
Ryan White Part A Clinical Performance CY2017 Atlanta Eligible Metropolitan Area

A summary of clinical chart review results designed to monitor the quality of care provided by Ryan White Part A-funded outpatient ambulatory health service subrecipients as part of the Atlanta EMA's quality management program.

Prepared for Fulton County Government's Ryan White Part A Program

by Apiari LLC

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Apiari would also like to thank the individuals at each clinic who supported the review process, answered questions, and ensured medical records were available for review.

Disclaimer

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The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS or the U.S. Government.

Table of Contents

Cover Page	1
Acknowledgments.....	2
Disclaimer	2
Table of Contents	3
Project Background.....	4
Methodology	5
Key Findings	7
Presentation of the Data	8
Demographics	9
HAB HIV Performance Measures	14
Comparisons.....	32
Discussion and Conclusion	34

Project Background

Quality management for the Ryan White program centers around two pillars: ensuring people with HIV have access to appropriate services and improving the quality of care that is provided, from both health and social service perspectives.¹ The scope of this Ryan White Part A review focused mainly on health services and agency systems. Results from this review were compared to the Fiscal Year (FY) 2017 Part A goals set by the Quality Management Committee of the Planning Council, previous chart review results (when available), and Calendar Year (CY) 2017 data in CAREWare. Results are intended to verify data, evaluate trends and performance compared to benchmarks, and guide future quality improvement. This chart review project was based on methods of quality improvement that focused on the processes and systems of the delivery of care instead of the performance of individual practitioners.

Participating Organizations	Medical Records Reviewed (n=)
AIDS Healthcare Foundation	87
AID Atlanta	87
Clarke County Board of Health	53
Clayton County Board of Health	74
Cobb County Board of Health	87
DeKalb County Board of Health	81
Emory Midtown	89
Fulton County Board of Health	89
Grady Infectious Disease Program	115
Mercy Care	85
Positive Impact Health Centers	88

¹ <https://hab.hrsa.gov/clinical-quality-management/quality-care>

Methodology

The purpose of this study was to examine the extent to which Ryan White Part A-funded Outpatient Ambulatory Health Services (OAHS) agencies are providing care that meets quality of care clinical guidelines. Indicators came from two sources:

- OAHS standards adopted and approved by the Metropolitan Atlanta HIV Health Services Planning Council (Planning Council)
- HIV/AIDS Bureau (HAB) Performance Measures from the Department of Health and Human Services, Health Resources and Services Administration (HRSA).

All OAHS subrecipients funded by Part A in 2017 participated in this study, which was completed in October, 2018. The twelve-month review period for this chart review was CY2017. All Ryan White (RW) clients in CAREWare who had at least one medical provider visit during the twelve-month review period were eligible for review.

Estimating the entire Part A population with one or more outpatient ambulatory medical visit (N=13,891), random sampling of medical records was utilized to select a sample that would provide an estimated 95% confidence interval with a 8% margin of error, particularly for the HAB Core Performance Measures. To ensure sufficient charts were reviewed for the cervical cancer indicator and prescription of antiretroviral therapy during pregnancy, non-pregnant and pregnant females were oversampled. In total, 935 individual client medical records were reviewed across the eleven agencies for documentation of quality care during the study time period, with some measures reviewing screening and care from initial diagnosis.

The reviewers collected data utilizing a Microsoft Access® database developed for this project. All data elements were de-identified as they were abstracted, using encrypted identification codes (eURNs) created through CAREWare.

Both overall Part A and agency-specific rates (weighted averages) were calculated for each measure, and results are presented in both graphical and tabular form in this report. The inverse probability of selection was utilized as the sampling weight in the analysis to account for the disproportionate sampling of males, non-pregnant and pregnant females. The weighted analysis accounts for the actual distribution of males, non-pregnant and pregnant females in each agency's census population. This allows the reviewers to provide a point estimate (rate/average) for the entire population (with at least one medical provider visit during CY 2017) for each of the measures instead of only for the sample of charts that were reviewed.

A “stoplight” green/yellow/red methodology was used to categorize metrics. Green is used to highlight metrics where the result is at or above the goal EMA established for CY 2017. Yellow has been used when the result is within ten percent of the goal. Red indicates that the overall result is outside of ten percent.²

CAREWare Measure Name	Indicator	EMA Goal	EMA Overall Result
Core 01	Viral Load Suppression	83%	83%
Core 02	Prescription of Antiretroviral Therapy	95%	98%
Core 03	Medical Visit Frequency	83%	76%
Core 04	Gap in Medical Visits	10%	11%
Core 05	PCP Prophylaxis	95%	96%
HAB 07a	Cervical Cancer Screening	50%	72%
HAB 09	Hepatitis C Screening	95%	92%
HAB 10	HIV Risk Counseling	85%	83%
HAB 12	Oral Exam	75%	34%
HAB 13	Syphilis Screening	90%	79%
HAB 15	Chlamydia Screening	100%	77%
HAB 17	Hepatitis B Screening	95%	98%
HAB 23	Substance Use Screening	80%	100%
HAB 14	TB Screening	100%	95%
HAB 21	Mental Health Screening	80%	90%
HAB 06	Adherence Assessment/Counseling	-	83%
HAB 01	Medical Visit 12 month Retention	-	85%
HAB 05	ARV Therapy for Pregnant Women	-	100%

² A twenty percent threshold has been used for the Gap measure.

Key Findings

All agencies had strengths and weaknesses in their adherence to the Ryan White Part A care guidelines. Compliance was multi-factorial, but several themes were identified as elements that either strengthened or challenged the ability of providers and clinicians to provide and document care that meets standards. In aggregate, clinics have met or exceeded the 2017 EMA goals in three of five HAB Core Measures.

Medical Provider Visits

The core measures that do not meet EMA goals center around continuity of care over both 12- and 24-month periods. In most clinics, surveyors noticed multiple documented efforts to reach out to clients who had missed appointments to ensure continuity of medications and stable care over time. Clients who missed appointments were less likely to have all screenings completed according to guidelines.

Resource Utilization

The most consistent opportunities for improvement across clinics pertain to oral exams. Almost all clinics were referring clients with oral pain or dental problems to a dentist; however, the surveyors identified a lack of referrals for routine or preventive dental visits. While some agencies are able to provide and track on-site dental care, several agencies indicated that their clients with dental problems have a difficult time with access to care and voiced concern about overloading available resources for preventive dental care. Surveyors also identified that few clinics were documenting patient self-report of dental care.

Provider judgment

Annual syphilis and chlamydia screening are also below the goals. Some of the defect rate was attributable to provider judgment. The surveyors identified multiple cases where providers did not order these labs for clients who they had documented as celibate or in a stable, monogamous relationship over time.

Systems and visibility

Most agencies have systems in place to readily identify defects and compliance to guidelines, but no system had complete visibility of all measures. Historically, these systems have taken the form of a summary care sheet placed in the front of the medical record and updated with dates of most recent appointments, labs, and screenings. As HAB measures change, the sheets become outdated. Surveyors also identified some systems with multiple versions of the summary document that had not been fully deployed.

Electronic health records (EHRs) offer potential to increase data visibility, and many can be adapted to reflect changes in regulation. In several agencies, the EHR conversion process has created additional challenges. Historical records can become difficult to access, requiring manual review of scanned records or access into a second system. Agencies also identified weaknesses in the configuration or integration of their EHR systems that make it difficult to obtain necessary information. The surveyors noted broad opportunities to optimize EHR utilization to improve the visibility of data.

Standardized documentation approach and provider templates

When clinicians are able to document a piece of information in multiple places in the medical record, surveyors found that the metric was more likely to be missed over time. Clinics that had a single source of truth for documentation of a metric could more consistently ensure compliance. Several agencies also utilize provider templates to guide routine medical visits. The quality of the template affects the quality of documentation. When templates consistently included fields for documentation against the guidelines, surveyors found improved adherence across all metrics.

Presentation of the Data

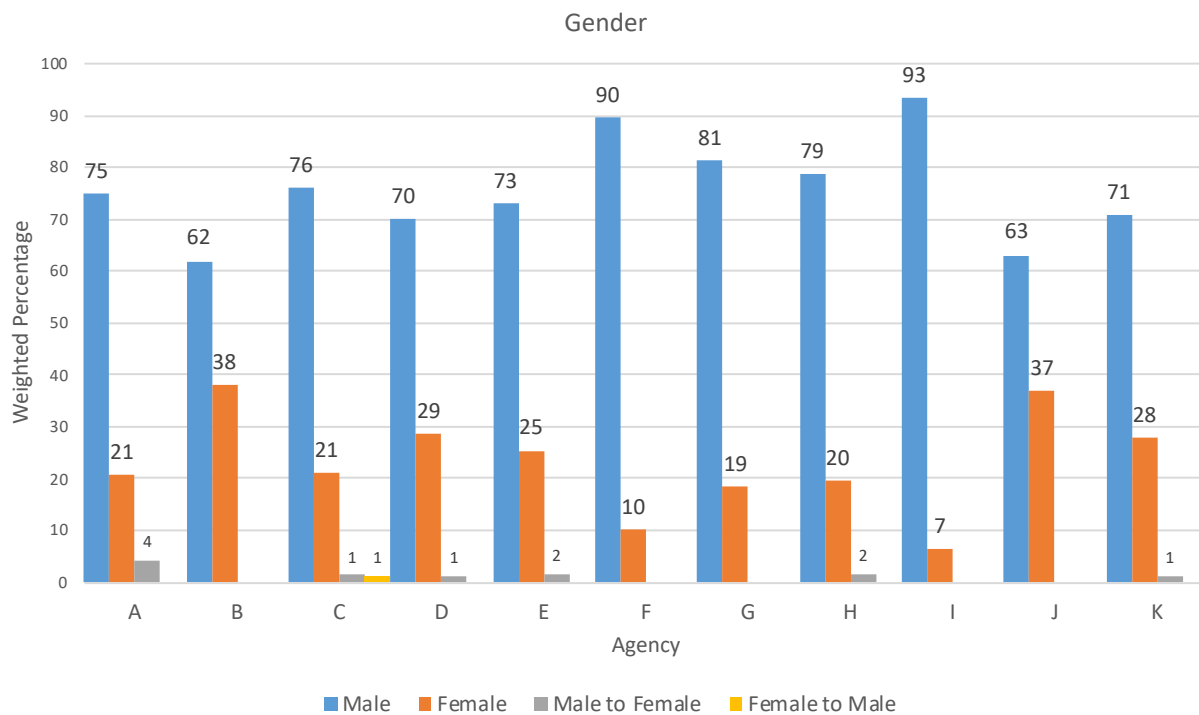
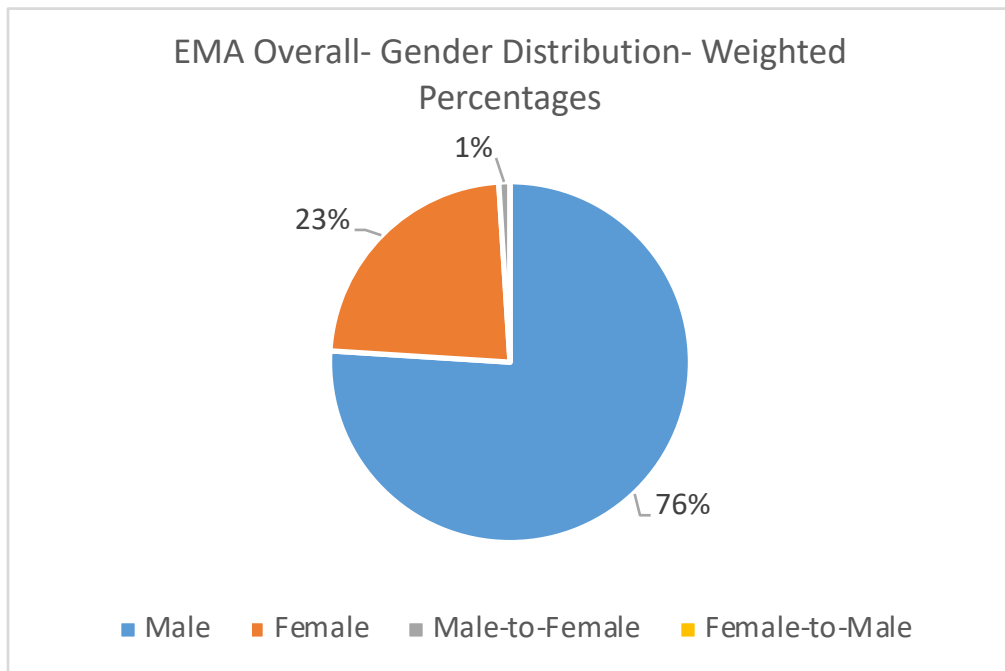
Specific agency data has been blinded by assigning each location a random letter. Demographic data were collected for each reviewed medical record and are reported as both raw and weighted data. In each graph where a “Total” value is given, the value is the number of clients reviewed.

The description of the measure, and the elements included in both the numerator and the denominator are defined in each section.

Demographics

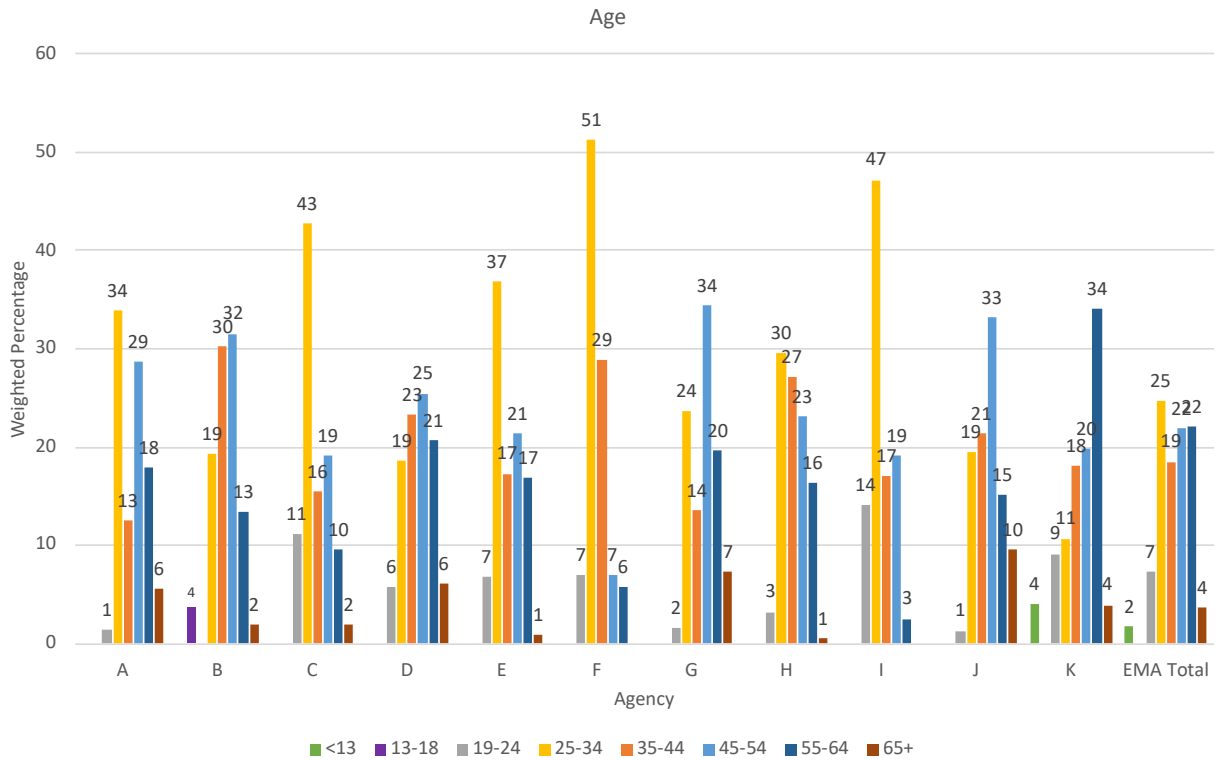
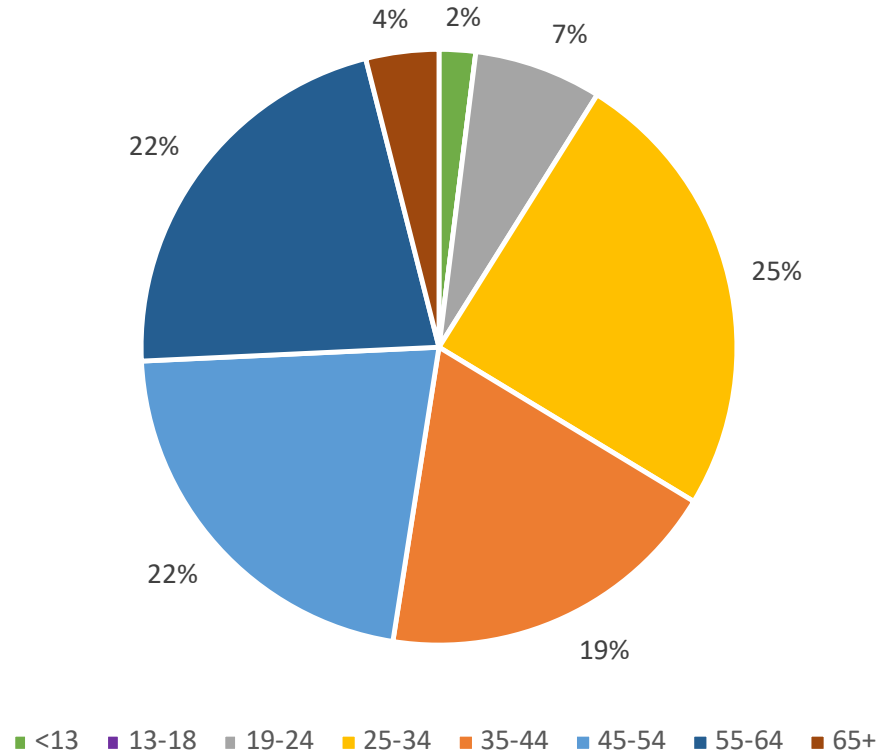
Gender, race/ethnicity, and age were collected from all charts reviewed in the sample. Demographic charts show the weighted percentages by agency.

Weighted Percentage/ Gender (N=935)



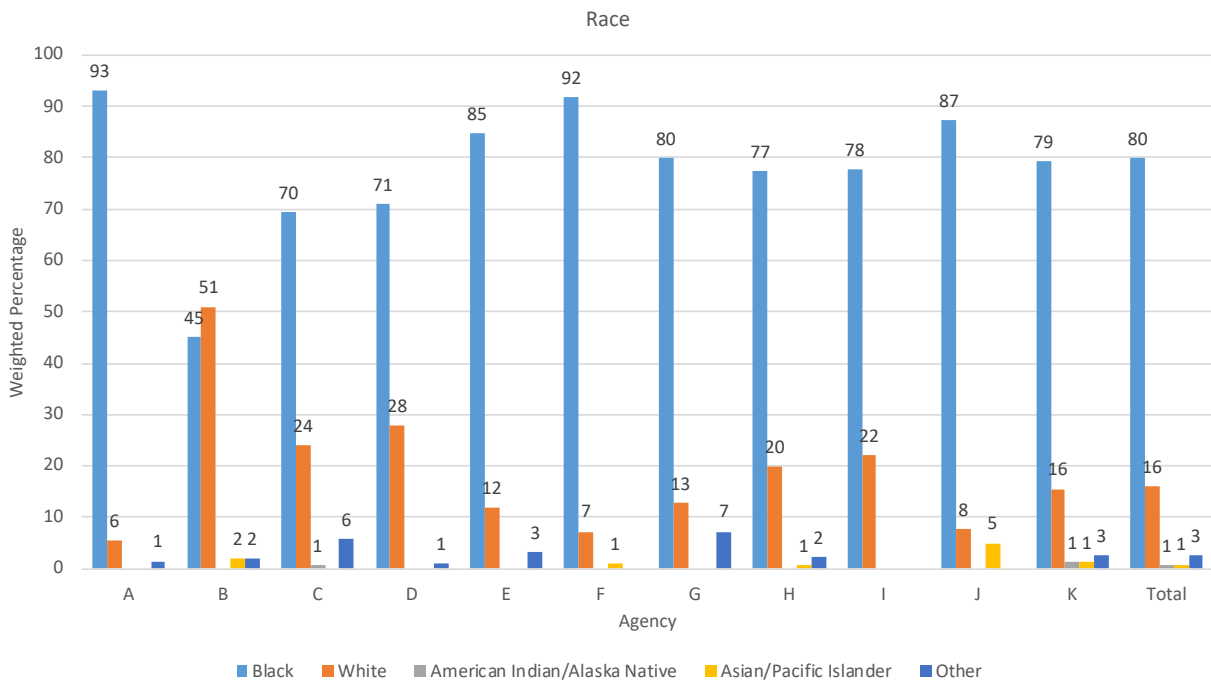
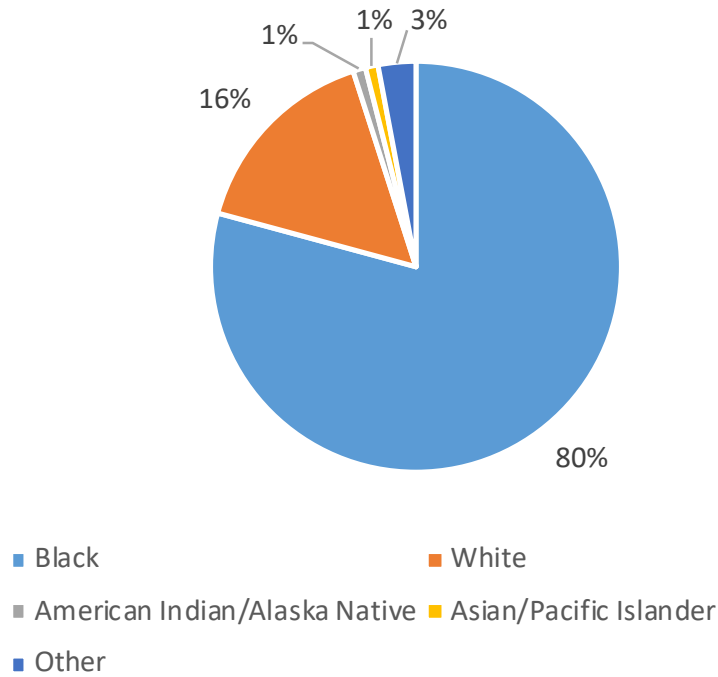
Client Age During Review Period (N=935)

EMA Overall- Age Distribution- Weighted Percentages



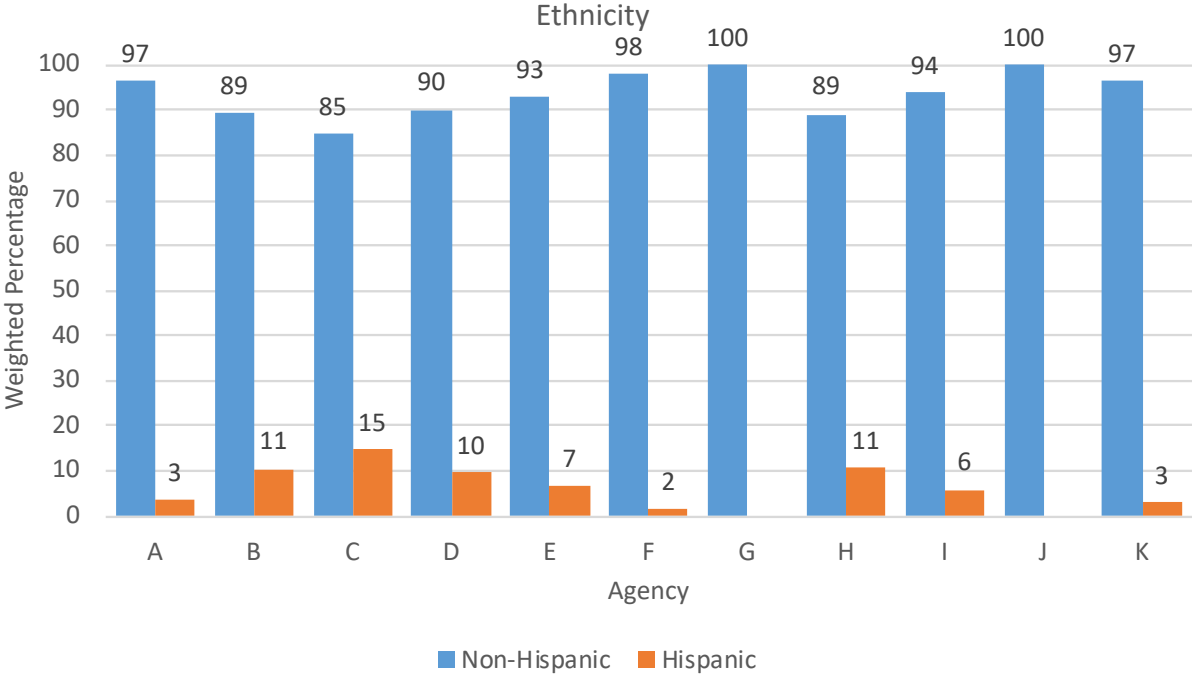
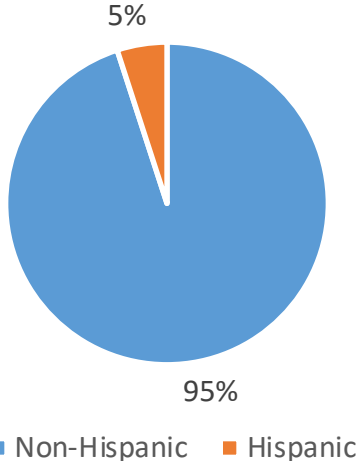
Weighted Percentage/ Race (N=935)

EMA Overall- Race Distribution- Weighted Percentages



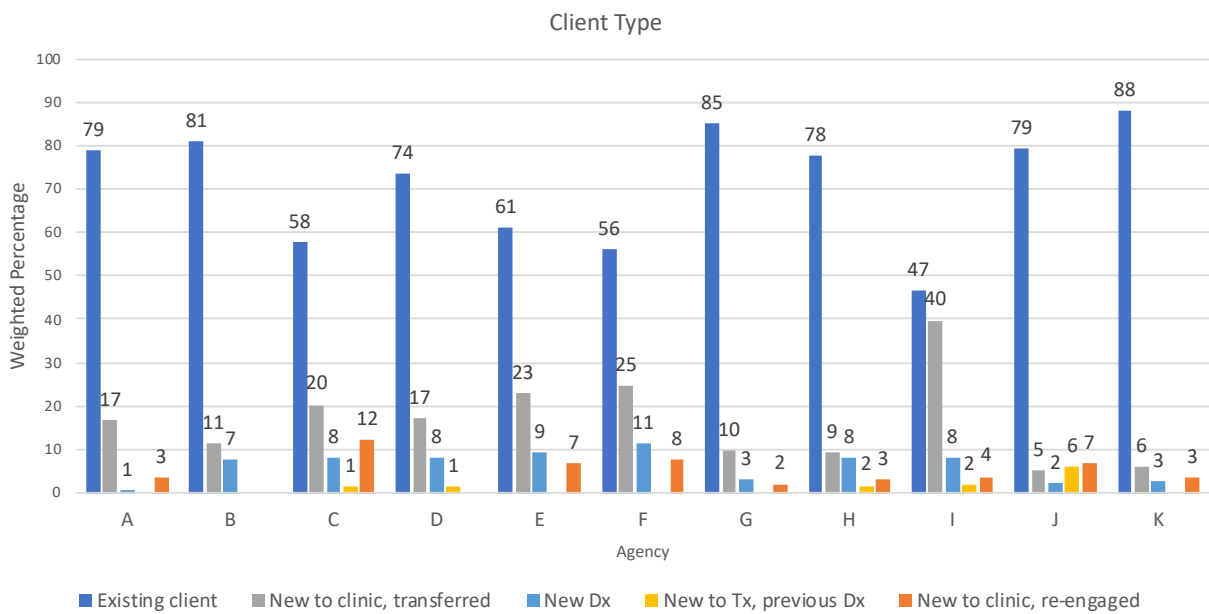
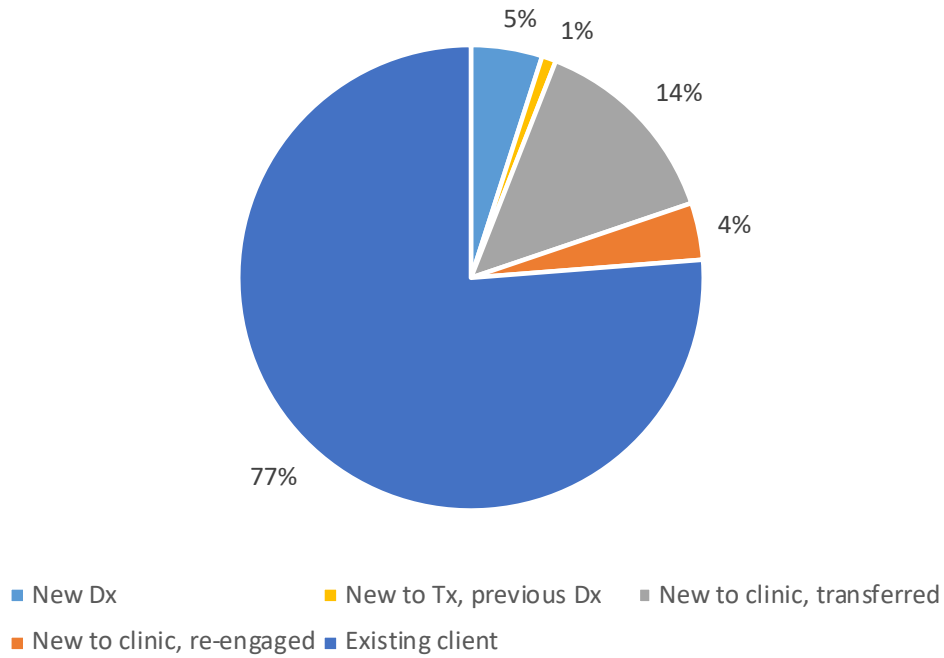
Weighted Percent/ Ethnicity (N=922)

EMA Overall- Ethnicity- Weighted Percentages



Client Type (N=935)

EMA Overall- Client Type Distribution- Weighted Percentages



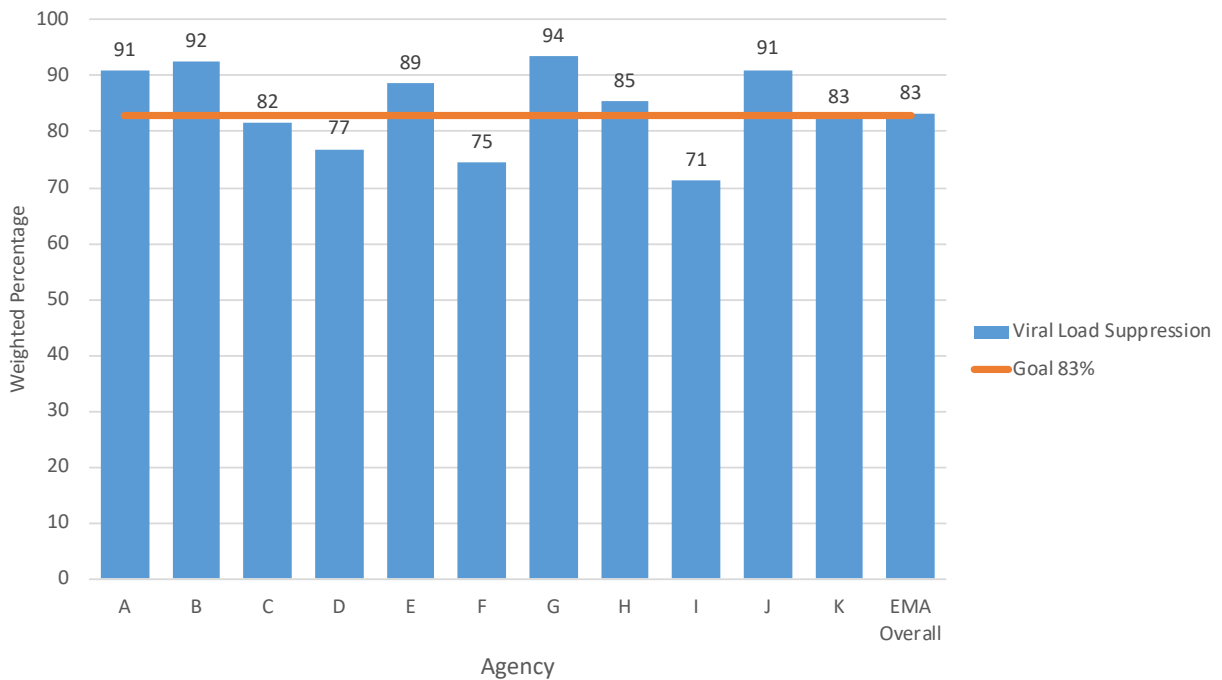
HAB HIV Performance Measures

Performance Measure: Core 1 - Viral Load Suppression

Description: Percentage of patients, regardless of age, with a diagnosis of HIV with a HIV viral load less than 200 copies/ml at last HIV viral load test during the measurement year

Numerator: Number of patients in the denominator with a HIV viral load less than 200 copies/ml at last HIV viral load test during the measurement year

Denominator: Number of patients, regardless of age, with a diagnosis of HIV with at least one medical visit in the measurement year (N=921)

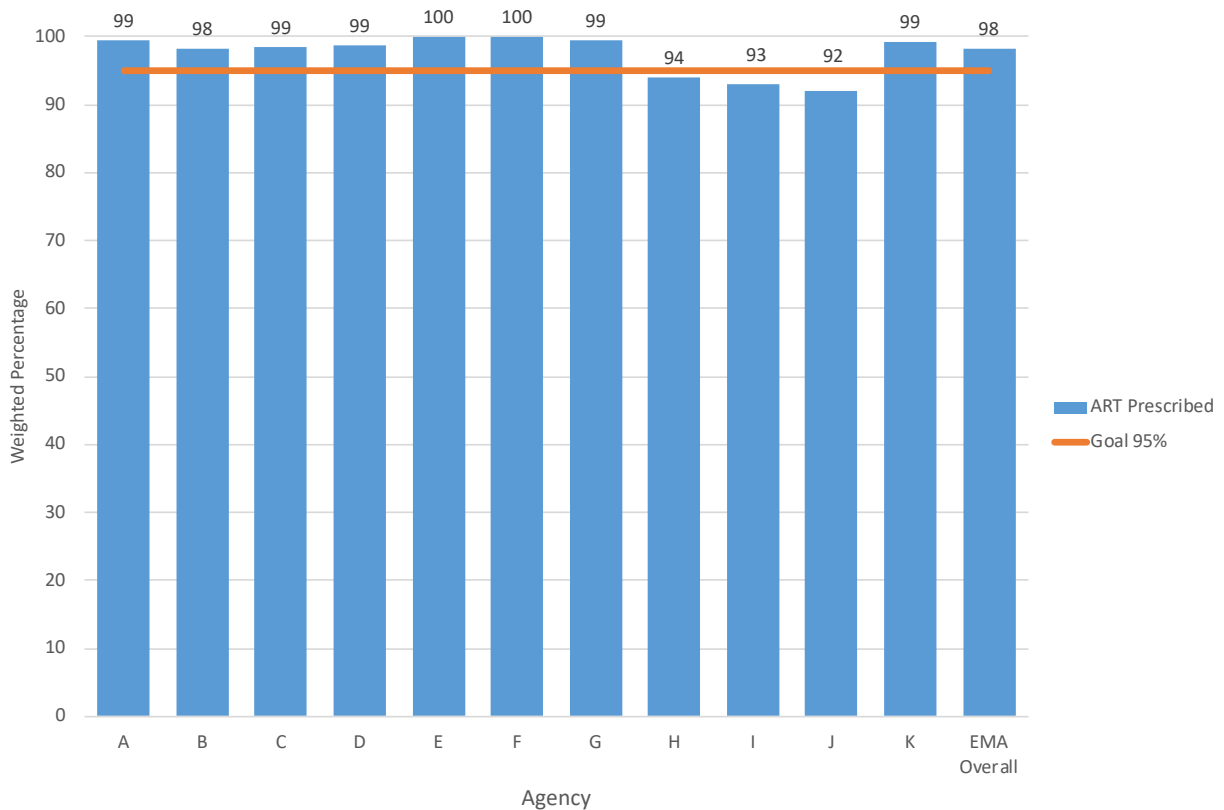


Performance Measure: Core 2 - Prescription of Antiretroviral Therapy

Description: Percentage of patients, regardless of age, with a diagnosis of HIV prescribed antiretroviral therapy (ART) for the treatment of HIV infection during the measurement year (HIV antiretroviral therapy is described as the prescription of at least one U.S. Food and Drug Administration approve HIV antiretroviral medication.)

Numerator: Number of patients from the denominator prescribed HIV antiretroviral therapy during the measurement year

Denominator: Number of patients, regardless of age, with a diagnosis of HIV with at least one medical visit in the measurement year (N=935)

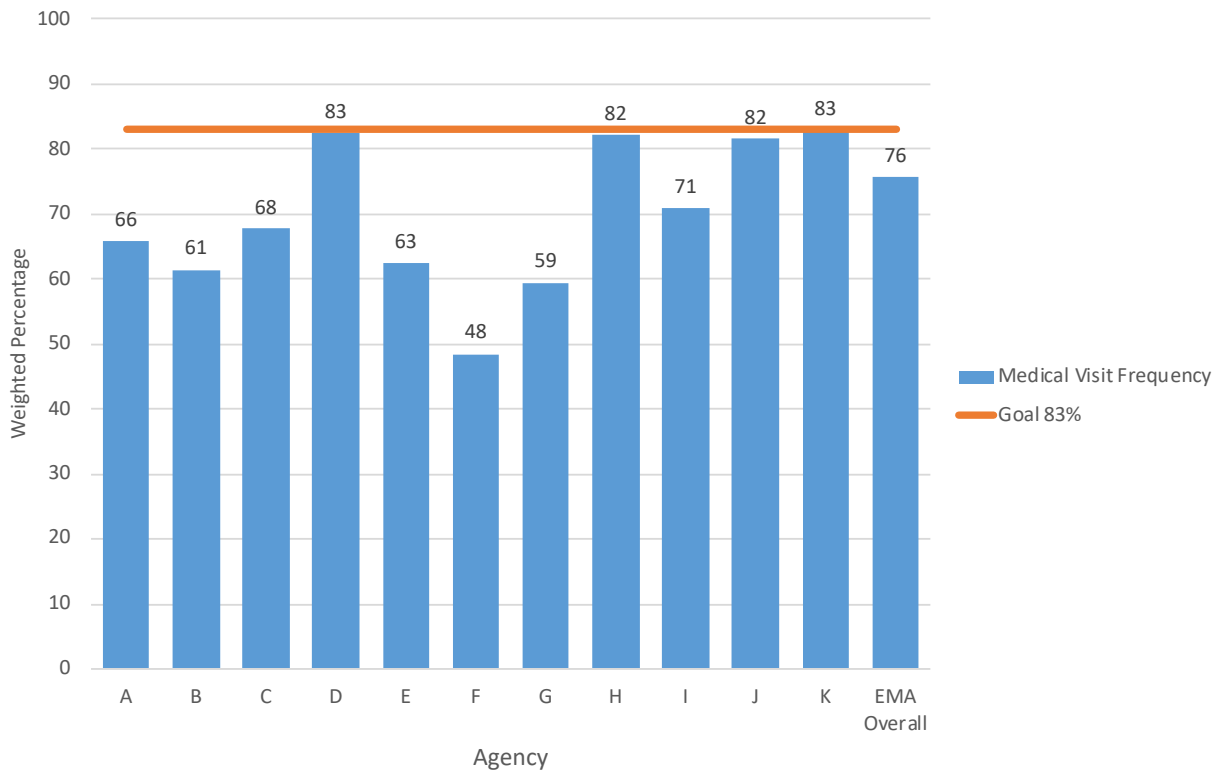


Performance Measure: Core 3 - HIV Medical Visit Frequency

Description: Percentage of patients, regardless of age, with a diagnosis of HIV who had at least one medical visit in each 6-month period of the 24-month measurement period with a minimum of 60 days between medical visits

Numerator: Number of patients in the denominator who had at least one medical visit in each 6-month period of the 24-month measurement period with a minimum of 60 days between first medical visit in the prior 6-month period and the last medical visit in the subsequent 6-month period

Denominator: Number of patients, regardless of age, with a diagnosis of HIV with at least one medical visit in the first 6 months of the 24-month measurement period (N=574)

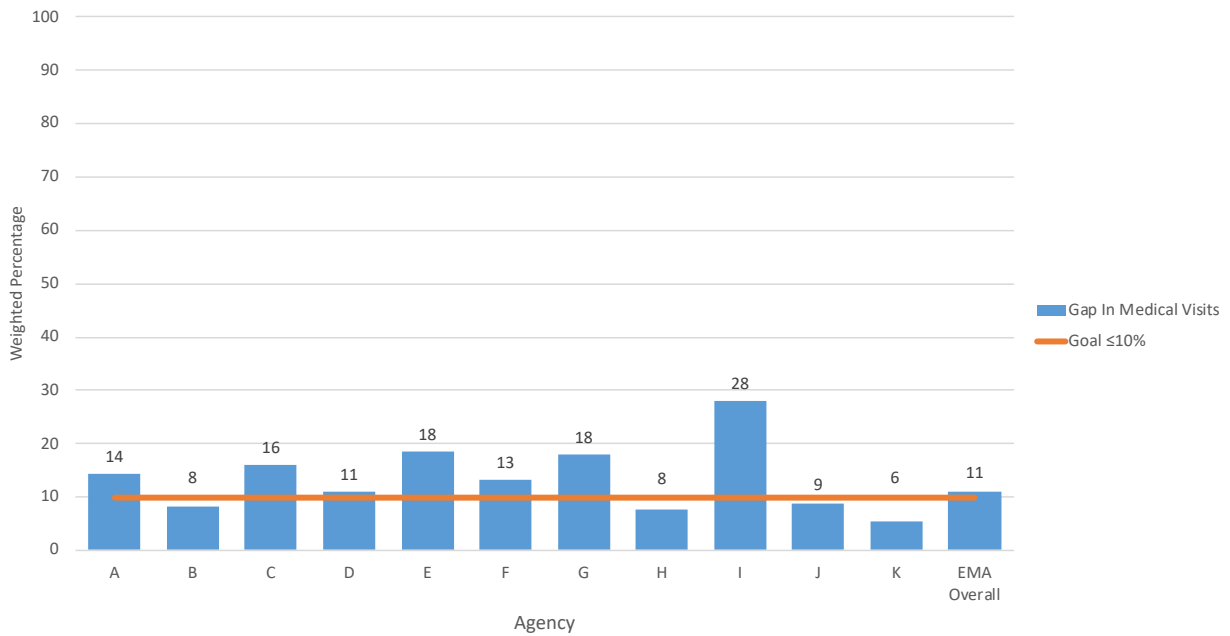


Performance Measure: Core 4 - Gap in HIV Medical Visits

Description: Percentage of patients, regardless of age, with a diagnosis of HIV who did not have a medical visit in the last 6 months of the measurement year

Numerator: Number of patients in the denominator who did not have a medical visit in the last 6 months of the measurement year

Denominator: Number of patients, regardless of age, with a diagnosis of HIV who had at least one medical visit in the first 6 months of the measurement year (N=822)



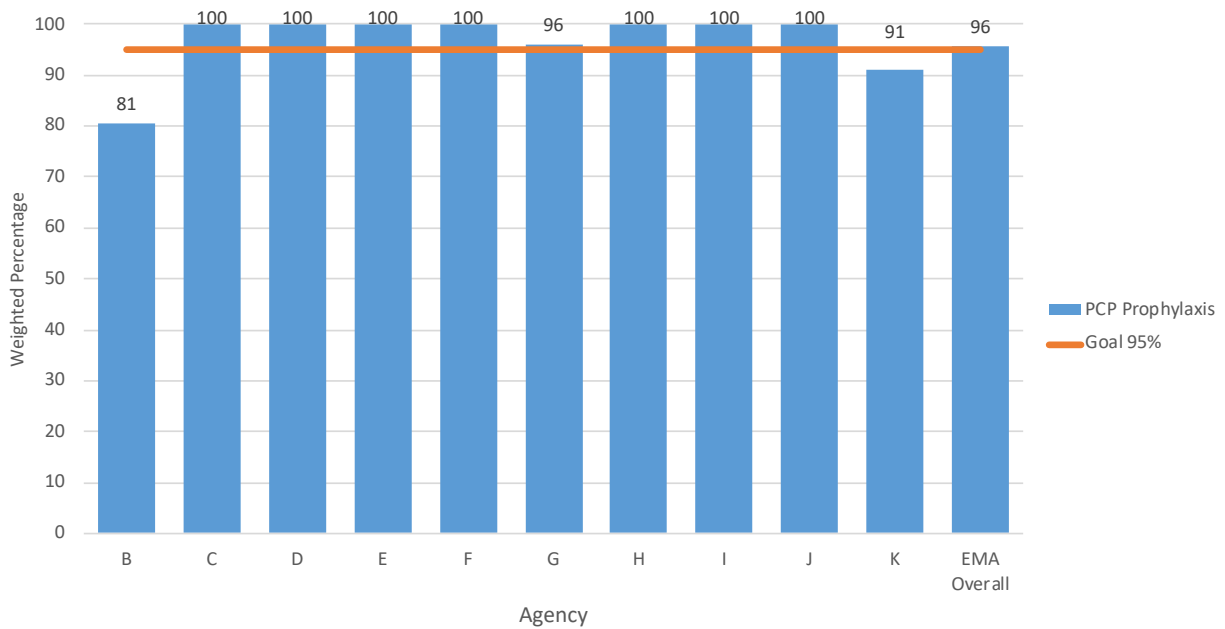
Performance Measure: Core 5 - Prescription of PCP Prophylaxis³

Description: Percentage of clients with HIV infection and a CD4 T-cell count below 200 cells/mm³ who were prescribed PCP prophylaxis

Numerator: Number of HIV-infected clients with CD4 T-cell counts below 200 cells/mm³ who were prescribed PCP prophylaxis

Denominator: Number of HIV-infected clients who:

- had a medical visit with a provider with prescribing privileges, i.e. MD, PA, NP at least once in the measurement year, and
- had a CD4 T-cell count below 200 cells/mm³ (N=64)



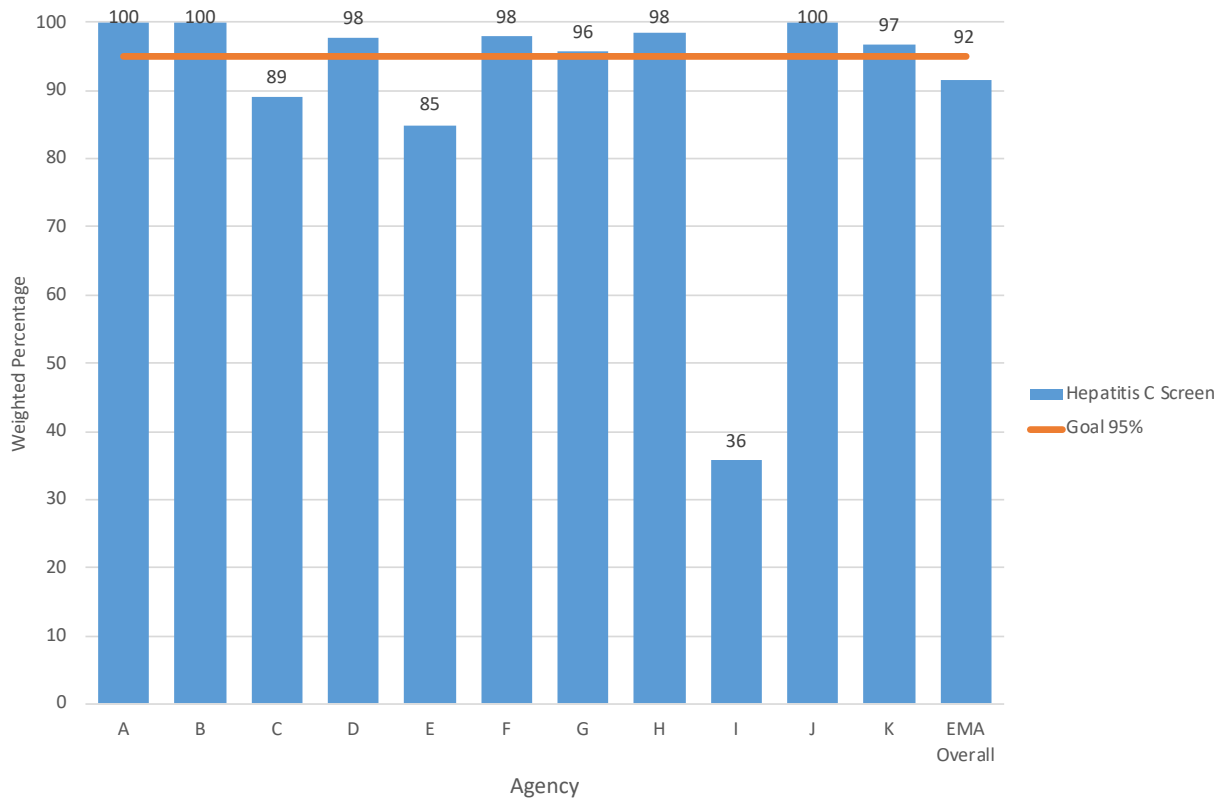
³ Agency A did not have any clients requiring PCP prophylaxis within the reviewed sample.

Performance Measure: Hepatitis C Screening

Description: Percentage of patients for whom Hepatitis C (HCV) screening was performed at least once since the diagnosis of HIV

Numerator: Number of patients with a diagnosis of HIV who have documented HCV status in chart

Denominator: Number of patients with a diagnosis of HIV who had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=935)

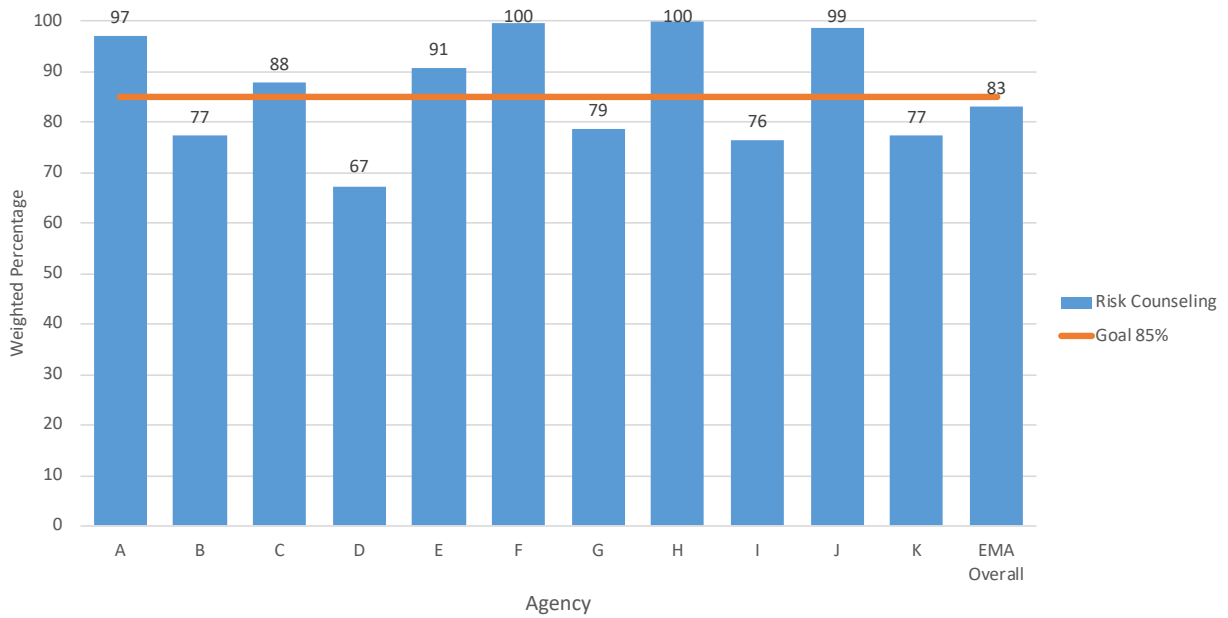


Performance Measure: HIV Risk Counseling

Description:Percentage of patients with a diagnosis of HIV who received HIV risk counseling in the measurement year

Numerator:Number of patients with a diagnosis of HIV, as part of their primary care, who received HIV risk counseling

Denominator:Number of patients with a diagnosis of HIV who had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=935)

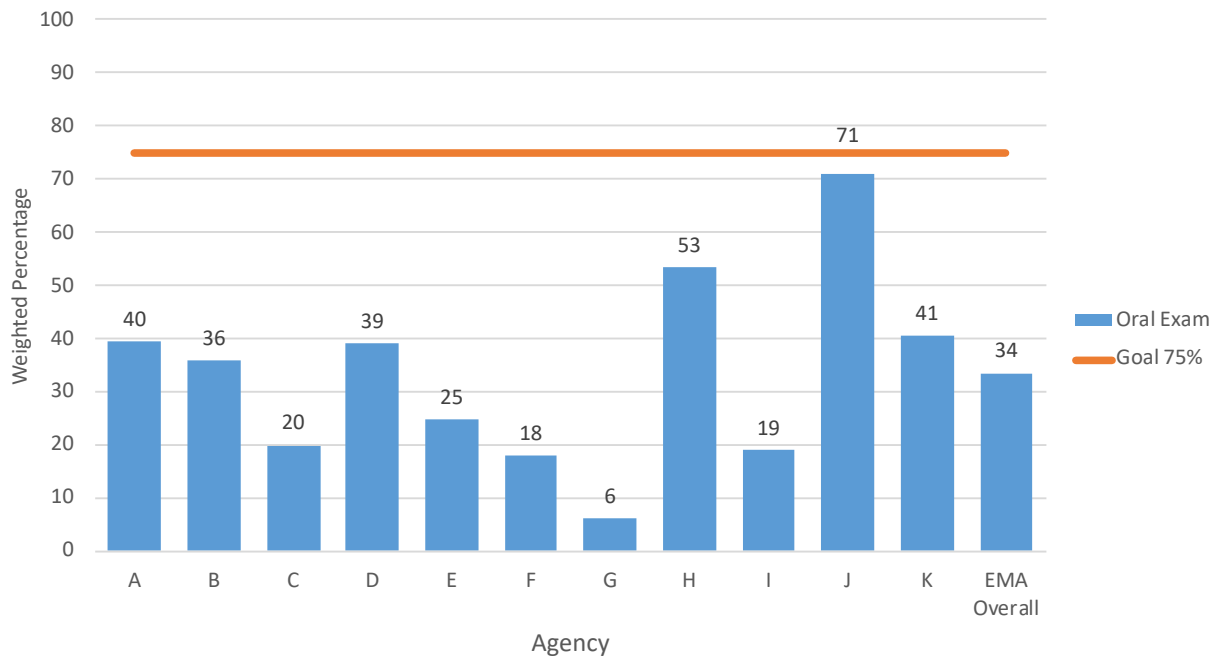


Performance Measure: Oral Exam

Description: Percent of patients with a diagnosis of HIV who received an oral exam by a dentist at least once during the measurement year

Numerator: Number of patients with a diagnosis of HIV who had an oral exam by a dentist during the measurement year, based on patient self-report or other documentation

Denominator: Number of patients with a diagnosis of HIV who had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=935)



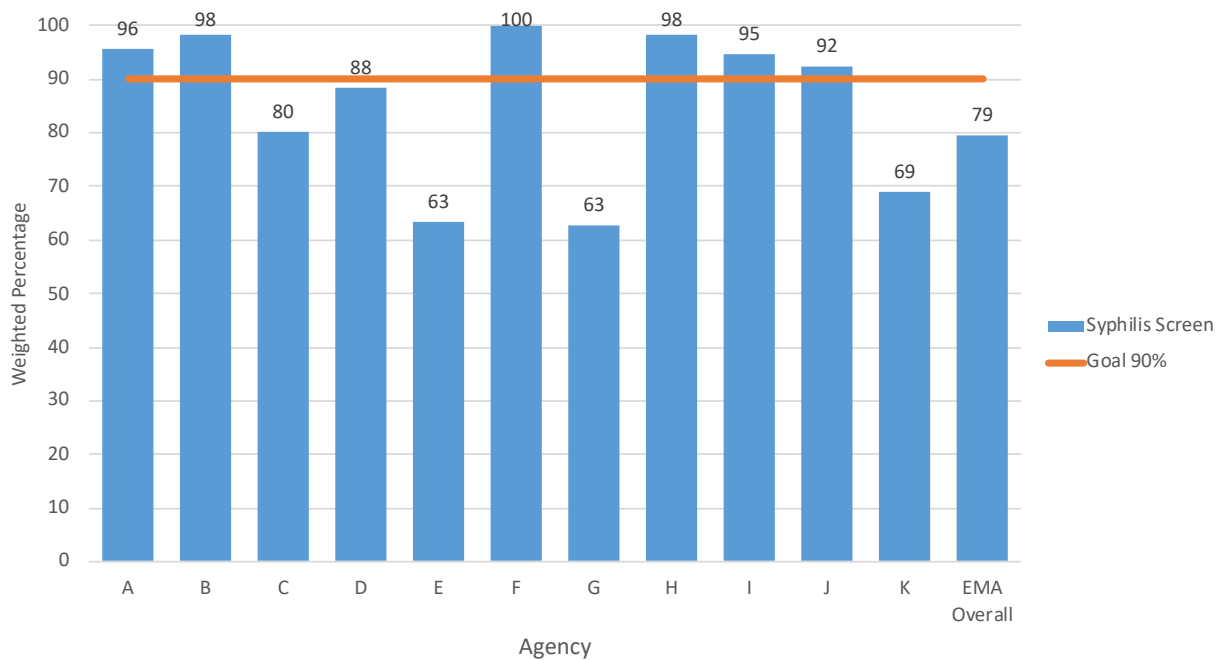
Performance Measure: Syphilis Screening

Description: Percentage of adult patients with a diagnosis of HIV who had a test for syphilis performed within the measurement year

Numerator: Number of patients with a diagnosis of HIV who had a serologic test for syphilis performed at least once during the measurement year

Denominator: Number of patients with a diagnosis of HIV who:

- Were >18 years old in the measurement year or had a history of sexual activity < 18 years, and
- Had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=932)



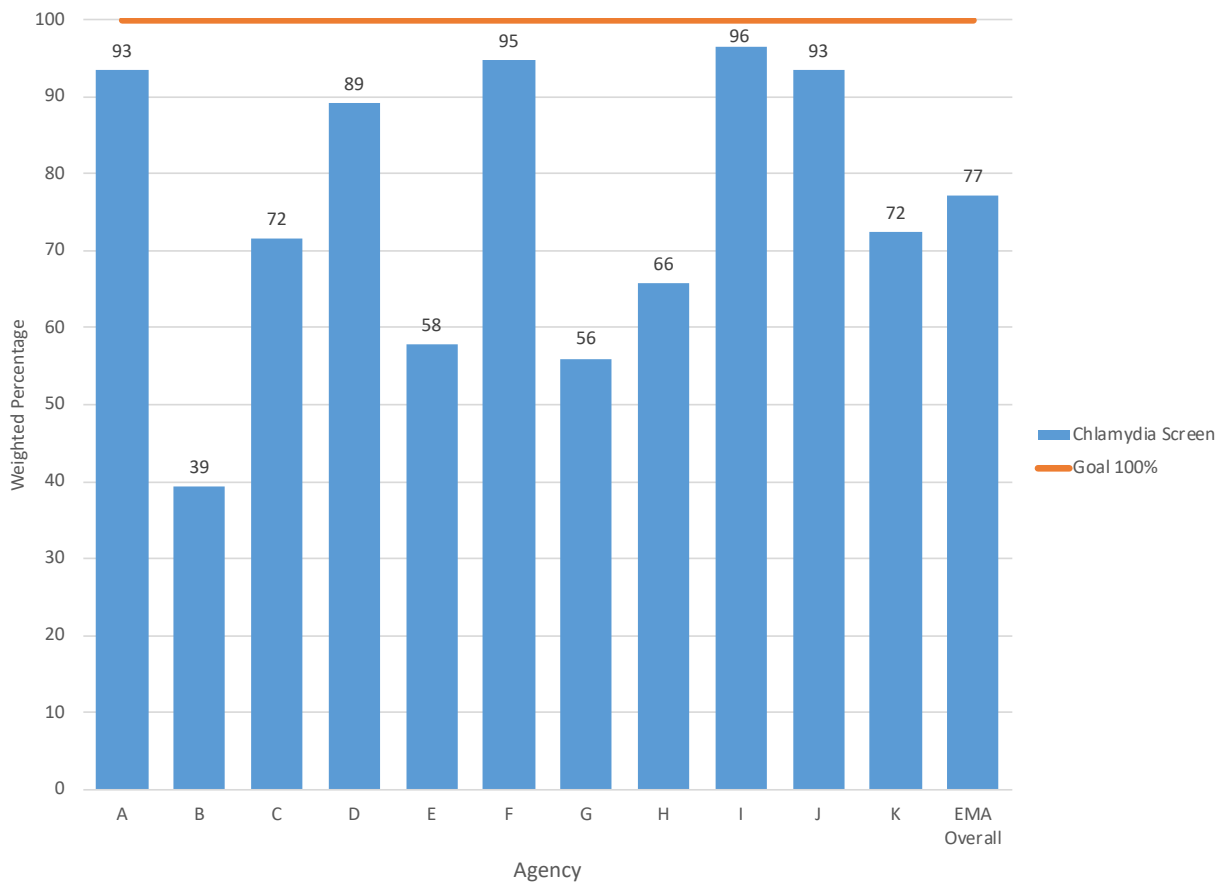
Performance Measure: Chlamydia Screening⁴

Description:Percentage of patients with a diagnosis of HIV at risk for sexually transmitted infections (STI) who had a test for chlamydia within the measurement year

Numerator:Number of patients with a diagnosis of HIV who had a test for chlamydia

Denominator:Number of patients with a diagnosis of HIV who:

- Were either: a) newly enrolled in care; b) sexually active; or c) had a STI within the last 12 months, and
- Had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=932)



⁴ Gonorrhea screening statistics are inferred to be closely correlated with chlamydia screening based on observed practice and literature:

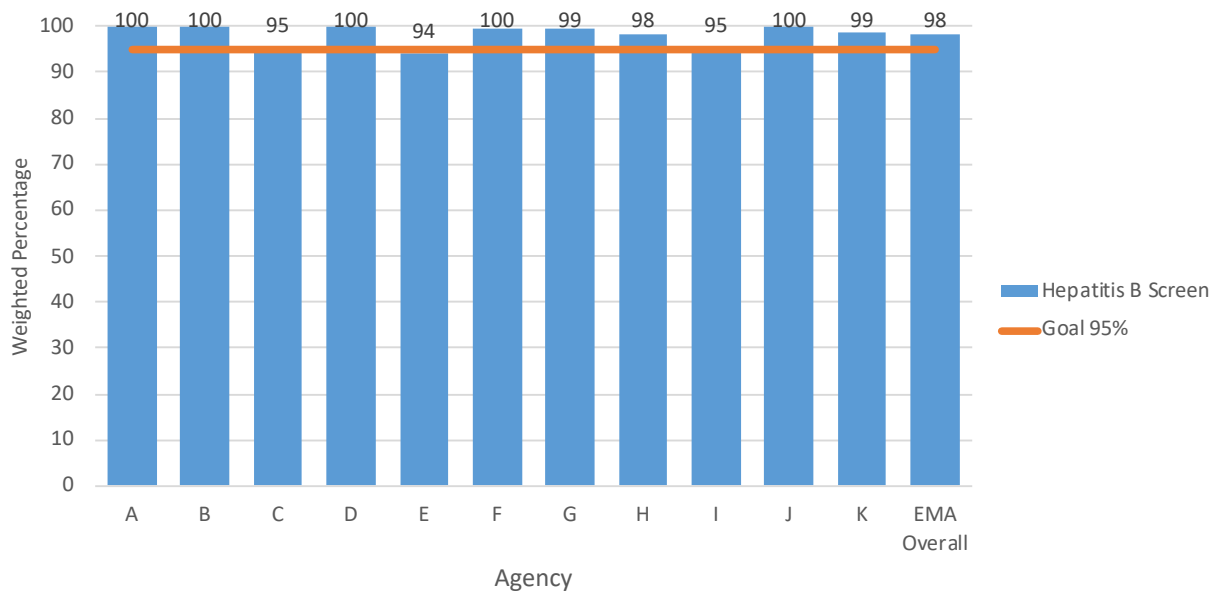
- Berry, S. A., Ghanem, K. G., Mathews, W. C., Korthuis, P. T., Yehia, B. R., Agwu, A. L., ... & HIV Research Network. (2015). Gonorrhea and chlamydia testing increasing but still lagging in HIV clinics in the United States. *Journal of acquired immune deficiency syndromes (1999)*, 70(3), 275.
- Burchell, A. N., Grewal, R., Allen, V. G., Gardner, S. L., Moravan, V., Bayoumi, A. M., ... & Raboud, J. (2014). Modest rise in chlamydia and gonorrhoea testing did not increase case detection in a clinical HIV cohort in Ontario, Canada. *Sex Transm Infect*, 90(8), 608-614.

Performance Measure: Hepatitis B Screening

Description: Percentage of patients, regardless of age, for whom Hepatitis B screening was performed at least once since the diagnosis of HIV/AIDS or for whom there is documented infection or immunity

Numerator: Number of patients for whom Hepatitis B screening was performed at least once since the diagnosis of HIV or for whom there is documented infection or immunity

Denominator: Number of patients, regardless of age, with a diagnosis of HIV and who had at least two medical visits during the measurement year, with at least 60 days in between each visit (N=922)



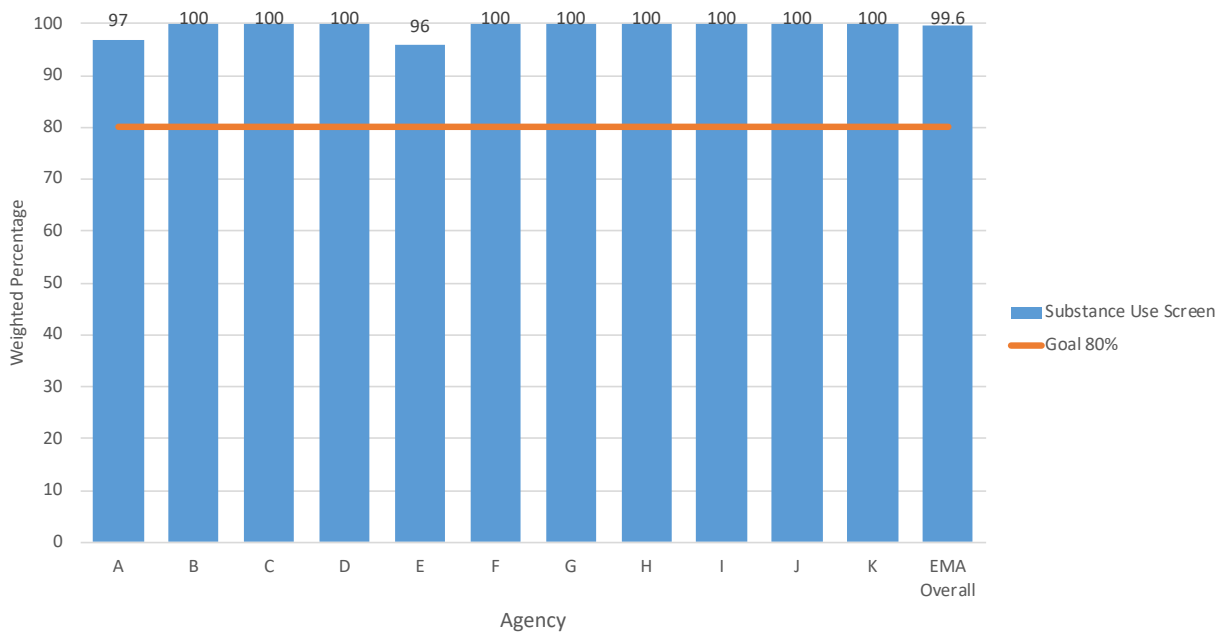
Performance Measure: Substance Abuse Screening

Description:Percentage of new patients with a diagnosis of HIV who have been screened for substance use (alcohol & drugs) in the measurement year.

Numerator: Number of new patients with a diagnosis of HIV who were screened for substance use within the measurement year

Denominator:Number of patients with a diagnosis of HIV who:

- Were new during the measurement year, and
- Had a medical visit with a medical provider with prescribing privileges at least once in the measurement year (N=249)

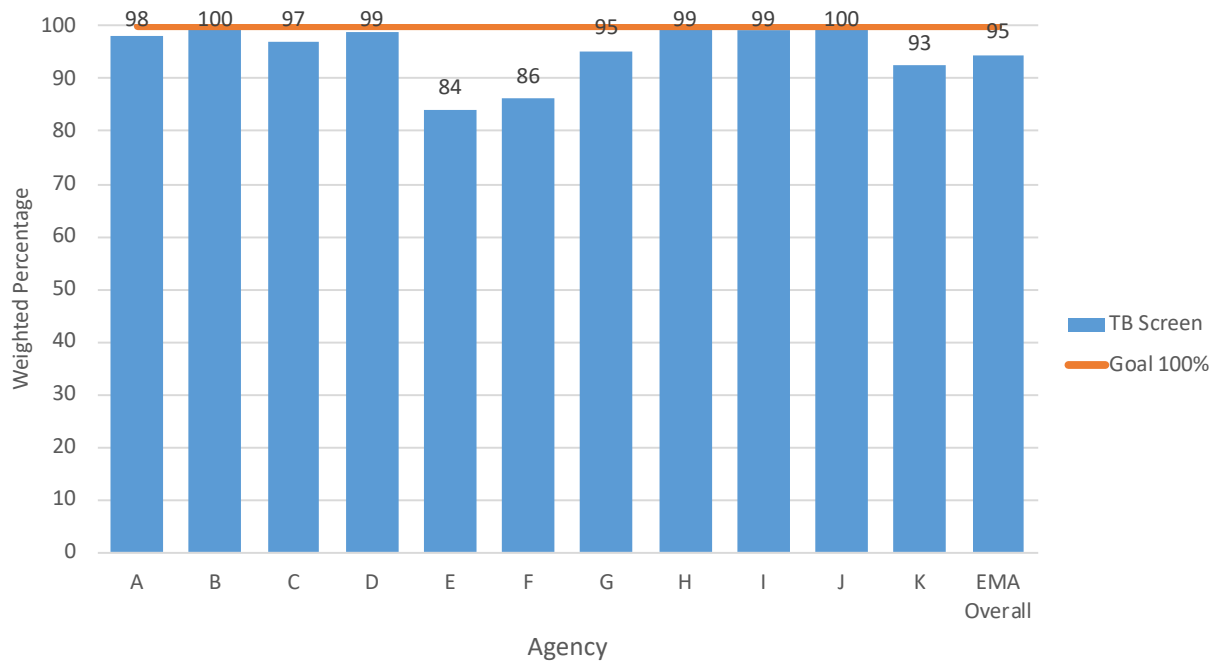


Performance Measure: Tuberculosis Screening

Description: Percentage of patients aged 3 months and older with a diagnosis of HIV/AIDS, for whom there was documentation that a tuberculosis (TB) screening test was performed and results interpreted (for tuberculin skin tests) at least once since the diagnosis of HIV infection

Numerator: Patients for whom there was documentation that a tuberculosis (TB) screening test was performed and results interpreted at least once since the diagnosis of HIV infection

Denominator: All patients aged 3 months and older with a diagnosis of HIV/AIDS, who had at least two visits during the measurement year, with at least 90 days in between each visit (N=926)



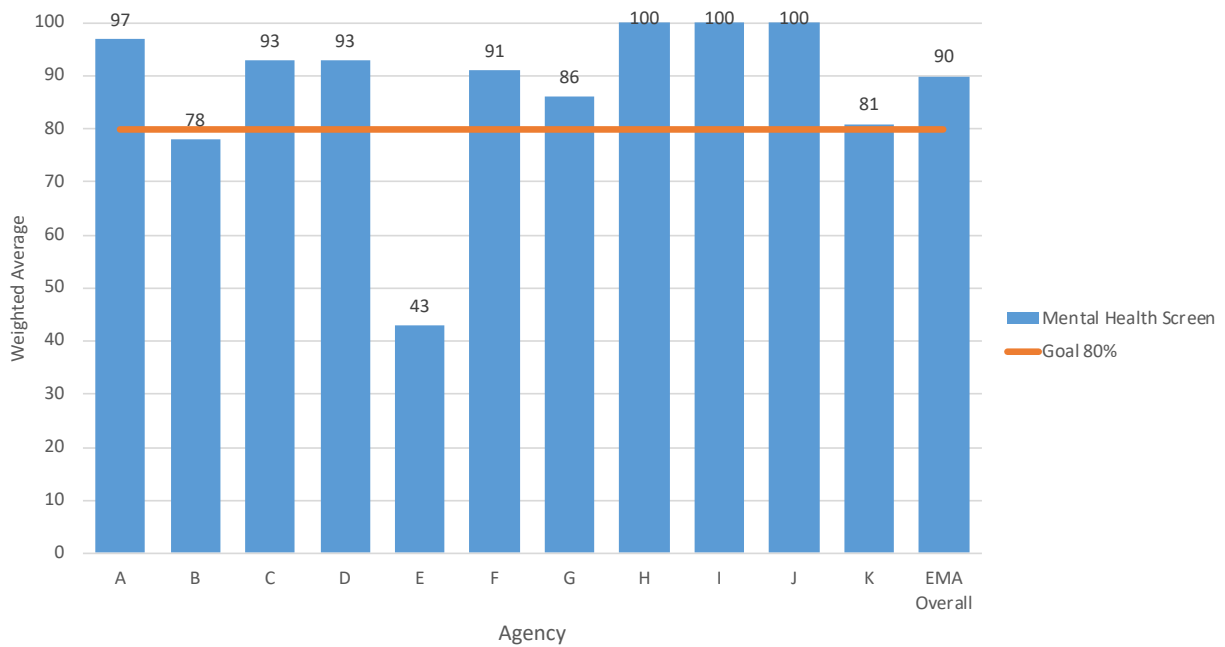
Performance Measure: Mental Health Screen

Description: Percentage of clients with HIV infection who have had a mental health screening.

Numerator: Number of HIV-infected clients who received a mental health screening

Denominator: Number of HIV-infected clients who:

- Were new during the measurement year, and
- Had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=240)



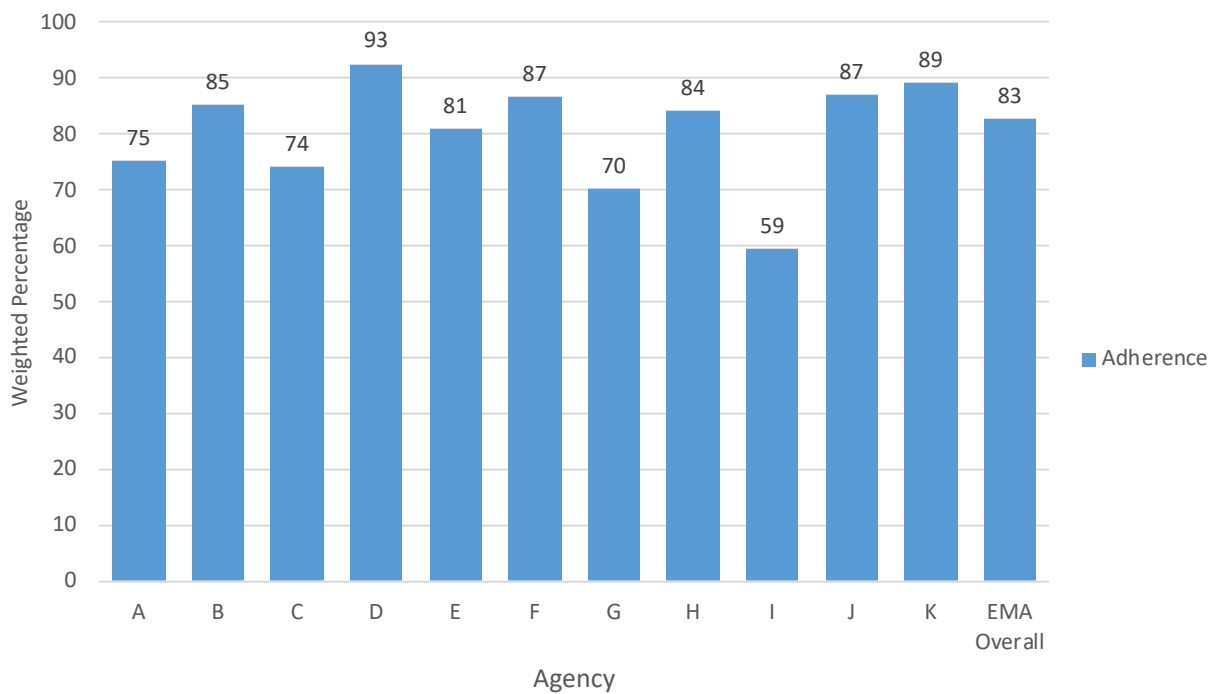
Performance Measure: Adherence Counseling

Description: Percentage of clients with HIV infection on ARVs who were assessed and counseled for adherence two or more times in the measurement year

Numerator: Number of HIV-infected clients, as part of their primary care, who were assessed and counseled for adherence two or more times at least three months apart

Denominator: Number of HIV-infected clients on ARV therapy who had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=811)

Note: There is no current EMA goal established for this metric.



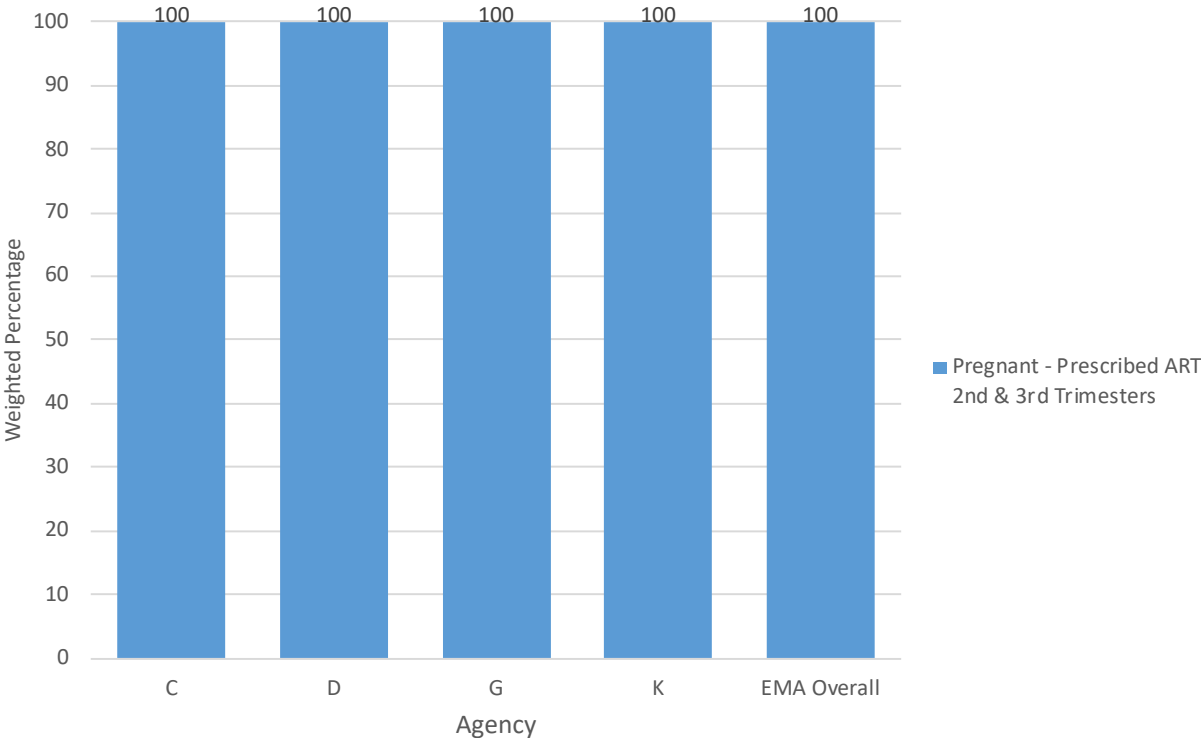
Performance Measure: Pregnant - Prescribed ART 2nd and 3rd Trimester

Description: Percentage of pregnant women with HIV who are prescribed antiretroviral therapy

Numerator: Number of HIV-infected pregnant women who were prescribed antiretroviral therapy during the 2nd and 3rd trimester

Denominator: Number of HIV-infected pregnant women who had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=25)

Note: There is no current EMA goal established for this metric



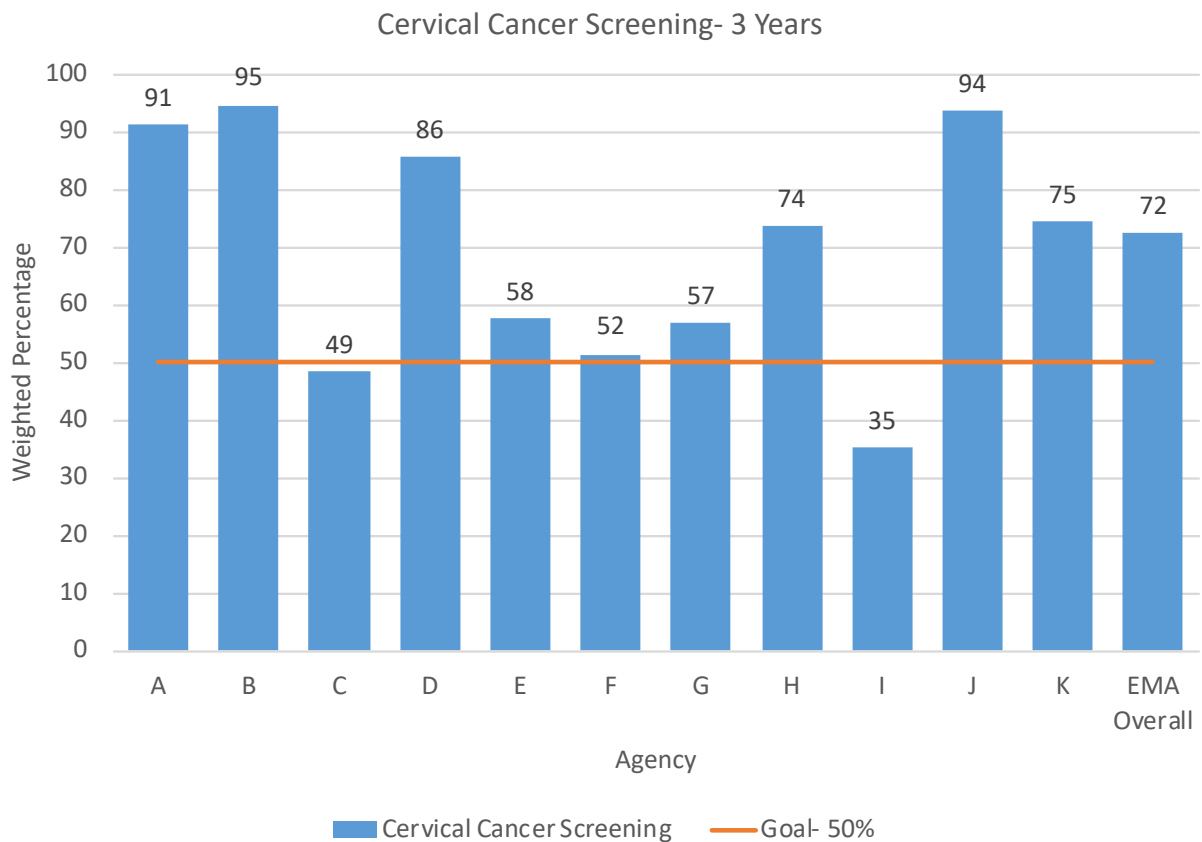
Performance Measure: Cervical Cancer Screen

Description: Percentage of female patients with a diagnosis of HIV who were screened for cervical cancer in the last three years

Numerator: Number of patients in the denominator who were screened for cervical cancer in the last three years

Denominator: Number of female patients with a diagnosis of HIV who:

- Had at least one medical visit with provider with prescribing privileges and
- Were > 21 years old in the measurement year (N=372)



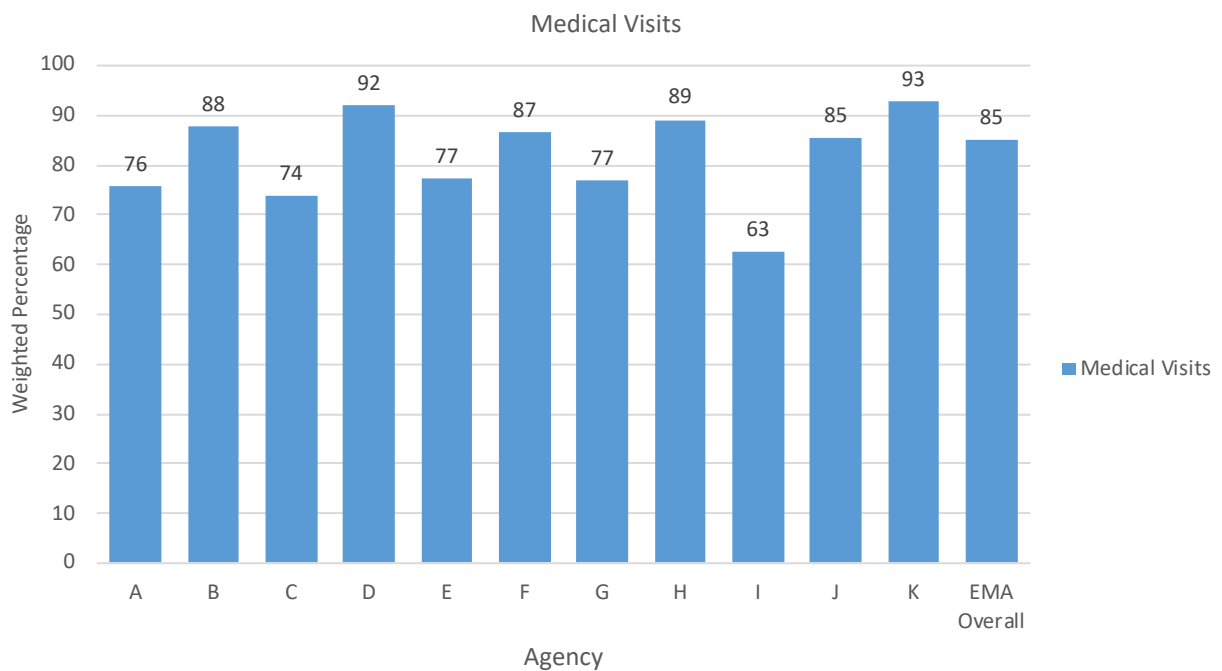
Performance Measure: Medical Visits

Description: Percentage of clients with HIV infection who had two or more medical visits in an HIV care setting in the measurement year

Numerator: Number of HIV-infected clients who had a medical visit with a provider with prescribing privileges, i.e. MD, PA, NP, in an HIV care setting two or more times at least 3 months apart during the measurement year

Denominator: Number of HIV-infected clients who had a medical visit with a provider with prescribing privileges at least once in the measurement year (N=822)

Note: There is no current EMA goal established for this metric



Comparisons

Comparison between chart review findings for CY 2017 compared to EMA Goals, CY 2014, and CY2010 chart reviews. Comparison between sample reports in CAREWare and findings from the Clinical Chart Review are also displayed.⁵

Indicator	2010 Result	2014 Result	2017 EMA Goal	2017 Chart Review Result	2017 CAREWare Results
Viral Load Suppression	-	-	83%	83%	78%
Prescription of Antiretroviral Therapy	-	-	95%	98%	88%
Medical Visit Frequency	-	-	83%	76%	60%
Gap in Medical Visits	-	-	10%	11%	19%
PCP Prophylaxis	92%	85%	95%	96%	43%
Cervical Cancer Screening	-	31%	50%	72%	53%
Hepatitis C Screening	100%	98%	95%	92%	86%
HIV Risk Counseling	93%	87%	85%	83%	89%
Oral Exam	40%	19%	75%	34%	22%
Syphilis Screening	81%	86%	90%	79%	75%
Chlamydia Screening	32%	61%	100%	77%	79%
Hepatitis B Screening	99%	99%	95%	98%	76%
Substance Use Screening	97%	95%	80%	100%	91%
TB Screening	64%	61%	100%	95%	91%
Mental Health Screening	95%	98%	80%	90%	92%
Medical Visit 12 month Retention	90%	93%	-	85%	78%
ARV Therapy for Pregnant Women	62%	54%	-	100%	100%
Adherence Assessment/Counseling	88%	88%	-	83%	-

⁵ Green: meets or exceeds goal
 Yellow: within 10% of goal (20% for Gap measure)
 Red: not within 10% of goal (20% for Gap measure)

Areas of Excellence (Met or Exceeded the Goal):

- Viral Load Suppression
- Prescription of Antiretroviral Therapy
- PCP Prophylaxis
- Cervical Cancer Screening
- Hepatitis B Screening
- Substance Use Screening
- Mental Health Screening

Opportunities for Improvement (Not Within 10% of the Goal):

- Oral Exam
- Syphilis Screening
- Chlamydia Screening

CAREWare Data Issues Identified (Not Within 20% of Clinical Chart Review Findings):

- Medical Visit Frequency
- Gap in Medical Visits
- PCP Prophylaxis
- Cervical Cancer Screening
- Oral Exam
- Hepatitis B Screening

Discussion and Conclusion

Atlanta's Ryan White Part A subrecipient agencies have made progress toward their quality goals since the previous review. All but three of the overall measures are within 10% of the EMA goal, and two of the three measures outside of this threshold demonstrate marked improvement during that time.

Notably, 98% of the clients reviewed were prescribed antiretroviral therapy, with 83% achieving viral suppression during the project period. PCP prophylaxis was prescribed in ninety-six percent of clients whose laboratory results indicated the need for intervention. One hundred percent of pregnant women in their second and third trimester were prescribed antiretroviral therapy for their pregnancies.

Agencies consistently screened new clients for mental health and substance abuse, and lifetime screening for hepatitis B was almost universal.

Agencies have opportunity to improve adherence to recommendations for annual testing for syphilis and chlamydia. Oral/dental exams continue to be a challenge for agencies due to a lack of referrals, patient follow-through, resource limitations, and/or ineffective systems for follow-up and data collection (e.g. a patient could see a dentist, but the visit data may not be collected by the agency.)

CAREWare finds were almost always worse than that found in chart review. One-third of indicators were more than 20% lower in CAREWare, highlighting a number of data issues.

As the program moves forward, the results of this clinical chart review can be used to direct future quality improvement projects at both the agency and EMA level.