Georgia Ryan White Part B Program
Clinical Chart Review Summary Report
December 2012

By:
Georgia Department of Public Health
Division of Health Protection
Infectious Disease & Immunization Section
HIV Office

ACKNOWLEDGEMENTS

This clinical chart review would not have been possible without the support of the Ryan White Part B Program, the Part B Quality Management (QM) Core Team, and the local Ryan White funded clinics. Thanks to the reviewers, Michael Coker, MSN, HIV Nurse Consultant, , Rosemary Donnelly, APRN, Clinical Instructor/Georgia Program Director – Southeast AIDS Training and Education Center (SEATEC), Harold P. Katner, MD, HIV Medical Advisor, and the local HIV staff members for their participation. Special thanks to Rachel Powell, MPH, Data Manager for assistance with the final document preparation.

Table of Contents

Introduction

Background

The mission of the Ryan White Part B Clinical Quality Management (QM) Program is to ensure the highest quality of medical care and supportive services for people living with HIV/AIDS in Georgia. The overall purpose of the QM Program is to improve the quality of care for people living with HIV/AIDS in the state through the creation of an effective quality management plan that meets the quality management expectations of the Ryan White HIV/AIDS Treatment Extension Act of 2009. These QM expectations are to:

- Assess the extent to which HIV health services provided to patients under the grant are consistent with the most recent Public Health Service guidelines for the treatment of HIV disease and related opportunistic infections.
- Develop strategies for ensuring that such services are consistent with the guidelines for improvement in the access to and quality of HIV health services.

As a component of the QM Program, the HIV Medical Advisor, HIV Nurse Consultant and Clinical Instructor from SEATEC periodically conduct clinical site visits. Three prior clinical chart review series were conducted of clinical site visits to Ryan White Title II-funded clinics throughout Georgia. The first series of clinical site visits occurred from November 2002 to December 2003. The second series occurred from May 2004 to March 2005. The third series was conducted from February 2007 to October 2008. The fourth and most recent series occurred from January 2010 to May 2011. The purpose of these visits was to assess HIV care services as part of the quality management program required by the Ryan White Part B Program.

The first two clinical site visits included a detailed chart review of 42 clinical performance measures, a review of appropriate use and management of antiretroviral agents, and a review of clinic operations. Performance measures for the first two series were reviewed retrospectively over the course of each client's care. The following were reviewed during each clinical site visit:

- Clinic accessibility
- Confidentiality and security
- Clinic scheduling
- Accessibility of other services and medical specialists
- Emergency procedures
- Availability of reference materials including the Department of Health and Human Services (DHHS) HIV-related treatment guidelines
- The local quality management plan including outcome measurements (expanded questions during the 2nd series of site visits)
- "Prevention with positives" activities (added during the 2nd series of site visits)
- Key HIV clinical performance measures, such as laboratory monitoring and opportunistic infection prophylaxis, via a medical chart review
- Utilization and management of highly active antiretroviral therapy (HAART)

During the first series, 191 charts were reviewed from 20 clinical sites. District subcontractors, who provide HIV care, were not reviewed during the first series due to reluctance of the district and/or provider. During the second series, 192 charts were reviewed from 20 clinical sites. In December 2003, HRSA clarified the state's role in reviewing district subcontractors and indicated that grantee (State Office) is required to monitor subcontractors. Therefore, the following district subcontractor sites were reviewed, which were not previously reviewed: Don Nelson, MD, Dublin; Medical College of GA (now, Georgia Health Sciences University [GHSU]), Augusta; AIDGwinnett, Lawrenceville; and Rural Health Clinic, Albany.

In July 2004, the Health Resources and Services Administration (HRSA) conducted a site visit of the Georgia Ryan White Title II Program. Recommendations from the HRSA site visit included expanding the overall quality management program and reviewing more charts during clinical site visits. In 2005, as a result of the HRSA recommendations, Georgia requested to participate in the Ryan White Title II Collaborative Demonstration Project: *Improving Care for People Living with HIV Disease*. Georgia was selected as one of eight Title II grantees to participate in the Collaborative Demonstration Project. The Project began in June 2005 and ended in December 2006. During this time because of the requirements of the Project, clinical site visits were temporarily suspended.

Clinical chart reviews resumed in 2007. The HIV Medical Advisor and HIV Nurse Consultants conducted a third series of clinical site visits for the purposes of clinical chart review. Based on recommendations from the HRSA reviewers, the State significantly increased the number of charts reviewed at each site. In order to increase the number of charts reviewed during each site visit, the reviewers decreased the number of performance measures on the revised HIV clinical chart review tool and did not review clinic operations. During the third series, most performance measures were reviewed for a 12-month period, calendar year (CY) 2006. In the third series, 820 charts were reviewed in 22 clinics.

In 2010, the survey team initiated the fourth and most recent series of clinical site visits. Reviewers revised the clinical chart review tool (Appendix A) and added three additional measures. This document describes the fourth series of clinical chart reviews CY 2009, including findings, discussion, and conclusions.

Findings from the first and second series are not easily compared to the third and fourth series for several reasons, including utilization of different review tools with different indicators and variations in the review timeframe. For example, in the 2002-2003 and 2004-2005 series, indicators were reviewed over length of clients care. In the 2007-2008 series, most indicators were reviewed for the 2006 calendar year only. As part of each site's reports, reviewers provided a comparison table of CY 2006 to CY 2009 (Appendix D) indicating areas of improvement as well as opportunities for improvement.

Methodology

The clinical performance measures (PM) selected for this chart review were based on the New York State Department of Health AIDS Institute, HIVQual Project Indicators[1]; and the Georgia Part B HIV clinical performance measures. These measures determine compliance with national standards of HIV/AIDS care, primarily compliance with the DHHS, HIV/AIDS Clinical Guidelines.[2] These include guidelines for antiretroviral treatment, management and prevention of HIV complications.2

In 2004, the HRSA reviewers specifically recommended that the State utilize the New York State Department of Health, HIVQual Project Sampling Methodology[3] to determine the number of charts reviewed during each site visit. This methodology significantly increased the number of charts reviewed at each site. Female clients were oversampled to ensure statistically significant numbers for the gynecologic performance measures. Randomization of charts was not used as several sites did not have enough chart records to include randomization.

Data Collection Tool

A chart review tool was developed based on the selected performance measures. The Medical Advisor and a Nurse Consultant, with the assistance of local HIV staff members and the District Liaison, field-tested the original tool during a February 2007 site visit. Subsequently, they revised the tool based on feedback. The chart review tool was later converted to a Scantron® form to facilitate data collection and analysis. The Scantron® was revised again for CY 2009 to include additional performance measures (see Appendix A). For CY 2009, there were minor revisions to include pregnancy ART management, medication adherence assessment and lipid profile monitoring for

individuals on ART. A worksheet was developed to accompany the Scantron® form for additional client level data and comments (see Appendix B). Instructions were developed to clarify the chart review process and measures (see Appendix C).

Process

HIV Nurse Consultants and the HIV Medical Advisor reviewed client charts at Ryan White Program Part B-funded clinics throughout Georgia. At least one clinic in each of the 16 Health Districts funded to provide HIV clinical care with Ryan White Part B funds was reviewed over a 1-2 day period. From January 2010 to May 2011, they reviewed 697 clinical charts in 18 clinics.

Prior to the review, each clinic submitted the number of female and male clients eligible for review. Clients were generally eligible for the chart review if they met the following criteria:

- HIV-infected client of the clinic under review
- Client with at least two medical visits during the 12-month review period (preferably clients who were in care prior to the review period or who initiated care during the first trimester of the review period)

Using the sampling methodology, the reviewers determined the number of charts for review. They instructed the clinic regarding chart selection and sent them the chart review tool, worksheet, and instructions (see Appendices A, B, and C).

Most performance measures were assessed during a 12-month review period (i.e., at least once during the measurement year). The review period for this chart review was calendar year 2009. A few measures were assessed per three 4-month periods (referred to as first, second, and third [final] trimesters of the measurement year). One measure, hepatitis C virus (HCV) status, was assessed at least once since the diagnosis of HIV infection. Additional measures added to the review since the CY2006 review includes: ART assessment for pregnant women, adherence assessment and counseling, and lipid profile monitoring at least once annually for clients on ART.

Chart reviewers completed Scantron® forms and a worksheet for each chart reviewed. Scantron® forms were printed with a barcode for each clinical site. Each Scantron® form was assigned a Unique Identifier Number (UIN) to link the client's chart number to the Scantron® form. UINs were written on the worksheet and a list of UINs with corresponding chart numbers was compiled and shared with the HIV coordinator/clinic manager.

At the conclusion of each review, reviewers and HIV clinic staff members held an exit interview to discuss pertinent preliminary findings. A written report was later sent to the District Health Director and copied to the HIV Coordinator. The report included an overall summary with recommendations, a Scantron® report of chart review findings, comments from worksheets, and if applicable a comparison report of previous chart review findings. Each clinical site was asked to submit a written plan for improvement.

Analysis

For each measure, the success rate was calculated by site. The 2009 overall chart review success rate was also calculated for each measure. In an effort to determine which measures we were excelling at and where improvements could be made, the 2009 rate was compared to the 2006 rate, national goals, and Georgia's Part B goals (where applicable).

Key Findings

In the following table, the 2009 rate for each of the performance measures assessed during the clinical chart reviews are presented. If there is a national goal for the measure, it is listed. If the measure is included in the HIV/AIDS Bureau (HAB) Core Clinical Performance Measures[4], it is indicated.

2009 Average by Performance Measure			
Performance Measure	**2009 Chart Review Success Rate**	**National Goal [5]**	**HAB Performance Measure4**
Seen Before the Review Period	88%		
Clinically Stable Before the Review Period	88%		
Physical & Dental Exams			
Complete Physical Exam	69%		
Dental Exam	26%	75%	X
Medical Visits			
Medical Visit every 6 months	93%		X
Medical Visit 1st Trimester	96%		
HIV Specialist 1st Trimester	96%		
Medical Visit 2nd Trimester	93%		
HIV Specialist 2nd Trimester	93%		
Medical Visit 3rd Trimester	94%		
HIV Specialist 3rd Trimester	93%		
CD4 Counts & Viral Loads (VL)			
CD4 Counts every 6 months.	93%	90%*	X
VL every 4 months	80%	90%	
VL 1st Trimester	95%		
VL 2nd Trimester	93%		
VL 3rd Trimester	91%		
Antiretroviral Therapy			
HAART According to DHHS (appropriate management)	94%	90%	
Stable 1st Trimester	93%		
Stable 2nd Trimester	91%		
Stable 3rd Trimester	93%		
CD4 > 200/mm3 3rd Trimester	88%		
VL < 75 copies/mL 3rd Trimester	84%		
Resistance Testing 1st Trimester	61%		
Resistance Testing 2nd Trimester	41%		
Resistance Testing 3rd Trimester	37%		
Pregnant, Already on HAART 1st Trimester**	52%		
If Pregnant, HAART 2nd and 3rd Trimesters**	100%		
Medication Adherence and Counseling			
If on HAART, adherence assessed**	94%		
If on HAART, received adherence counseling**	92%		
Pelvic Exam & Pap Smear			
Pelvic Exam	77%		
Pap Smear	78%	90%	X
Abnormal Pap Results	29%		
Abnormal Pap f/u - Referral	90%		
Abnormal Pap f/u - Diagnostic Eval. within 60 days	54%	75%	
Syphilis, TB, HCV Screening			
Syphilis Screen	83%	90%	X
TB Screen Complete	65%	80%	
TST Placed	75%	90%	
If TST placed, read	87%		
HCV Screen	96%	95%	X
ETOH Counseling, if HCV+	52%		
Hepatitis B Vaccination			
If susceptible, HBV vaccine series administered**	81%		
Anti-HBs assessed after vaccine series completed**	21%		
Lipid Screening			

If on HAART, fasting lipid panel**	40%		
PCP & MAC Prophylaxis			
PCP Prophylaxis	95%	95%	X
MAC Prophylaxis	90%		

* CD4 counts every 4 months
** Indicates measures added for CY2009 review

In the body of the document, each performance measure is described, and findings are reported by site and the overall 2009 chart review rates. For confidentiality purposes, sites are numbered from 1-18. These numbers do not correlate with Georgia Public Health District numbers. We will provide the site number to the respective HIV Coordinator or Program Manager. A comprehensive comparison table is provided in Appendix E indicating where applicable the following:

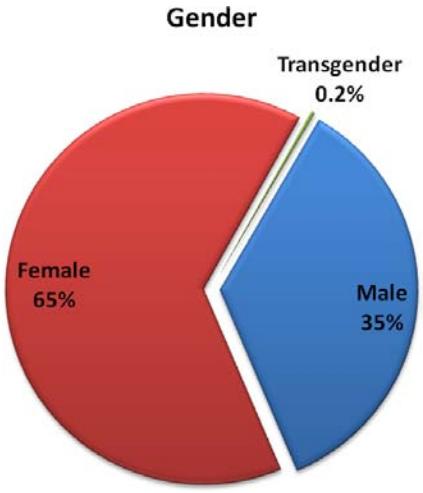
- Improved from 2006 review at or above goal,
- Improved from 2006, but needs improvement, not at goal
- Needs improvement, either worse than or the same as 2006 review, not at goal
- Same as or improved from 2006, at or above goal or new measure in 2009 review

Following the findings, there are discussion and conclusion sections.

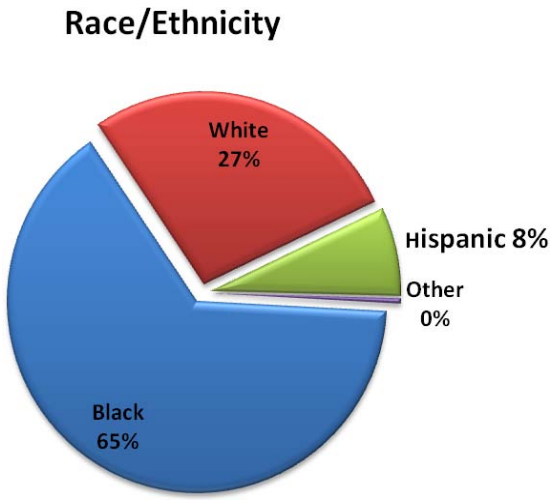
Demographic Information

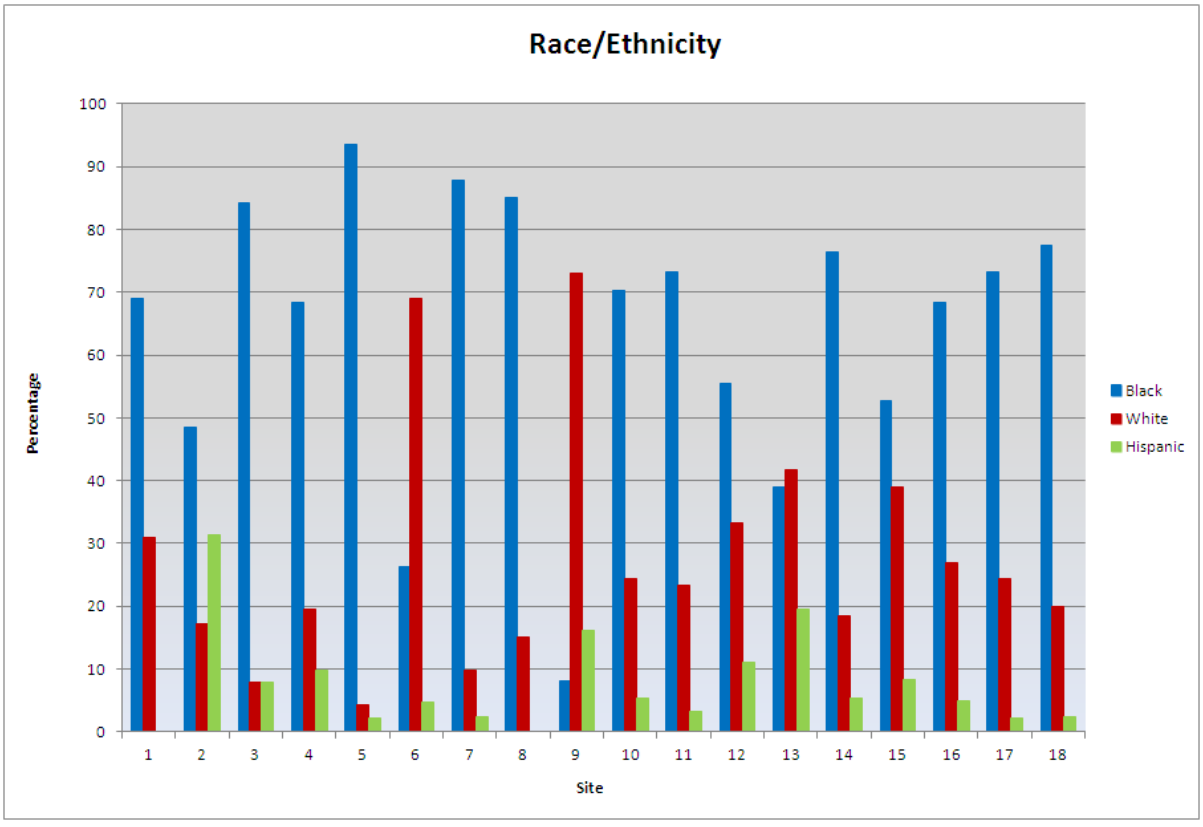
Reviewers collected the sex and race/ethnicity for each client whose clinical chart was reviewed. Shown below is the breakdown of sex and race/ethnicity of clients whose clinical charts were reviewed at each clinic as well as for the total.

Of the 697 charts reviewed, 35% were male clients' charts, 65% were female clients' charts, and 0.2% were transgender clients' charts. HIV-infected female clients' charts were oversampled to ensure sufficient numbers for review of the pelvic examination and Pap smear measures.3



The sampling methodology utilized did not require specific sampling according to race/ethnicity. The majority (65%) of clients whose charts were reviewed were Black, Non-Hispanic. In three agencies located in Middle and South Georgia, the rate of clients whose charts were reviewed that were Black, Non-Hispanic was 85% or more. In three sites in North Georgia, there were higher rates of White, Non-Hispanic clients' charts reviewed than Black, Non-Hispanic or Hispanic clients. Hispanic clients were reviewed at 16 of the 18 sites. The number of Hispanic clients reviewed is a change from the previous chart review where at seven sites, there were no Hispanic clients' charts reviewed due to a very low caseload. In three sites, the rate of Hispanic clients' charts reviewed was greater than 16%. Asian/Pacific Islanders, American Indians, and other clients accounted for less than 1% of charts reviewed.


Race/Ethnicity
White
27%
Hispanic 8%
Other
0%
Black
65%


Race/Ethnicity
Percentage
100
90
80
70
60
50
40
30
20
10
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Site
Black
White
Hispanic

Physical & Dental Examinations

Complete Physical Examination

All HIV-infected clients should receive a complete physical examination (PE) annually.[6]
A complete PE includes the following body systems:

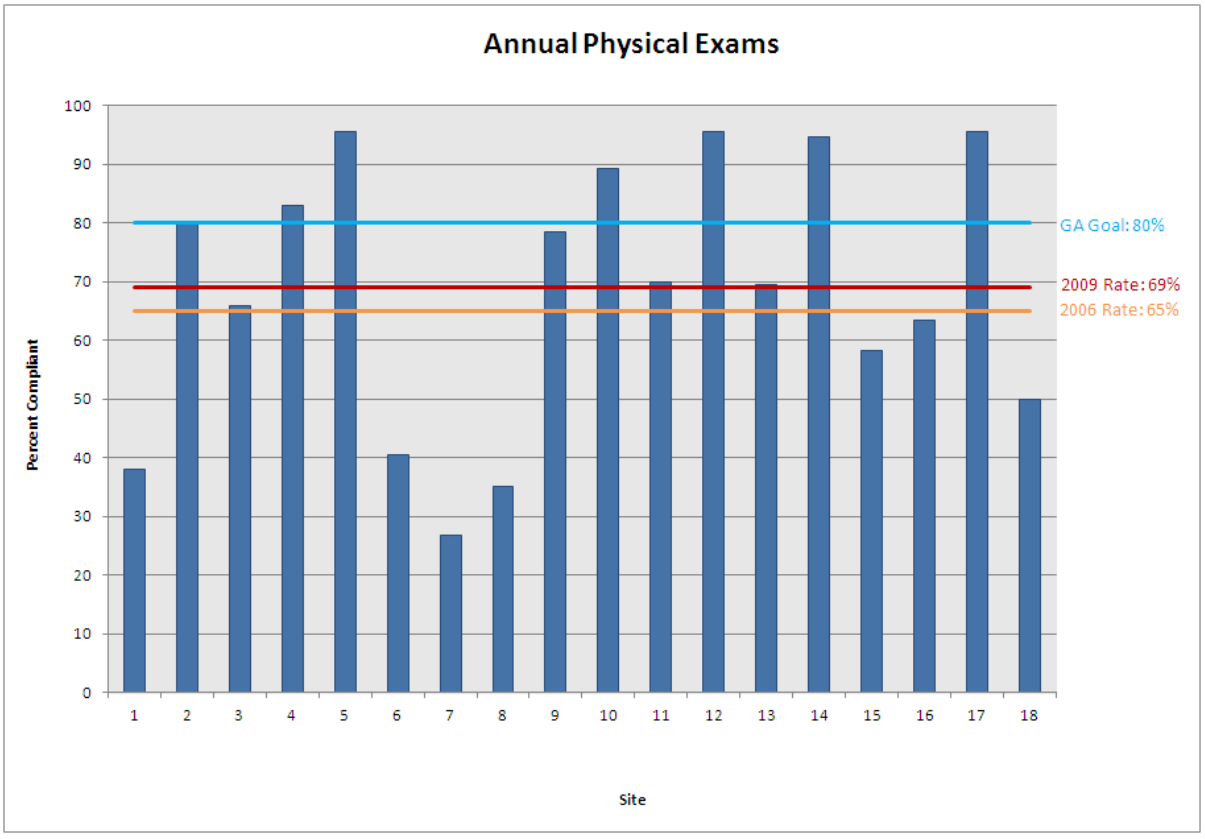
- General
- Head, Eyes, Ears, Nose, and Throat (HEENT)
- Neck
- Chest/lungs
- Heart
- Breasts
- Abdomen
- Genitalia
- Rectum/Anus
- Musculoskeletal
- Skin
- Neurological
- Lymph nodes

Note: If there was documentation that another provider had seen a female client for the pelvic exam/Pap smear and the HIV provider completed the rest of the exam, then it was counted as a complete PE.

Measure: Percent of eligible HIV-infected clients who had a complete physical examination within the measurement year

- Numerator: Number of eligible HIV-infected clients who had a complete physical examination
- Denominator: Number of eligible HIV-infected clients

Four sites had rates 95% or greater. Rates ranged from 27% to 96%. The 2009 overall rate was 69%. This was an improvement over the 2006 rate of 65%, but has not reached the state goal of 80%. Ninety-two percent (92%) of clients, who did not have complete physical examinations done during the review period, had partial or incomplete physical exams done.



Dental Examination

All HIV-infected clients should have an oral examination by a dentist at least every 12 months.1,[7] This measure is included in the HAB *HIV Core Clinical Performance Measures: Adult/Adolescent Clients Group 2*.[8]

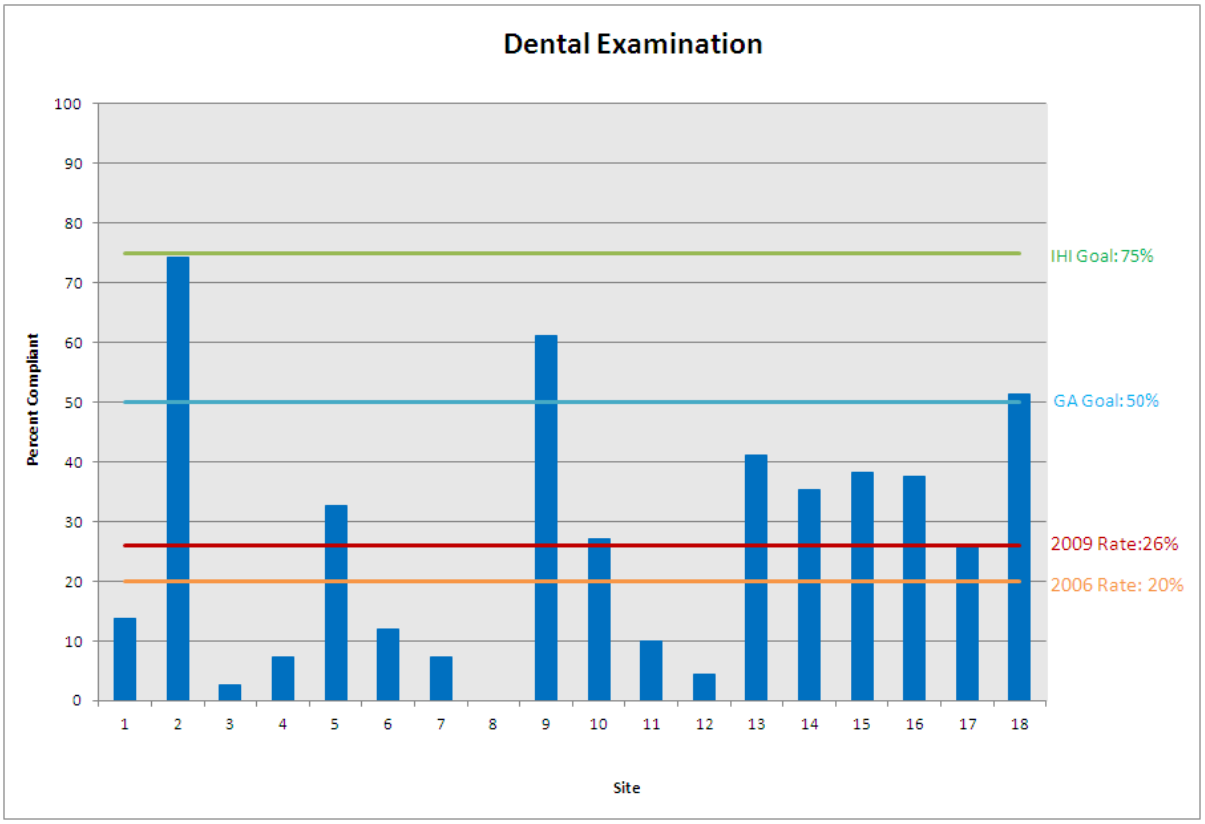
Measure: Percent of HIV-infected clients who received a dental examination (i.e., oral health exam by a dentist) at least once during the measurement year.

- Numerator: Number of eligible HIV-infected clients who had a dental exam
- Denominator: Number of eligible HIV-infected clients

Exclusion: Clients with full dentures were considered ineligible for this measure.

IHI Goal = 75%[9]

None of the sites reviewed met the IHI goal of 75%, though 3 sites exceeded the GA goal. Site rates ranged from 0% to 74%. The 2009 overall rate was 26% which is up from the 2006 CY chart review of 20%.



Medical Visits

All HIV-infected clients should routinely be seen by an HIV specialist at least every 3-4 months for optimal HIV disease management and improved outcomes.[1,6] HIV specialist is defined as a physician, physician's assistant, or nurse practitioner who has provided direct, ongoing care for 20 or more HIV-infected clients over the past 12 months and received a minimum of 15 credits of HIV-related continuing medical education (CME) within the past 12 months, including information on antiretroviral therapy.[10]

Medical Visits Every 6 Months

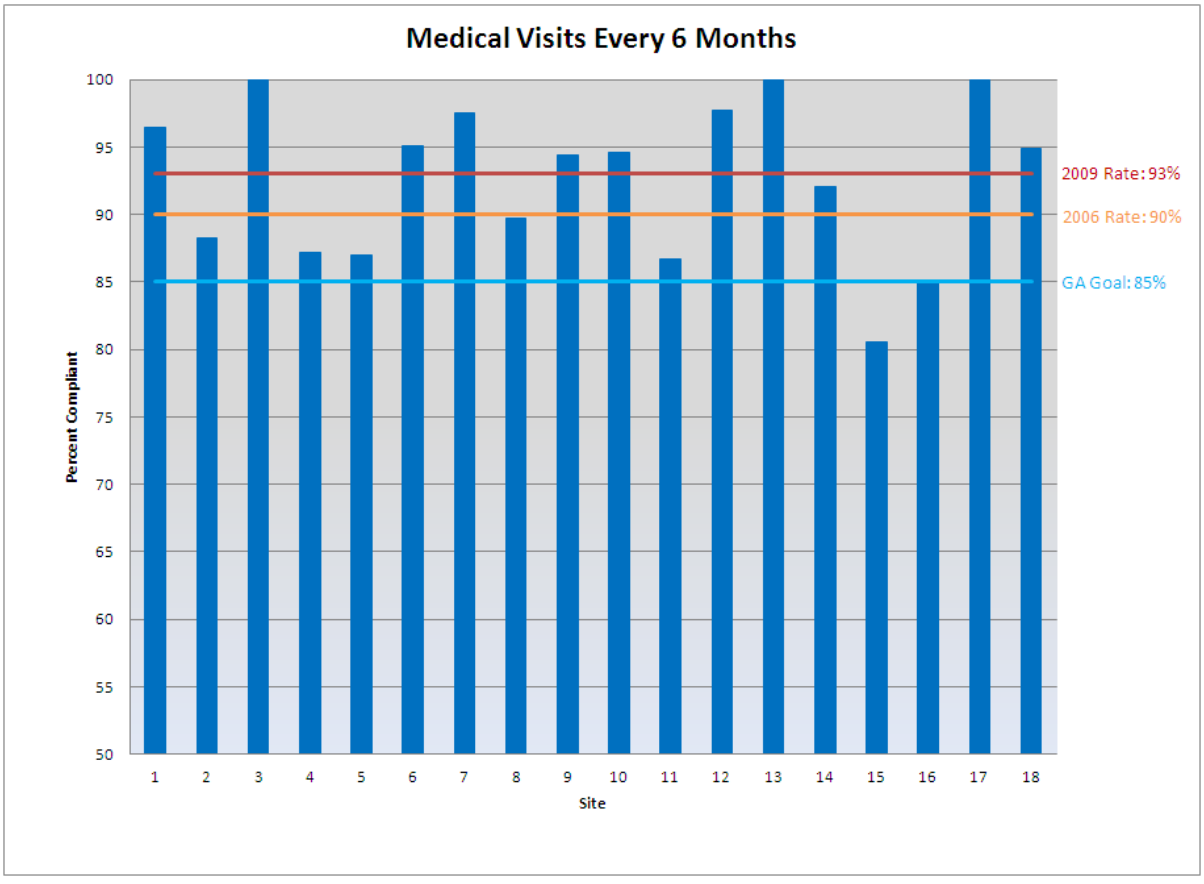
This measure is a slight variation of the HAB, Group 1 Performance Measure, and "Percentage of clients with HIV Infection who had two or more medical visits in an HIV care setting in the measurement year."[11]

Measure: Percent of eligible HIV-infected clients who had medical visits with HIV specialists at least every 6 months during the measurement year.

- Numerator: Number of eligible HIV-infected clients seen at least every 6 months
- Denominator: Number of eligible HIV-infected clients seen within the first 6 months of reporting period

Exclusion: Clients newly enrolled in care during the last six months of the measurement year.

Three agencies were 100% compliant with this measure. The 2009 rate was 93% reflecting an increase from 90% in 2006. Site rates ranged from 81% to 100%. All but one site met or exceeded the GA goal of 85%.



Medical Visits Each Trimester

Reviewers also assessed whether or not each client had a medical visit during each trimester of the review period and if this medical visit was conducted by an HIV specialist.1

Measure: Percent of eligible HIV-infected clients who had a medical visit during each trimester of the review period.

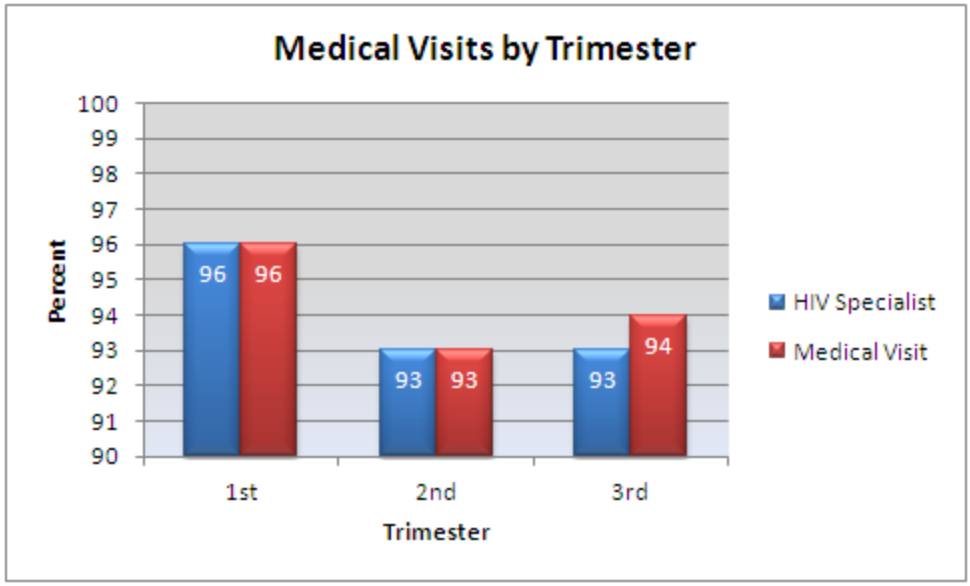
- Numerator: Number of eligible HIV-infected clients who had a medical visit during the trimester of interest
- Denominator: Number of eligible HIV-infected clients during the trimester of interest

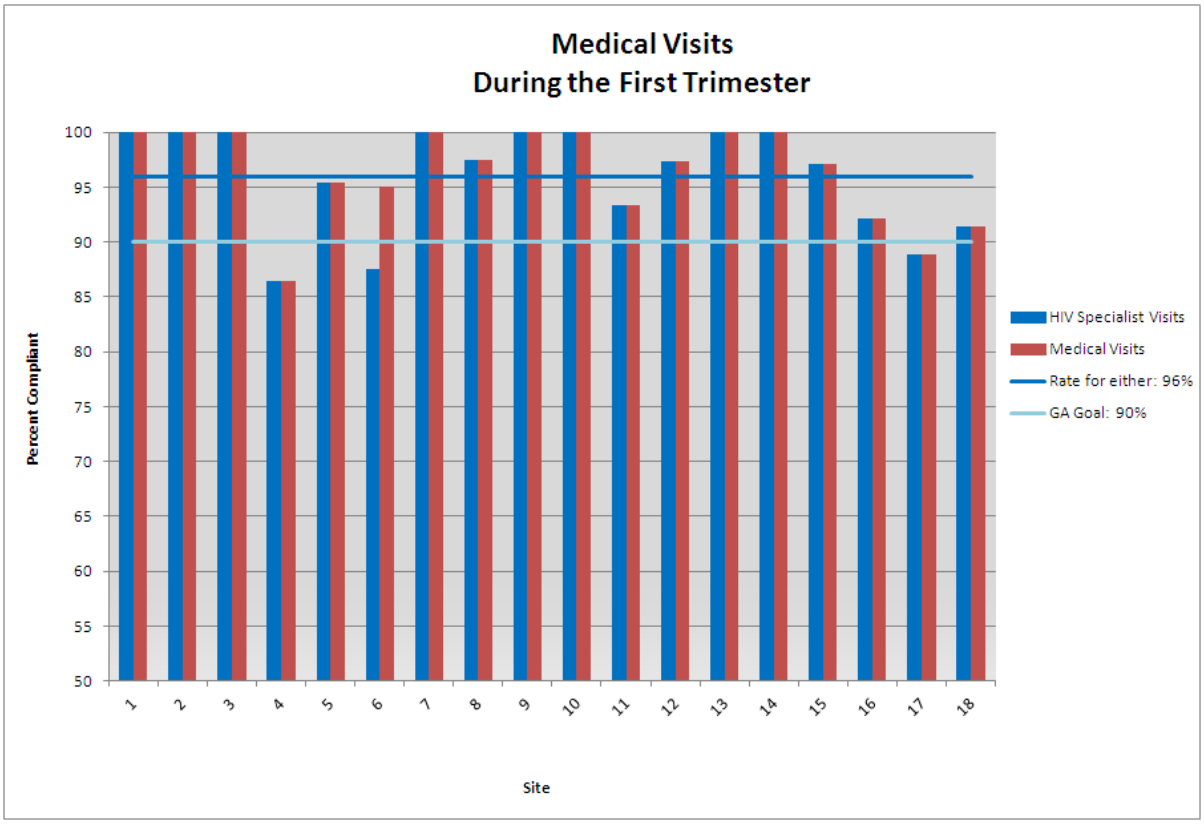
Measure: Percent of eligible HIV-infected clients who were seen by an HIV specialist during each trimester of the review period.

- Numerator: Number of eligible HIV-infected client who were seen by an HIV specialist during the trimester of interest
- Denominator: Number of eligible HIV-infected clients during the trimester of interest

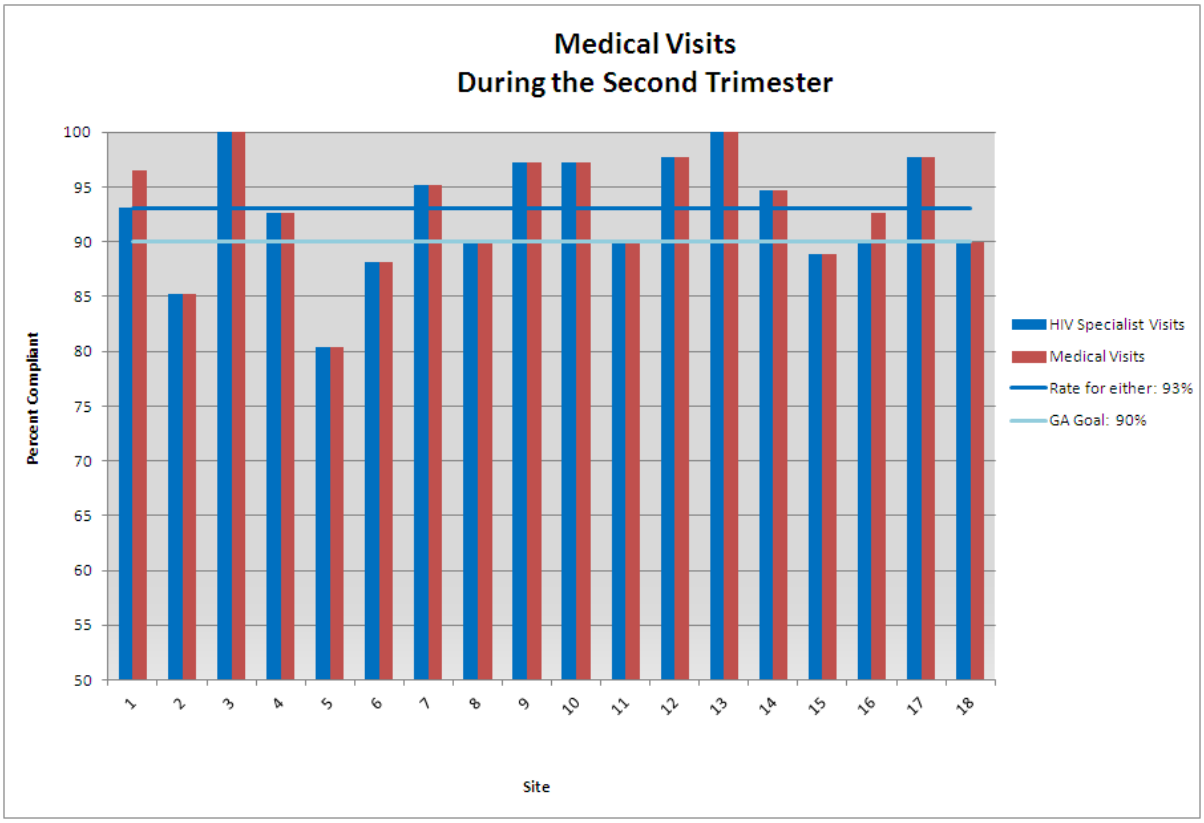
If the client did not have a visit during the trimester, reviewers assessed the reason the visit did not occur. Reasons were categorized as follows based on the HIVQual Project Definitions1:

- Client was incarcerated
- Client expired
- Client relocated
- No visit occurred

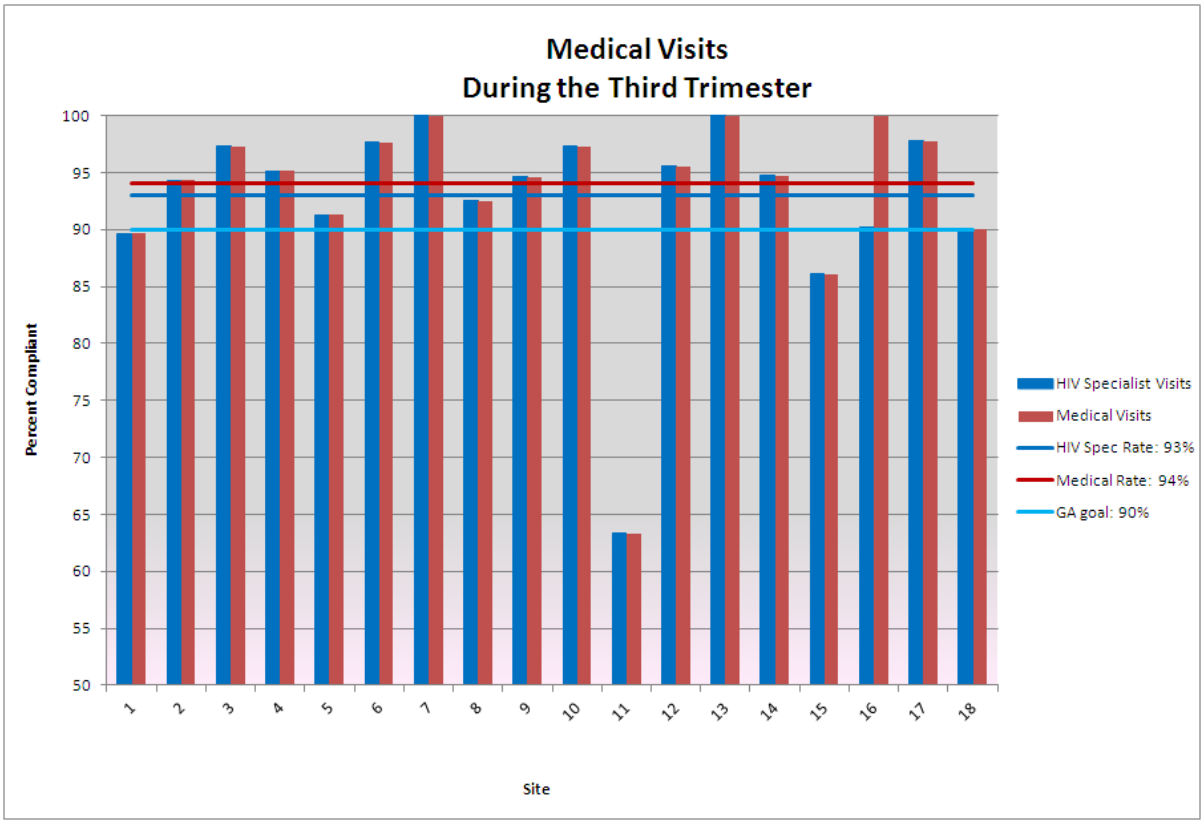




All but 3 sites exceeded the GA goal of 90% for HIV specialist and medical visits. There were 26 eligible clients who did not have a medical visit during the first trimester of the review period. "No visit occurred" for 96% of those. Four percent (1 client) was incarcerated during the first trimester.



During the second trimester, 4 sites did not meet or exceed the GA goal. 51 clients did not have a medical visit. “No visit occurred” for 98% of those clients. Two percent (1 client) relocated.



In the third trimester of the review, only 2 sites did not meet or exceed the GA goal. There were 48 clients who did not have a medical visit. “No visit occurred” for 96% of those. Two percent (1 client) relocated and 2% (1 client) was incarcerated.

CD4 Counts and HIV Viral Loads

CD4 Counts

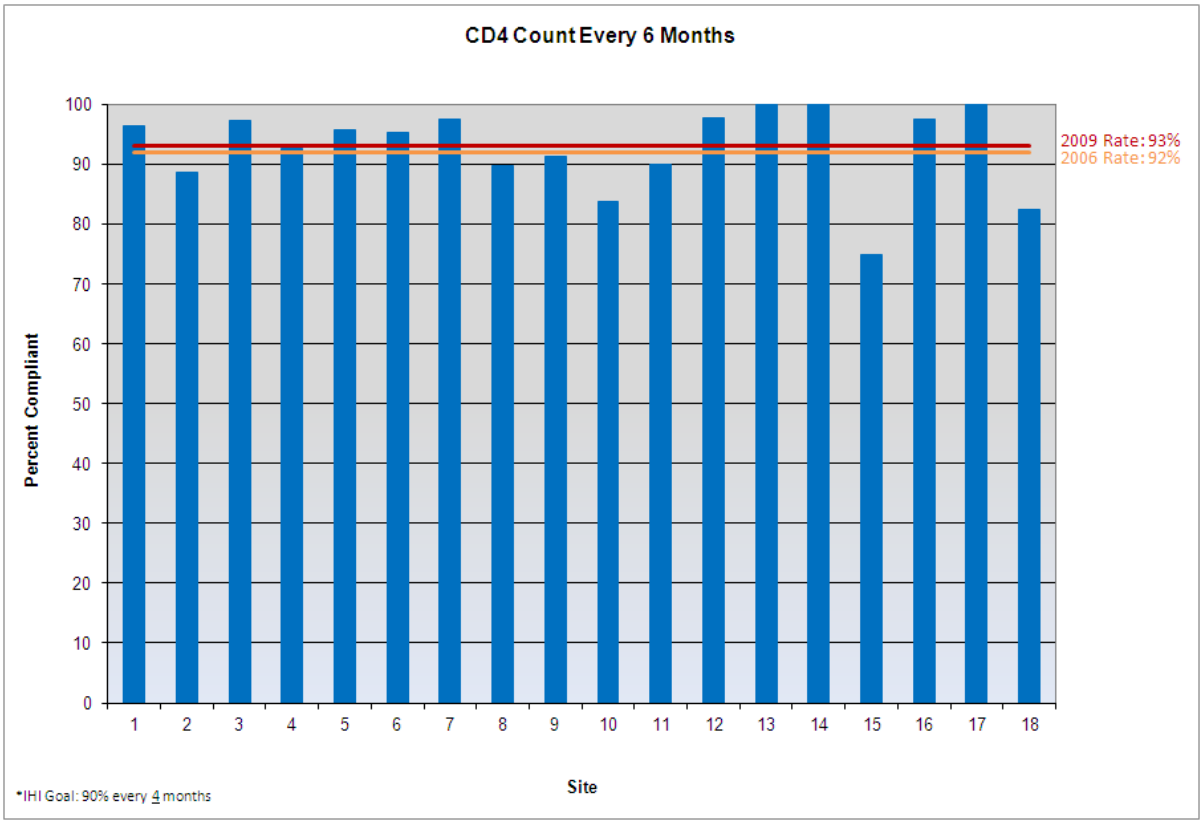
All HIV infected clients should have a CD4 count measured at baseline and repeated at least every 3-6 months.[12] This measure is included in the HAB *HIV Core Clinical Performance Measures for Adult/Adolescent Clients: Group 1*.[11]

Measure: Percent of HIV-infected clients who had CD4 counts performed at least every 6 months during the measurement year.

- Numerator**:** Number of eligible HIV-infected clients who had CD4 counts performed at least every 6 months
- Denominator: Number of eligible HIV-infected clients

IHI Goal = 90% (CD4 count done every 4 months)[13]

Three sites were 100% compliant with this measure. Site rates ranged from 75% to 100%. Fourteen agencies were 90% compliant or greater. The 2009 overall rate was 93%.



HIV Viral Load

The DHHS antiretroviral guidelines recommend that all HIV-infected clients have an HIV viral load measured at baseline and repeated at least every 3-4 months.[12]

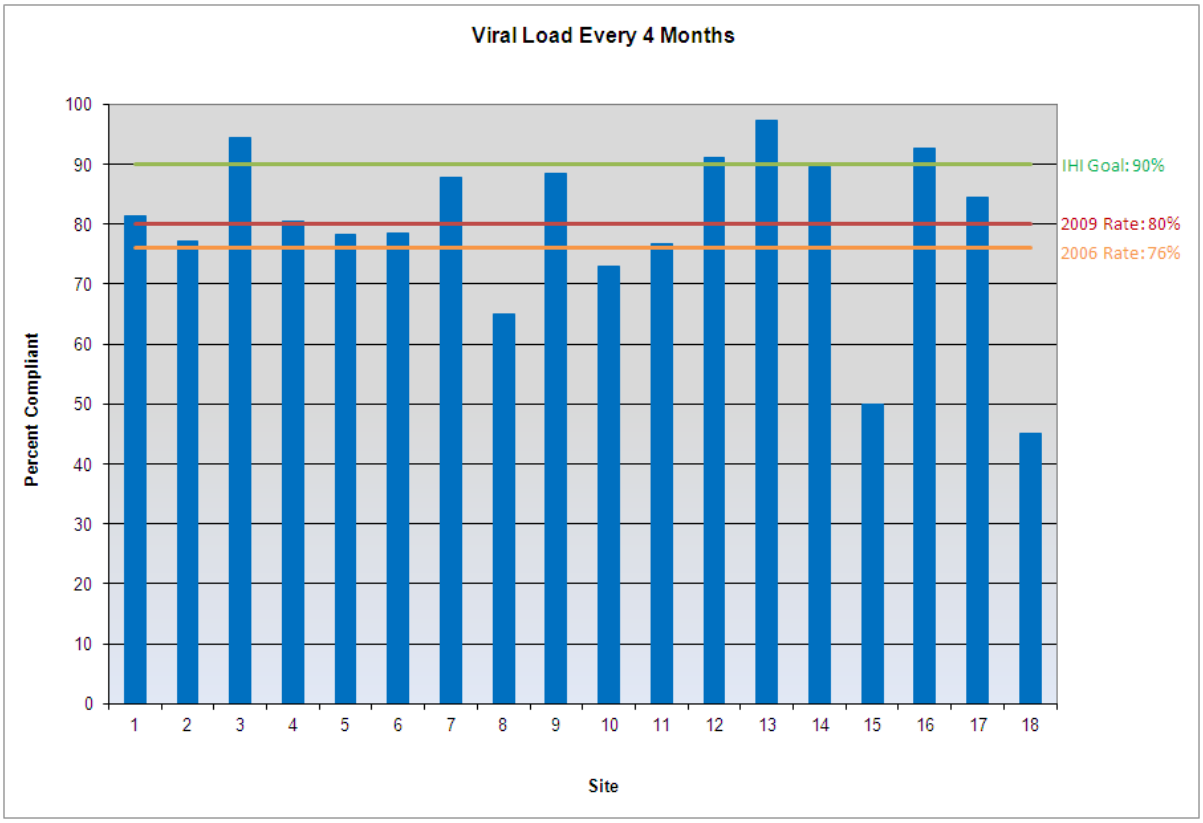
HIV Viral Load Every Four Months

Measure: Percent of eligible HIV-infected clients who had viral loads performed at least every four months during the measurement year.

- Numerator**:** Number of eligible HIV-infected clients who had HIV viral loads performed at least every 4 months
- Denominator: Number of eligible HIV-infected clients

IHI Goal = 90% (Viral load done every 4 months)[14]

Five sites had rates of 90% or greater (IHI goal). Rates ranged from 45% to 97%. The 2009 rate was 80%, up by 4 percentage points over the CY 2006 review.



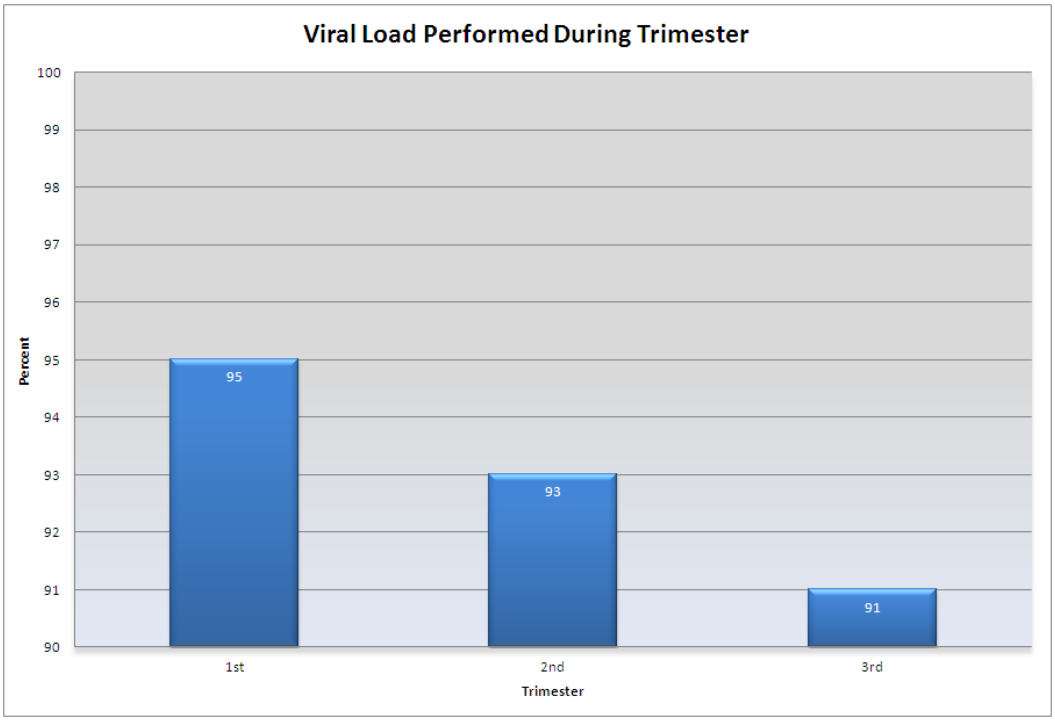
HIV Viral Load During Each Trimester

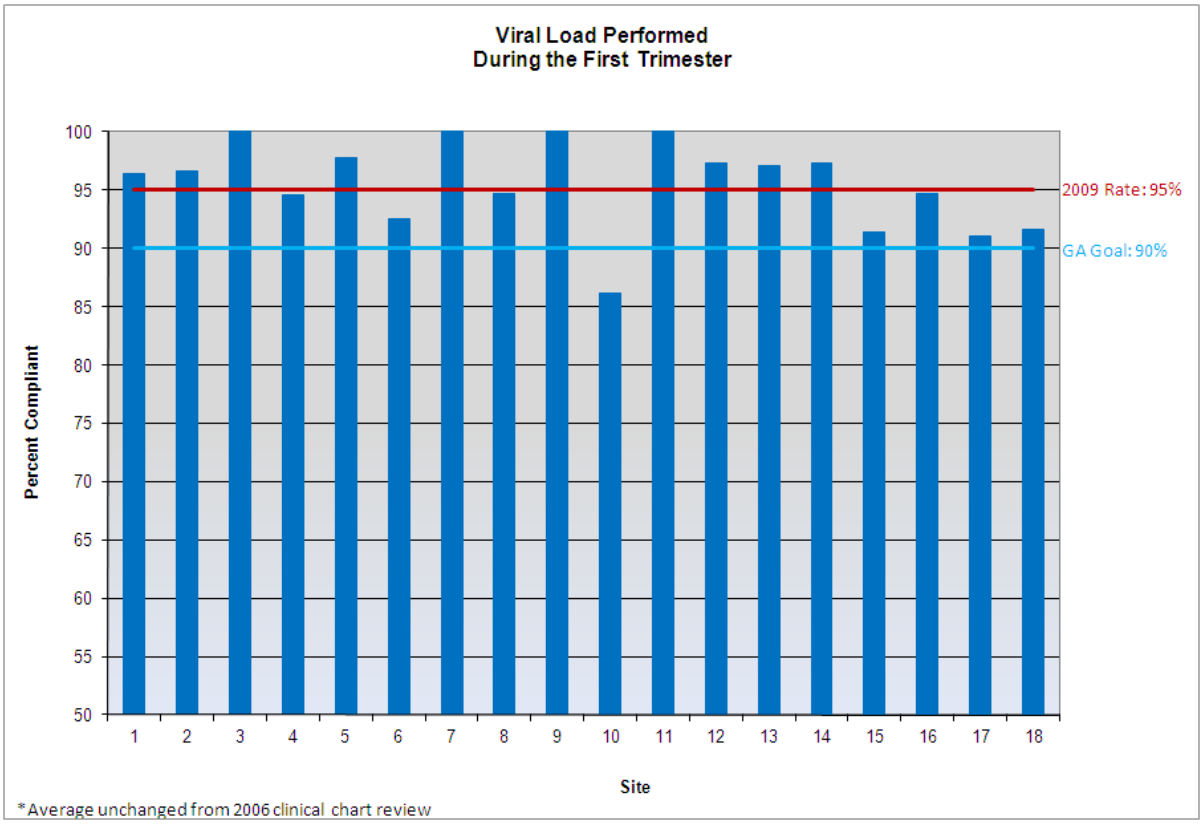
Reviewers assessed if the client had at least one viral load done during each trimester of the review period.1 If a viral load was not done during the trimester, reviewers were unable to assess clinically stability for clients on HAART.

Measure: Percent of HIV-infected clients who had viral loads performed at least once during each trimester of the measurement year.

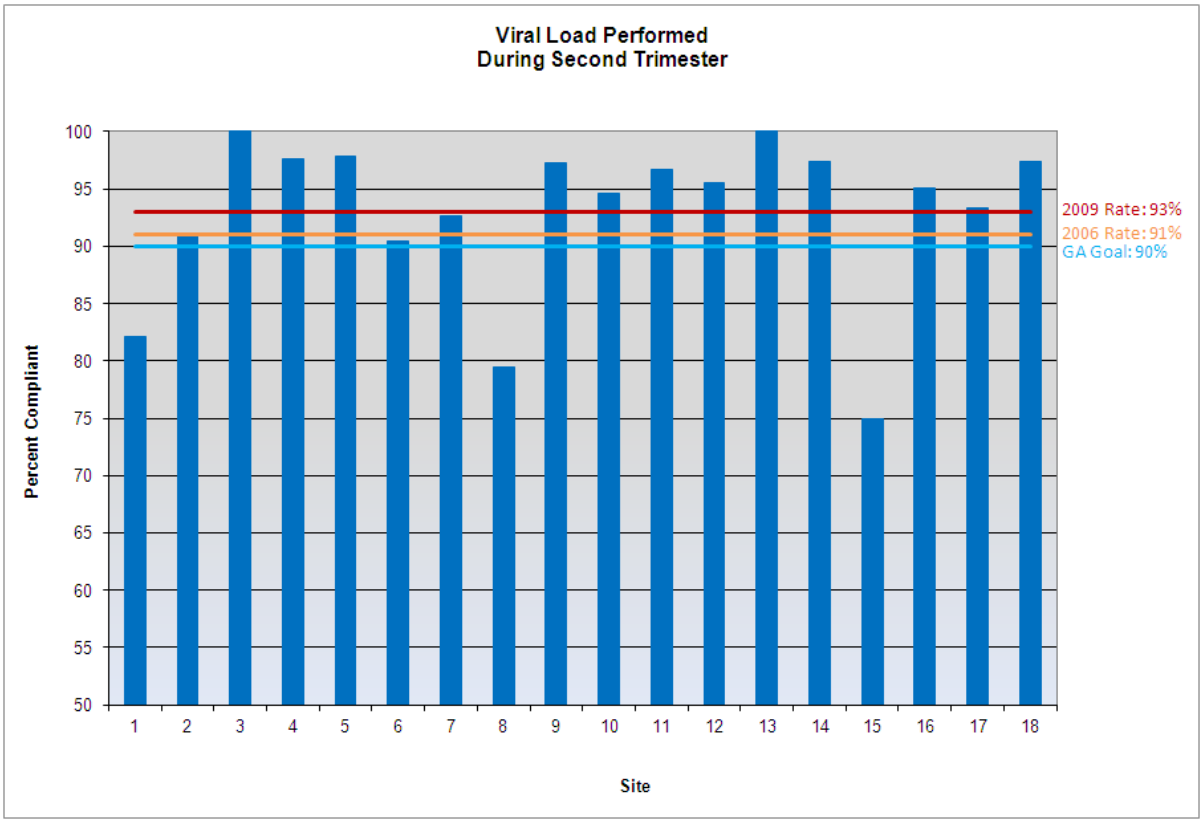
- Numerator**:** Number of eligible HIV-infected clients who had viral loads performed at least once during a particular trimester
- Denominator: Number of eligible HIV-infected clients during the trimester of interest

The rate for the first trimester was 95%. The second trimester rate was 93% and the third trimester was 91%.

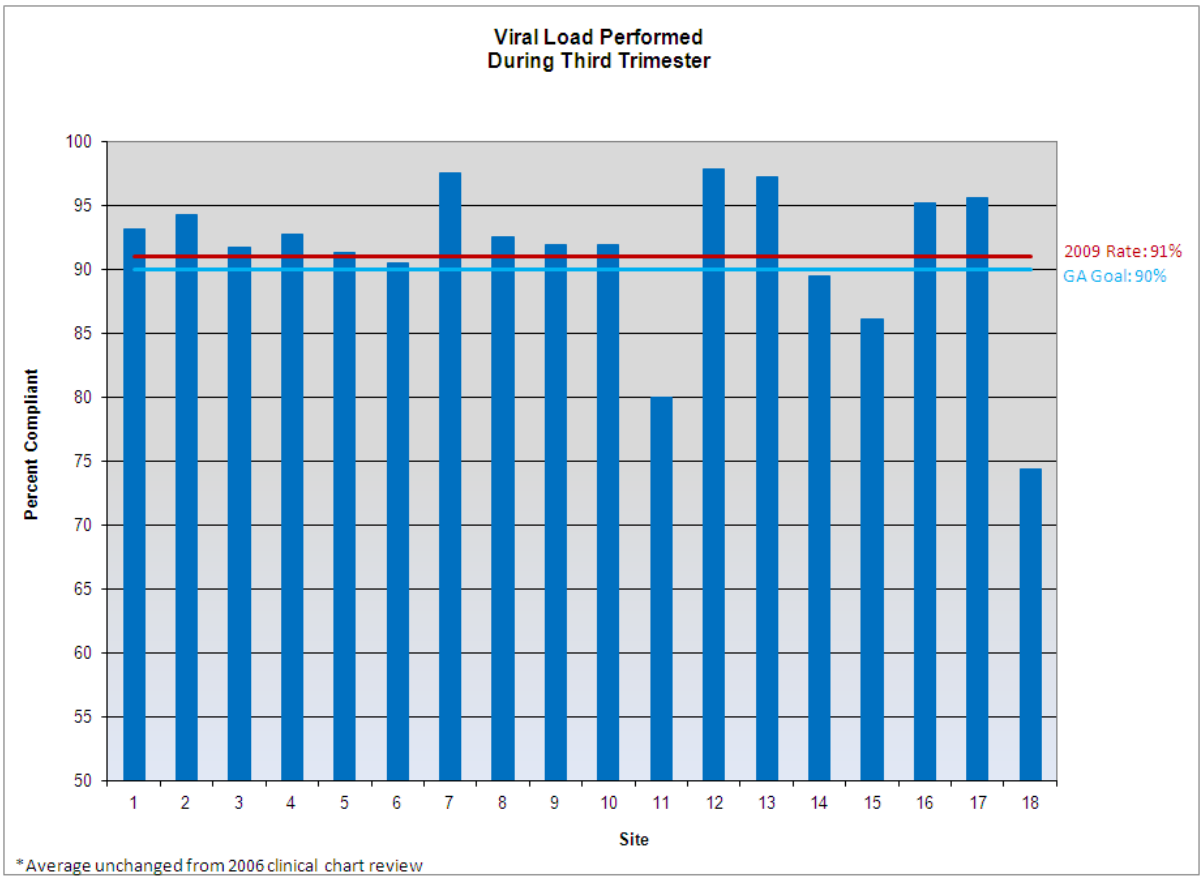




During the first trimester, the rate remained unchanged from the 2006 rate and all but one site exceed the GA goal of 90%.



In the second trimester, the rate increased from 91% to 93%, though 3 sites did not meet the GA goal.



During the third trimester, the rate of 91% remained unchanged from 2006. Four sites were below the goal.

Antiretroviral Therapy Management

Reviewers assessed whether or not highly active antiretroviral therapy (HAART) was consistent with the US Department of Health and Human Services (DHHS) antiretroviral treatment guidelines.[12] Reviewers also assessed the management of antiretroviral (ARV) therapy based on each client's clinical stability.1

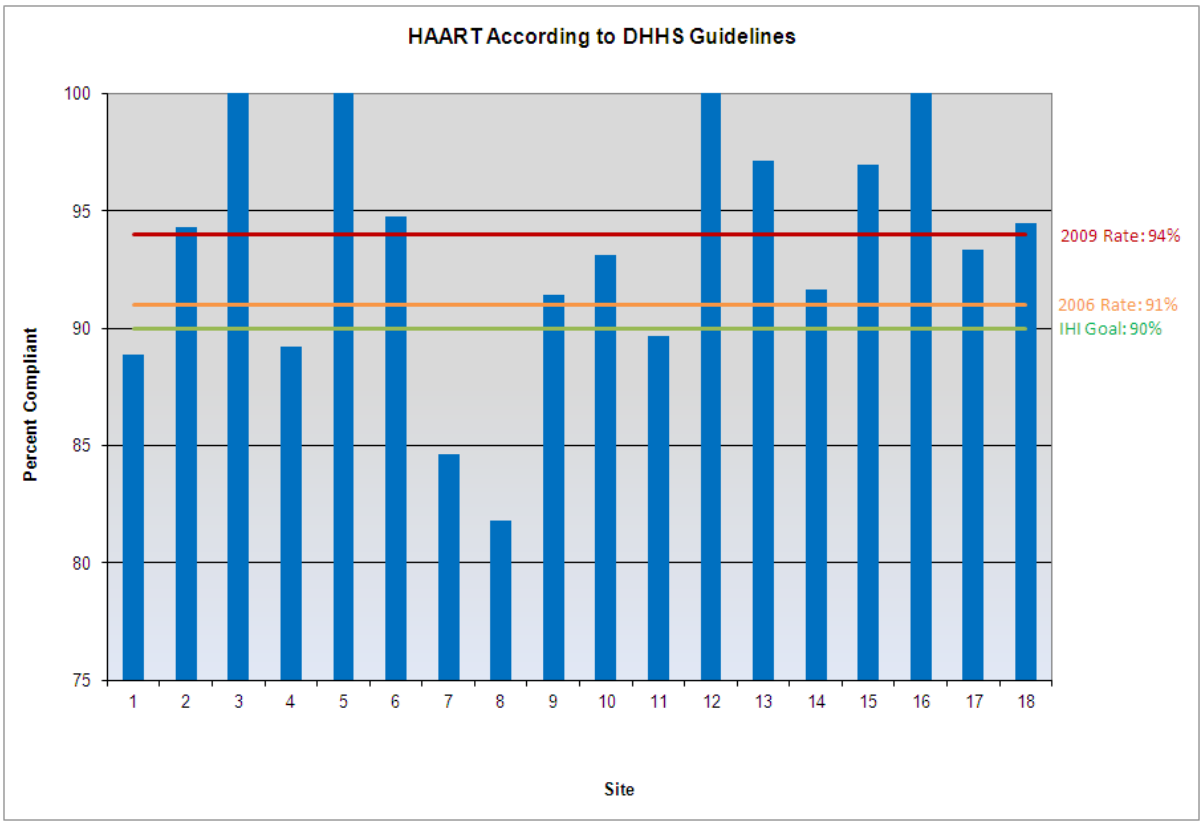
HAART According to DHHS Guidelines

Measure: Percentage of HIV-infected clients on HAART according to DHHS antiretroviral guidelines.

- Numerator: Number of HIV-infected clients on HAART according to DHHS antiretroviral guidelines.
- Denominator: Number of HIV-infected clients on HAART

IHI Goal = Clients appropriately managed on ART, 90% or greater[15]

Four of the 18 sites were 100% compliant with this measure. The state rate was 94%, an increase over 2006. Four sites fell below the IHI goal of 90%.



Forty-one (6%) of the 643 clients on HAART did not meet the DHHS guidelines. Reviewers documented the reasons for deviation from these guidelines. Reasons were categorized as the following:

- Mono/dual NRTI therapy
- Medications were not adjusted for drug interactions, hepatic/renal failure, and/or weight
- Clinical trial
- Regimen inappropriate or a contraindicated combination of antiretroviral medications
- Client's discretion
- Other (provide explanation)

Thirty nine percent (39%) of those unstable on HAART did not meet the guidelines because recommendations for drug resistance testing were not followed. Reasons included genotypes not being ordered for failing regimens, regimens not changed based on genotype results, and regimens changed without genotype results.

Appropriate Management of Antiretroviral (ARV) Therapy

Appropriate management of ARV therapy was assessed for each 4-month review period (i.e., 1st, 2nd, and 3rd trimesters). The criteria for appropriate management differ according to whether the patient is deemed clinically stable or clinically unstable (see definitions).1 Reviewers documented whether or not eligible clients were clinically stable or clinically unstable during each trimester of the review period.

During each trimester, for clients who were clinically unstable, reviewers assessed if the following actions were taken:1

- Resistance testing was performed.
- If regimen changed, viral load assay was performed within 8 weeks of decision.
- If regimen unchanged, justification was provided not to change therapy.
- If regimen stopped, documentation of decision and clinical follow-up plan was made within three months.
- If medications were started or changed, did the client receive treatment education?

Definition of clinically stable:1

- Viral load is undetectable
- VL dropped by at least 1 log* since the last 4-month review period
- Note by physician indicates that the client is deemed clinically stable

Definition of clinically unstable:1

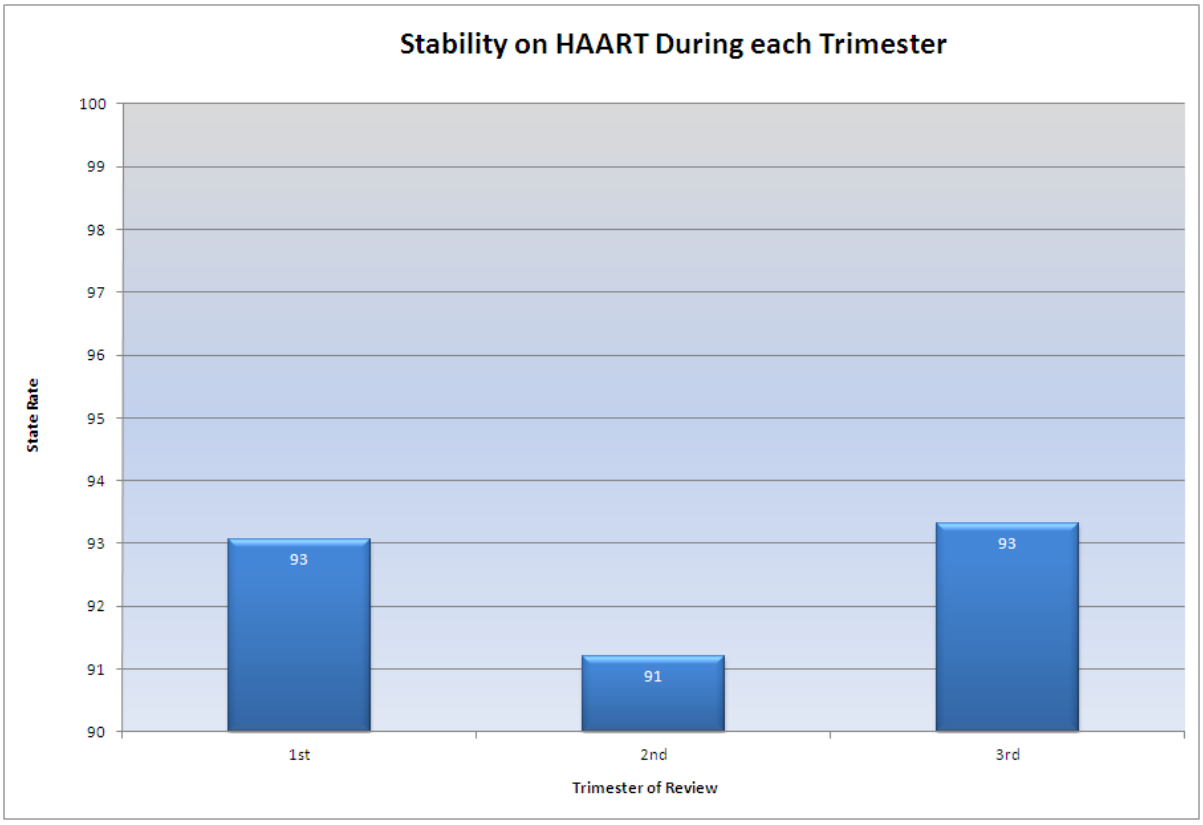
- VL has increased by 1 log* and absolute value of VL is over 1,000;
- CD4 count has dropped by 50% since the last 4-month review period;
- Opportunistic infection in the last 4 month review period; or
- Client deemed unstable by the physician per note.

* A log change is an exponential or 10-fold increase or decrease (e.g., a change from 10 to 100 is a 1-log increase; a change from 1,000,000 to 10,000 is a 2-log decrease).

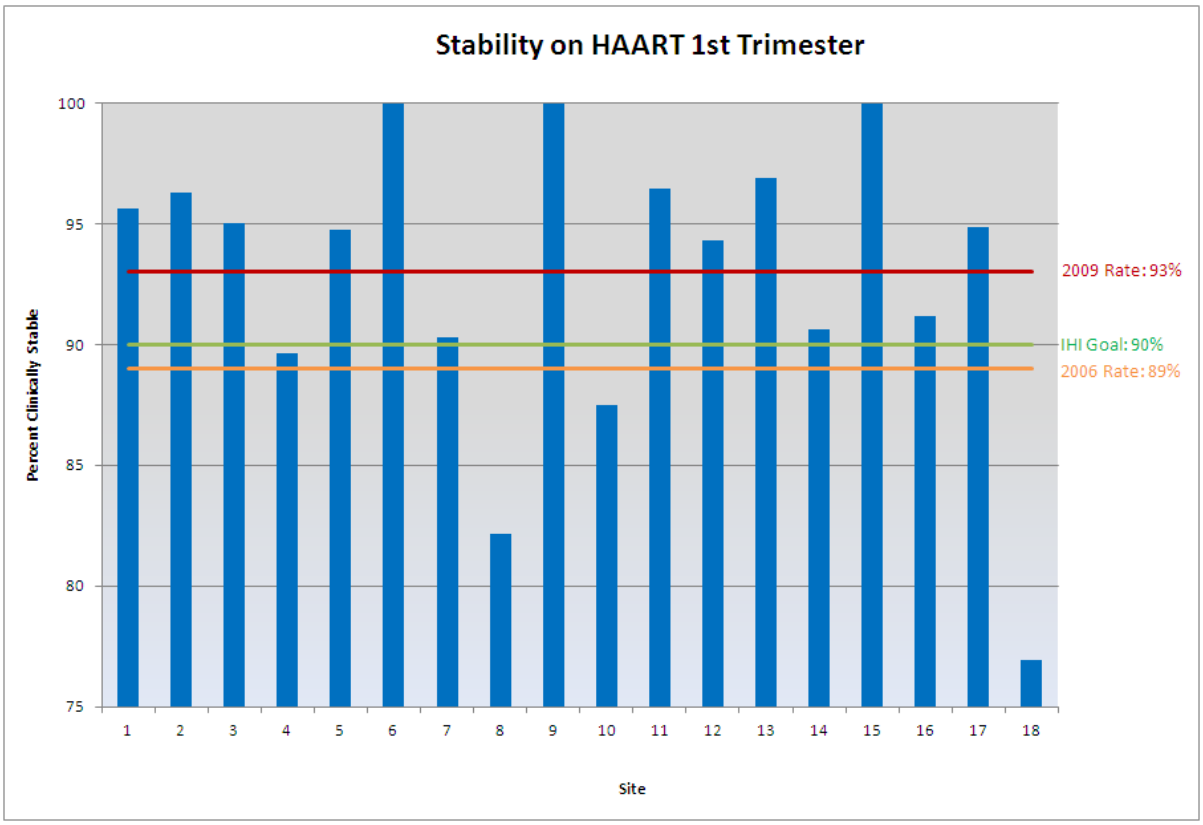
Measure: Percentage of HIV-infected clients on HAART who were clinically stable during the trimester.

- Numerator: Number of HIV-infected clients on HAART who had a viral load done within the trimester and were clinically stable
- Denominator: Number of HIV-infected clients on HAART who had a viral load done with the trimester

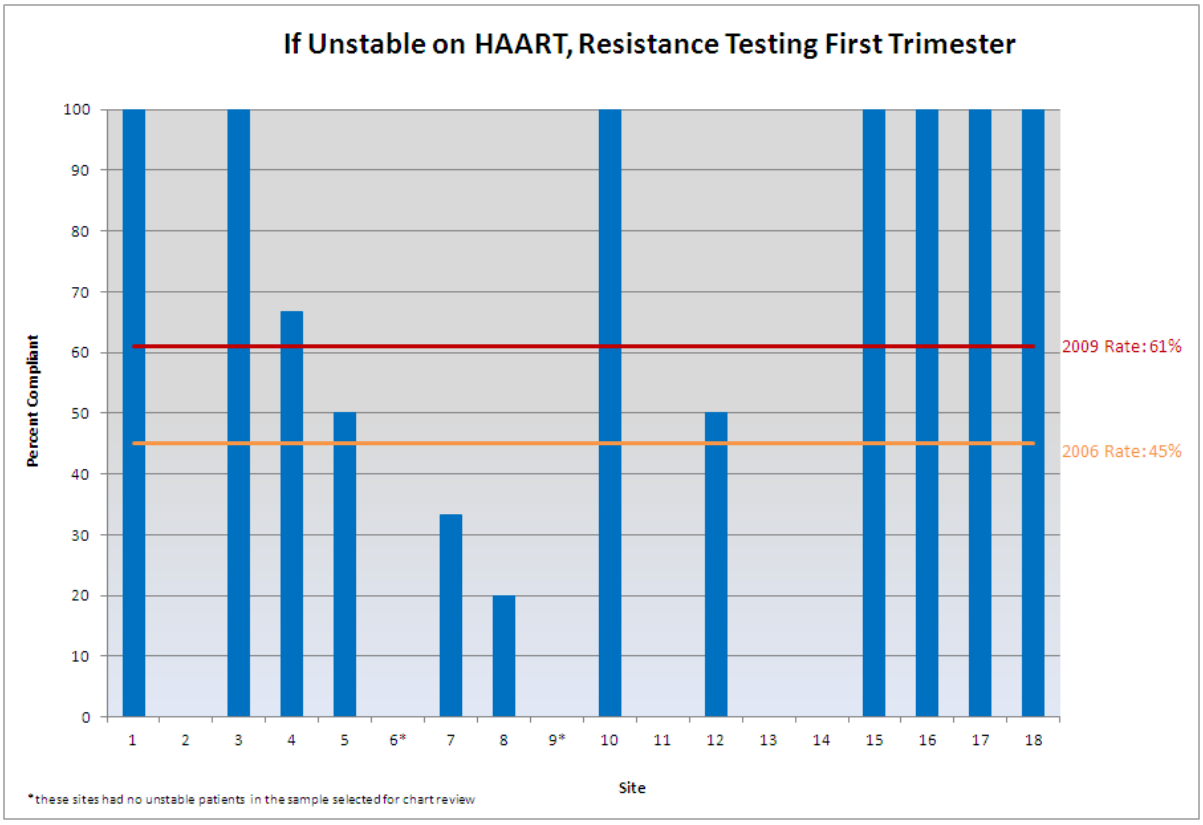
IHI Goal = Clients appropriately managed on ART, 90% or greater[15]



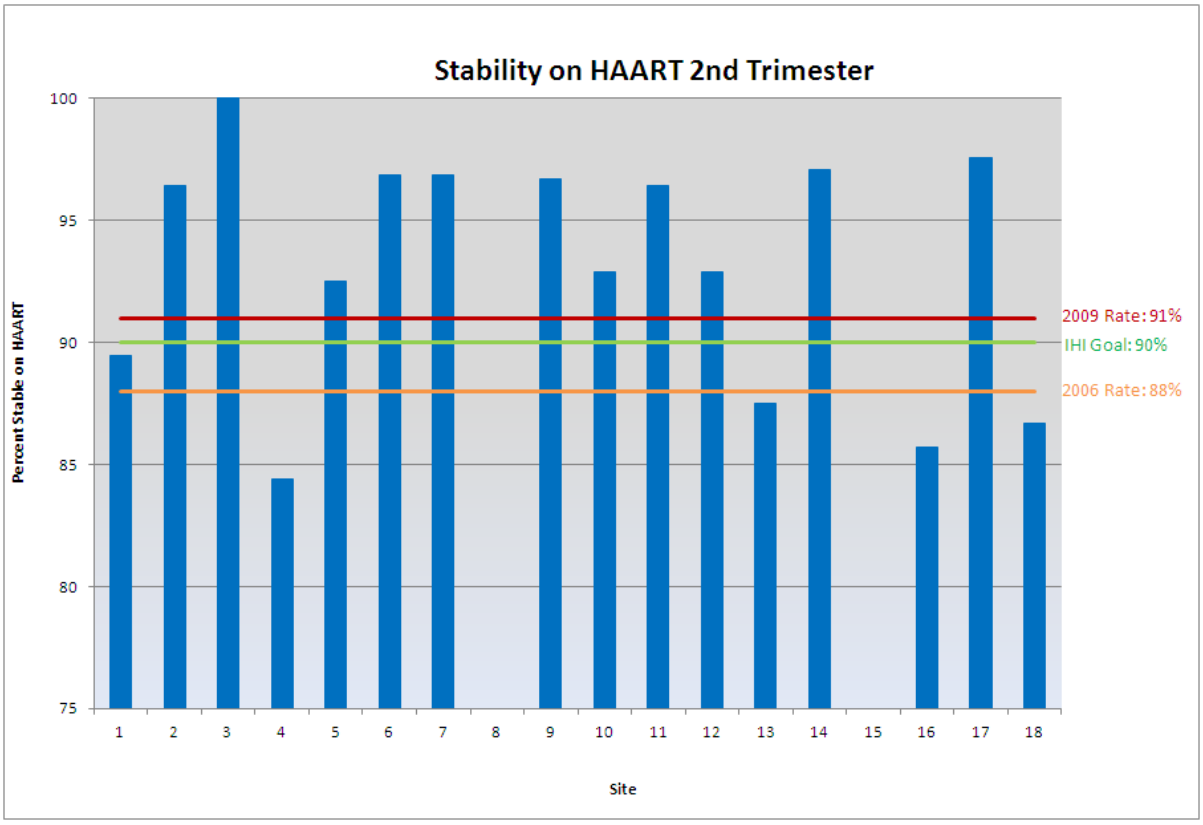
The rates for clients who were clinically stable while on HAART were 93% in the first trimester, 91% in the second trimester, and 93% in the final trimester.



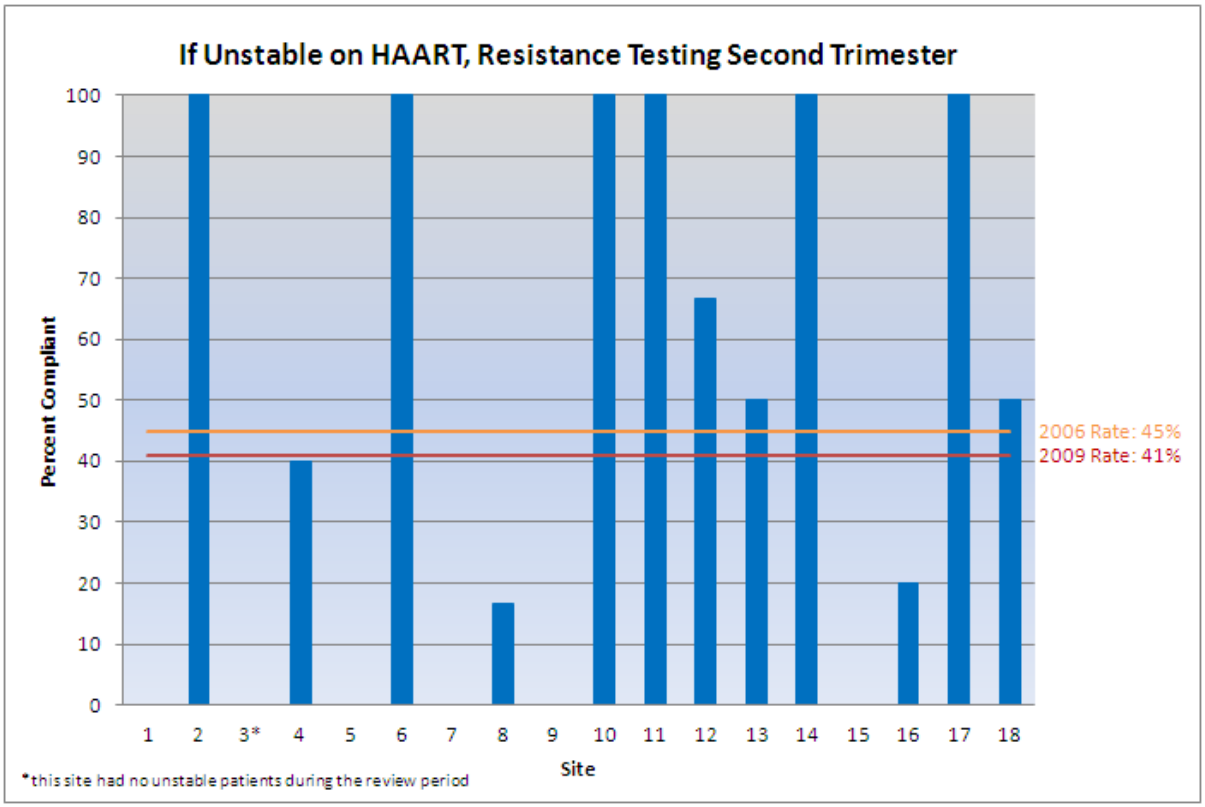
Stability on HAART increased from 89% in 2006 to 93% in 2009. All but 4 sites exceeded the IHI goal of 90%.



In the first trimester, resistance testing increased from 45% in 2006 to 61% in 2009. Four sites with patients unstable on HAART had no resistance testing performed. There were 59 clients who met the criteria of clinically unstable while on HAART (11% of clients on HAART during this trimester). Sixty-one percent (61%) of clients unstable on HAART had resistance testing performed. Ten clients had their antiretroviral regimens changed, with eight (80%) of those having a viral load performed within 8 weeks of the decision. One client had his regimen stopped with a decision documented and follow-up within 3 months. Twenty six did not have their regimens changed. Of those, 21 (81%) had justification of no change in ARV therapy. All clients who started or changed medications received treatment education.

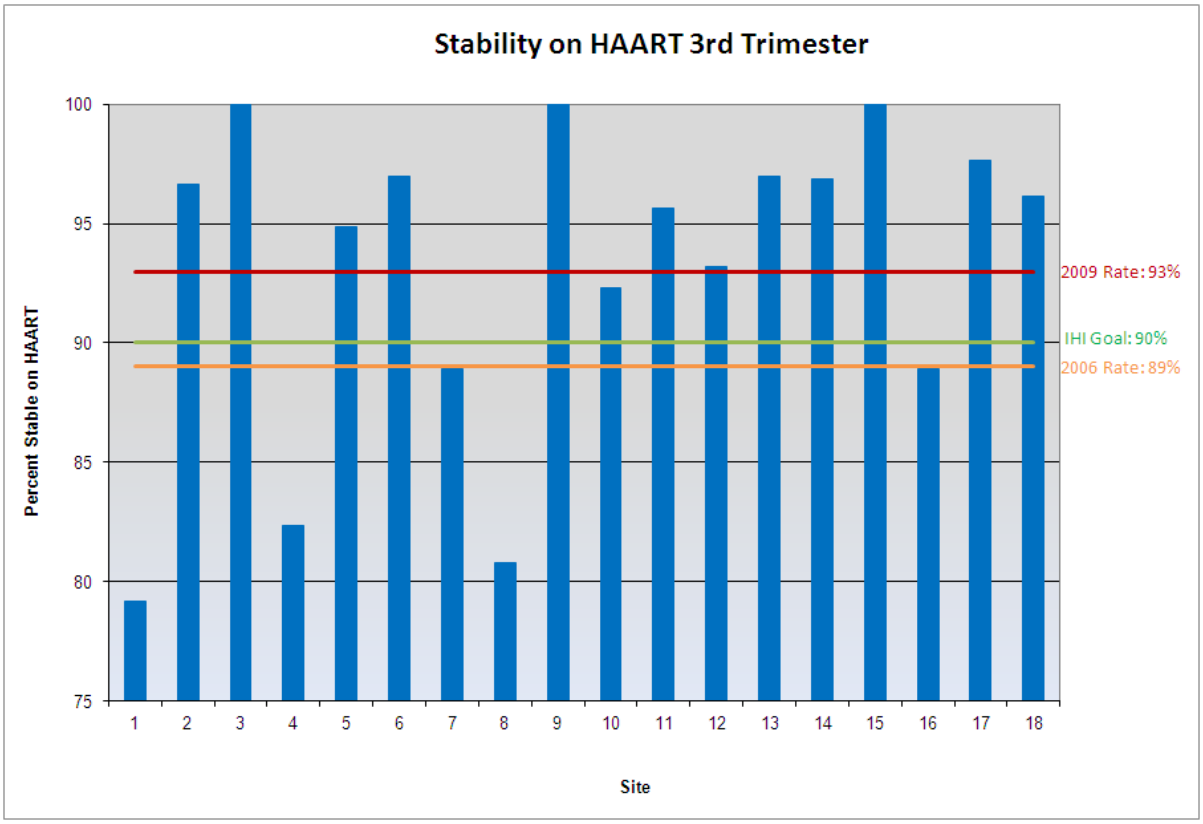


Stability on HAART increased from 88% in 2006 to 91% in 2009. Seven sites did not meet the IHI goal.

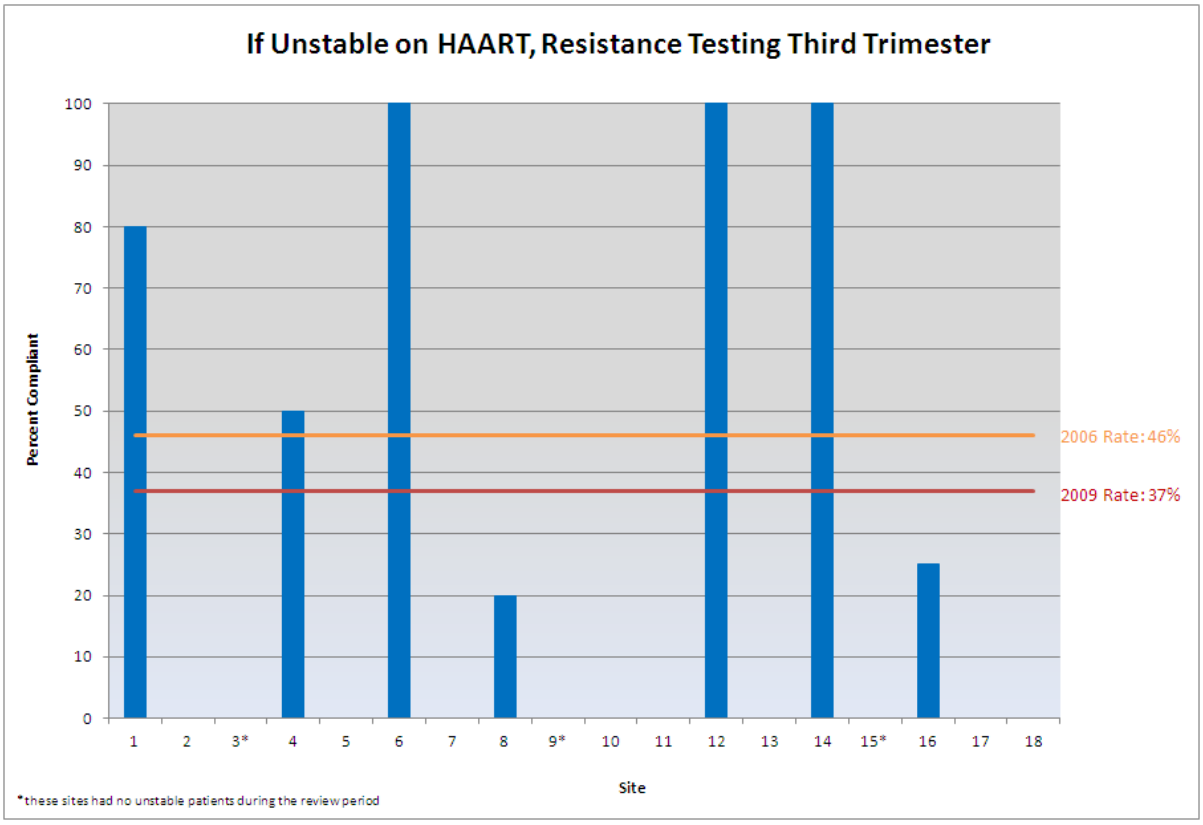


During the second trimester, resistance testing decreased from 45% in 2006 to 41% in 2009. Five sites with patients unstable on HAART had no resistance testing performed. There were 41 clients

who were clinically unstable on HAART (7% of clients on HAART during this trimester). Forty-one percent (41%) of clients, who were unstable on HAART, had resistance testing performed. Seven (7) clients had their regimens changed, with 5 (71%) of those having a viral load performed within 8 weeks of the decision. One client had his regimens stopped and supporting documentation of the decision and clinical follow-up within 3 months. Thirty-one (31) did not have their regimens changed. Of those, 23 (74%) had justification of no change in ARV therapy. One hundred percent (100%) of clients who started or changed medications received treatment education.



Stability on HAART increased from 89% in 2006 to 93% in 2009. All but 5 sites met the IHI goal.



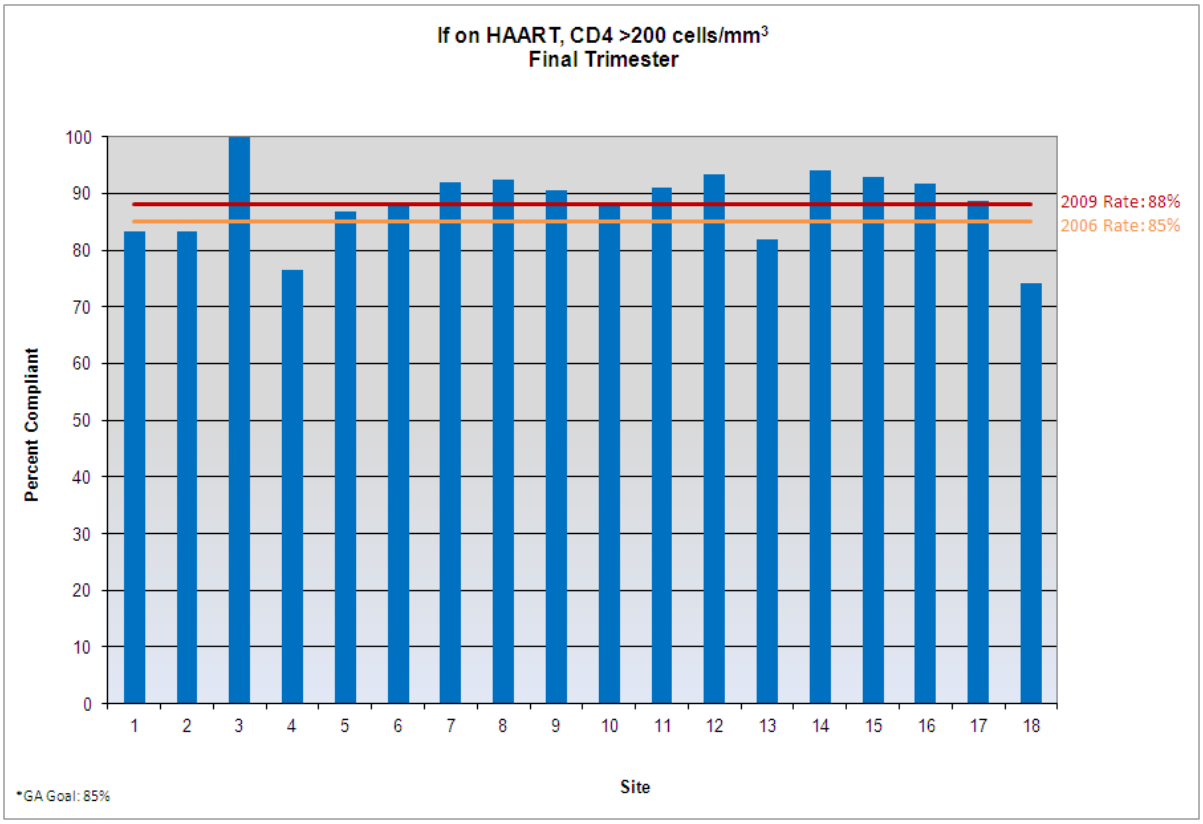
During the third trimester, resistance testing again decreased from 46% in 2006 to 37% in 2009. Eight sites with patients unstable on HAART had no resistance testing performed. There were 38 clients who were clinically unstable on HAART (7% of clients on HAART during this trimester). Thirty-seven percent (37%) of clients, who were unstable on HAART, had resistance testing performed. Thirteen (13) clients had their regimens changed, with 11 (84%) of those having a viral load performed within 8 weeks of the decision. Two clients had their regimens stopped and both had documentation of the decision and clinical follow-up within 3 months. Twenty-three (23) did not have their regimens changed. Of those, 56% had justification of no change in ARV therapy. One-Hundred percent (100%) of clients who started or changed medications received treatment education.

CD4 Counts Results Final Trimester

Measure: Percent of eligible HIV-infected clients on HAART with CD4 counts greater than 200 cells/mm^3 during final trimester of the reporting period.[16]

- Numerator: Number of eligible HIV-infected clients on HAART with CD4 counts > 200 cells/mm^3 during the final trimester
- Denominator: Number of eligible HIV-infected clients on HAART during the final trimester

One agency was 100% compliant with this measure. The 2009 rate was 88% (507 clients on HAART with CD4 counts > 200 cells/mm^3 out of 574 clients on HAART), which exceeded the GA goal of 85%. Site rates ranged from 74% to 100%.

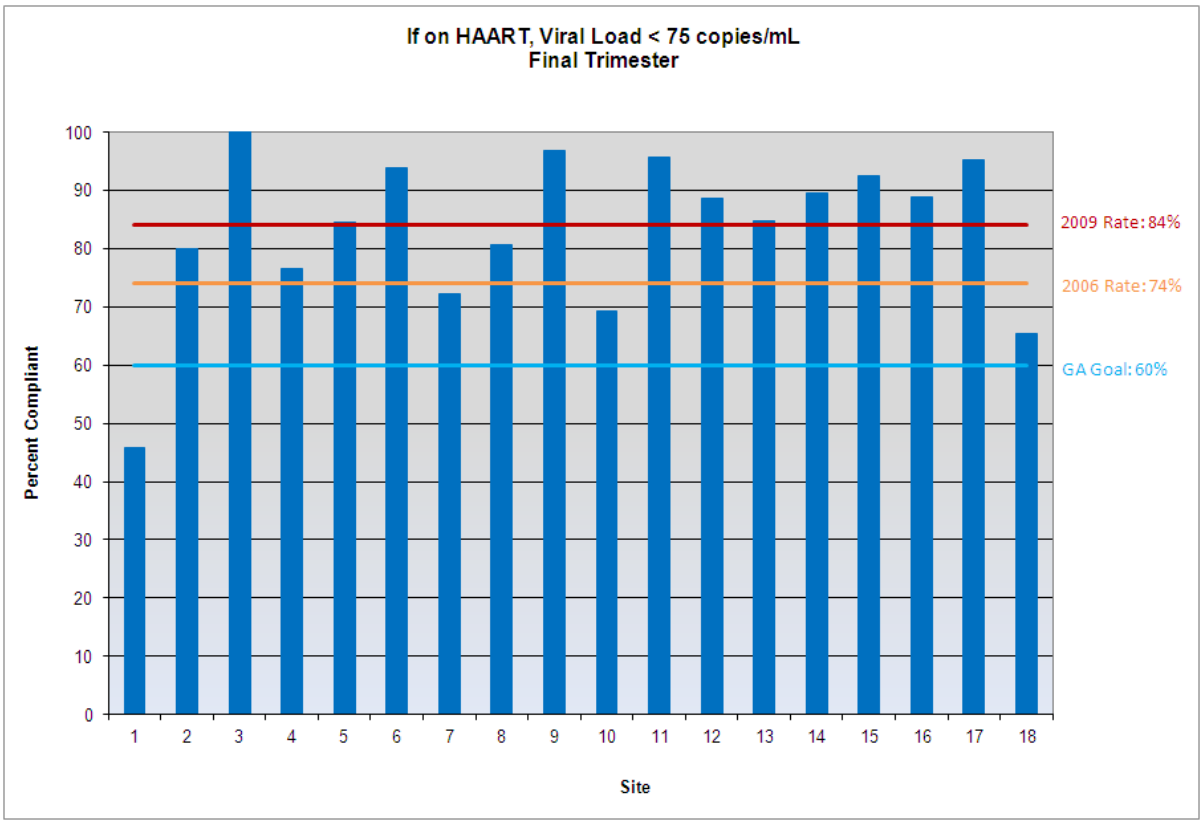


Viral Load Response

Measure: Percent of HIV-infected clients on HAART with HIV viral load was < 75 copies/mL during the final trimester of the reporting period.[16]

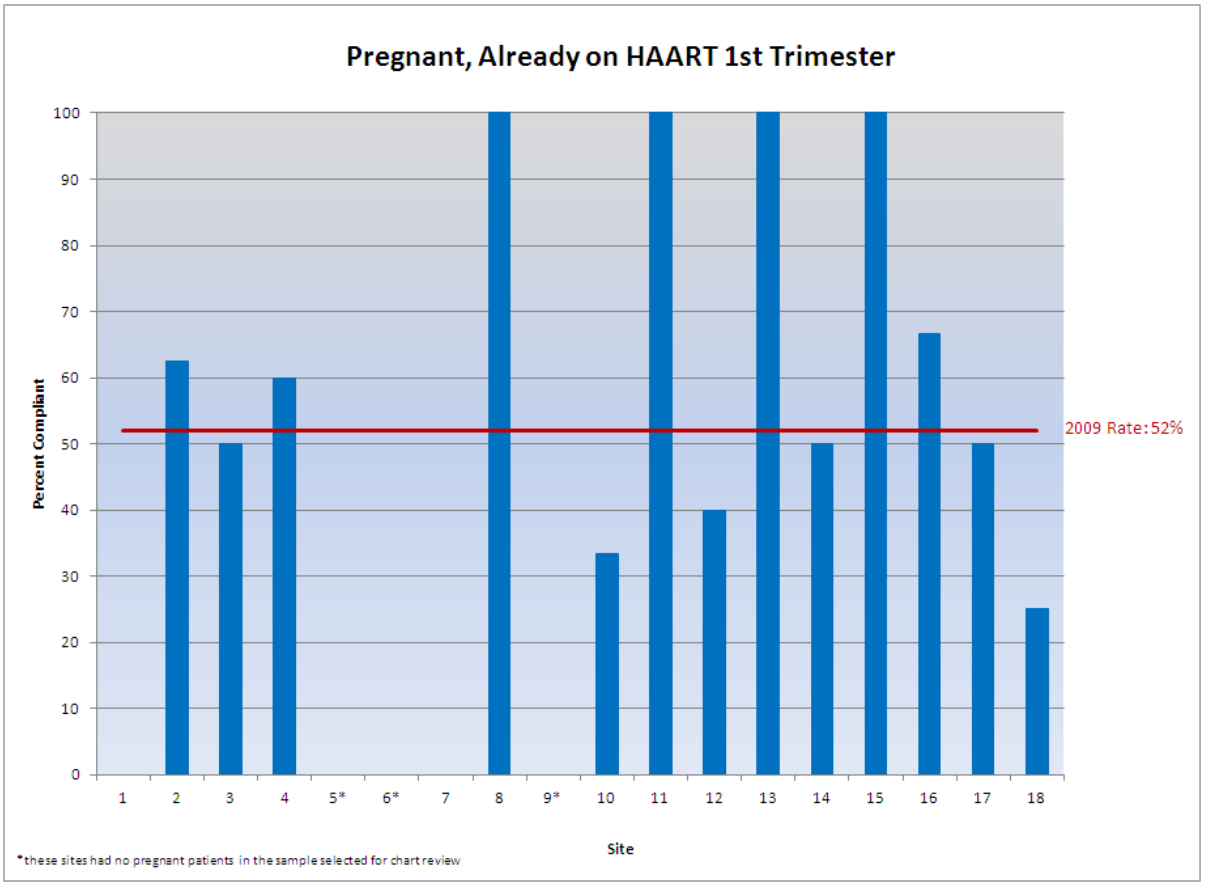
- Numerator: Number of HIV-infected clients on HAART with HIV viral loads less than 75 copies/mL during final trimester
- Denominator: Number of HIV-infected clients on HAART during final trimester

One site was 100% compliant with this measure. The 2009 rate for this measure was 84% (550 clients on HAART with VL < 75 copies/mL out of 691 clients on HAART) up from 74% in the 2006 review. Rates ranged from 46% to 100%. All but 1 site exceeded the GA goal of 60%.



HAART during Pregnancy

According to the DHHS guidelines, antiretroviral therapy is recommended in all pregnant women during the second and third trimesters of pregnancy, regardless of virologic, immunologic, or clinical parameters, for the purpose of prevention of mother-to-child transmission. Reviewers looked at all women who were pregnant during CY 2009. First, records were reviewed to monitor if the pregnant client was already on HAART at the time pregnancy identified. Second, reviewers monitored records for documentation that HAART was prescribed during the 2nd and 3rd trimesters of pregnancy. Fifty-two percent (23 clients) were already on HAART at the time pregnancy was determined. One hundred percent (44 clients) were prescribed HAART during the 2nd and 3rd trimesters.



Pelvic Exam and Pap Smears

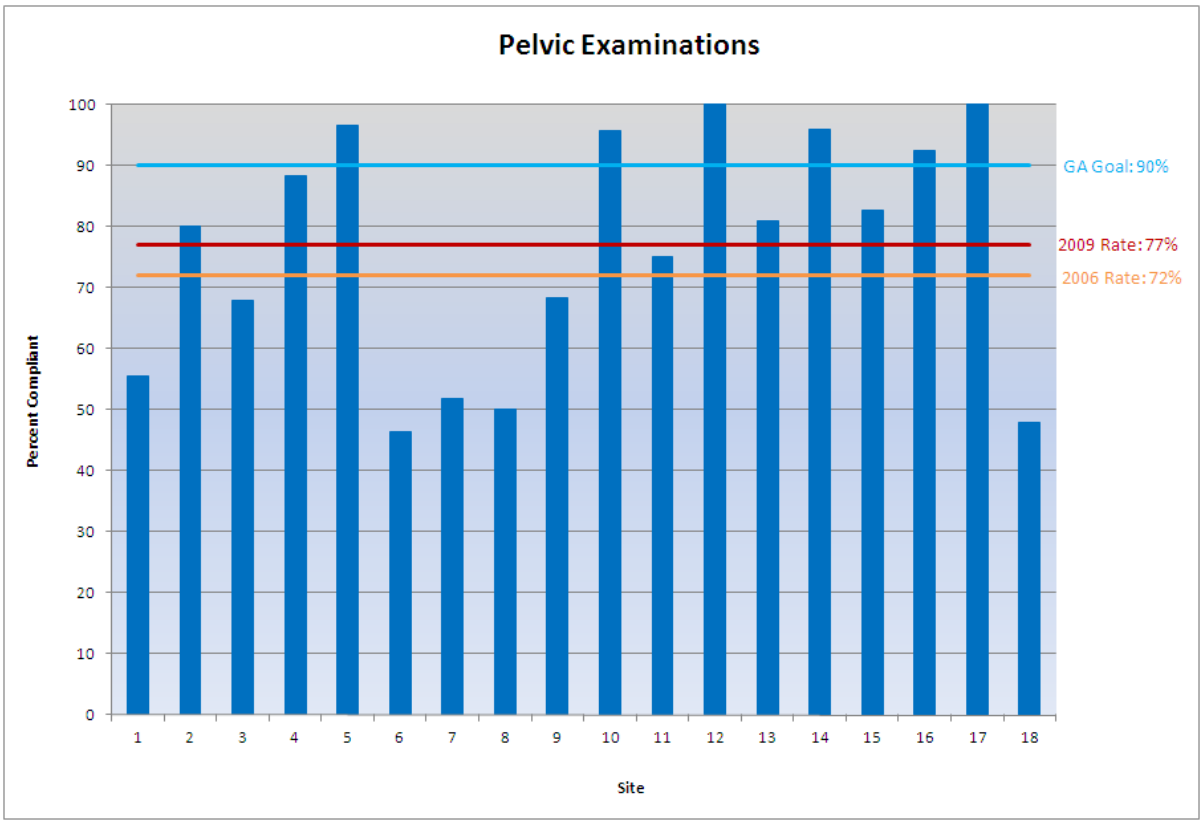
All HIV-infected female clients 18 years or older should receive a pelvic examination and a Pap smear at least annually.1[17,18] If the client was referred for gynecological care, then documentation of the examination and test results should be obtained from the provider and placed in the client's HIV medical record.

Pelvic Examinations

Measure: Percent of HIV-infected female clients 18 years or older who received a pelvic examination at least once during the measurement year

- Numerator: Number of eligible HIV-infected female clients with at least one pelvic examination documented during the measurement year
- Denominator: Number of eligible HIV-infected female clients

Two of the 18 sites were 100% compliant with this measure. Six sites exceeded the GA goal of 90%. The rate was 77%, up 5 percentage points from the 2006 review.



Pap Smears

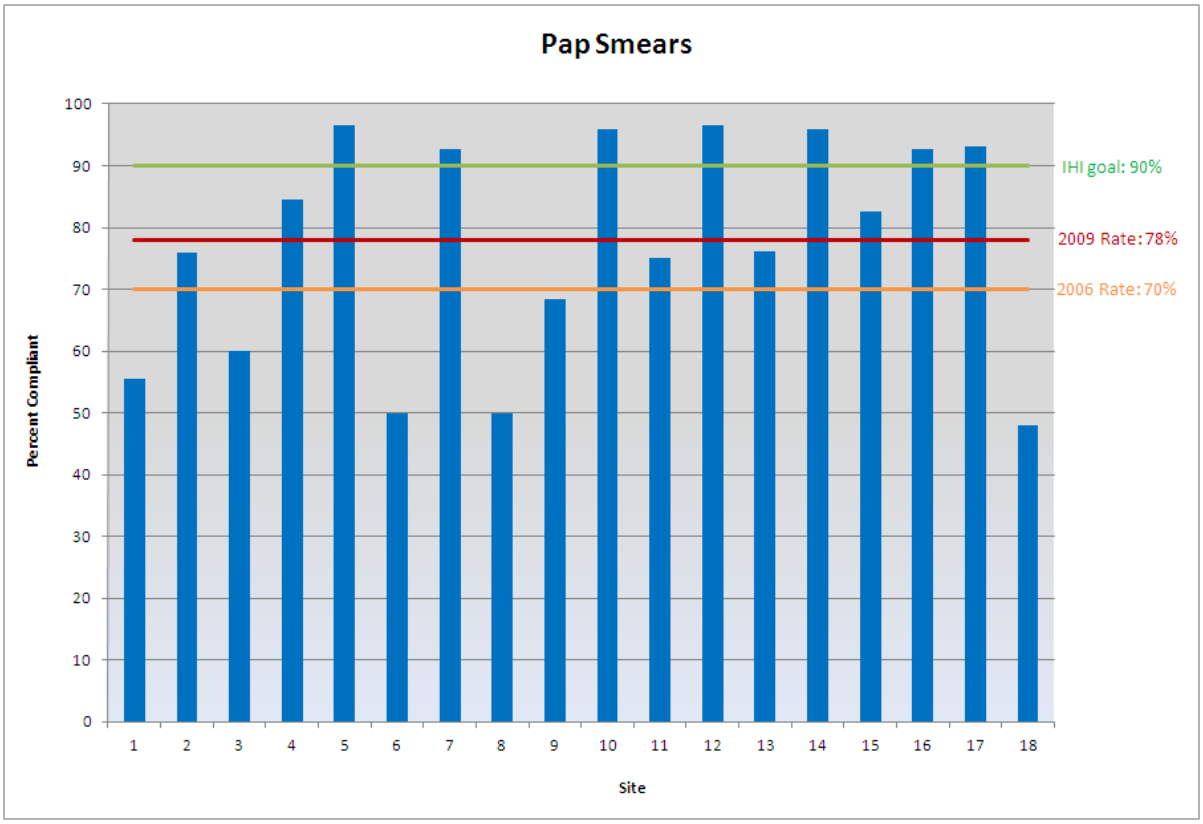
This measure is a HAB HIV Core Clinical Performance Measure.[8]

Measure: Percent of HIV-infected female clients 18 years or older who received a Pap smear at least once during the measurement year

- Numerator: Number of eligible HIV-infected female clients with at least one Pap smear documented during the measurement year
- Denominator: Number of eligible HIV-infected female clients

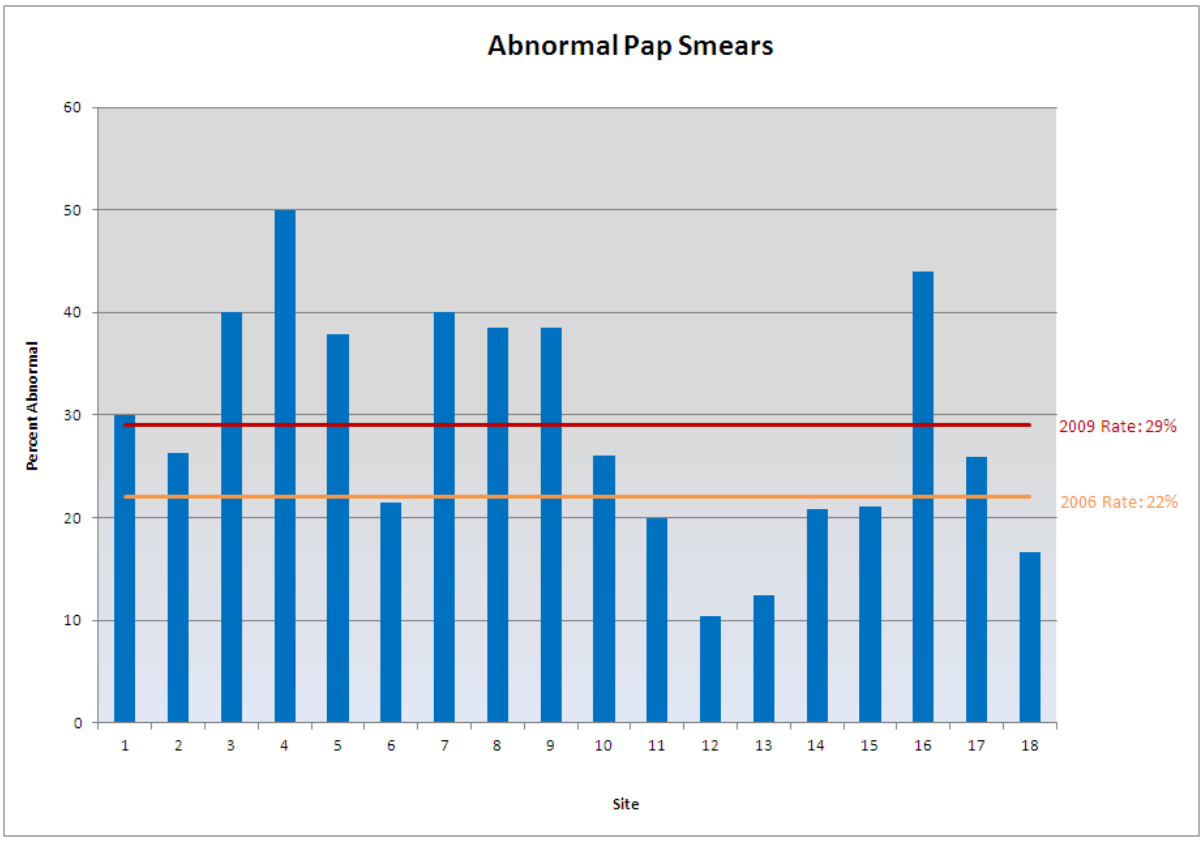
IHI Goal = 90%[19]

Seven sites had rates 90% or greater, meeting the IHI Goal. The 2009 rate was 78% up 8 percentage points from the 2006 report. Rates ranged from 48% to 97%.



Abnormal Pap Smears – Diagnostic Evaluation

There were a total of 350 female clients who had at least one Pap smear documented during the review period. Of those 350, 102 (29%) had abnormal results (i.e., epithelial cell abnormalities). Abnormal Pap smear rates per site ranged from 10% to 50%. Fifteen of the 18 sites had abnormal Pap smear rates of 20% or greater. The chart below demonstrates the percentage of Pap smear results that were abnormal at each site.



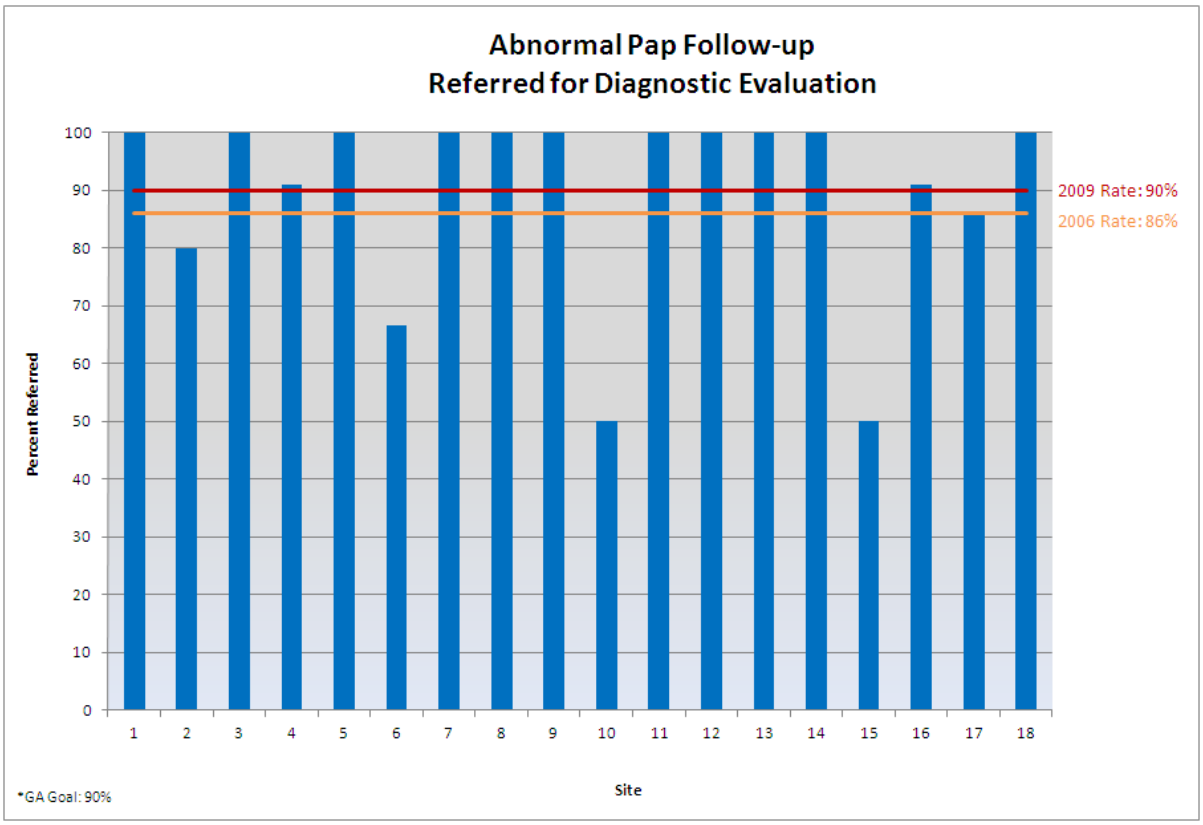
Referrals for Diagnostic Evaluation

HIV-infected women with abnormal Pap smear results require appropriate follow-up evaluation, as accelerated progression of cervical dysplasia to cervical cancer has been demonstrated in women with HIV infection.[17,18]

Measure: Percent of HIV-infected female clients with abnormal Pap smear results referred for diagnostic evaluation (e.g., colposcopy plus biopsy) during the measurement year.[16]

- Numerator: Number of eligible HIV-infected female clients with abnormal Pap smear results referred for diagnostic evaluation
- Denominator: Number of eligible HIV-infected female clients with abnormal Pap smear results

Eleven of 18 sites were 100% compliant with referrals for abnormal Pap smear follow-up evaluation. The 2009 rate was 90%, which was higher than 86% found in 2006. The referral rates per site ranged from 50% to 100%.



Completed Diagnostic Evaluation

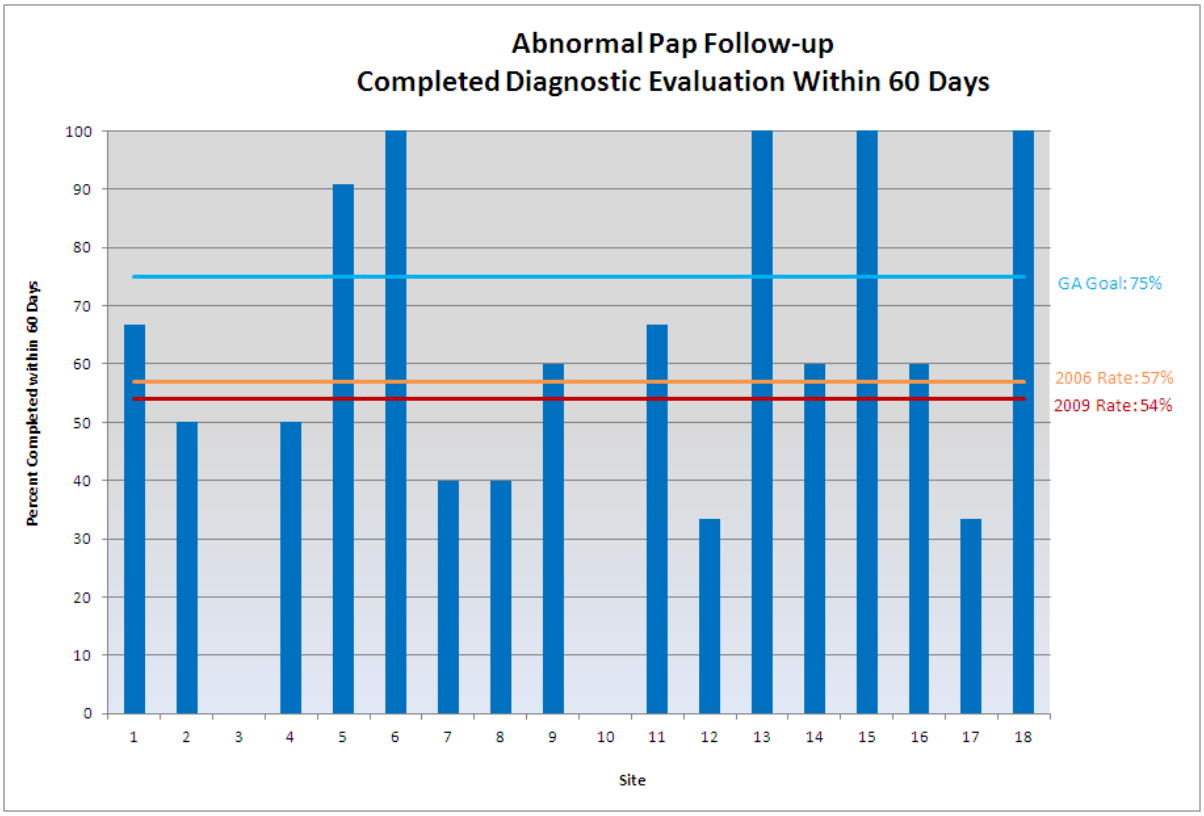
The Breast and Cervical Cancer Program standard for completed diagnostic evaluation of abnormal Pap smear results is within 60 days[6]

Measure: Percent of HIV-infected female clients with abnormal Pap smear results during the measurement year that completed diagnostic evaluation within 60 days of abnormal screening results.

- Numerator: Number of eligible HIV-infected female clients with abnormal Pap smear results that completed diagnostic evaluation within 60 days
- Denominator: Number of eligible HIV-infected female clients with abnormal Pap smear results referred for diagnostic evaluation

Goal: 75%

Four of 18 sites were 100% compliant with this measure. The rate decreased from 57% in 2006 to 54% in 2009, which was well below the GA goal of 75%. Completion of diagnostic evaluation within 60 days ranged from 0% to 100%.



Screening: Syphilis, TB, HCV, HBV and Lipid

Syphilis Screening

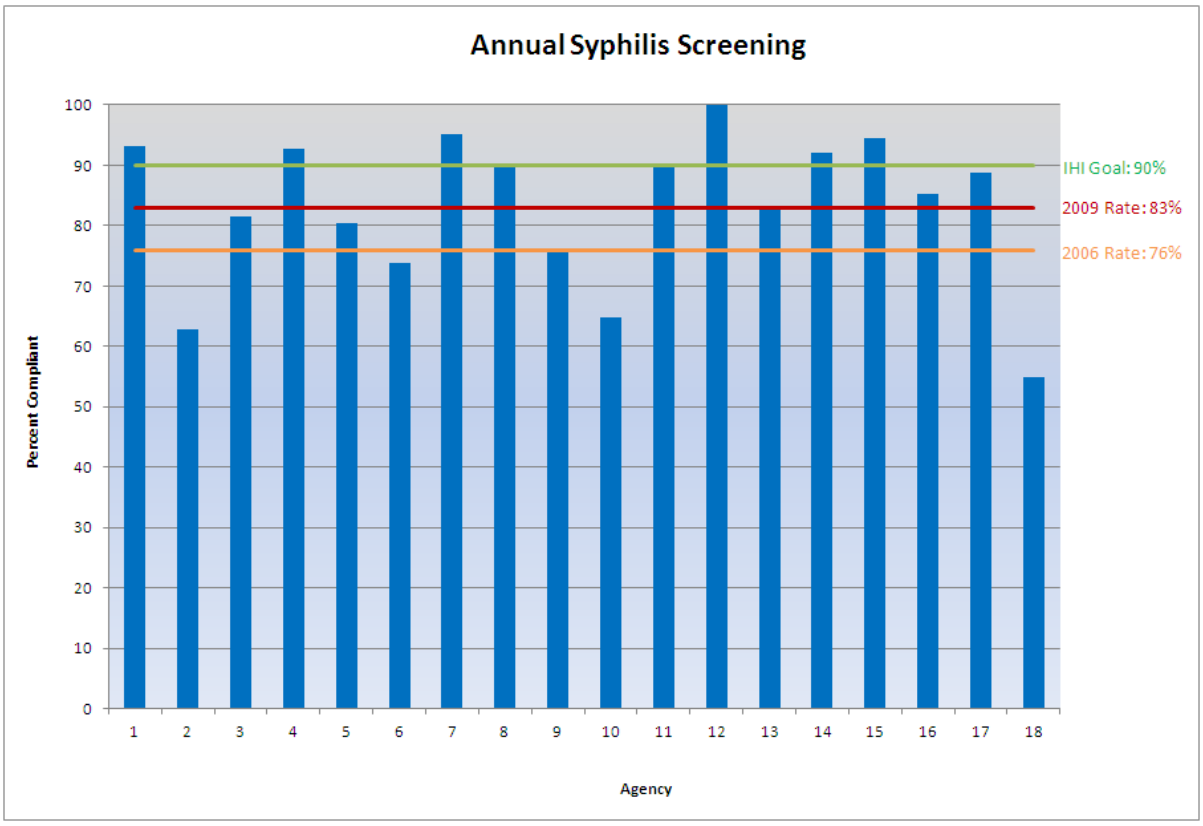
All HIV-infected clients should be screened at least annually for syphilis.[1,20] This is a HAB HIV Core Clinical Performance Measure.[8]

Measure: Percent of HIV-infected clients who were screened for syphilis (i.e., RPR or VDRL) during the measurement year.

- Numerator: Number of eligible HIV-infected clients who had an RPR or VDRL done within the measurement year
- Denominator: Number of eligible HIV-infected clients

IHI Goal = 90%[21]

One site was 100% compliant with this measure. Eight sites had rates at or above the IHI goal of 90%. The rate increased from 76% in 2006 to 83% in 2009. Rates ranged from 55% to 100%.



Tuberculosis Screening

All eligible HIV-infected clients should have a Tuberculosis Skin Test (i.e., TST or purified protein derivative [PPD] by the Mantoux method) placed and read by a trained healthcare professional at least once every 12 months.[18]

Exclusion: HIV-infected clients with a history of previous TB treatment or positive TST

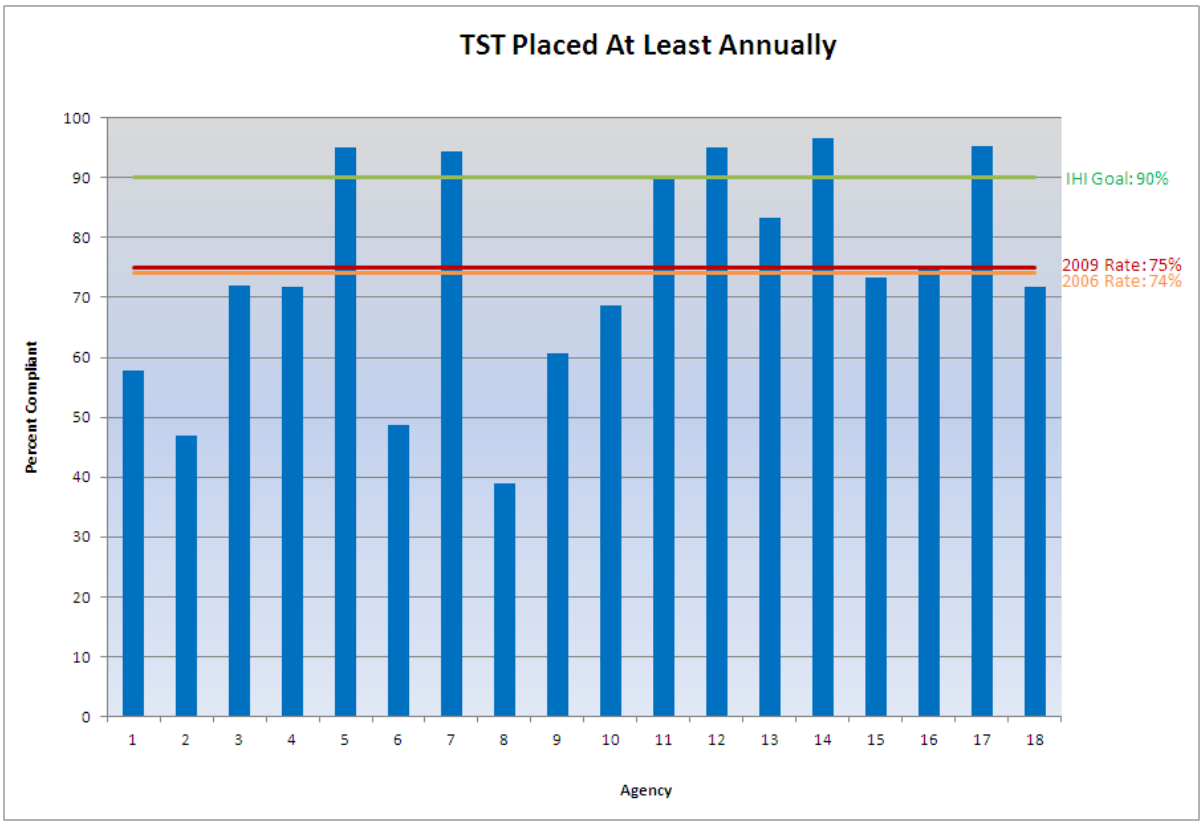
Tuberculosis Skin Test (TST) Placed

Measure: Percent of eligible HIV-infected clients who had a TST placed at least once during the measurement year.

- Numerator: Number of eligible HIV-infected clients who had a TST placed
- Denominator: Number of eligible HIV-infected clients

IHI Goal: 90% of clients will have a PPD placed[22]

The overall rate was 75%, up slightly from 2006. Six sites had rates of 90% or greater, meeting the IHI goal. Rates ranged from 39% to 97%.

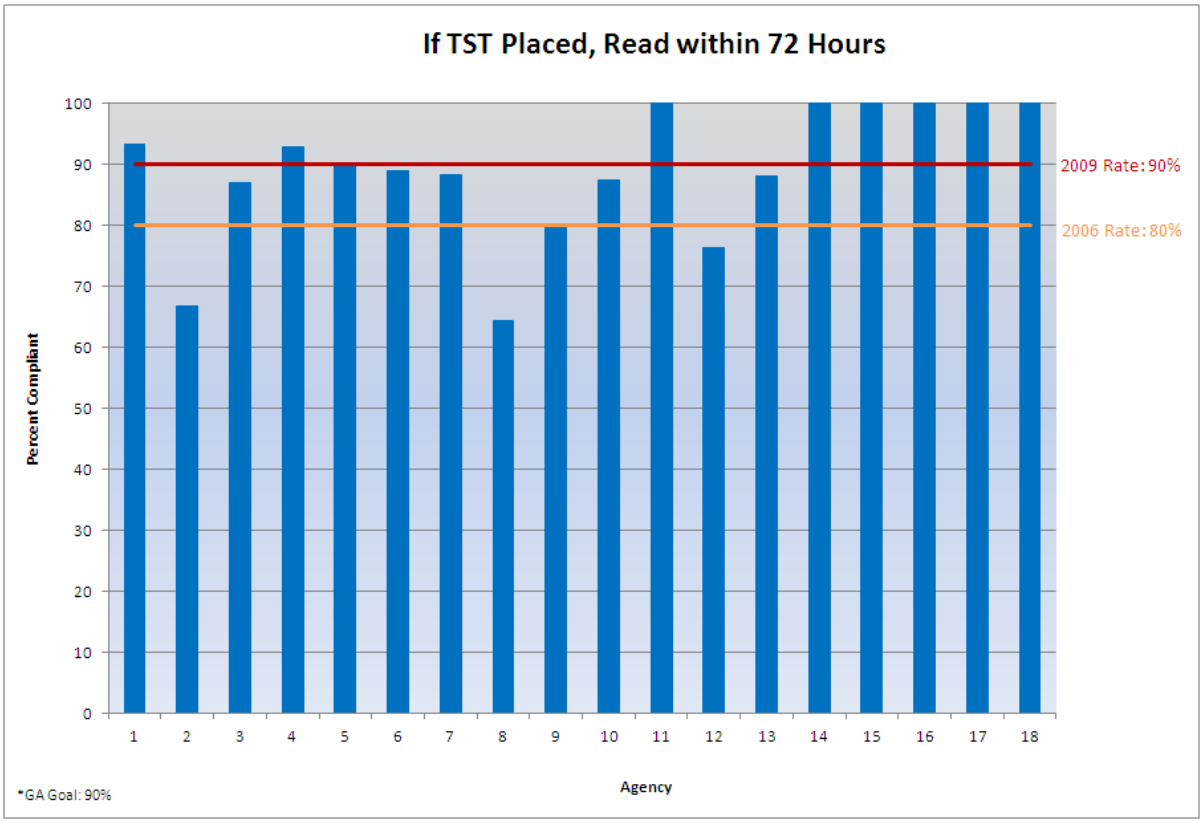


If TST Placed, Read Within 72 Hours

If a TST was placed, a trained healthcare worker should read the TST within 72 hours of placement.

Measure: Percent of HIV-infected clients who had a TST read within 72 hours of placement.
- Numerator: Number of HIV-infected clients who had a TST read within 72 hours of placement
- Denominator: Number of eligible HIV-infected clients who had a TST placed

Six sites were 100% compliant with this measure. The 2009 rate increased to 90% from 80% in 2006. Half of all sites met or exceeded the GA goal of 90%. Rates ranged from 64% to 100%.



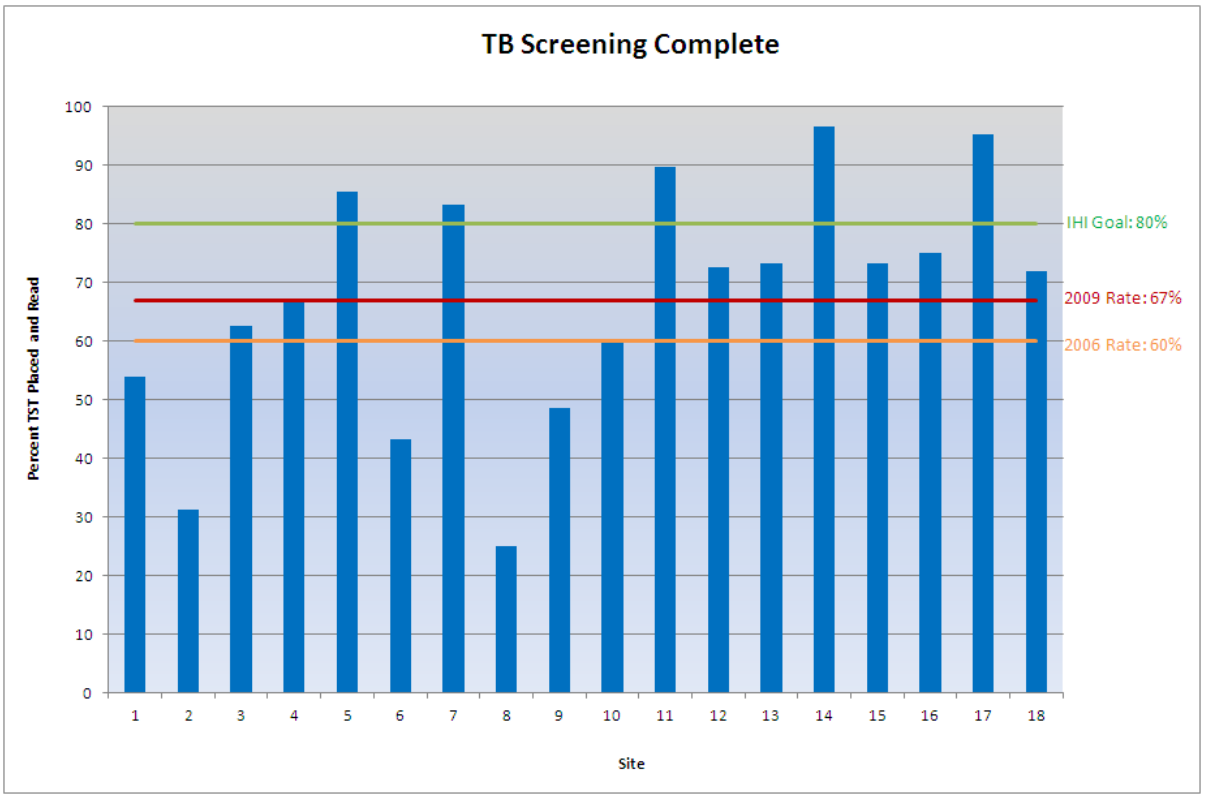
Completed TB Screening

Measure: Percent of eligible HIV-infected clients who completed TB screening (i.e., had a TST placed and then read within 72 hours of placement) at least once during the measurement year.

- Numerator: Number of eligible HIV-infected clients who completed TB screening
- Denominator: Number of eligible HIV-infected clients

IHI Goal: 80% will have a PPD screen[23]

Five of 18 sites had rates of 80% or greater, meeting the IHI goal. The 2009 rate was 67%, up from 60% in 2006. Site rates ranged from 25% to 97%.



Six (1.4%) of the 420 TSTs read after placement were newly reactive requiring further evaluation. All 6 (100%) were referred to the local TB Program.

Hepatitis B Screening and Vaccination

All HIV-infected persons should be tested for Hepatitis B Virus (HBV) infection.
For clients who are HBV negative, vaccination as prophylaxis is recommended.

The Hepatitis B measure is one of three added measures for the CY2009 review. Reviewers looked at records to determine if there was documentation of a HBV diagnosis, and if negative, documentation for receiving the HBV vaccine. Reviewers also checked records for follow-up lab work to document immunity.

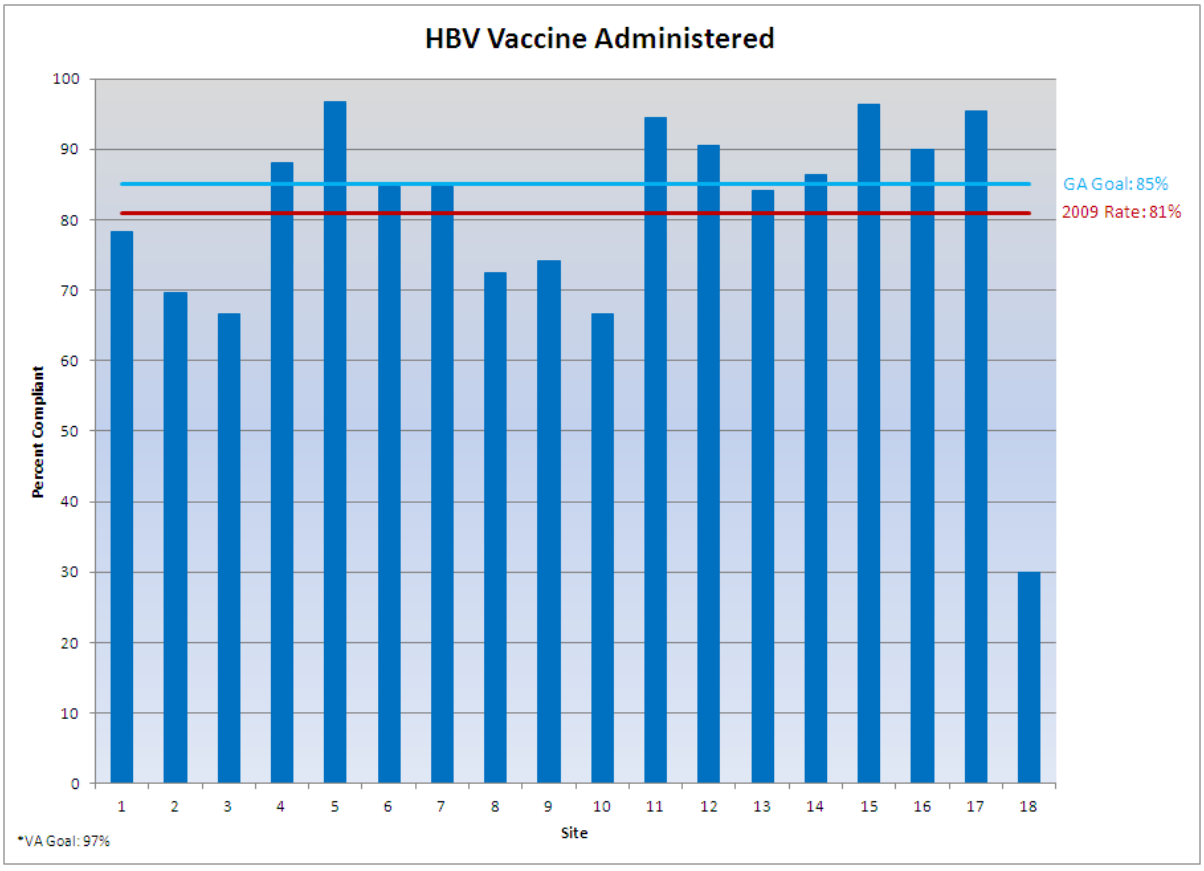
Measure: Percent of HIV-infected clients who completed the HBV vaccination series

- Numerator: Number of HIV-infected clients with documentation of having ever completed the HBV vaccination series

- Denominator: Number of HIV-infected clients who did not have evidence of current HBV infection or past HBV immunity and had at least 2 medical visits during the measurement year

Exclusion Criteria: 1) Past history of HBV infection with documented immunity (Hep B Surface Antibody without evidence of vaccination). 2) Current HBV infection. 3) Series initiated but unable to complete during the measurement year.

Of the 672 client's records reviewed, 429 were eligible for Hepatitis B vaccination. A total of 349 received the HBV vaccination series making the rate 81%. Ten sites met or exceeded the GA goal of 85%. Follow-up lab to check for immunity occurred in only 21% of those who received the vaccine series.



Hepatitis C Virus (HCV) Screening

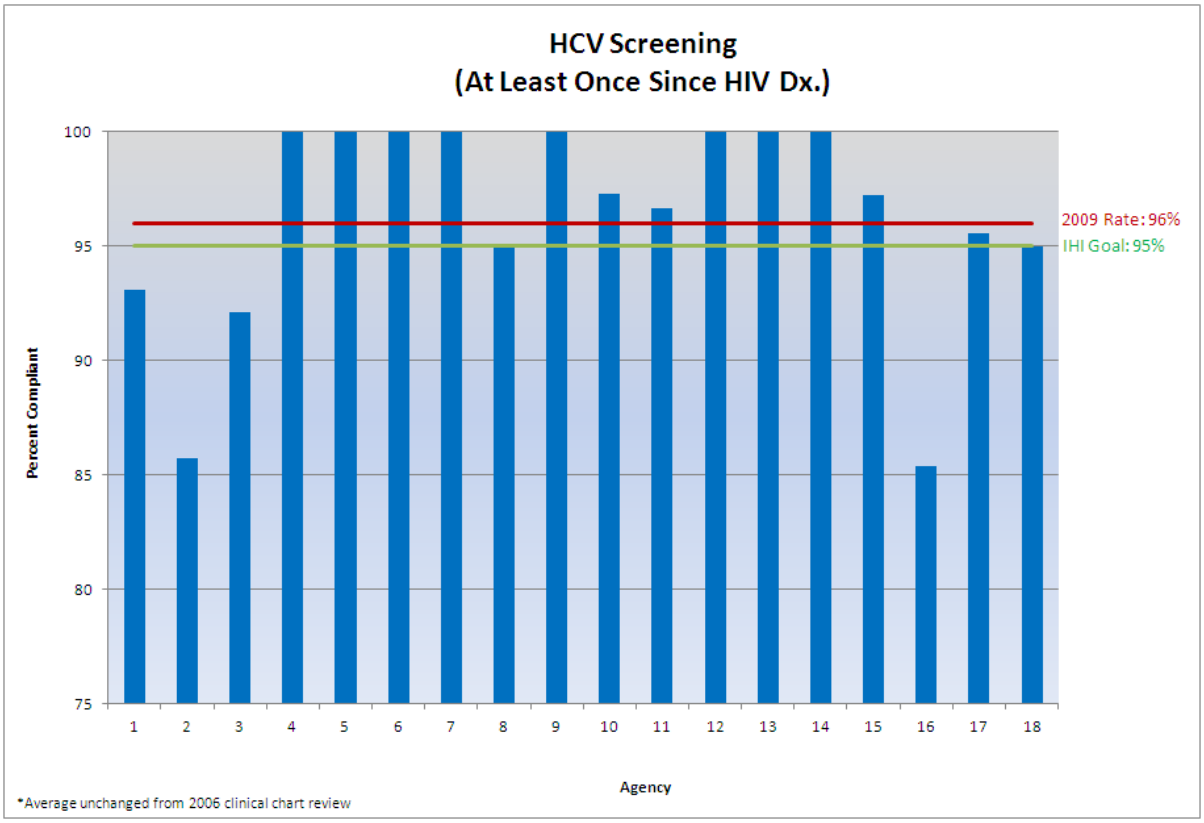
All HIV-infected clients should be screened for hepatitis C virus (HCV) at least once after HIV diagnosis.1,[18] This is a HAB HIV Core Clinical Performance Measure.8

IHI Goal: 95%[24]

Measure: Percent of HIV-infected clients for whom HCV screening was performed at least once since HIV diagnosis.

- Numerator: Number of HIV-infected clients with HCV status documented
- Denominator: Number of HIV-infected clients

Eight sites were 100% compliant with this measure. The 2009 rate was 96%. Fourteen sites met or exceeded the IHI goal of 95%. Rates ranged from 85% to 100%.



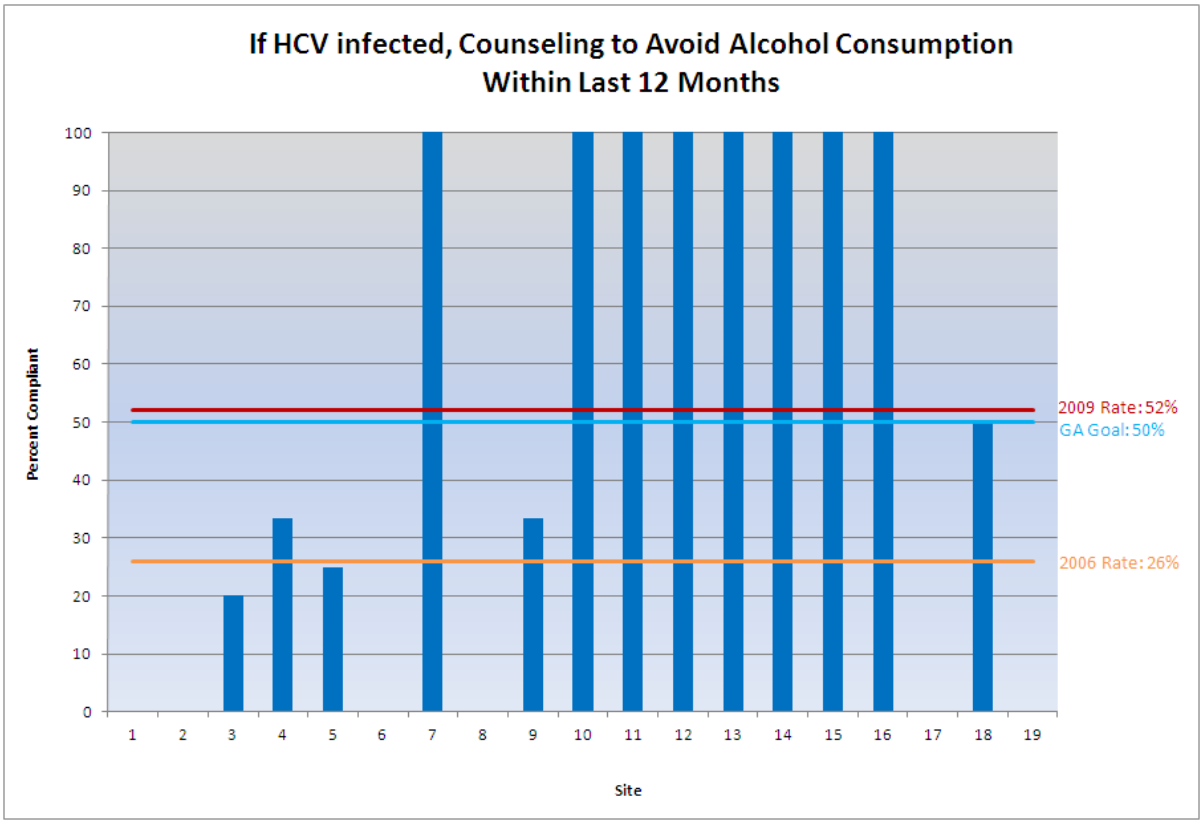
If HCV Infected, Counseling to Avoid Alcohol Consumption

If the client is HCV-infected, the client should receive counseling to avoid alcohol consumption at least once within the last 12 months.1 Alcohol consumption in HCV-infected persons may accelerate the progression of liver disease.[18]

Measure: Percent of HIV- and HCV-infected clients who received counseling to avoid alcohol consumption at least once during the measurement year.

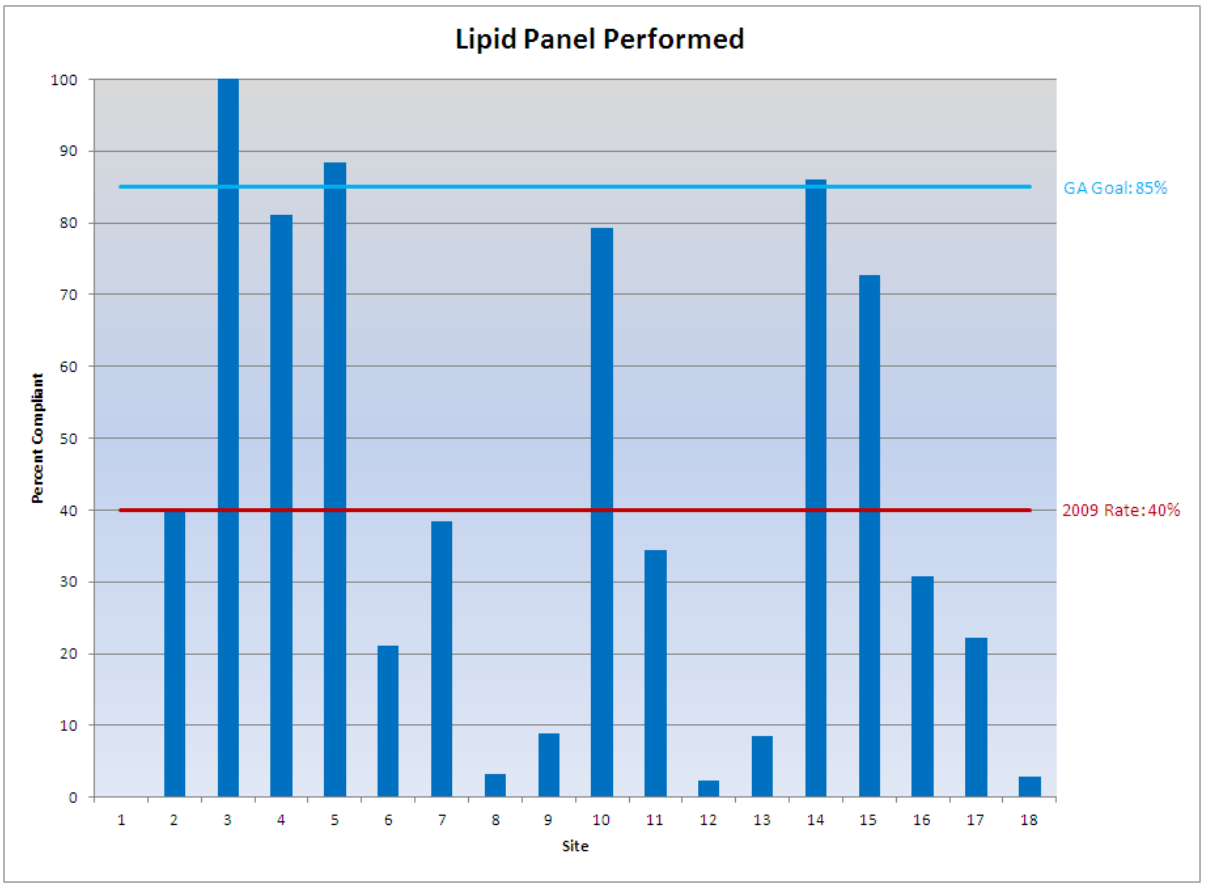
- Numerator: Number of HIV- and HCV-infected clients who received counseling to avoid alcohol consumption
- Denominator: Number of HIV- and HCV-infected clients

Of the clients whose charts were reviewed, 672 clients had documentation of HCV status. Fifty-eight were HCV-infected. Of those, 30 (52%) had documentation of counseling to avoid alcohol consumption within the measurement year. This was a marked increase from the 2006 rate of 26%. Eight sites were 100% compliant with this measure. Nine sites met or exceeded the GA goal of 50%. Rates ranged from 0% to 100%.



Lipid Screening

HIV infected clients on HAART should have lipids monitored before ART initiation or switch; if borderline or abnormal at last measurement, every six months; or if normal at least annually. Reviewers looked for at least one fasting lipid panel where applicable during CY2009. The chart review overall rate for this measure was 40%. Sites varied from 0 – 100% with six sites scoring 73-100%. All but 3 sites were below the GA goal of 85%. CY 2009 is the first year this measure has been reviewed. Reviewers found that lipid panels were being drawn but not always fasting. Several clinics reported that often clients came for blood draw appointments during the afternoon and therefore could not be fasting for lab work.



PCP and MAC Prophylaxis

PCP Prophylaxis

All HIV-infected clients with CD4 counts below 200 cells/mm^3 should receive chemoprophylaxis against *Pneumocystis* pneumonia (PCP).1[18] Recommended prophylactic agents include: trimethoprim-sulfamethoxazole (TMP/SMZ), dapsone, and atovaquone. This measure is included in the HAB *HIV Core Clinical Performance Measures for Adult/Adolescent Clients: Group 1*.[11]

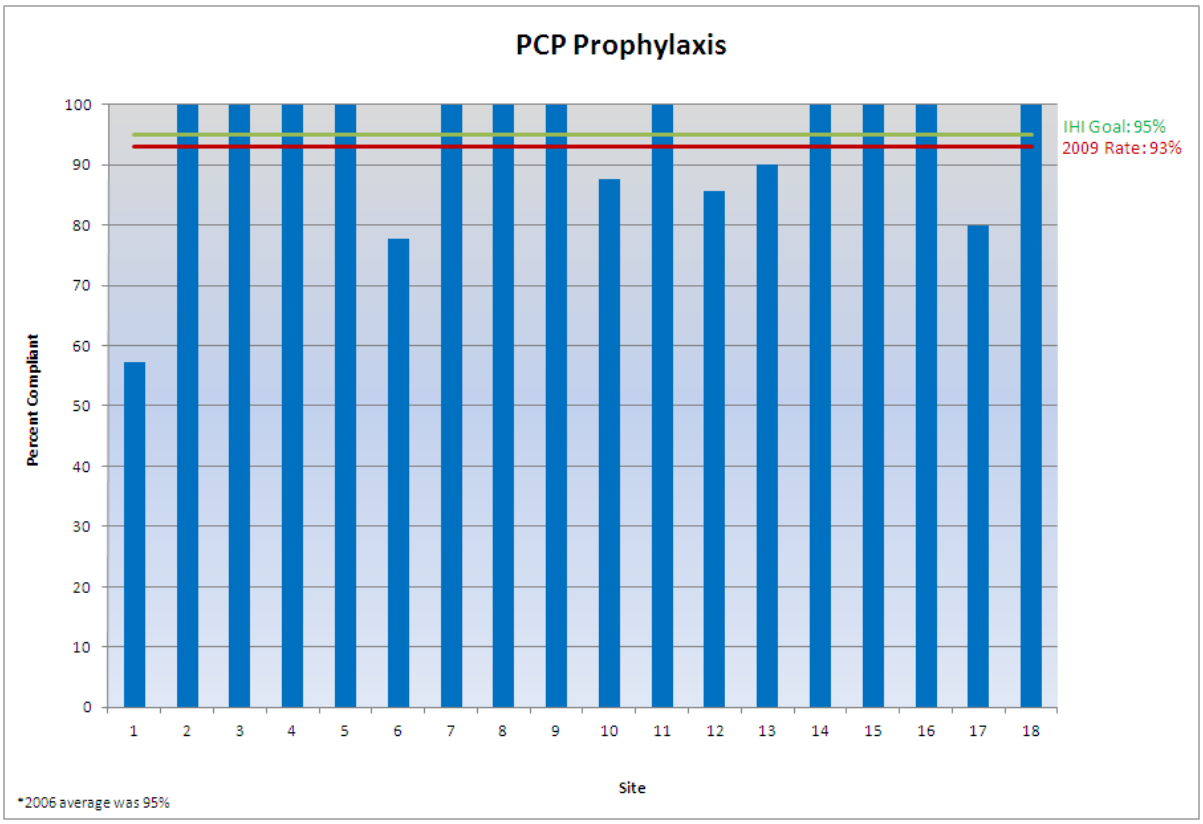
Measure: Percent of eligible HIV-infected clients with CD4 counts below 200 cells/mm^3 who were prescribed PCP prophylaxis during the measurement year.

- Numerator: Number of eligible HIV-infected clients with CD4 counts below 200 cells/mm^3 who were prescribed PCP prophylaxis
- Denominator: Number of eligible HIV-infected clients with CD4 counts below 200 cells/mm^3

Note: If the client is on HAART and has sustained CD4 counts > 200 cells/mm^3 for 3 months or more, then PCP prophylaxis may be discontinued.

IHI Goal = 95%[25]

Twelve sites were 100% compliant with this measure. Both the IHI goal and 2006 rate were 95%. The 2009 rate decreased slightly to 93%.



MAC Prophylaxis

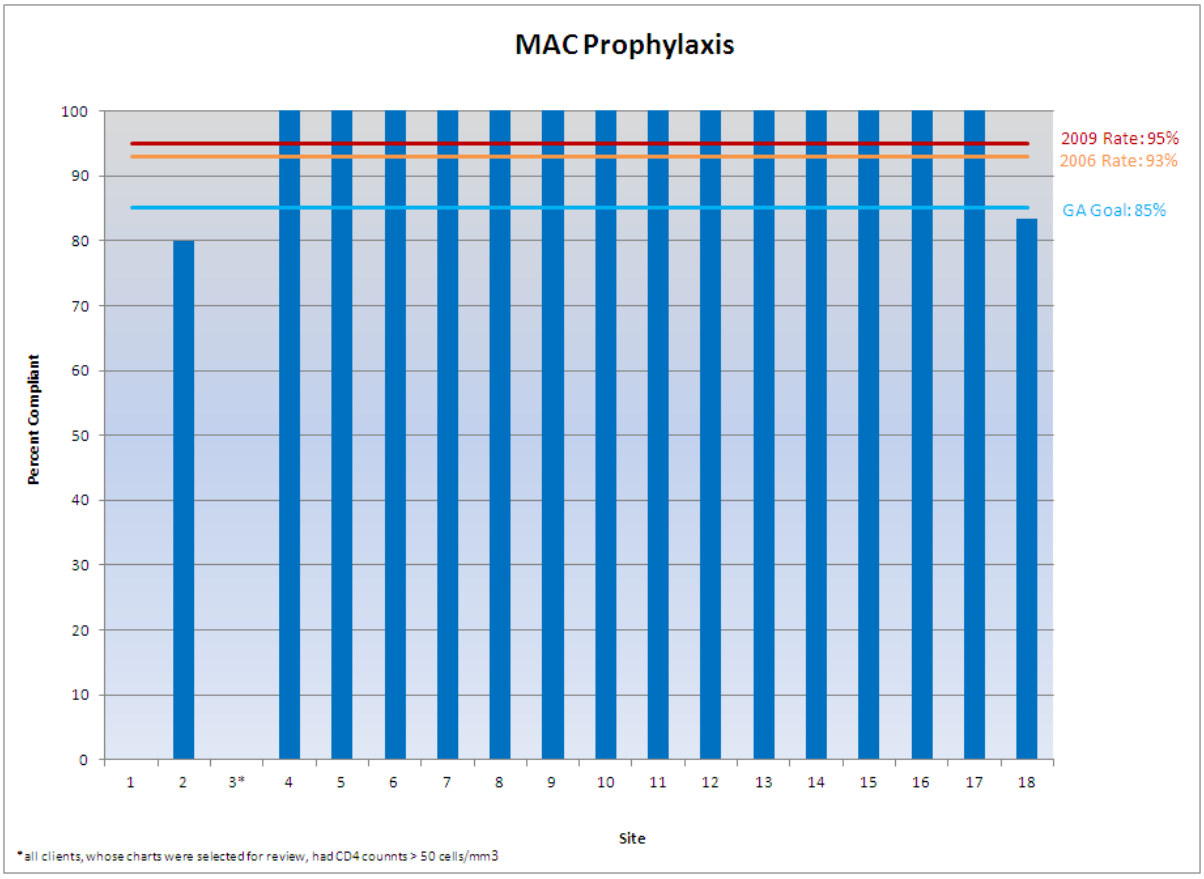
All HIV-infected clients with CD4 counts below 50 cells/mm^3 should receive chemoprophylaxis against *Mycobacterium avium* complex (MAC).1,[18] Recommended prophylactic agents include: azithromycin, clarithromycin, and rifabutin.

Measure: Percent of eligible HIV-infected clients with CD4 counts below 50 cells/mm^3 who were prescribed MAC prophylaxis during the measurement year

- Numerator: Number of eligible HIV-infected clients with CD4 counts below 50 cells/mm^3 who were prescribed MAC prophylaxis
- Denominator: Number of eligible HIV-infected clients with CD4 counts below 50 cells/mm^3

Note: If the client is on HAART and has sustained CD4 counts > 100/mm^3 for 6 months or more, then MAC prophylaxis may be discontinued.

At one site, all clients whose charts were reviewed had CD4 counts greater than 50 cells/mm^3. Fourteen of the remaining 17 sites were 100% compliant with this measure. The 2009 rate was 95%, which exceeded both the 2006 rate (93%) and the GA goal (85%).



Discussion

From January 2010 to May 2011, reviewers examined charts of 697 HIV-infected clients who received HIV ambulatory outpatient medical care in 18 sites located within 16 public health districts funded by the Georgia Ryan White Part B Program. The clients whose charts were reviewed represent 9.5% of clients who received Ryan White-funded HIV medical care in the 16 health districts during 2009.[26] Reviewers assessed performance measures during the calendar year 2009, except for HCV screening which was assessed at least once from the time of diagnosis. Findings from these performance measures are discussed below.

The race and ethnicity of clients whose charts were reviewed reflects the population of HIV-infected clients served by the Ryan White Part B Program in Georgia, as well as the Georgia HIV/AIDS epidemic. Sixty-five percent (65%) of clients whose charts were reviewed were Black, Non-Hispanic; 27% White, Non-Hispanic; 8% Hispanic; and less than 1% other. During calendar year 2009, the racial/ethnic demographics for HIV-infected persons seen in the 16 public health districts were: 71% Black, Non-Hispanic; 24% White, Non-Hispanic; 4% Hispanic; and 1% other.[26] In the United States, African American males and females ages 18-44 are most disproportionately affected by HIV and AIDS. Although African Americans make up only 30% of Georgia's population, 74% of the new cases of AIDS in 2009 and 71% of the HIV cases were among African-Americans.[27]

Although the numbers of HIV-infected women in GA are increasing, the majority of clients served are males. In 2009, the 16 health districts served more males (62%) than females (37%). [26.] Men who have sex with men still represent the largest number of people living with AIDS in Georgia. They account for approximately 55% of the known Georgia cases living with AIDS as of December 31, 2009. MSM also represent the largest number of people living with HIV. Based on HIV prevalence, MSM account for 51% of the Georgia estimated cases.[27] The HIV/AIDS epidemic in Georgia continues to affect a significant number of women. From 1984 to 2008, the cumulative proportion of AIDS cases among women increased from 4% to 23%. African-American women are disproportionately affected.[27]As of December 31, 2009, 83% of women living with AIDS in Georgia were African Americans, and 81% of women living with HIV in Georgia were African American.[27] During this chart review series, females were intentionally oversampled to ensure adequate numbers for pelvic examination and Pap smear measures.

Ninety-three percent (93%) of client charts reviewed had a medical visit at least every 6 months. The chart review eligibility criteria required that clients were eligible for review if they had at least 2 medical visits during the 12-month review period. Because this measure was artificially elevated due to the eligibility criteria, it does not reflect the overall retention rate among the clinics reviewed.

The rate for annual complete physical examinations was 69%. One hundred percent (100%) of those who did not have complete PEs documented, had partial or incomplete PEs performed. Most physicals were missing genitourinary (GU) and/or rectal examinations. If there was documentation that a female client was seen by another provider for pelvic exam/Pap smear, and the rest of the exam was completed by the HIV provider, then it was counted as a complete PE. During site-specific exit interviews reviewers stressed the importance of performing a complete PE at least once per year.

Reviewers also assessed medical visits during three 4-month review periods (i.e., first, second, third trimesters), and if the medical visit was made by an HIV specialist. The overall rate per trimester for HIV specialist visits and medical visits were: first trimester rate of 96% for both HIV specialist visits and medical visits; second trimester 93% for both HIV specialist medical visits; and third trimester 93% saw an HIV specialist visits and 94% had a medical visit. HIV specialist visits and medical visits were comparable because HIV specialists at the HIV clinics under review saw the majority of clients. In a few instances, there were clients who had visits by other providers documented during the trimester in which there was not an HIV specialist visit. If the client did not have a visit during the trimester, reviewers assessed the reason visits did not occur. Reasons were categorized as follows: client was incarcerated, client expired, client relocated, and no visit occurred. During each trimester,

the primary reason for missed appointments was "no visit occurred." The "no visit occurred" category included non-adherent clients, decreased access to HIV providers (e.g., position vacancies, and very high case loads), and clients routinely seen by RNs instead of a provider.

The rate for annual dental examinations was 26%, well below the national goal of 75%.9 The rate is up from the 20% found in the 2006 review. Barriers to dental examinations identified during conversations with clinic staff included lack of or limited funding for oral health care, lack of dental providers, transportation issues, and patient non-adherence to dental appointments leading to dentist refusing to schedule appointments. The same issues were also identified during the 2006 survey. In 2006, reviewers requested that sites include dental as one of their areas for improvement on their Quality Management (QM) Plan. This was reinforced on the 2009 QM Plan.

Ninety-three percent (93%) of clients reviewed had CD4 counts performed at least every 6 months, exceeding the national goal of 90%.[13] Viral loads were performed at least every 4 months for 80%, which was below the national goal of 90%.[14] However, the viral loads performed sometime during each trimester of the review period were 95% during the first trimester, 93% the second and 91% for the third trimester. The difference in percentages having viral loads assessed at least every 4 months versus during each trimester suggests that most clients' viral loads were routinely monitored, but clients and HIV staff were unable to meet the more restrictive measure of every 4 months. Reasons may include client non-adherence with appointments (lab tests are routinely done at the same time as the medical appointment), lack of transportation, providers inadvertently not ordering the test, and unsatisfactory laboratory specimens. These findings were similar to the 2006 review.

Overall, ART management was excellent. Ninety-four percent (94%) of clients on HAART were in accordance with DHHS antiretroviral guidelines, which exceeded the national goal of 90%.[15] Clients who were clinically stable while on HAART were 93% in the first trimester, 91% in the second trimester, and 93% in the final trimester. In the final trimester, 88% of clients on HAART had CD4 counts greater than 200 cells/mm^3, and 84% had viral loads less than 75 copies/mL. ART management appears to have improved. The primary reason that ART was considered out of compliance with DHHS guidelines was because providers did not follow drug resistance testing recommendations. In the first trimester, 61% of clients unstable on HAART had resistance testing performed; in the second trimester, 41% had resistance testing done; and in the third trimester, 37% had resistance testing done. Reasons resistance tests were not performed included the test not ordered by the provider, test ordered but not performed, client non-adherence, and limited funding for resistance testing. These findings were similar to 2006 review.

The HAART during pregnancy measures were newly added for the 2009 clinical chart review. It was important for reviewers to determine if pregnant clients were already on HAART during the first trimester (52%). Our findings indicated that 100% of pregnant women were prescribed HAART during the 2^{nd} and 3^{rd} trimester.

Seventy-seven percent (77%) of female clients received a pelvic examination at least once during the past 12 months and 78% had at least one Pap smear. The 2009 rate for Pap smears was well below the national goal of 90%.[19] Seven sites (39%) had Pap smear rates above the national goal. In sites with lower rates, routine medical care was primarily provided by infectious disease specialists, and clients were referred to other providers for pelvic exams/Pap smears. In some sites, the rates of pelvic exams/Pap smears would have been higher if documentation of examinations from other providers (e.g., consultation notes and test results from the gynecologist) were obtained and placed in clients' charts. These measures were considered unmet unless there was documentation in the client's chart from the other provider. Client self-reports of kept appointments and test results were not considered.

Of the female clients whose charts were reviewed and Pap smears were done during the review period, 29% had abnormal Pap smears, up from 22% found in the 2006 review. Ninety percent (90%) were referred for diagnostic evaluation of abnormal Pap smears. During 2006, the recommendations for evaluation of ASCUS were colposcopy, and biopsy if indicated, followed with Pap every 6

months.[17] We utilized this recommendation for the 2009 review. The Georgia Breast and Cervical Cancer Program (BCCP) standard was completion of diagnostic evaluation within 60 days of the abnormal screening result[6]. For this review only 54% were completed within 60 days, less than the BCCP goal of seventy-five percent[6]. Factors contributing to a deficiency in this measure included: client non-adherence, limited number of referral sources, and delays by provider or other agency staff in completing referrals.

The rate for annual syphilis screening was 83%, below the national goal of 90%.[21] This was an improvement from the rate of 76% found in the 2006 review.

Annual TST was below the IHI goal for both TST placement and completed TSTs (i.e., TST placement with reading within 72 hours). The rate for TST placement was 75%, with a national goal of 90%.[22] The rate for TST placement with reading was 90%, with a national goal of 80%.[23] Reviewers identified various issues related to tuberculosis screening, including: clients declined TSTs; clients with previous reactive TSTs or histories of treatment for tuberculosis were subsequently administered TSTs; poor documentation regarding TST placement and readings (e.g., often TSTs were only documented on flow sheets with check boxes); no follow-up of newly reactive TSTs; and lack of coordination with the local TB program of clients in treatment for tuberculosis.

The HBV measures were newly added for the 2009 clinical chart review. There were inconsistencies with the administration of the vaccine series. Documentation did not always occur in the same place in client records. Reviewers also found that immunity was either not verified or not verified in the appropriate time frame for 79% of those vaccinated

The state rate for HCV screening was 96%, which exceeded the national goal of 95%.[24] This demonstrates that HIV providers understand the importance of identifying HCV infection status in HIV-infected persons and consistently screen for HCV. Reviewers assessed whether or not HCV-infected clients had documentation of counseling to avoid alcohol consumption within the past 12 months. The overall rate was 52% which represents a marked improvement from the 26% rate in 2006. This measure was introduced to facilitate a change and improve documentation of counseling. Although HCV treatment was not formally assessed, it appeared that very few HCV-infected clients received treatment or were currently undergoing treatment. Reasons may include lack of referral sources, limited funding for diagnostic evaluation and treatment, and client ineligibility for treatment because of factors such as active substance use.

The lipid screening measure was newly added for the 2009 clinical chart review. Reviewers found that although lipids were being checked, the blood draws was not always fasting or documented fasting. Clinic sites reported two possible explanations. First, clients often came in for lab draws at the same time as their medical appointment. With afternoon appointments, fasting was not always feasible. The other suggestion was a lack of documentation. Most of the labs were sent out for processing. Either fasting documentation was not documented before the specimen was sent or the outside labs may not have documented the lab as fasting.

Ninety-three percent (93%) of patients reviewed were receiving PCP prophylaxis, which is below the 95% national goal.[25] Ninety-five percent (95%) were receiving MAC prophylaxis. Sixty-seven percent (67%) of sites were 100% compliant with the PCP prophylaxis and 78% with MAC prophylaxis. This demonstrates that most HIV providers are appropriately ordering prophylaxis medications.

Conclusion

Performance measures in which all or most agencies *excelled* include:

- medical visits every 6 months
- CD4 counts every 6 months
- viral load performed each trimester
- management of antiretroviral therapy
- ART adherence assessment and adherence counseling
- hepatitis C virus screening
- MAC prophylaxis

Areas identified where there was improvement since the CY 2006 review but still needs improvement include:

- pelvic examinations and Pap smears at least annually
- diagnostic evaluation of abnormal Pap smear results
- annual syphilis screening
- annual tuberculosis screening
- resistance testing when the client on HAART is unstable during a trimester

Areas that *need improvement* include:

- annual complete physical examinations
- annual dental examinations
- HBV vaccination and follow-up assessment
- fasting lipid screening for clients on HAART
- PCP prophylaxis

Based on these findings, reviewers recommended each district continue to address annual dental examinations and annual Pap smears in improvement objectives again in the statewide Part B QM Plan:

1) Increase the percentage of HIV-infected clients who have a dental examination at least annually from 26% to 50%.
2) Increase the percentage of HIV-infected female clients $\geq$ 18 years old who have a Pap smear at least annually from 78% to 90%.

Each health district submitted an improvement plan based on findings and recommendations. Reviewers plan to re-evaluate these measures to determine if improvements were made.

References

[1] HIVQual Project Indicators Definitions: Guide for HIVQual Project Participants Ambulatory Care Services, Data Submission for Year 2006, February 15, 2007.
[2] US Department of Health and Human Services, HIV/AIDS Clinical Guidelines, http://www.aidsinfo.nih.gov/
[3] The 2006 HIVQual Project Sampling Method (Instructions for Facilities within New York State), February 15, 2007.
[4] HAB, HIV Core Clinical Performance Measures for Adult/Adolescent Clients: Groups 1 or 2, http://hab.hrsa.gov/deliverhivaidscare/habperformmeasures.html
[5] Institute for Healthcare Improvement, Measures: HIV/AIDS General, http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/
[6] AETC, Clinical Manual for Management of the HIV-Infected Adult, Section 1: Testing and Assessment, http://www.aids-etc.org/aidsetc?page=cm-100-00
[7] New York Department of Health, AIDS Institute, Oral Health Care for People with HIV Infection, http://www.hivguidelines.org/clinical-guidelines/hiv-and-oral-health/
[8] HAB, HIV Core Clinical Performance Measures for Adult/Adolescent Clients: Group 2, http://hab.hrsa.gov/deliverhivaidscare/files/habgrp2pms08.pdf
[9] Institute for Healthcare Improvement, "Increase the total percentage of patients receiving annual dental exams to 75 percent," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/PercentofPatientsReceivinganAnnualDentalExam.htm
[10] American Academy of HIV Medicine (AAHIVM) Position Statement, "The HIV Specialist: Definition and Qualifications," February 2003.
[11] HAB HIV Core Clinical Performance Measures for Adult/Adolescent Clients: Group 1, http://hab.hrsa.gov/deliverhivaidscare/files/habgrp1pms08.pdf
[12] DHHS, Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents, October 10, 2006, http://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL000629.pdf
[13] Institute for Healthcare Improvement, "Percent of Patients/Clients with a CD4 Count Test in the Past 4 Months," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/Percentof+patientswithaCD4counttestinthepast4months.htm
[14] Institute for Healthcare Improvement, "Percent of Patients/Clients with a Viral Load Test in the Past 4 Months," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/Percentofpatientswithviralloadtestinthepast4months.htm
[15] Institute for Healthcare Improvement, "Increase the total percentage of patients/clients on ARV therapy who are appropriately managed (whether clinically stable or unstable) to above 90 percent within one year," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/PercentofPatientswithAppropriateARVTherapyManagement.htm
[16] Georgia Division of Public Health, draft Georgia Ryan White Part B HIV Clinical Performance Indicators, January 2008.
[17] HRSA, Jean R. Anderson (ed.), *A Guide to the Clinical Care of Women with HIV*, 2005 Edition.
[18] CDC, Guidelines for Preventing Opportunistic Infections Among HIV-Infected Persons - 2002: Recommendations of the U.S. Public Health Service and the Infectious Disease Society of America, MMWR, Vol. 51, No.RR-8, June 14, 2002.
[19] Institute for Healthcare Improvement, "Greater than 90 percent of female patients/clients will have a documented Pap test in the past 12 months," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/PercentofPatientswithPAPSmearinLastSixMonths.htm
[20] CDC, Incorporating HIV Prevention into the Medical Care of Persons Living with HIV: Recommendations of the CDC, the Health Resources and Services Administration, the National Institutes of Health, and the HIV Medicine Association of the Infectious Disease Society of America, MMWR, Vol. 52, No. RR-12, July 18, 2003.
[21] Institute for Healthcare Improvement, "Increase the percent of patients/clients with an annual syphilis screen (VDRL or RPR) to 90 percent within 12 months," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/PercentofPatientswithAnnualSyphilisScreen.htm
[22] Institute for Healthcare Improvement, "Greater than 90% of patients/clients will have a PPD placed," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/PercentofpatientswithPPDscreensinthelastTwelvemonths.htm
[23] Institute for Healthcare Improvement, "Greater than 80% of patients/clients will have a PPD screen (placed and read),"

http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/PercentofpatientswithPPDscreensinthelastTwelvemonths.htm

[24] Institute for Healthcare Improvement, "Increase the total percentage of patients/clients with known hepatitis C status (seropositive or seronegative) to 95 percent," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/PercentofPatientsClientswithKnownHepatitisCStatus.htm

[25] Institute for Healthcare Improvement, "Increase the percentage of patients/clients with CD4 counts <200 who are on PCP prophylaxis to above 95 percent within six months," http://www.ihi.org/IHI/Topics/HIVAIDS/HIVDiseaseGeneral/Measures/PercentofPatientswithaCD4CellCountBelow200cellsmm3ReceivingPneumocystisCariniiPneumoniaPCPProphylaxi.htm

[26]2006 CADR Forms from each Ryan White Part B funded Georgia Public Health District.

[26]2009 CADR Forms from each Ryan White Part B funded Georgia Public Health District.

[27]2009Georgia HIV/AIDS Surveillance Summary http://health.state.ga.us/epi/hivaids/

[28] Georgia 2009 population estimates obtained from PH's Online Analytical Statistical Information System (OASIS). Rates are per 100,000 populations.

Appendix A
Sample Chart Review Tool

Class Climate	2009 - Chart Review - SAMPLE	vividSolutions
Clinic Name/Location: SAMPLE	2009 - Sample	
District Number: ???	Dates of Review:	

Mark as shown: ☐☒☐☐☐ [MARK]
Correction: ☐■☐☒☐ [CORRECTION]

1. Unique Identification (UID)

1.1 Unique record identification

1000th ☐☐☐☐☐☐☐☐☐☐
100th ☐☐☐☐☐☐☐☐☐☐
10th ☐☐☐☐☐☐☐☐☐☐
1th ☐☐☐☐☐☐☐☐☐☐
x0 x1 x2 x3 x4 x5 x6 x7 x8 x9

2. Reviewer Information

2.1 Please indicate the reviewers for this record. (Check all that apply)
☐ H.Katner MD ☐ R. Donnelly RN ☐ M. Coker RN
☐ Other

2.2 If other, please provide name and title in the box below.

3. Client Information

3.1 Sex	☐ Female	☐ Male	☐ Transgender
	☐ Unknown		
3.2 Race / Ethnicity	☐ Black, Non-Hispanic	☐ White, Non-Hispanic	☐ Hispanic
	☐ Asian/Pacific Islander	☐ American Indian/ Alaska Native	☐ Other

4. Chart Review: Physical, Dental Examinations and Medical Visits

4.1	Physical exam within the last 12 months?	☐ Yes	☐ No
4.2	If no to 4.1, incomplete PE?	☐ Yes	☐ No
4.3	If no to 4.1, PE not done?	☐ Yes	☐ No
4.4	Dental exam within the last 12 months?	☐ Yes	☐ No
4.5	Client seen before beginning of review period?	☐ Yes	☐ No

4.6 If no to 4.5, date of first visit. (Provide in box below)

4.7	Medical visit at least every 6 months?	☐ Yes	☐ No
4.8	Was the client clinically stable before the review period?	☐ Yes	☐ No

SAMPLE

5. UID

5.1 Unique record identification

1000th ☐☐☐☐☐☐☐☐☐☐
100th ☐☐☐☐☐☐☐☐☐☐
10th ☐☐☐☐☐☐☐☐☐☐
1th ☐☐☐☐☐☐☐☐☐☐
x0 x1 x2 x3 x4 x5 x6 x7 x8 x9

6. CD4 Cell Count and Viral Load

6.1 CD4 count performed at least every 6 months? ☐ Yes ☐ No

6.2 Viral load performed at least every 4 months? ☐ Yes ☐ No

7. Antiretroviral Therapy Management

7.1 ART according to the US DHHS antiretroviral guidelines? ☐ Yes ☐ No

7.2 If no to 7.1, please mark all that apply below:

☐ Mono/dual NRTI therapy
☐ Medication doses were not adjusted (See additional question below if this is marked)
☐ Clinical trial
☐ Regimen inappropriate or a contraindicated combination of antiretroviral medications
☐ Client's discretion
☐ Other (If marked, comment on worksheet)

7.3 If medication doses were not adjusted, mark all that apply:

☐ Drug interactions
☐ Hepatic/Renal failure
☐ Weight

7.4 If pregnant, already on HAART? ☐ Yes ☐ No

7.5 If pregnant, prescribed ART during the 2nd and 3rd trimesters of pregnancy? ☐ Yes ☐ No

8. Medication Adherence and Counseling

8.1 If on HAART, client assessed for adherence two or more times within the last 12 months? ☐ Yes ☐ No

8.2 If on HAART, client received adherence counseling two or more times within the last 12 months? ☐ Yes ☐ No

9. Chart Review: First Trimester (Jan.- April)

9.1 At least one medical visit during the 1st. trimester? ☐ Yes ☐ No

9.2 If yes to 9.1, visit with HIV specialist? ☐ Yes ☐ No

9.3 If no to 9.2, did any of the following occur? (Mark all that apply)

☐ Client incarcerated
☐ Client expired
☐ Client relocated
☐ No visit occurred

SAMPLE

9. Chart Review: First Trimester (Jan.- April) [Continue]

9.4	Viral load performed during the first trimester? (If answer is no, GO to question 10 next).	☐ Yes	☐ No
9.5	If on HARRT, client's stability during the first trimester?	☐ Stable	☐ Unstable
9.6	If answer is unstable to 9.5, resistance testing performed?	☐ Yes	☐ No
9.7	If answer is unstable to 9.5, if regimen changed, viral load performed within 8 weeks?	☐ Yes	☐ No
9.8	If answer is unstable to 9.5, if regimen stopped, decision and clinical follow-up documented within 3 months?	☐ Yes	☐ No
9.9	If answer is unstable to 9.5, if regimen unchanged, was justification documented?	☐ Yes	☐ No
9.10	If answer is unstable to 9.5, if medication was started or changed in this trimester, did the client receive treatment education?	☐ Yes	☐ No

10. UID

10.1 Unique record identification

1000th ☐☐☐☐☐☐☐☐☐☐
100th ☐☐☐☐☐☐☐☐☐☐
10th ☐☐☐☐☐☐☐☐☐☐
1th ☐☐☐☐☐☐☐☐☐☐
x0 x1 x2 x3 x4 x5 x6 x7 x8 x9

11. Chart Review: Second Trimester (May - August)

11.1	At least one medical visit during the 2nd trimester?	☐ Yes	☐ No
11.2	If yes to 11.1, visit with HIV specialist?	☐ Yes	☐ No
11.3	If no to 11.2, did any of the following occur? (Mark all that apply) ☐ Client incarcerated ☐ Client expired ☐ Client relocated ☐ No visit occured		
11.4	Viral load performed during the second trimester? (If answer is no, GO to question 12 next).	☐ Yes	☐ No
11.5	If on HARRT, client's stability during the 2nd trimester?	☐ Stable	☐ Unstable
11.6	If answer is unstable to 11.5, resistance testing performed?	☐ Yes	☐ No
11.7	If answer is unstable to 11.5, if regimen changed, viral load performed within 8 weeks?	☐ Yes	☐ No
11.8	If answer is unstable to 11.5, if regimen stopped, decision and clinical follow-up documented within 3 months?	☐ Yes	☐ No
11.9	If answer is unstable to 11.5, if regimen unchanged, was justification documented?	☐ Yes	☐ No

SAMPLE

11. Chart Review: Second Trimester (May - August) [Continue]

11.10 If answer is unstable to 11.5, if medication was started or changed in this trimester, did the client receive treatment education?	☐ Yes	☐ No

12. Chat Review: Final Trimester (Sept. - Dec.)

12.1 At least one medical visit during the final trimester?	☐ Yes	☐ No
12.2 If yes to 12.1, visit with HIV specialist?	☐ Yes	☐ No
12.3 If no to 12.2, did any of the following occur? (Mark all that apply)		
☐ Client incarcerated ☐ Client expired ☐ Client relocated ☐ No visit occurred		
12.4 Viral load performed during the final trimester? (If answer is no, GO to question 13 next).	☐ Yes	☐ No
12.5 If on ART, CD4 count > 200mm in the final trimester?	☐ Yes	☐ No
12.6 If on ART, VL < 75 copies/ml in the final trimester?	☐ Yes	☐ No
12.7 If on HARRT, client's stability during the final trimester?	☐ Stable	☐ Unstable
12.8 If answer is unstable to 12.7, resistance testing performed?	☐ Yes	☐ No
12.9 If answer is unstable to 12.7, if regimen changed, viral load performed within 8 weeks?	☐ Yes	☐ No
12.10 If answer is unstable to 12.7, if regimen stopped, decision and clinical follow-up documented within 3 months?	☐ Yes	☐ No
12.11 If answer is unstable to 12.7, if regimen unchanged, was justification documented?	☐ Yes	☐ No
12.12 If answer is unstable to 12.7, if medication was started or changed in this trimester, did the client receive treatment education?	☐ Yes	☐ No

13. UID

13.1 Unique record identification

1000th ☐☐☐☐☐☐☐☐☐☐
100th ☐☐☐☐☐☐☐☐☐☐
10th ☐☐☐☐☐☐☐☐☐☐
1th ☐☐☐☐☐☐☐☐☐☐
x0 x1 x2 x3 x4 x5 x6 x7 x8 x9

SAMPLE

14. Pelvic Exam and Pap Smear

14.1 Pelvic exam within last 12 months?	☐ Yes	☐ No
14.2 Pap smear within the last 12 months?	☐ Yes	☐ No
14.3 If yes to 14.2, were results abnormal?	☐ Yes	☐ No
14.4 If abnormal pap smear, was client referred for diagnostic evaluation?	☐ Yes	☐ No
14.5 If abnormal pap smear, did diagnostic evaluation occur within 60 days?	☐ Yes	☐ No

15. Syphilis, TB and HCV Screening

15.1 Syphilis serology in the last 12 months?	☐ Yes	☐ No
15.2 Confirmation syphilis testing performed?	☐ Yes	☐ No
15.3 TST placed in the past 12 months?	☐ Yes	☐ No
15.4 If TST placed, was it read within 72 hours?	☐ Yes	☐ No
15.5 If TST greater than or equal to 5 mm and/or diagnosed wtih active or latent TB disease, referred to the TB Program?	☐ Yes	☐ No
15.6 Hepatitis C status known?	☐ Yes	☐ No
15.7 If hepatitis C +, alcohol counseling documented within the last 12 months?	☐ Yes	☐ No

16. Hepatitis B Screening and Vaccination

16.1 If susceptible to HBV, was the HBV vaccine series administered?	☐ Yes	☐ No
16.2 If yes to 16.1, antibody response assessed after completion of vaccine series?	☐ Yes	☐ No

17. Lipid Screening

17.1 If on HAART, had a fasting lipid panel within the last 12 months?	☐ Yes	☐ No

18. PCP and MAC Prohylaxis

18.1 Received PCP prophylaxis?	☐ Yes	☐ No
18.2 Received MAC prophylaxis?	☐ Yes	☐ No

19. UID

19.1 Unique record identification

1000th ☐☐☐☐☐☐☐☐☐☐
100th ☐☐☐☐☐☐☐☐☐☐
10th ☐☐☐☐☐☐☐☐☐☐
1th ☐☐☐☐☐☐☐☐☐☐
x0 x1 x2 x3 x4 x5 x6 x7 x8 x9

SAMPLE

Appendix B
Chart Review Worksheet

HIV Clinical Chart Review Worksheet - CY2009

District: _____ **Review Date**: **_____**
Location: _____ **Chart #: _____**
Reviewer: _____ **UID#: _____**

Visits

List all visits with primary care and HIV specialist providers (if different) during review period:

CD4 Counts

Enter all CD4 results obtained during the review period (Date/CD4 Count):

Viral Loads

Enter all viral load results obtained during the review period (Date/Viral Load):

Resistance Testing

Antiretroviral Medications

List ARV medications during this review period include start and stop dates:

Med. Assess. ____
Adherence Counsel ____

Pregnant: Yes __ No __
Due Date: _____ **Fasting Lipid Screen if on HAART:** Yes __ No __

Comments:

RPR: Date_____ Reactive ____NR ___NA ____

TST: Date _____ Not Done ____ NA ___
Reactive ____ NR _____
Referral Yes ____ No ____ Follow-Up ____

HCV: Date _____ Pos ____ Neg _____
Annual HCV ETOH Counseling Yes ___ No ___

HepB Susceptible: Yes ___ No ___ Not Done ___
HepB Vaccination Series: Yes___ No ___ N/A __
Hep B Antibody Response Assessed: Yes ___ No ___ N/A ___

PAP: Date _____ Normal ____ Abnormal _____
Referral Yes ____ No _____
Follow Up Yes ____ No _____

Appendix C
Guidelines for HIV Clinical Chart Review Tool

HIV Clinical Indicators Chart Review Tool
Georgia Ryan White Program Part B
January 2010

HIV Nurse Consultants and the HIV Medical Advisor will review client charts at Ryan White Program Part B funded clinics throughout Georgia. The clinical indicators selected for this chart review are based on the New York State Department of Health AIDS Institute, HIVQual Project; and the draft Georgia HIV Clinical Performance Indicators. These indicators measure compliance with national standards of HIV/AIDS care, primarily compliance with the U.S. Department of Health and Human Services (DHHS) HIV/AIDS-related clinical guidelines including guidelines for antiretroviral treatment and management of HIV complications. The following document provides general information about this chart review and describes the indicators.

General

- General Eligibility
    - HIV+ clients of the clinic under review
    - Clients with at least 2 medical visits during the 12-month review period (prefer clients in care prior to the review period or initiated care during the first trimester of the review period)
- Sampling Methodology
    - To ensure significant numbers of females for the GYN indicators, follow the HIVQual Project Sampling Methodology for facilities within New York State (see attached) to determine the number of charts to review.
    - Prior to review, each site will submit the number of female and male clients eligible for review. The reviewers will determine the number of charts for review and instruct the site regarding chart selection.
- Review Period
    - A 12-month review period, the previous calendar year. The review period for this chart review will be calendar year 2009.
    - Trimesters – during the 12-month review period, a few indicators will be assessed per three 4-month periods (i.e., Jan.-April, May-Aug., and Sept.-Dec.)

Annual Physical Examination

- All HIV + clients should receive a complete physical examination (PE) annually.
- Complete PE includes the following body systems (see page 31, "Table 3.1 Complete Physical Examination" in the DHR manual, *Medical Guidelines for the Care of HIV-Infected Adults and Adolescents June 2005*).
    - General
    - Head, Eyes, Ears, Nose, and Throat (HEENT)
    - Neck
    - Chest/lungs
    - Heart
    - Breasts
    - Abdomen
    - Genitalia
    - Rectum/Anus
    - Musculoskeletal
    - Skin
    - Neurological
    - Lymph nodes
- Check <u>yes</u> or <u>no</u> indicating whether or not a client had a complete PE during the review period. If <u>no</u>, indicate whether the PE was incomplete or not done.

Dental Examination

- All HIV+ clients should receive a dental exam within the last 12 months.
- Check yes or no indicating whether or not a dental exam was performed during the review period. If yes, document the date.

Medical Visits

- All HIV+ clients should have a medial visit (i.e., seen by the physician, physician assistant, or nurse practitioner) at least every 4 months.
- Indicate whether or not the client was seen in the clinic before the beginning of the review period. If no, document the first visit date. Then, the first visit date is the effective date which the client is eligible for review.
- One of the national performance measures is, "percentage of clients with HIV infection who have a medical visit in an HIV care setting at least every 6 months." Check yes or no indicating whether or not the client had a medical visit at least every 6 months. If the client was not seen before the beginning of the review period and in the first 6 months of the 12 month review period, the client may not be eligible for this indicator, and the reviewer may check not applicable (NA).
- After the effective date, document medical visit dates during each of the 4 month review period (trimester).
- Check yes or no indicating whether or not the client had at least one medical visit in each trimester after the effective date.
- If the client had a medical visit, indicate whether or not it was with an HIV specialist. HIV specialist is defined as a physician, physician's assistant, or nurse practitioner who has provided direct, ongoing care for 20 or more HIV-infected clients over the past 12 months; and received a minimum of 15 credits of HIV-related CME within the past 12 months including information on antiretroviral therapy.
- If the client did not have an HIV specialist visit, check one of the following reasons a visit did not occur, 1) client was incarcerated (for 60 days or more during the trimester); 2) client expired; 3) client relocated; or 4) no visit occurred

CD4 Cell Count

- According to the DHHS antiretroviral guidelines, all HIV+ clients should have a CD4 count measured at baseline then repeated at least every 3-6 months.
- Check yes or no to indicate whether or not a CD4 count was documented in the client's medical record at least twice during the review period, $\leq$ 6 months apart.
- For clients on ART, which was initiated before the review period or in the first trimester of the review period, indicate whether or not the CD4 count is > 200/mm^3 during the final trimester of the review period.
- Document dates and result of all CD4 counts during the review period.

Viral Load

- According to the DHHS antiretroviral guidelines, all HIV+ clients should have an HIV viral load (VL) measured at baseline and repeated at least every 3-6 months.
- Check yes or no to indicate whether or not a viral load was documented in each trimester of the review period.
- For clients on HAART, which was initiated before the review period or in the first trimester of the review period, indicate whether or not the HIV viral load was < 75 copies/mL in the final trimester of the review period.
- Document all viral load dates and results during the review period.

Antiretroviral Therapy Management

- The US DHHS antiretroviral guidelines recommend initiation of antiretroviral therapy (ART) in HIV-infected clients diagnosed with AIDS (i.e., history of CD4 count below 200/mm^3 or other AIDS-defining illness). Indicate whether or not the client diagnosed with AIDS was prescribed ART during the 12 month review period.
- According to the DHHS guidelines, antiretroviral therapy is recommended in all pregnant women during the second and third trimesters of pregnancy, regardless of virologic, immunologic, or clinical parameters, for the purpose of prevention of mother-to-child transmission. Check Yes or No if pregnant and already on HAART. Check Yes or No if pregnant and prescribed antiretroviral therapy during the 2nd and 3rd trimesters. **Exclusion Criteria:** 1) Clients whose pregnancy is terminated. 2) Established and/or newly enrolled pregnant clients who are in the 1st trimester and in care during the last three months of the measurement year.
- Management of ART will be assessed for each 4-month review period during which the client received ART.
- If the client was not seen in the clinic before the beginning of the review period, the first visit date is the effective date which the client is eligible for review during the 4-month review periods.
- Appropriately managed requires that clients have at least one viral load test documented and monitored during each 4-month review period. Clients that are on ART, but do not have a VL test during the 4-month review period cannot be assessed for clinical stability.
- Definition of clinically stable:
    - Viral load is undetectable
    - VL dropped by at least 1 log* since the last 4-month review period
    - Note by physician indicates that the client is deemed clinically stable
- Definition of clinically unstable:
    - VL has increased by 1 log* and absolute value is over 1,000;
    - CD4 count has dropped by 50% since the last 4-month review period;
    - Opportunistic infection in the last 4 month review period; or
    - Client deemed unstable by the physician per note

* A log change is an exponential, or 10-fold, increase or decrease (e.g., a change from 10 to 100 is a 1-log increase; a change from 1,000,000 to 10,000 is a 2-log decrease).

- Indicate whether or not the client was clinically stable before the review period.
- If eligible, indicate if the client was stable or unstable during each 4-month review period.
- If client is unstable, check which management option was documented:
    - Indicate whether or not resistance testing was done. DHHS guidelines recommend HIV drug resistance testing be performed in cases of virologic failure to assist in selecting active drugs when changing antiretroviral regimens and considered when managing suboptimal viral load reduction.
    - If the regimen was changed, indicate whether or not a viral load assay was performed within 8 weeks of the decision. DHHS guidelines recommend repeating viral load 2-8 weeks after treatment changes.
    - If the regimen was unchanged, indicate whether or not justification was provided not to change therapy.

    - If the ART was discontinued, indicate whether or not the decision to stop was documented; and the clinical follow-up plan was noted within 3 months.
- List all ART medications with start and stop dates.
    - If the client was on ART prior to the review period, list the actual start date or if unknown, a date prior to the review period.
    - Do not enter stop dates for medications the client continues to take
    - If the client stopped the medication on his/her own, enter this date as the stop date.
- If medication was started or changed, indicate whether or not the client received treatment education evidenced by documentation of the counseling session.
- Antiretroviral therapy should be consistent with the DHHS antiretroviral treatment guidelines. Indicate whether or not the ART meets DHHS standards.

If no, indicate the reason that the ART doesn't meet DHHS standards. Check all reasons that apply or describe if other. Reasons include mono/dual NRTI therapy; medication doses were not adjusted for drug interactions, hepatic/renal failure, or weight; clinical trial; inappropriate regimen or contraindicated combination of antiretroviral medications; and/or client's discretion

Medication Adherence and Counseling

- HIV infected clients who are taking HAART should be assessed and counseled for adherence during each medical visit.
- Assessment of adherence may include:
    - Patient reports of adherence by: 1) Quantifiable scales, e.g. missed 3 out of 10 doses**.** 2)Qualitative scale, e.g. Likert scale
    - Quantification such as pharmacy dispensing records, pill counts or direct observation therapy
    - Other qualitative measure documentation
- If on HAART, check Yes or No if client was assessed for adherence two or more times during the measurement year**.**
- If on HAART, check Yes or No if the client received adherence counseling two or more times during the measurement year**.**
- **Exclusion Criteria:** HIV infected clients who initiated HAART after November 1, 2009.

Pelvic Exam and Pap Smear

- All HIV+ females should have a pelvic examination performed at least every 12 months.
- Check yes or no indicating whether or not a pelvic exam was recorded.
- If the pelvic exam was referred out, results must be documented in the client's medical record.
- If a pelvic exam was recorded, check whether or not a Pap smear was done.
- If a Pap smear was done, check yes or no indicating whether or not the results were abnormal (i.e., epithelial cell abnormality).
- If Pap smear results were abnormal, indicate whether or not client was referred for diagnostic evaluation (e.g., colposcopy plus biopsy); and whether or not the diagnostic evaluation was completed with 60 days.

Syphilis Screening

- All HIV+ clients should be screened for syphilis at least every 12 months.
- Check yes or no indicating whether or not the client was screened for syphilis (i.e., RPR or VDRL) in the last 12 months.
- If the screening test is reactive, indicate whether or not a confirmatory test (i.e., treponemal test) was performed.

TB Screening

- All HIV+ clients without a history of TB treatment or a previous positive tuberculin skin test (TST) should have a TST at least every 12 months.
- Check yes or no indicating whether or not a TST was placed in the last 12 months.
- If a TST was placed, check yes or no indicating whether or not a TST was read by a trained healthcare worker within 72 hours of placement.

Referral to TB Program

- To ensure both adequate HIV and TB treatment and coordination of services, all HIV+ clients with TST indurations > 5 mm and/or diagnosed with active or latent TB disease should be referred to the local TB program. Copies of documents from the TB program should be placed in the client's medical record.
- Indicate whether or not the client with a TST induration > 5 mm and/or diagnosed with active or latent TB disease was referred to the TB program.

Hepatitis C Screening

- All HIV+ clients should be screened at baseline for hepatitis C.
- Check yes or no indicating whether or not the client had hepatitis C screening performed at anytime.
- If the client is hepatitis C positive, indicate whether or not the client received alcohol counseling within the last 12 months. Alcohol consumption is associated with a more rapid progression of HCV.

Hepatitis B Screening and Vaccination

- All HIV-infected persons should be tested for Hepatitis B Virus (HBV) infection.
- For clients who are HBV negative, vaccination as prophylaxis is recommended.
- If susceptible to HBV, check Yes or No if the HBV vaccine series administered?
- If yes to HBV vaccine series administered, check Yes or No if antibody response assessed within one month of completion of series
- NOTE: If no record of HBV screening, make notation on worksheet.
- **Exclusion Criteria:** 1) Past history of HBV infection with documented immunity (Hep B Surface Antibody without evidence of vaccination). 2) Current HBV infection. 3) Series initiated but unable to complete during the measurement year.

Lipid Screening

- HIV infected clients on HAART should have lipids monitored before ART initiation or switch; if borderline or abnormal at last measurement, every six months; or if normal at least annually.
- If on HAART, check Yes or No, had a fasting lipid panel within the last 12 months.
- **Exclusion Criteria:** Not on HAART

PCP Prophylaxis

- All HIV+ clients with CD4 counts < 200/mm^3 should received PCP prophylaxis (trimethoprim-sulfamethoxazole [TMP/SMZ], dapsone, atovaquone, or other)
- Check yes or no indicating whether or not the client with CD4 count < 200/mm^3 received PCP prophylaxis during the last 12 months (unless on HAART and have sustained CD4 counts > 200/mm^3 for 6 months or more).
- Check no for clients who refuse prophylaxis or are intolerant

MAC Prophylaxis

- All HIV+ clients with CD4 counts < 50/mm^3 should receive MAC prophylaxis (azithromycin, clarithromycin, rifabutin, or other)
- Check yes or no indicating whether or not the client with CD4 count < 50/mm^3 received MAC prophylaxis during the last 12 months (unless on HAART and have sustained CD4 counts > 100/mm^3 for 6 months or more).
- Check no for clients who refuse prophylaxis or are intolerant

Appendix D
Chart Review Results
Summary Table

2009 HIV Clinical Chart Reviews, Comparison Report

Performance Measures	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	Site 12	Site 13	Site 14	Site 15	Site 16	Site 17	Site 18	State Rate	Goal
Seen before review period?	83	74	68	81	94	88	88	95	92	92	93	73	94	95	97	90	98	85	88	NA
Stable before review period?	82	86	91	89	87	98	95	92	89	86	96	88	88	97	78	71	93	80	88	NA
Physical & Dental Exams																				
Annual Complete Physical Exam	38	80	66	83	96	41	27	35	78	89	70	96	69	95	58	63	96	50	69	80
Annual Dental Exam	14	74	3	7	33	12	7	0	61	27	10	4	41	32	38	38	26	51	26	50%†
Medical Visits																				
Medical Visit every 6 mos	96	88	100	87	87	95	98	90	94	95	87	98	100	92	81	85	100	95	93	85
Medical Visit 1st Trimester	100	100	100	87	96	95	100	97	100	100	93	97	100	100	97	92	89	91	96	90
HIV Specialist 1st Trimester	100	100	100	87	96	93	100	97	100	100	93	97	100	100	97	92	89	91	96	90
Medical Visit 2nd Trimester	97	85	100	93	80	88	95	90	97	97	90	98	100	95	89	93	98	90	93	90
HIV Specialist 2nd Trimester	93	85	100	93	80	88	95	90	97	97	90	98	100	95	89	90	98	90	93	90
Medical Visit 3rd Trimester	90	94	97	95	91	98	100	93	95	97	63	96	100	95	86	100	98	90	94	90
HIV Specialisit 3rd Trimester	90	94	97	95	91	98	100	93	95	97	63	96	100	95	86	90	98	90	93	90
CD4 Counts & Viral Loads																				
CD4 Counts every 6 mos.	100	89	97	93	96	95	98	90	91	84	90	98	100	100	75	98	100	83	93	90
VL every 4 mos.	83	77	94	81	78	79	88	65	89	73	77	91	97	90	50	93	84	45	80	90
VL 1st Trimester	96	97	100	95	98	93	100	95	100	86	100	97	97	97	91	95	91	92	95	90
VL 2nd Trimester	82	91	100	98	98	91	93	80	97	95	97	96	100	97	75	95	93	97	93	90
VL 3rd Trimester	93	94	92	93	91	91	98	93	92	92	80	98	97	90	86	95	96	65	91	90
Antiretroviral Therapy																				
HAART According to DHHS	89	94	100	89	100	95	85	82	91	93	90	100	97	92	97	100	93	94	94	90
Stable 1st Trimester	96	96	95	90	95	100	90	82	100	88	96	94	97	91	93	91	97	77	93	90
Stable 2nd Trimester	89	96	100	84	93	97	97	75	97	93	96	93	88	97	75	86	98	87	91	90
Stable 3rd Trimester	79	97	100	82	95	97	89	81	92	92	96	93	97	97	100	89	98	96	93	90
CD4 > 200/mm3 3rd Tri.	83	83	100	77	87	88	92	92	91	89	91	96	82	94	93	92	89	74	88	85
VL < 75 copies/mL 3rd Tri.	46	80	100	77	85	94	72	81	97	69	96	89	85	94	93	89	95	65	84	60
If Unsable, Resistance Testing 1st Trimester	100	0	100	67	50	NA	33	20	NA	100	0	50	0	0	100	100	100	100	61	NA
If Unstable, Resistance Testing 2nd Trimester	0	100	NA	40	0	100	0	17	0	100	100	67	50	100	0	20	100	50	41	NA
If Unstable, Resistance Testing 3rd Trimester	80	0	NA	50	0	100	0	20	NA	0	0	100	0	100	NA	25	0	0	37	NA
Pregnant, Already on HAART 1st Trimester	0	63	50	60	NA	NA	0	100	NA	33	100	40	100	50	100	67	50	25	52	NA
If pregnant, HAART 2nd and 3rd Trimester**	100	100	100	100	NA	NA	100	100	NA	100	100	100	100	100	100	100	100	100	100	95
Medication Adherence and Counseling																				
If on HAART, adherence assessed**	100	97	100	100	100	92	89	97	97	100	100	98	100	100	100	100	100	33	94	90
If on HAART, received adherence counseling**	73	100	100	100	100	92	100	97	100	100	100	76	97	100	97	100	100	28	92	90
Pelvic Exam & Pap Smear																				
Pelvic Exam	56	80	68	89	97	46	52	50	68	96	75	100	81	96	83	93	100	48	77	90
Pap Smear	56	76	60	85	97	50	93	50	68	96	75	97	76	96	83	93	96	48	78	90
Abnormal Pap Results	30	26	40	50	38	21	40	38	38	26	20	10	13	21	21	44	26	17	29	NA
Abnormal Pap f/u - Referral	100	80	100	91	100	67	100	100	100	50	100	100	100	100	50	91	86	100	90	90
Abnormal Pap f/u - Dx. Eval	67	50	0	50	91	100	40	40	60	0	67	33	100	60	100	60	33	100	54	75
Syphilis, TB, HCV Screening																				
Syphilis Screen	93	63	82	93	80	74	95	90	76	65	90	100	83	92	94	85	89	55	83	90
TB Screen Complete	54	31	63	67	85	43	83	25	48	60	90	73	73	97	73	75	95	72	65	80
TST Placed	58	47	72	72	95	49	94	39	61	69	90	95	83	97	73	75	95	72	75	90
If TST placed, read within 72 hours	93	67	87	93	90	89	88	64	80	88	100	76	88	100	100	100	100	100	87	90
HCV Screen	93	86	92	100	100	100	100	95	100	97	97	100	100	97	97	85	96	95	96	95
ETOH Counseling, if HCV+	0	0	20	33	25	0	100	0	33	100	100	100	100	100	100	100	0	50	52	50
Hepatitis B Vaccination																				
If susceptible, HBV vaccine series administered**	78	70	67	88	97	85	85	72	74	67	94	90	84	86	96	90	96	30	81	85
Anti-HBs assessed after vaccine series complete	0	13	50	19	60	32	32	5	15	8	18	68	31	5	4	0	0	20	21	NA
Lipid Screening																				
If on HAART, fasting lipid panel**	0	40	100	81	88	21	39	3	9	79	35	2	9	86	73	31	22	3	40	85
PCP & MAC Prophylaxis																				
PCP Prophylaxis	57	100	100	100	100	78	100	100	100	88	100	86	90	100	100	100	80	100	93	95
MAC Prophylaxis	0	80	NA	100	100	100	100	100	100	100	100	100	100	100	100	100	100	83	95	85

* 12 month review period

** New measure for 2009 review

† State Goal, National Goal 75%

Improved from 2006 review, at or above goal	Improved from 2006, but needs improvement, not at goal	Needs Improvement, either worse than or th same as 2006 review, not at goal	Same as or improved from 2006, at or above goal or new measure in 2009