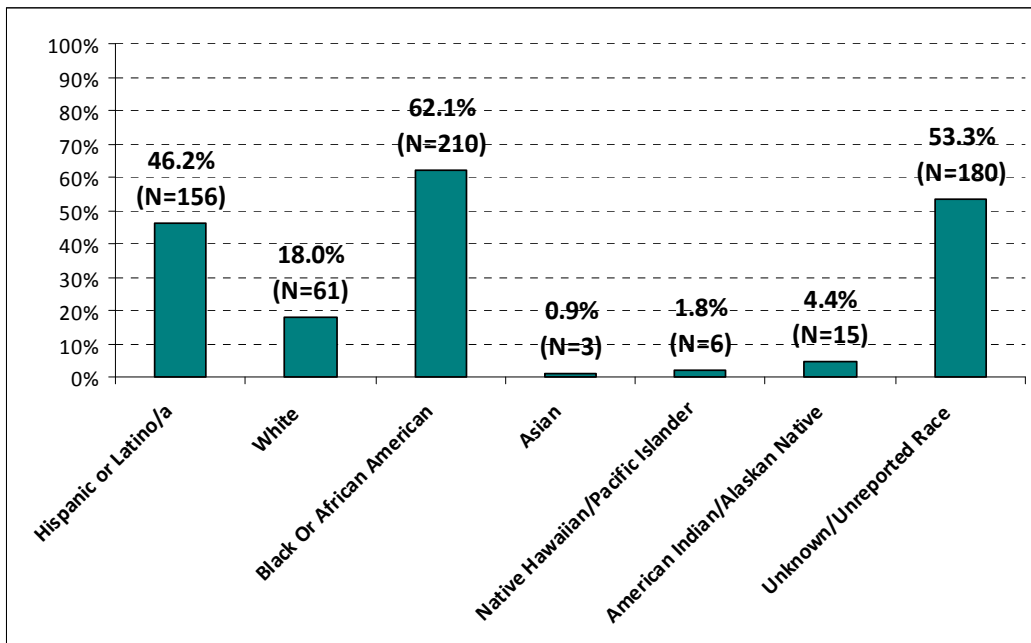
### Ethnicity and Race

Almost half (46.2%, N=156) of clients identified their ethnicity as Hispanic or Latino during the Year-End FY 2009 reporting period, and well over half of clients (62.1%, N=210) were reported as Black or African American. These high percentages are expected here because MAI funds are intended to support access to care for Hispanic/Latino as well as Black/African American persons living with HIV/AIDS.

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. Unknown/Unreported Race was reported for about half of clients (53.3%). The larger proportion of clients in this category is primarily explained by the fact that about 92% of Hispanic/Latino clients were also reported as “Unknown/Unreported” race. However, it is possible that some clients in this category may have been reported in one or more other Race categories as well. This has been identified as a potential data quality issue and will be addressed in future analysis.

A number of clients were also reported as White (18.0%, N=61), Asian (0.9%, N=3), Native Hawaiian/Pacific Islander (1.8%, N=6) and American Indian/Alaskan Native (4.4%, N=15).

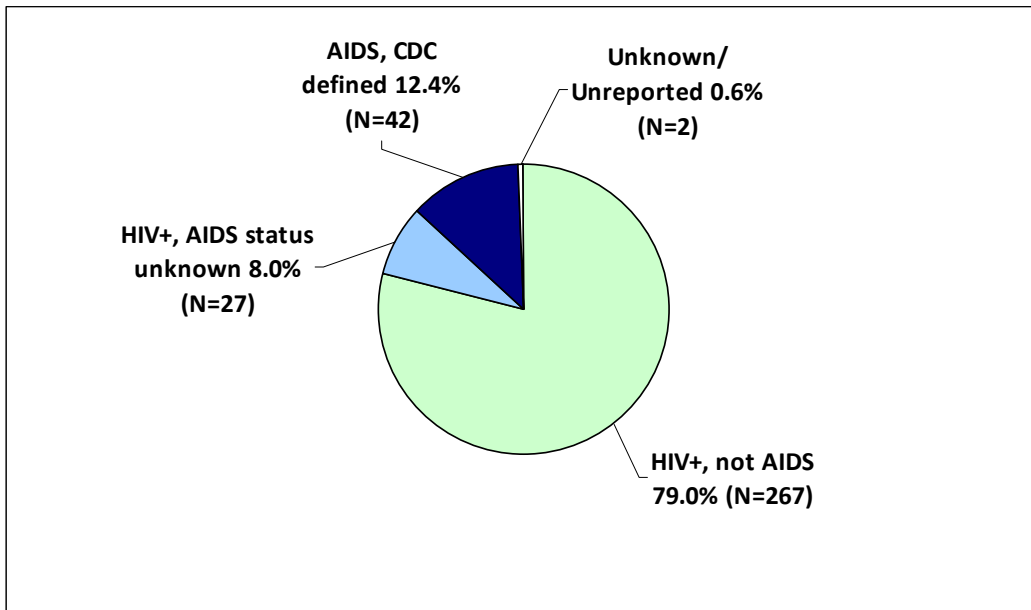
Figure 7. Race and Ethnicity



### Diagnostic Information

Diagnostic information summarizes the HIV/AIDS status of MAI clients reporting outcomes during the Year-End FY 2009 reporting period. Most clients (79.0%) were categorized as HIV positive, not AIDS. Another 12.4% were categorized as AIDS, CDC defined. A small group of clients (8.0%) were categorized as HIV positive, AIDS status unknown and 0.6% had unknown/unreported status.

Figure 8. Diagnostic Information

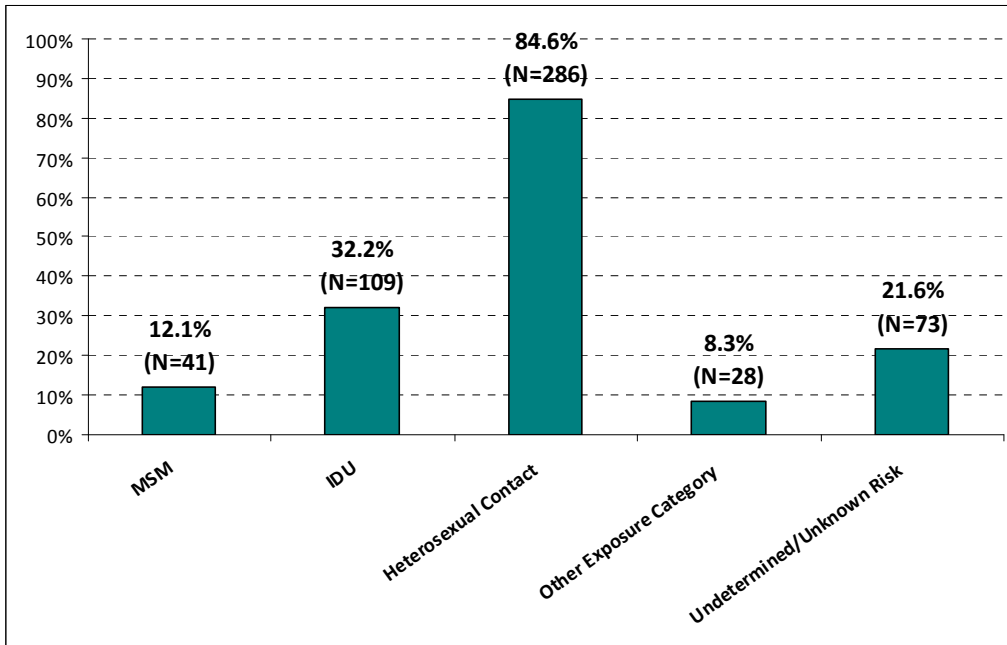


### Exposure Category

Clients receiving MAI-funded services were categorized according to one or more HIV exposure categories (self-reported). As shown in **Figure 9**, most clients (84.6%) were reported as having heterosexual exposure. Nearly one-third of clients were reported as injection drug users (32.2%). Far fewer clients were reported as MSM (12.1%). Other exposure categories (including perinatal transmission, hemophilia/coagulation disorder, blood/blood products/tissue, and other risk) were identified for 8.3% of clients.

More than one-fifth of clients (21.6%) were categorized as unknown/unreported. As discussed under Race, above, it is possible that some clients in this category may have been reported in one or more other Exposure categories as well. This has been identified as a potential data quality issue and will be addressed in future reports.

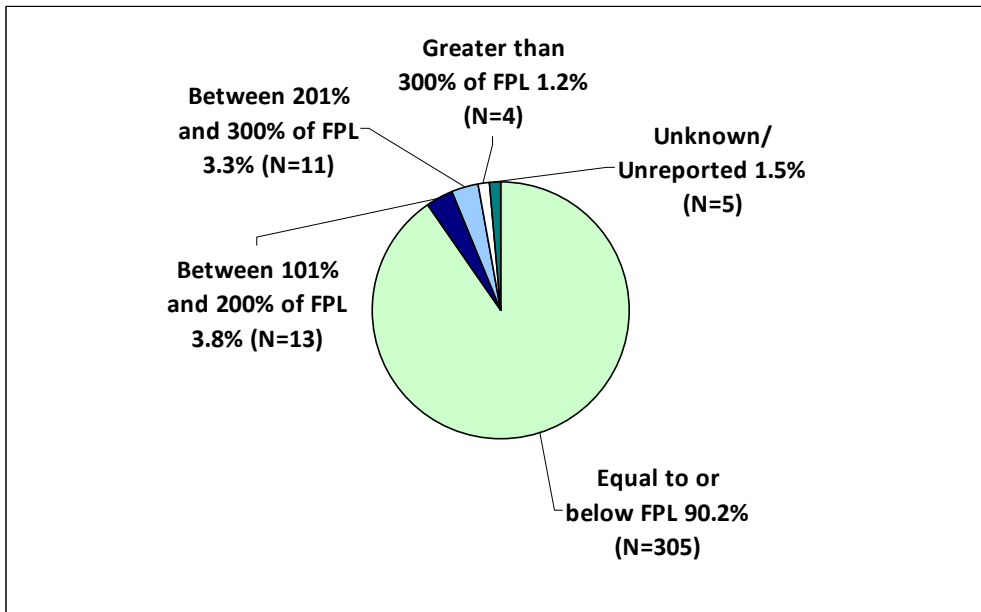
**Figure 9. Exposure Category**



**Income**

The income level of most clients (90.2%) was equal to or below the Federal Poverty Line (US FPL in 2011 for one person is \$10,890<sup>1</sup>). A small percentage of clients (3.8%) had incomes between 101% and 200% of the Federal poverty line, and a few clients (3.3%) had incomes between 201% and 300% of the Federal poverty line or greater (1.2%).

**Figure 10. Income Level**



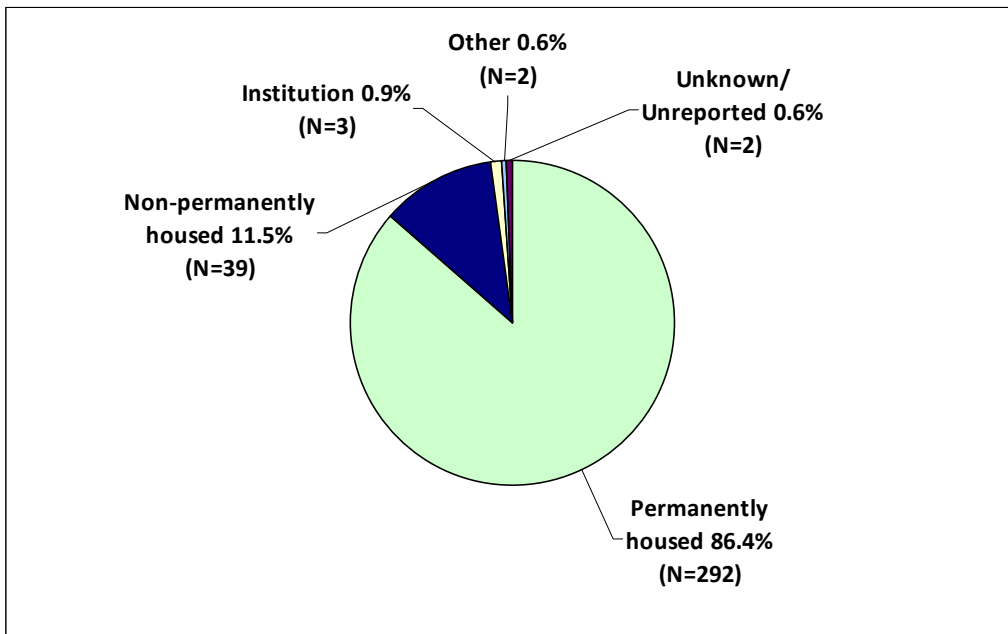
<sup>1</sup> U.S. Department of Health and Human Services. <http://aspe.hhs.gov/poverty/11poverty.shtml>

## Housing Status

The vast majority of clients (86.4%) were in permanent housing during this reporting period. Another 11.5% reported non-permanent housing (this category includes homeless as well as transient or transitional housing).

A few clients (0.9%) were in institutional settings (residential, health care and correctional facilities) or other settings (0.6%). Housing status was unknown/unreported for 0.6% of clients.

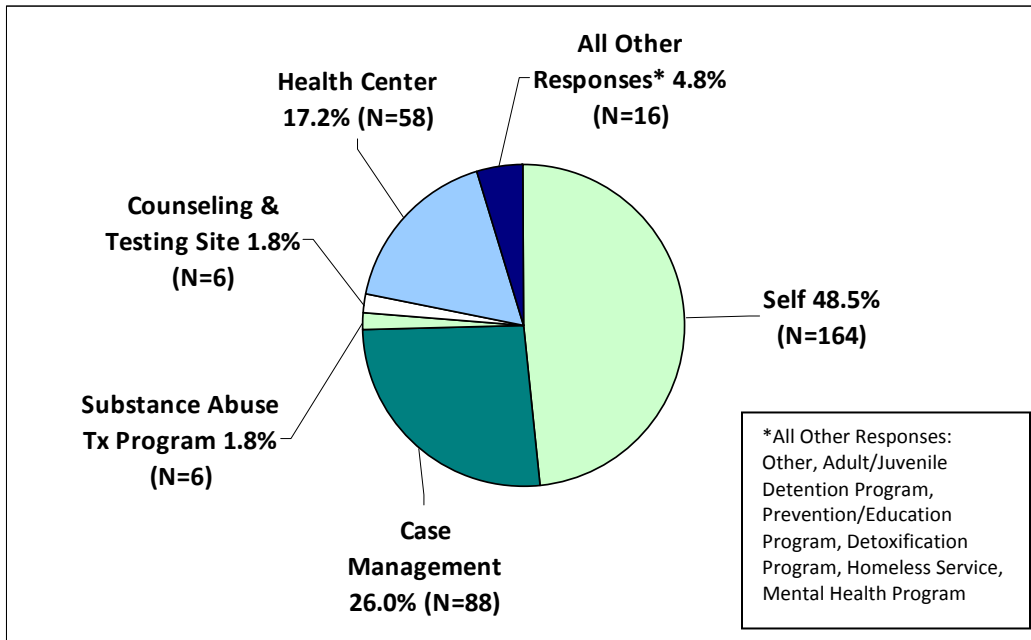
Figure 11. Housing Status/Living Arrangement



### Referral Source

Almost half (48.5%) of clients were self-referred to the reporting provider, while case management (26.0%) and health centers (17.2%) were other major referral sources. A smaller percentage of clients were referred from specific services such as counseling and testing (1.8%), or substance abuse treatment (1.8%). An additional category “All Other Responses” (4.8%) includes data from various specific services (detailed in **Figure 12**, below) as well as from unspecified programs. Note: the current data show only the most recent referral for each client.

Figure 12. Referral Source



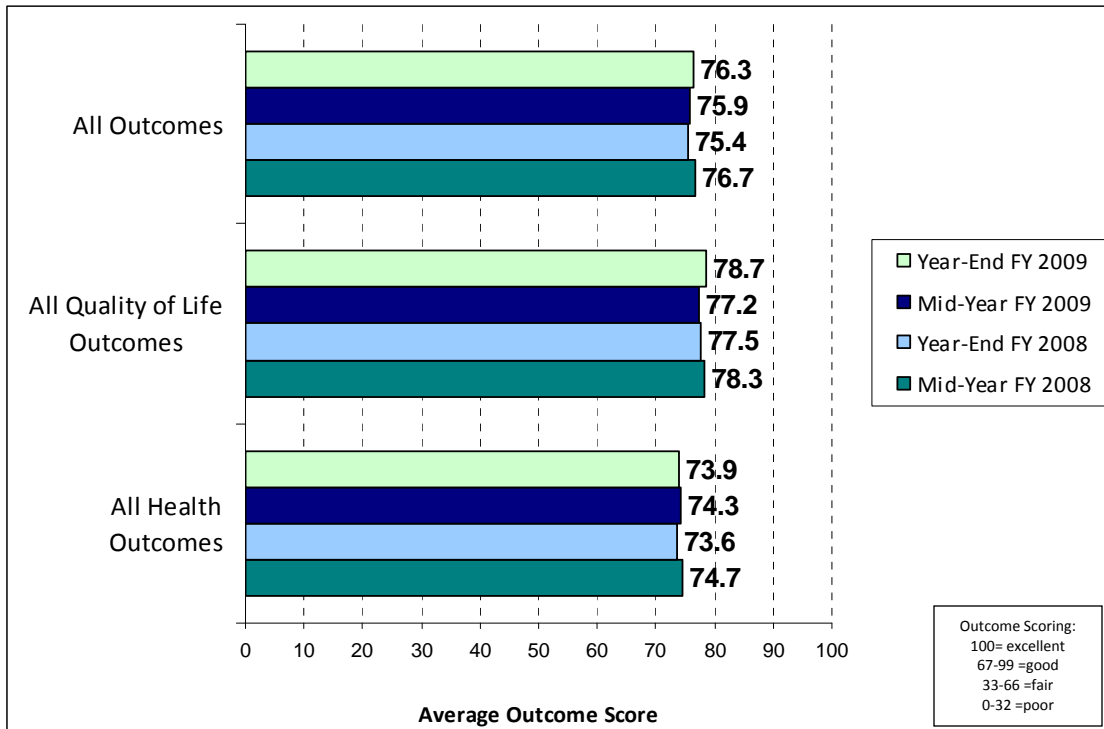
## Outcome Scores: All MAI Clients

The following tables show average outcome scores, by outcome category, for unduplicated MAI 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 MAI Clients

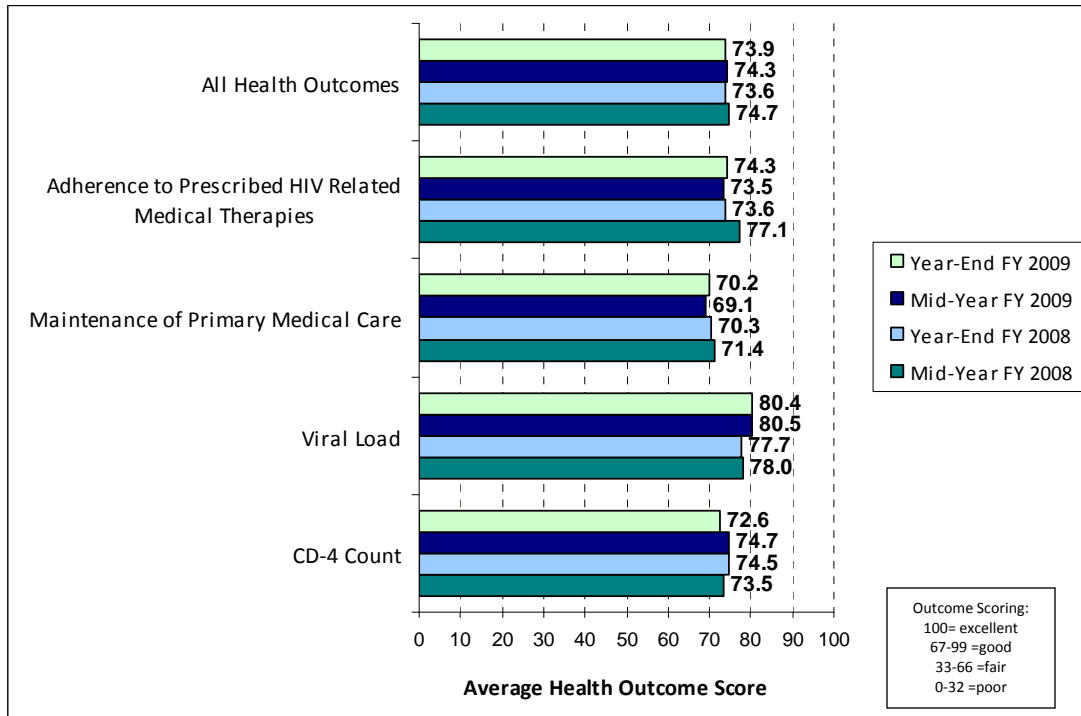


## All Health Outcomes

**Figure 14** shows a comparison of average health outcome scores for unduplicated MAI 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.

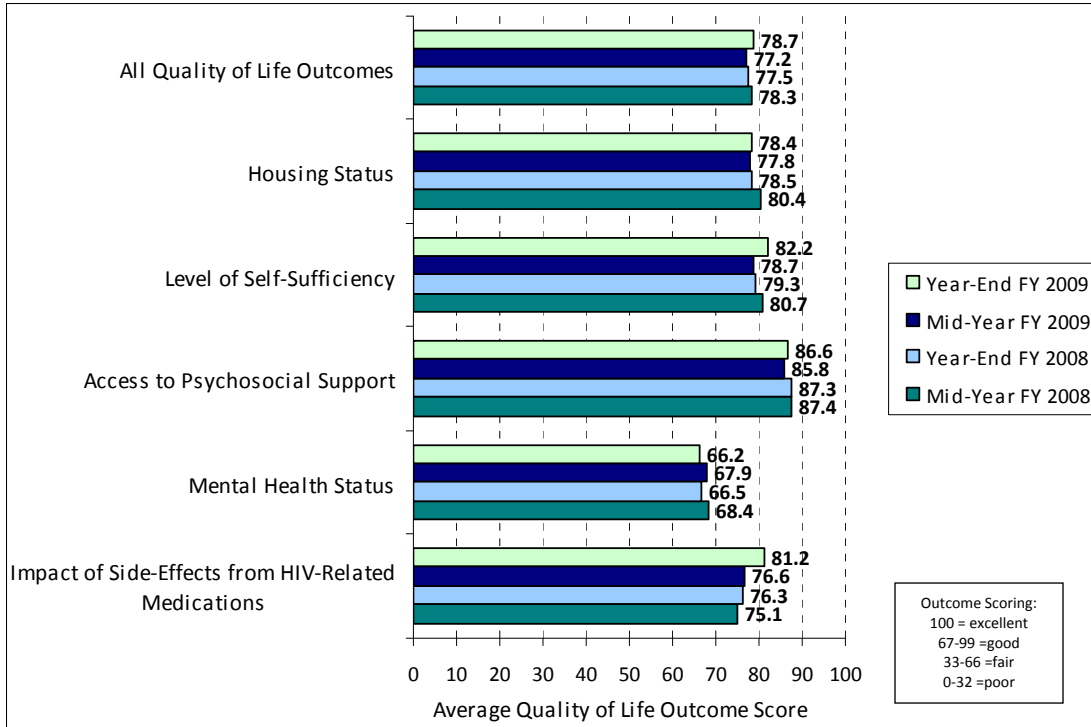
**Figure 14. Average Health Outcome Scores for All MAI Clients**



## All Quality of Life Outcomes

**Figure 15** shows a comparison of average quality of life outcome scores for unduplicated MAI clients across reporting periods. While average scores across most quality of life outcomes remained in the “good” range, average scores within one of the individual outcome categories – **Mental Health Status** – were categorized as “fair” category during two out of four reporting periods.

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



## Average Health Outcome Scores: Independent Samples t-test

**Figure 16** shows where statistically significant changes were measured across average health outcomes. There were no statistically significant changes in Health Outcome scores which (as indicated in **Figure 14**) all remained in the “good” range. It is important to keep in mind that a lack of significant improvement is not a concern if scores are already in the “good” or “excellent” range.

Note that statistical significance between Year-End FY 2007 and Mid-Year FY 2008 is not included here, because this report only includes data from the four most recent reporting periods.

**Figure 16. Change in Average Health Outcome Scores for All MAI Clients (Independent samples t-tests)**

Health Outcomes	Mid-Year FY 2008		Year-End FY 2008		Change		Sig*	Mid-Year FY 2009		Change		Sig*	Year-End FY 2009		Change		Sig*
	Clients	Avg. Score	Clients	Avg. Score				Clients	Avg. Score				Clients	Avg. Score			
CD-4 Count	303	73.5	287	74.5	↑	1.0	NS	328	74.7	↑	0.2	NS	315	72.6	↓	-2.1	NS
Viral Load	302	78.0	284	77.7	↓	-0.3	NS	328	80.5	↑	2.8	NS	313	80.4	↓	-0.1	NS
Maintenance of Primary Medical Care	306	71.4	281	70.3	↓	-1.1	NS	326	69.1	↓	-1.2	NS	344	70.2	↑	1.1	NS
Adherence to Prescribed HIV Related Medical Therapies	283	77.1	262	73.6	↓	-3.5	NS	300	73.5	↓	-0.1	NS	318	74.3	↑	0.8	NS
Most All Health Outcomes	306	74.7	287	73.6	↓	-1.1	NS	328	74.3	↑	0.7	NS	347	73.9	↓	-0.4	NS

\*Level of significance:  $p = <.05$

## Average Quality of Life Outcome Scores: Independent Samples t-test

**Figure 17** shows where statistically significant changes were measured across average quality of life outcomes. There was no significant change for most outcome categories across most time periods, although **Impact of Side-Effects from HIV-Related Medications** increased in each reporting period, and increased significantly ( $p < .05$ ) at Year-End FY 2009. **Level of Self-Sufficiency** increased significantly between Mid-Year and Year-End 2009.

**Figure 17. Change in Average Quality of Life Outcome Scores for All MAI Clients (Independent samples t-tests)**

Quality of Life Outcomes	Mid-Year FY 2008		Year-End FY 2008		Change		Sig*	Mid-Year FY 2009		Change		Sig*	Year-End FY 2009		Change		Sig*
	Clients	Avg. Score	Clients	Avg. Score				Clients	Avg. Score				Clients	Avg. Score			
Impact of Side-Effects from HIV-Related Medications	284	75.1	262	76.3	↑	1.2	NS	300	76.6	↑	0.3	NS	318	81.2	↑	4.6	<b>0.003</b>
Mental Health Status	305	68.4	284	66.5	↓	-1.9	NS	328	67.9	↑	1.4	NS	344	66.2	↓	-1.7	NS
Access to Psychosocial Support	305	87.4	284	87.3	↓	-0.1	NS	328	85.8	↓	-1.5	NS	345	86.6	↑	0.8	NS
Level of Self-Sufficiency	305	80.7	284	79.3	↓	-1.4	NS	328	78.7	↓	-0.6	NS	344	82.2	↑	3.5	<b>0.043</b>
Housing Status	305	80.4	284	78.5	↓	-1.9	NS	328	77.8	↓	-0.8	NS	345	78.4	↑	0.6	NS
All Quality of Life Outcomes	305	78.3	284	77.5	↓	-0.8	NS	328	77.2	↓	-0.3	NS	345	78.7	↑	1.5	NS

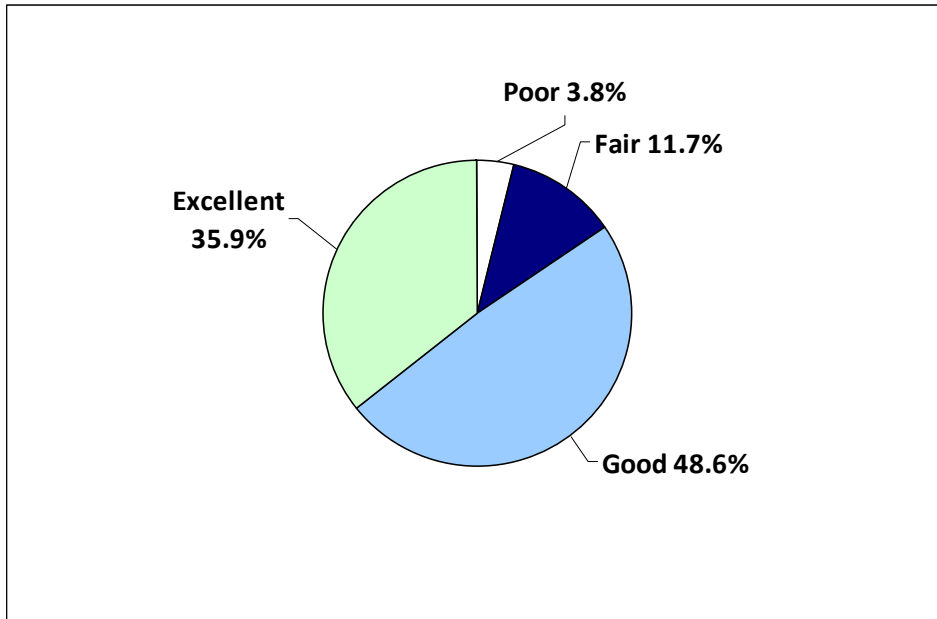
\*Level of significance:  $p = < .05$

## Health Outcome Distribution for All MAI Clients: Year-End FY 2009

Figures 18 - 21 show the distribution of scores for unduplicated MAI clients, for each of the four health outcomes at Year-End FY 2009: **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 about one-third of clients (35.9%) were categorized as Excellent and nearly half (48.6%) were categorized as Good in the **CD-4 count** outcome category at the end of the most recent reporting period. A smaller percentage of clients were categorized as Fair (11.7%) or Poor (3.8%).

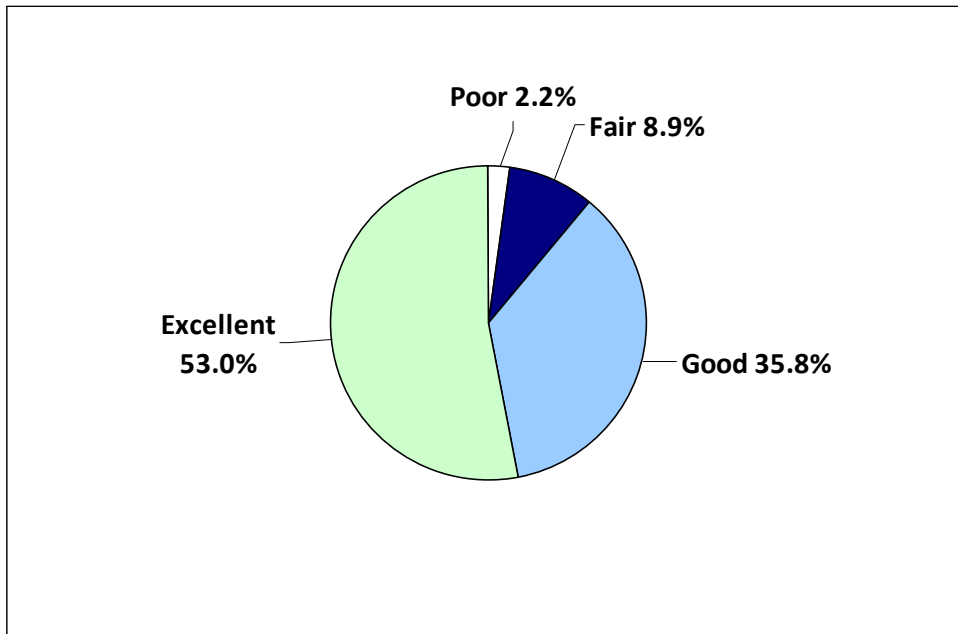
Figure 18. CD4 Count



**Figure 19** shows that more than half of clients (53.0%) were categorized as Excellent and more than one-third (35.8%) were categorized as Good in the outcome category of **Viral Load**, while a very small percentage of clients were categorized as Fair (8.9%) or Poor (2.2%).

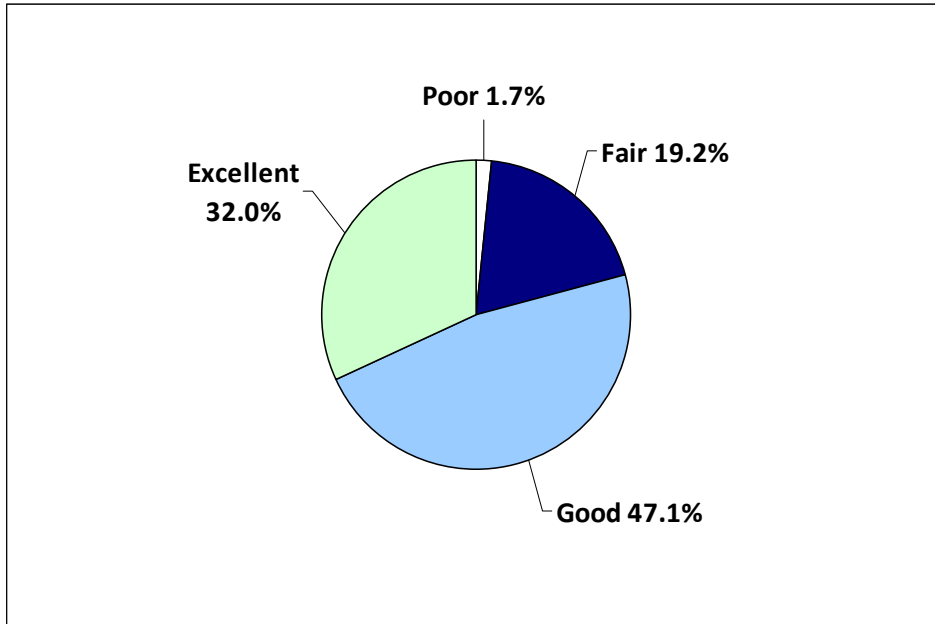
While **CD4** testing (**Figure 18**) is a measure of the strength of the immune system, **Viral Load** measures the amount of active HIV. Among MAI clients, relatively fewer (35.9%) clients were categorized as Excellent in the **CD4** outcome category, than for **Viral Load**. This is likely due to the success of available antiretroviral drug therapies in reducing viral load. These same medications are not always as effective in improving overall immune system health, due to factors like advanced age or insufficient time on therapy for the full CD4 recovery.

**Figure 19. Viral Load**



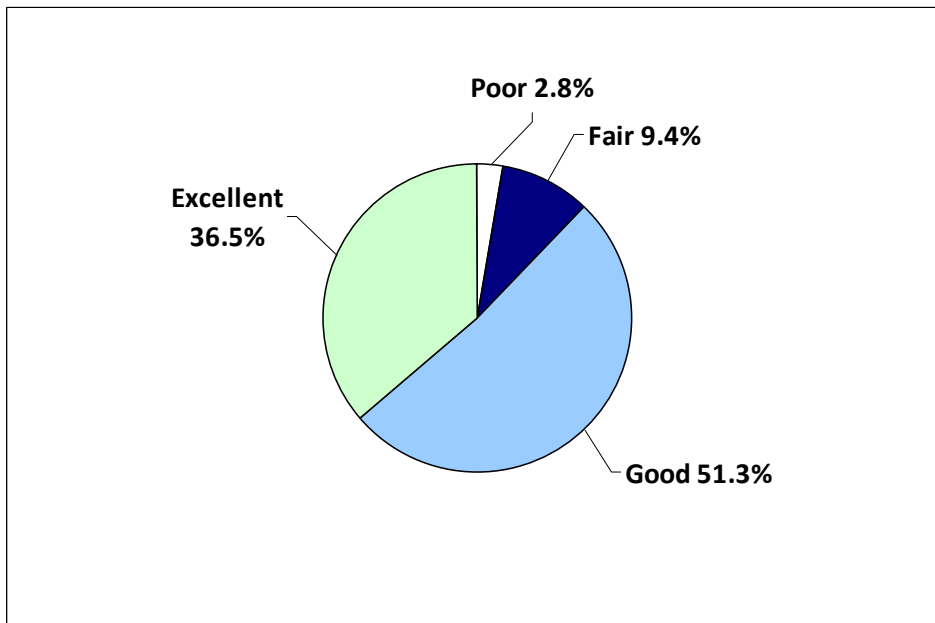
**Figure 20** shows 32.0% of clients in the Excellent category, and 47.1% of clients in the Good category, for **Maintenance of Primary Medical Care**. Compared to **CD-4 count** and **Viral Load** categories above, a slightly larger percentage of clients were categorized as Fair (19.2%). A small percentage of clients were categorized as Poor (1.7%).

**Figure 20. Maintenance of Primary Medical Care**



**Figure 21** shows 36.5% of clients in the Excellent category for **Adherence to Prescribed HIV Related Medical Therapies**, and 51.3% of clients in the Good category. A small percentage of clients were categorized as Fair (9.4%) or Poor (2.8%).

**Figure 21. Adherence to Prescribed HIV Related Medical Therapies**



## Demographic and Descriptive Characteristics of Continuous Clients

Continuous MAI clients (**n=170**) are those clients who had at least one outcome report during each of the four most recent reporting periods. Demographic data were available for all 170 continuous clients. The demographic characteristics of the continuous clients (Mid-Year FY 2008 – Year-End FY 2009) do not differ notably from the non-continuous group (at Year-End FY 2009) on most parameters (**Figure 22**). For example, the continuous group contains similar percentages of female (45.9% vs. 47.9%), Hispanic/Latino (47.1% vs. 46.2%), and Black/African American clients (63.5% vs. 62.1%), as well as similar percentages of clients who were HIV-positive, not AIDS (80.6% vs. 79.0%). With respect to HIV exposure, the clients exposed through injection drug use (30.0% vs. 32.2%) heterosexual exposure (86.5% vs. 84.6%) and MSM (10.0% vs. 12.1%) were also similar.

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

Response	Continuous MAI Clients		All MAI Clients (Year-End FY 2009)	
	Clients	Percent	Clients	Percent
Number Of Clients And Mean Age	170	47.0 years	338	46.5 years
<b>Gender</b>				
Male	89	52.4%	171	50.6%
Female	78	45.9%	162	47.9%
Transgender	1	0.6%	2	0.6%
Unknown/Unreported	2	1.2%	3	0.9%
<b>Ethnicity</b>				
Hispanic or Latino/a	80	47.1%	156	46.2%
<b>Federal Race/Ethnicity Categories</b>				
White	32	18.8%	61	18.0%
Black Or African American	108	63.5%	210	62.1%
Asian	3	1.8%	3	0.9%
Native Hawaiian/Pacific Islander	4	2.4%	6	1.8%
American Indian/Alaskan Native	5	2.9%	15	4.4%
Unknown/Unreported Race	97	57.1%	180	53.3%
<b>Diagnostic Information</b>				
HIV+, not AIDS	137	80.6%	267	79.0%
HIV+, AIDS status unknown	11	6.5%	27	8.0%
AIDS, CDC defined	21	12.4%	42	12.4%
Unknown/Unreported	1	0.6%	2	0.6%
<b>Exposure Category</b>				
MSM	17	10.0%	41	12.1%
IDU	51	30.0%	109	32.2%
Heterosexual Contact	147	86.5%	286	84.6%
Other Exposure Category	17	10.0%	28	8.3%
Undetermined/Unknown Risk	40	23.5%	73	21.6%

### Average Health Outcome Scores: Paired Samples t-test (Continuous Clients)

As shown in **Figure 23**, Continuous clients showed a statistically significant decrease in outcome scores ( $p < .05$ ) for **Maintenance of Primary Medical Care** between Year-End FY 2008 and Mid-Year FY 2009. No significant changes were seen in **CD4 Count**, **Viral Load** or **Adherence to Prescribed HIV-Related Medical Therapies**.

**Figure 23. Average Health Outcome Scores for Continuous MAI Clients: Paired Samples t-test**

Health Outcome	Mid-Year FY 2008		Year-End FY 2008		Change	Sig*	Mid-Year FY 2009		Change	Sig*	Year-End FY 2009		Change	Sig*
	Clients	Avg. Score	Clients	Avg. Score			Clients	Avg. Score			Clients	Avg. Score		
CD-4 Count	169	74.2	170	76.4	↑ 2.2	NS	170	76.2	↓ -0.2	NS	151	76.9	↑ 0.7	NS
Viral Load	169	78.0	170	80.1	↑ 2.1	NS	170	82.2	↑ 2.1	NS	151	83.8	↑ 1.6	NS
Maintenance of Primary Medical Care	170	70.6	169	70.8	↑ 0.2	NS	170	67.9	↓ -2.9	<b>0.043</b>	169	69.7	↑ 1.8	NS
Adherence to Prescribed HIV-Related Medical Therapies	156	76.7	153	73.9	↓ -2.9	NS	155	74.3	↑ 0.5	NS	155	72.4	↓ -1.9	NS
All Health Outcomes	170	74.6	170	75.3	↑ 0.7	NS	170	75.1	↓ -0.2	NS	170	75.4	↑ 0.3	NS

\*Level of significance:  $p = < .05$

### Average Quality of Life Outcome Scores: Paired Samples t-test (Continuous Clients)

As shown in **Figure 24** below, Quality of Life Outcome Scores for Continuous clients showed significant improvements ( $p < .05$ ) in **Mental Health Status** at Mid-Year 2009, and in **Impact of Side-Effects from HIV-Related Medications** and **Level of Self-Sufficiency** at Year-End FY 2009. There were no other other significant changes.

**Figure 24. Average Quality of Life Outcome Scores for Continuous MAI Clients: Paired Samples t-test**

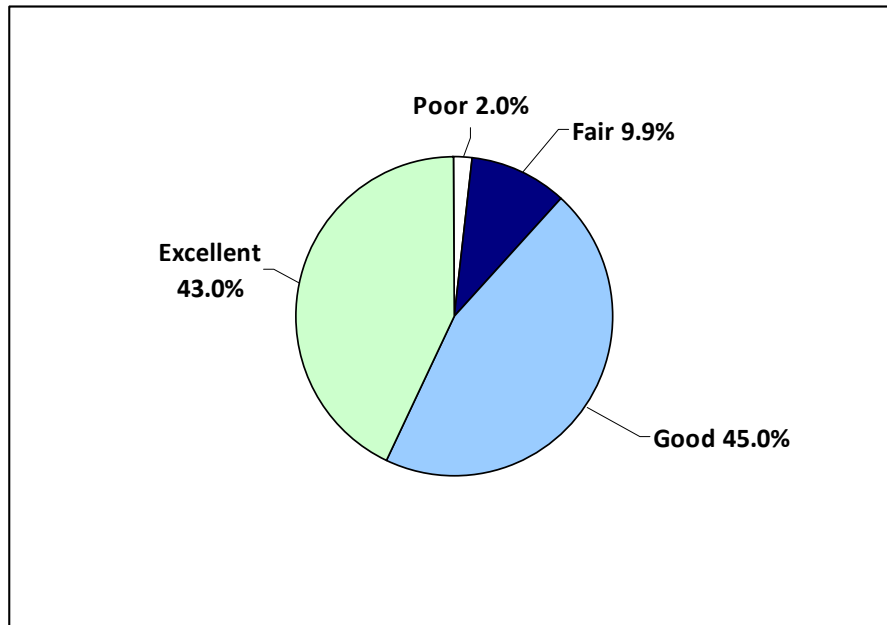
Quality of Life Outcome	Mid-Year FY 2008		Year-End FY 2008		Change		Sig*	Mid-Year FY 2009		Change		Sig*	Year-End FY 2009		Change		Sig*
	Clients	Avg. Score	Clients	Avg. Score	Change	Sig*		Clients	Avg. Score	Change	Sig*		Clients	Avg. Score	Change	Sig*	
Impact of Side-Effects From HIV-Related Medications	157	73.5	153	76.1	↑	2.6	NS	155	76.2	↑	0.1	NS	155	81.9	↑	5.7	<0.001
Mental Health Status	170	66.7	170	66.2	↓	-0.5	NS	170	68.9	↑	2.7	0.029	169	67.0	↓	-1.9	NS
Access to Psychosocial Support	170	87.2	170	89.0	↑	1.9	NS	170	89.0	↓	0.0	NS	170	89.9	↑	1.0	NS
Level of Self-Sufficiency	170	80.2	170	79.5	↓	-0.7	NS	170	79.4	↓	-0.2	NS	169	83.0	↑	3.6	0.038
Housing Status	170	80.9	170	81.1	↑	0.1	NS	170	81.9	↑	0.8	NS	170	82.5	↑	0.7	NS
All Quality of Life Outcomes	170	77.7	170	78.3	↑	0.7	NS	170	79.0	↑	0.6	NS	170	80.6	↑	1.6	NS

\*Level of significance:  $p < .05$

## Health Outcome Score Distribution: Continuous MAI Clients, Year-End FY 2009 (N=170)

**Figure 25** shows that close percentages of continuous clients had **CD4 Count** scores in the Excellent (43.0%) and Good (45.0%) categories in the most recent reporting period. A small percentage of clients were categorized as Fair (9.9%) or Poor (2.0%).

**Figure 25. CD4 Count**



In the **Viral Load** outcome category, shown in **Figure 26**, a large percentage of continuous clients (60.3%) scored in the Excellent category. Just over one third (31.1%) of continuous clients had Viral Load scores in the Good range, while only 6.6% and 2.0% scored in the Fair and Poor categories. As discussed under **Figure 19**, a higher percentage of clients were categorized as Excellent for Viral Load than for CD4 count; this is likely related to the great success of antiretroviral therapy in reducing viral load with incomplete recovery of the CD4 count in some clients.

Figure 26. Viral Load

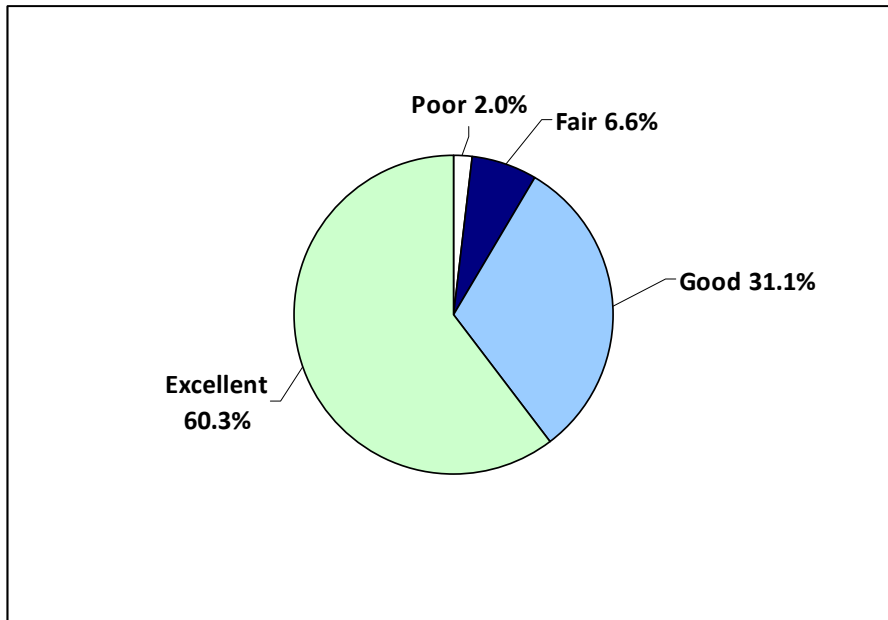
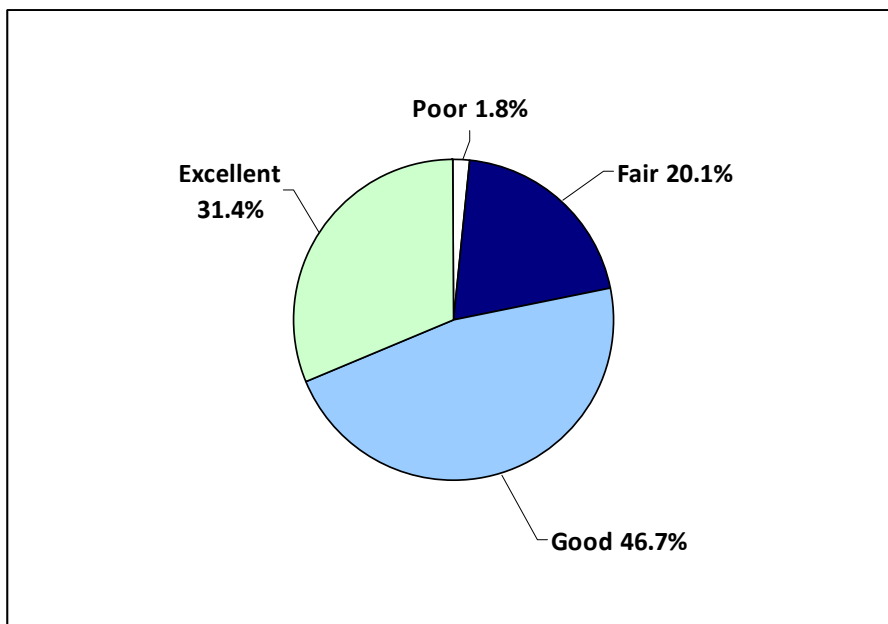


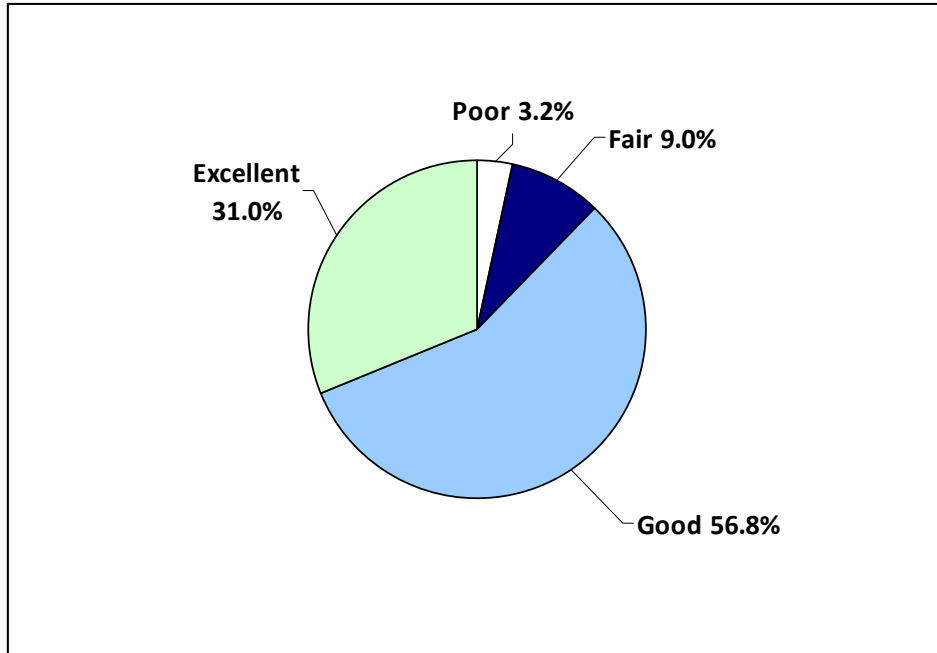
Figure 27 displays score distribution for **Maintenance of Primary Medical Care**. Just over one-third of clients (31.4%) had Excellent outcome scores, while nearly half of clients (46.7%) scored in the Good range. Compared to other outcomes, the percentage of clients who scored in the Fair category is high (20.1%), while a very small percentage of clients (1.8%) had Poor outcome scores.

Figure 27. Maintenance of Primary Medical Care



As shown in **Figure 28**, the majority (56.8%) of continuous MAI clients scored in the Excellent category for **Adherence to Prescribed HIV-Related Medical Therapies**. Similar to other health outcomes, about one-third (31.0%) of clients were in the Good category, while 9.0% and 3.2% scored in the Fair and Poor categories, respectively.

**Figure 28. Adherence to Prescribed HIV-Related Medical Therapies**



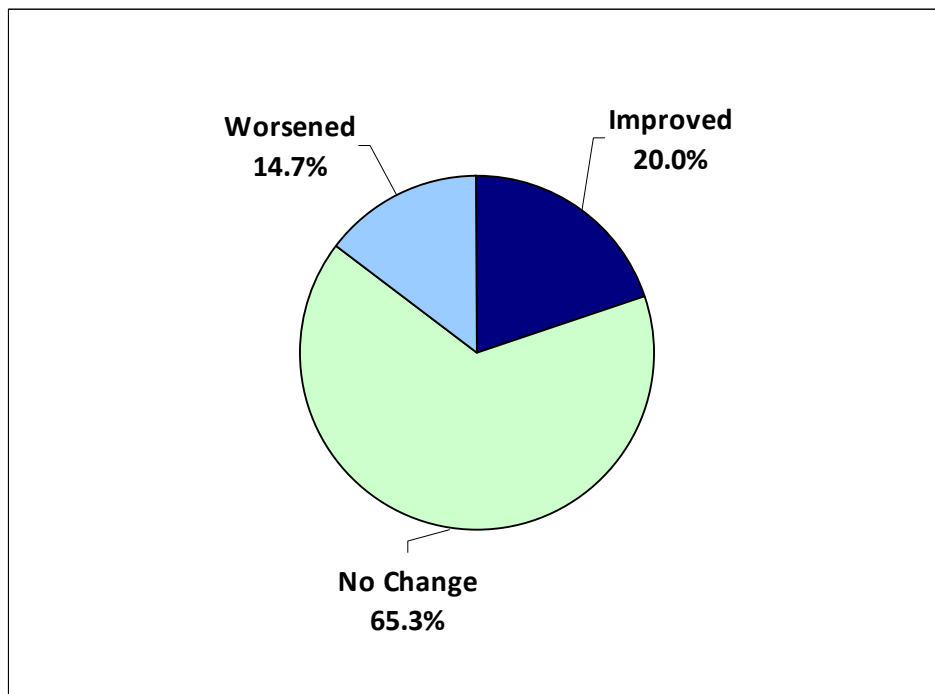
### Change in Severity for Continuous MAI Clients-Final vs. Initial Outcome, N=170

Change in severity is a measure of continuous clients' final outcomes versus their initial outcomes. This analysis is done only for continuous clients, who by definition have outcome data in each reporting period. This allows data from the most recent reporting period, Year End FY 2009, to be compared with data from Mid-Year FY 2008 to measure the change in severity over time (four reporting periods).

Between 55%-65% of continuous MAI clients had no change in severity between their initial and final outcomes (**Figures 29 – 32**). For **CD4 Count**, **Maintenance of Primary Medical Care**, and **Adherence to Prescribed HIV-Related Medical Therapies**, between 16%-20% of clients improved. A higher percentage of clients (27.1%) improved in **Viral Load**. Fewer clients Worsened in **CD4 Count** (14.7%) and **Viral Load** (14.1%) compared to **Maintenance of Primary Medical Care** and **Adherence to Prescribed HIV-Related Medical Therapies** where 24.1% and 24.5% of clients worsened.

**Figure 29** shows change in severity in **CD4 Count** for Continuous MAI Clients. There was no change in outcome scores for most clients (65.3%). Between the initial and final outcomes, 20% of clients improved, and 14.7% worsened.

Figure 29. CD4 Count



**Figure 30** shows change in severity for **Viral Load**, in which a comparatively higher percentage of clients had improved outcomes between the initial and final scores. As previously discussed under **Figures 19** and **26**, the higher percentages of clients categorized as “Excellent” and “Improved” is likely related to the great success of antiretroviral therapy in reducing viral load.

Figure 30. Viral Load

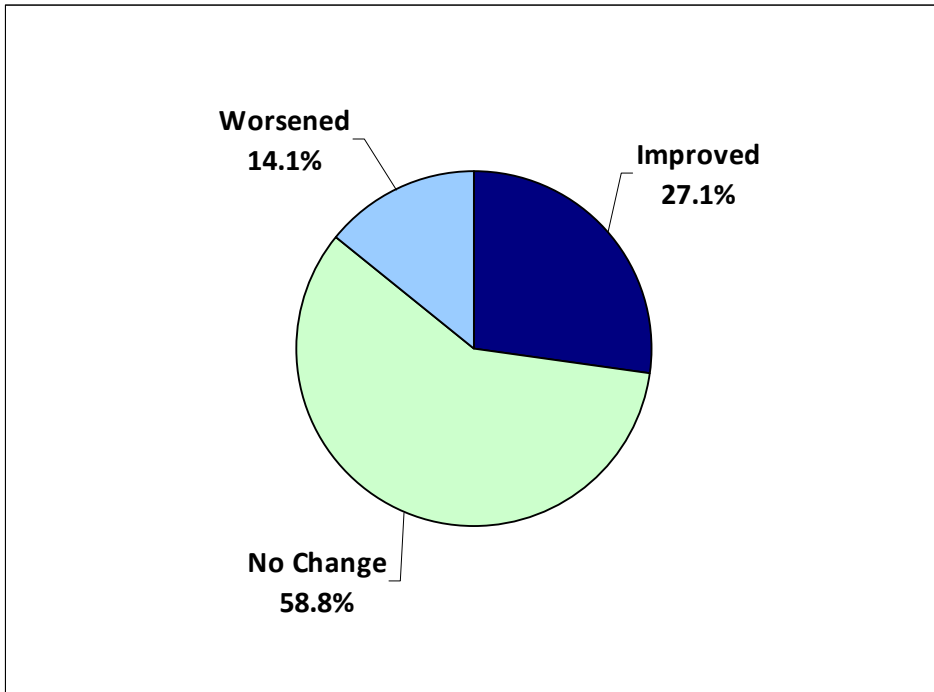
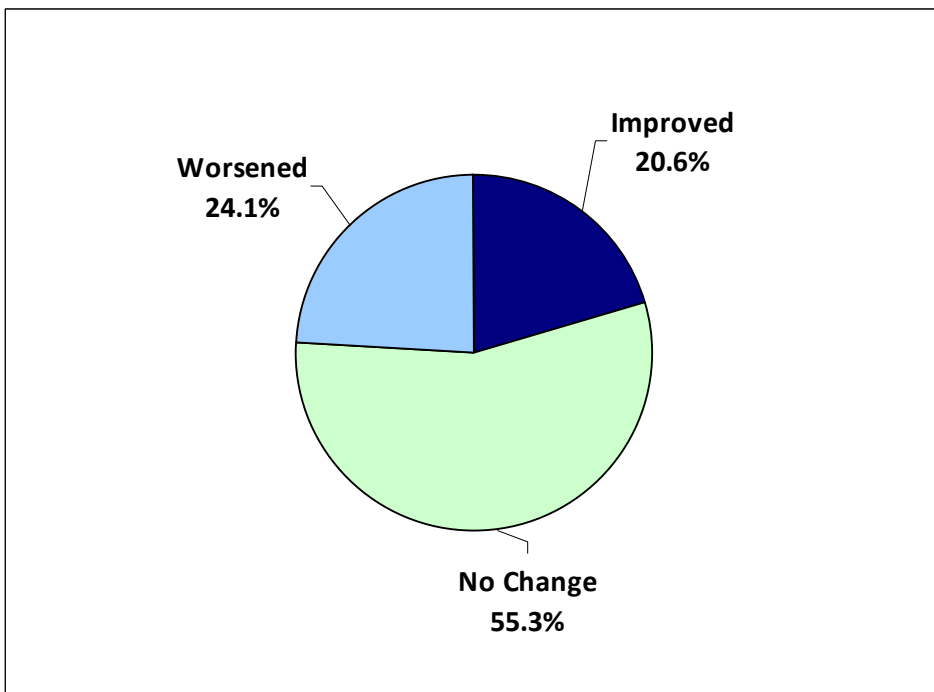


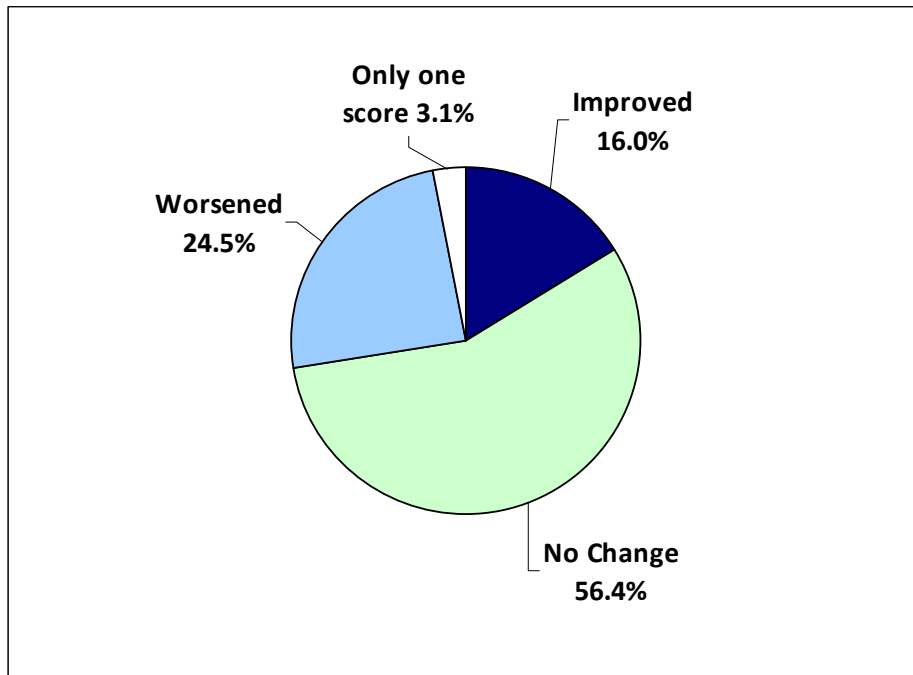
Figure 31 displays change in severity for **Maintenance of Primary Medical Care**. Compared to CD4 Count and Viral Load, a larger percentage of clients worsened in this outcome. Over half (55.3%) had no change in outcome scores, and 20.6% of clients improved.

Figure 31. Maintenance of Primary Medical Care



As shown in **Figure 32**, change in severity for **Adherence to Prescribed HIV-Related Medical Therapies** is quite similar to the previous three outcomes. The majority of clients (56.4%) had no change between initial and final outcome scores, while 24.5% of clients worsened and 16% of clients had improvements in outcome scores. A very small percentage of clients (3.1%) had only one score for this particular outcome, so change in severity could not be calculated. This is likely because these are clients who were not currently on HIV-related medications and therefore this particular outcome was not applicable.

**Figure 32. Adherence to Prescribed HIV-Related Medical Therapies**



**Figure 33** shows the Year-End 2009 health outcome score distribution for four sub-groups of continuous MAI clients: Black clients, Hispanic/Latino clients, clients who received Case Management and those receiving Peer Support services. It is worth noting that these sub-groups are not mutually exclusive; the same client may be included in one or multiple sub-groups.

Health outcome score distribution for Black and Hispanic/Latino Continuous MAI clients was similar for **CD4 Count**, **Viral Load**, and **Maintenance of Primary Medical Care**. A higher percentage of Hispanic/Latino clients (39.4%) scored in the “Excellent” category compared to Black clients (23.7%) in the **Adherence** category.

Among Case Management and Peer Support MAI clients, health outcome score distribution for **CD4 Count** and **Viral Load** was very similar. However, there were notable differences in the remaining health outcomes. For **Maintenance of Primary Medical Care**, a much higher percentage of Peer Support clients scored in the “Excellent” category (42.2%) compared to Case Management clients (28.8%). Similarly, in **Adherence to Prescribed HIV-Related Medical Therapies**, 41% of Peer Support clients scored “Excellent” compared to 27.3% of Case Management Clients.

**Figure 33. Continuous MAI Clients: Health Outcome Score Distribution by selected Race/Ethnicity and Service Category**

Year-End 2009								
	Black Clients		Hispanic Clients		Case Management		Peer Support	
<b>CD-4 Count</b>								
Poor	2	1.9%	1	1.6%	3	2.2%	1	1.5%
Fair	11	10.4%	7	11.5%	15	10.9%	9	13.2%
Good	48	45.3%	28	45.9%	64	46.4%	28	41.2%
Excellent	45	42.5%	25	41.0%	56	40.6%	30	44.1%
<b>Total</b>	<b>106</b>	<b>100%</b>	61	100%	138	100%	68	100%
<b>Viral Load</b>								
Poor	3	2.8%	1	1.6%	3	2.2%	2	2.9%
Fair	7	6.6%	1	1.6%	10	7.2%	4	5.9%
Good	35	33.0%	22	36.1%	45	32.6%	21	30.9%
Excellent	61	57.5%	37	60.7%	80	58.0%	41	60.3%
<b>Total</b>	<b>106</b>	<b>100%</b>	61	100%	138	100%	68	100%
<b>Maintenance of Primary Medical Care</b>								
Poor	3	2.8%	1	1.3%	3	1.9%	2	2.4%
Fair	24	22.4%	18	22.8%	33	21.2%	18	21.2%
Good	49	45.8%	34	43.0%	75	48.1%	29	34.1%
Excellent	31	29.0%	26	32.9%	45	28.8%	36	42.4%
<b>Total</b>	<b>107</b>	<b>100%</b>	79	100%	156	100%	85	100%
<b>Adherence to Prescribed HIV Related Medical Therapies</b>								
Poor	4	4.1%	2	2.8%	5	3.5%	3	3.8%
Fair	11	11.3%	5	7.0%	14	9.8%	10	12.8%
Good	59	60.8%	36	50.7%	85	59.4%	33	42.3%
Excellent	23	23.7%	28	39.4%	39	27.3%	32	41.0%
<b>Total</b>	<b>97</b>	<b>100%</b>	71	100%	143	100%	78	100%

**Figure 34** shows Change in Severity data for these same four subsets of continuous MAI clients: Black clients, Hispanic/Latino clients, clients who received Case Management, and those receiving Peer Support services.

There are some variances in change in severity for Black and Hispanic continuous MAI clients. In CD4 Count, a higher percentage of Hispanic/Latino clients (68.8%) had no change compared to Black continuous MAI clients (58.3%), while more Black than Hispanic/Latino clients improved. A higher percentage of Black clients (60.2%) had no change in Maintenance of Primary Medical Care outcome scores compared to Hispanic/Latino clients (48.8%), who showed more improvement than Black clients. And in **Adherence to Prescribed HIV-Related Medical Therapies** a higher percentage of Black clients worsened (30.4%) compared to Hispanic/Latino clients (19.2%), while Hispanic/Latino clients showed higher percentages of no change and improvement in this category.

There was very little variation in change in severity between clients receiving Case Management and those receiving Peer Support. For client populations and across outcomes, the majority of clients had no change in average outcome scores.

**Figure 34. Continuous MAI Clients: Change in Severity by selected Race/Ethnicity and Service Category**

Outcome	Final Outcome vs. Initial Outcome							
	Black Clients		Hispanic Clients		Case Management		Peer Support	
<b>CD-4 Count</b>								
Improved	24	22.2%	12	15.0%	32	20.4%	16	18.6%
No change	63	58.3%	55	68.8%	101	64.3%	57	66.3%
Worsened	21	19.4%	13	16.3%	24	15.3%	13	15.1%
Total	108	100%	80	100%	157	100%	86	100%
<b>Viral Load</b>								
Improved	30	27.8%	25	31.3%	44	28.0%	26	30.2%
No change	59	54.6%	47	58.8%	90	57.3%	49	57.0%
Worsened	19	17.6%	8	10.0%	23	14.6%	11	12.8%
Total	108	100%	80	100%	157	100%	86	100%
<b>Maintenance of Primary Medical Care</b>								
Improved	16	14.8%	18	22.5%	35	22.3%	17	19.8%
No change	65	60.2%	39	48.8%	84	53.5%	44	51.2%
Worsened	27	25.0%	23	28.8%	38	24.2%	25	29.1%
Total	108	100%	80	100%	157	100%	86	100%
<b>Adherence to Prescribed HIV Related Medical Therapies</b>								
Improved	13	12.7%	13	16.7%	26	17.2%	14	17.1%
No change	55	53.9%	46	59.0%	82	54.3%	40	48.8%
Worsened	31	30.4%	15	19.2%	38	25.2%	23	28.0%
Only one score	3	2.9%	4	5.1%	5	3.3%	5	6.1%
Total	102	100%	78	100%	151	100%	82	100%

## **SUMMARY AND CONCLUSION**

### **All MAI Clients: Health Outcomes and Quality of Life Outcome Scores**

Among MAI clients, average outcome scores for **All Health Outcomes** and **All Quality of Life Outcomes** did not show much change across reporting periods. Average scores for these measures remained solidly in the “Good” category, as did scores for nearly all individual outcome categories. As a reminder, lack of significant improvement is not a concern for scores already in the “good” or “excellent” range.

**Mental Health Status** was the only outcome in which average outcome scores dipped just below the lower cutoff of “Good”, into the “Fair” category, and they did so in two out of four reporting periods (Mid-Year FY 2008 and Mid-Year FY 2009). Meanwhile, the percentage of clients who scored in the “Excellent” category for **Viral Load** continued to be comparatively higher than other outcomes. This relatively higher scoring is likely due to the success of available antiretroviral drug therapies in reducing viral load. These same medications are not always as effective in improving overall immune system health.

There were no significant decreases shown between time periods for any of the outcomes. The few changes in significance were increases in **Impact of Side-Effects from HIV-Related Medications** and **Level of Self-Sufficiency**.

### **Continuous MAI Clients: Outcome Scores and Health Score Distribution**

Given the small sample size (N=170), continuous MAI clients appear to be relatively reflective of the full MAI client group on key parameters (age, gender, race/ethnicity, diagnostic information, exposure, income and housing).

Average outcome scores remained in the “Good” range for all health outcomes (**CD-4 count, Viral Load, Maintenance of Primary Medical Care, Adherence to Prescribed HIV Related Medical Therapies**). However, there was a statistically significant decrease in **Maintenance of Primary Medical Care** at Mid-Year 2009. While this is of concern, there are questions about the structure of this outcome, which tracks missed visits, now that clients are more stable and have longer intervals between their scheduled appointments. The upcoming changes will likely include this item.

The majority of continuous clients’ average Quality of Life outcome scores were in the “Good” range, with the exception of **Mental Health Status**, where scores slipped in the “Fair” category for both periods in FY 2008 and then were in the “Good” range at Mid-Year and Year-End 2009. At Year-End 2009 there were statistically significant increases in **Impact of Side-Effects from HIV-Related Medications** and **Level of Self-Sufficiency**.

### **Health Outcome Score Distribution: Continuous MAI Clients**

Data on continuous clients were further broken down into four subcategories (Black and Hispanic/Latino clients, and clients who received Case Management and Peer Support

MAI services). In terms of health outcome score distribution, there was some variation within two outcome categories. In **Maintenance of Primary Medical Care**, clients receiving Peer Support were categorized as Good less of the time, and Excellent more of the time, than were the other sub-groups. Also, in the category of **Adherence to Prescribed HIV Related Medical Therapies** more Black clients and clients receiving Case Management services were categorized as Good than the other subgroups (Hispanic/Latino clients and those receiving Peer Support), which were more often categorized as Excellent.

#### **Change in Severity: Continuous MAI Clients**

Across all four sub-populations and in nearly all categories, the majority of continuous MAI clients' outcome health outcome scores did not change between initial and final score. As previously discussed in this report, Viral Load most frequently has the highest percentage of clients who improved between initial and final outcome score. This finding reflects the encouraging fact that Antiretroviral therapy (ART) regimens are continuing to improve in effectiveness and ease of use.

## **RECOMMENDATIONS AND NEXT STEPS**

This is the second 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 MAI 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 are actively working 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 is 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 will be developed in the coming months.

# Appendix B

## Appendix B. Outcome Score Distribution for All MAI Clients

Outcome	Unduplicated MAI Clients: Outcome Score Distribution							
	Mid-Year FY 2008		Year-End FY 2008		Mid-Year FY 2009		Year-End FY 2009	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>CD-4 Count</b>								
Poor	13	4%	7	2%	8	2%	12	3.8%
Fair	36	12%	33	12%	35	11%	37	11.7%
Good	132	44%	135	47%	159	49%	153	48.6%
Excellent	122	40%	112	39%	126	38%	113	35.9%
<b>Total</b>	<b>303</b>	<b>100%</b>	<b>287</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>315</b>	<b>100.0%</b>
<b>Viral Load</b>								
Poor	9	3%	8	3%	5	2%	7	2.2%
Fair	33	11%	30	11%	27	8%	28	8.9%
Good	108	36%	110	39%	127	39%	112	35.8%
Excellent	152	50%	136	48%	169	52%	166	53.0%
<b>Total</b>	<b>302</b>	<b>100%</b>	<b>284</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>313</b>	<b>100.0%</b>
<b>Maintenance of Primary Medical Care</b>								
Poor	8	3%	6	2%	3	1%	6	1.7%
Fair	50	16%	52	19%	71	22%	66	19.2%
Good	140	46%	131	47%	154	47%	162	47.1%
Excellent	108	35%	92	33%	98	30%	110	32.0%
<b>Total</b>	<b>306</b>	<b>100%</b>	<b>281</b>	<b>100%</b>	<b>326</b>	<b>100%</b>	<b>344</b>	<b>100.0%</b>
<b>Adherence to Prescribed HIV Related Medical Therapies</b>								
Poor	5	2%	2	1%	5	2%	9	2.8%
Fair	28	10%	38	15%	36	12%	30	9.4%
Good	126	45%	129	49%	155	52%	163	51.3%
Excellent	124	44%	93	36%	104	35%	116	36.5%
<b>Total</b>	<b>283</b>	<b>100%</b>	<b>262</b>	<b>100%</b>	<b>300</b>	<b>100%</b>	<b>318</b>	<b>100.0%</b>
<b>Impact of Side-Effects from HIV-Related Medications</b>								
Poor	1	0%	2	1%	2	1%	0	0.0%
Fair	23	8%	20	8%	16	5%	17	5.3%
Good	165	58%	144	55%	175	58%	150	47.2%
Excellent	95	34%	96	37%	107	36%	151	47.5%
<b>Total</b>	<b>284</b>	<b>100%</b>	<b>262</b>	<b>100%</b>	<b>300</b>	<b>100%</b>	<b>318</b>	<b>100.0%</b>
<b>Mental Health Status</b>								
Poor	3	1%	4	1%	3	1%	6	1.7%
Fair	53	17%	56	20%	60	18%	74	21.5%
Good	176	58%	165	58%	192	59%	187	54.4%
Excellent	73	24%	59	21%	73	22%	77	22.4%
<b>Total</b>	<b>305</b>	<b>100%</b>	<b>284</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>344</b>	<b>100.0%</b>
<b>Access to Psychosocial Support</b>								
Poor	1	0%			1	0%	6	1.7%
Fair	7	2%	8	3%	12	4%	11	3.2%
Good	100	33%	94	33%	115	35%	103	29.9%
Excellent	197	65%	182	64%	200	61%	225	65.2%
<b>Total</b>	<b>305</b>	<b>100%</b>	<b>284</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>345</b>	<b>100.0%</b>

Appendix B continued. Outcome Score Distribution for All MAI Clients

Outcome	Unduplicated MAI Clients: Outcome Score Distribution							
	Mid-Year FY 2008		Year-End FY 2008		Mid-Year FY 2009		Year-End FY 2009	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Access to Psychosocial Support</b>								
Poor	1	0%			1	0%	6	1.7%
Fair	7	2%	8	3%	12	4%	11	3.2%
Good	100	33%	94	33%	115	35%	103	29.9%
Excellent	197	65%	182	64%	200	61%	225	65.2%
<b>Total</b>	<b>305</b>	<b>100%</b>	<b>284</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>345</b>	<b>100.0%</b>
<b>Level of Self-Sufficiency</b>								
Poor	1	0%	1	0%	2	1%	4	1.2%
Fair	26	9%	27	10%	34	10%	26	7.6%
Good	123	40%	120	42%	138	42%	123	35.8%
Excellent	155	51%	136	48%	154	47%	191	55.5%
<b>Total</b>	<b>305</b>	<b>100%</b>	<b>284</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>344</b>	<b>100.0%</b>
<b>Housing Status</b>								
Poor	15	5%	15	5%	25	8%	24	7.0%
Fair	26	9%	24	9%	20	6%	27	7.8%
Good	84	28%	93	33%	108	33%	101	29.3%
Excellent	180	59%	152	54%	175	53%	193	55.9%
<b>Total</b>	<b>305</b>	<b>100%</b>	<b>284</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>345</b>	<b>100.0%</b>
<b>All Health Outcomes</b>								
Poor	9	3%	7	2%	8	2%	13	3.7%
Fair	52	17%	62	22%	57	17%	59	17.0%
Good	209	68%	173	60%	217	66%	215	62.0%
Excellent	36	12%	45	16%	46	14%	60	17.3%
<b>Total</b>	<b>306</b>	<b>100%</b>	<b>287</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>347</b>	<b>100.0%</b>
<b>All Quality of Life Outcomes</b>								
Poor			1	0%	1	0%	3	0.9%
Fair	45	15%	46	16%	50	15%	48	13.9%
Good	223	73%	206	73%	247	75%	260	75.4%
Excellent	37	12%	31	11%	30	9%	34	9.9%
<b>Total</b>	<b>305</b>	<b>100%</b>	<b>284</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>345</b>	<b>100.0%</b>
<b>All Outcomes</b>								
Poor	2	1%	4	1%	1	0%	3	0.9%
Fair	54	18%	57	20%	63	19%	65	18.7%
Good	240	78%	216	75%	251	77%	264	76.1%
Excellent	10	3%	10	4%	13	4%	15	4.3%
<b>Total</b>	<b>306</b>	<b>100%</b>	<b>287</b>	<b>100%</b>	<b>328</b>	<b>100%</b>	<b>347</b>	<b>100.0%</b>