Commonwealth of Pennsylvania
Department of Public Welfare
Office of Mental Health and Substance Abuse Services

Follow-Up After Hospitalization for Mental Illness External Quality Review Project Measurement Year 2009

FINAL REPORT

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GLOSSARY OF TERMS

Average (i.e., arithmetic mean or mean)	The sum of all items divided by the number of items in the list. All items have an equal contribution to the calculation therefore this is un-weighted.
Confidence Interval	Confidence intervals (CIs) are ranges of values that can be used to illustrate the variability associated with a given calculation. For any rate, a 95% CI indicates that there is a 95% probability that the calculated rate, if it were measured repeatedly, would be within the range of values presented for that rate. All other things being equal, if any given rate were calculated 100 times, the calculated rate would fall within the CI 95 times, or 95% of the time.
HealthChoices Aggregate Rate	The sum of the total numerator divided by the sum of the total denominator.
HealthChoices BH MCO Average	The sum of the individual BH MCO rates divided by the total number of BH MCOs (five BH MCOs). Each BH MCO has an equal contribution to the HealthChoices BH MCO Average value.
HealthChoices County Average	The sum of the individual County rates divided by the total number of Counties (67 Counties). Each County has an equal contribution to the HealthChoices County Average value.
Rate	A proportion indicated as a percentage.
Percentage Point Difference	The arithmetic difference between two rates.
Weighted Average	Similar to an arithmetic, but instead of each of the data points contributing equally to the final average, some data points contribute more than others.
Statistical Significance	In statistics, a result is described as statistically significant if it is unlikely to have occurred by chance. The use of the word significance in statistics is different from the standard one, which suggests that something is important or meaningful. Statistically significant differences (SSD) at the .05 level between groups are noted.
Z-ratio	The z-ratio expresses how far and in what direction the calculated rate diverged from the most probable result (i.e., the distribution's mean).

CHAPTER I : EXECUTIVE SUMMARY

Purpose and background

IPRO serves as the independent external quality review agent for the Commonwealth of Pennsylvania Department of Public Welfare (DPW) in accordance with Title XIX of the Social Security Act, Section 1902(a), (30), (c). In this capacity, IPRO performs an annual review of the quality of services furnished under the HealthChoices Medicaid Managed Care behavioral health program. The Office of Mental Health and Substance Abuse Services (OMHSAS) oversees the behavioral health component of the HealthChoices program.

This external quality review (EQR) activity evaluated services provided to individuals with mental illnesses enrolled in the HealthChoices program. The study focus is follow-up care after an acute inpatient hospitalization for mental illness. The review purpose is to evaluate the current level of performance against national benchmarks, to identify variances in performance for subsets of the population, and to provide recommendations regarding next steps. This is the fifth year the follow-up performance measure study has been conducted. Evaluation of 2010 review year [measurement year (MY) 2009] data includes comparisons to the 2009 review year (MY 2008), and 2008 review year (MY 2007). Comparisons to prior years' rates are also available in the report Appendices.

This study examines behavioral health services provided to members participating in the HealthChoices Mandatory Medicaid Managed Care (MMC) behavioral health program in all 67 Counties of the Commonwealth. This includes the Lehigh/Capital, North/Central County Option, North/Central State Option, Northeast, Southeast, and Southwest regions of the Commonwealth of Pennsylvania. Forty-three of the 67 Counties subcontract directly with behavioral health managed care organizations (BH MCOs) to administer behavioral health services. The Counties provide monitoring and oversight of the BH MCOs. The remaining County contracts are managed by OMHSAS since the Counties elected not to bid directly on the HealthChoices contract. Five BH MCOs are subcontracted across the 67 Counties: Community Behavioral Health (CBH), Community Behavioral HealthCare Network of Pennsylvania (CBHNP), Community Care Behavioral Health (CCBH), Magellan Behavioral Health (MBH), and Value Behavioral Health of Pennsylvania (VBH).

Methodology

The study indicators were based on the Healthcare Effectiveness Data and Information Set (HEDIS®) 2010 Follow-up After Hospitalization for Mental Illness measure. Quality Indicator (QI) 1 assesses ambulatory or day/night follow-up after hospitalization within seven days of discharge. QI 2 assesses ambulatory or day/night follow-up within 30 days of discharge. In addition to the HEDIS indicators, two additional Pennsylvania (PA)-specific indicators were collected – QI A (a seven-day measure) and QI B (a 30-day measure), which included five CPT and 12 HCPCS service codes used only in the PA-specific measure, and not included in the HEDIS measure. One additional Place of Service (POS) code was also assigned to two CPT codes that must be identified in conjunction with a POS code in the PA-specific measure. The 19 additional service codes that distinguished the PA-specific measure from the HEDIS measure, along with their corresponding service descriptions, are presented in Appendix I.

In March 2010, the Counties and BH MCOs received draft indicator specifications for the MY 2009 project. Before the indicators were finalized, feedback was solicited from County and BH MCO staff. Suggestions made by the BH MCOs were considered and incorporated into the final specifications as applicable. The final indicator specifications were distributed on April 29, 2010.

IPRO received data files and source code directly from the BH MCOs for validation. In addition to validation of the data provided by the BH MCOs, IPRO conducted quantitative and qualitative analyses to assess differences in rates for race, age, gender, and Counties as well as year-to-year changes among the reported groups for the indicators that comparisons were available.

Findings

The study population for the MY 2009 study included 35,975 cases. This is an increase from the MY 2008 study, which consisted of 34,065 cases, but the MY 2009 population maintained similar demographic characteristics as MY 2008. Rates for both the HEDIS and PA-specific indicators were based on the same study population.

HealthChoices Rates. The MY 2009 aggregate HealthChoices rate for QI 1 (i.e., HEDIS seven-day) was 45.6% (95% CI 45.1%, 46.1%). The MY 2009 aggregate rate for QI 2 (i.e., HEDIS 30-day) was 65.6% (95% CI 65.1%, 66.1%). Both HEDIS indicator rates fall between the 50th and 75th percentiles as compared to the *HEDIS 2009 Audit Means, Percentiles & Ratios*. The MY 2009 rates for QI A and QI B (PA-specific seven and 30-day) were 58.9% (95% CI 58.4%, 59.4%) and 75.0% (95% CI 74.6%, 75.5%), respectively. All four QI rates were statistically significantly higher than the corresponding MY 2008 rates.

Rates by Race. From MY 2008 to MY 2009, statistically significant increases were noted for all four indicator rates for the White population. Rate changes for the other racial categories across indicators were not statistically significant. In MY 2009, rates for Black/African Americans were statistically significantly lower than rates observed for White members on all four indicators. This disparity has persisted for the last six years of data collection (since MY 2004). The percentage point differences between the rates for Black/African Americans as compared to Whites in MY 2009 were 12.6, 16.3, 7.7, and 9.0 for QIs 1, 2, A, and B, respectively.

Rates by Ethnicity. From MY 2008 to MY 2009, rates for the Non-Hispanic group statistically significantly increased for all four QIs. Rate changes for the Hispanic group were not statistically significant. All four MY 2009 indicator rates for the Hispanic group were statistically significantly higher than those for Non-Hispanics.

Rates by Age. Statistically significant increases were noted for members between the ages of 21 and 64 on all four QIs from MY 2008 to MY 2009. The MY 2009 QI A and QI B rates for the Ages 6-20 years group also statistically significantly improved as compared to MY 2008. Similar to the MY 2008 study, there was a statistically significant disparity in follow-up care for recipients under age 20 as compared to over age 20. The younger members had statistically significantly higher follow-up rates than older members for all four indicators. The percentage point differences in the rates for the younger population as compared to the older population were 14.6 for QI 1, 14.8 for QI 2, 10.5 for QI A, and 10.0 for QI B.

Rates by Gender. From MY 2008 to MY 2009, follow-up rates for both males and females statistically significantly increased for all four QIs. In MY 2009, the rates for males were statistically significantly lower than rates for females for QI1, QI 2, and QI B. This gender disparity is consistent with findings from prior studies. In MY 2009, the percentage point differences between the males and females were 2.3, 4.2, 0.5, and 2.4 for QIs 1, 2, A, and B, respectively.

Rates by BH MCO. In MY 2009, rates varied by BH MCO. As compared to MY 2008, both MY 2009 HEDIS rates for CCBH and VBH increased statistically significantly. Rate changes for the remaining three BH MCOs were not statistically significant. The HealthChoices BH MCO Averages were 45.2% for QI 1 and 65.4% for QI 2. When comparing BH MCO rates to the MY 2009 HealthChoices BH MCO Average for QI 1, the rates for CCBH and MBH were statistically significantly higher than the average, the rates for CBH and CBHNP were statistically significantly lower than the average, and the rate for VBH was not statistically significantly different from the average. For QI 2, rates for CCBH, MBH, and VBH were statistically significantly higher than the average, the rate for CBH was statistically significantly lower than the average, and the rate for CBHNP was not statistically significantly different from the average. As compared to the *HEDIS 2009 Audit Means, Percentiles & Ratios*, the HealthChoices BH MCO Average rates for QI 1 and QI 2 each fell between the respective 50th and 75th percentiles. The individual performance rates of each BH MCO as compared to the HEDIS 2009 percentiles varied. Specific QI 1 and QI 2 rate comparisons to the HEDIS 2009 benchmarks are presented on pages 44 and 45 of this report (Chapter V: Findings, Section IX: Comparison to HEDIS Medicaid Benchmarks).

With regard to the PA-specific indicators, both QI A and QI B rates for CCBH and VBH, along with the QI B rate for MBH, were statistically significantly higher in MY 2009 as compared to MY 2008. Rate changes for the remaining BH MCOs and indicators were not statistically significant. In MY 2009, the HealthChoices BH MCO Average for QI A and QI B were 58.6% and 74.8%, respectively. When comparing BH MCO rates to the MY 2009 HealthChoices BH MCO Average for QI A, the rates for CCBH and MBH were statistically significantly above the average, the rates for CBH and CBHNP were statistically significantly lower than the average, and the rate for VBH was not statistically significantly different from the average. For QI B, rates for CCBH, MBH, and VBH were statistically significantly above the average, the rate for CBH was statistically significantly lower than the average, and the rate for CBHNP was not statistically significantly different from the average.

Rates by County. As with previous years' findings, there were variations in indicator rates among the Counties. For MY 2009 as compared to MY 2008, both statistically significant increases and decreases were noted among the Counties for the four indicator rates. These changes are displayed in Table 1. For MY 2009, the HealthChoices County Averages were 48.5% for QI 1, 70.8% for QI 2, 60.5% for QI A, and 77.5% for QI B. County-level differences as compared to the HealthChoices County Average are indicated in Table 1.

Table 1: Summary of Counties with Statistically Significant MY 2009 Rates

Statistically Significant Difference in Year-to-Year Rates				
Indicator	**Rate Statistically Significantly *Increased* Between MY 2008 and MY 2009**		**Rate Statistically Significantly *Decreased* Between MY 2008 and MY 2009**	
QI 1 (HEDIS 7-day)	Allegheny Beaver Butler Columbia	Cumberland Indiana Luzerne Tioga	Adams Bradford Montgomery	
QI 2 (HEDIS 30-day)	Allegheny Beaver Blair	Columbia Lackawanna Schuylkill	None	
QI A (PA-specific 7-day)	Allegheny Beaver Butler Cumberland Erie Indiana	Jefferson Lackawanna Lehigh Luzerne Mifflin	Adams Bradford Dauphin	
QI B (PA-specific 30-day)	Allegheny Beaver Blair Delaware	Indiana Lackawanna Mifflin Schuylkill	None	
Statistically Significant Difference Compared to HealthChoices County Average				
Indicator	**MY 2009 Rate Statistically Significantly *Above* HealthChoices County Average**		**MY 2009 Rate Statistically Significantly *Below* HealthChoices County Average**	
QI 1 (HEDIS 7-day) HealthChoices County Average (48.5%)	Beaver Bucks Butler Centre Columbia Delaware Lackawanna	Lebanon Lehigh Luzerne Monroe Northampton (Wayne) (Wyoming)	Bedford Cambria Dauphin Erie Franklin Lancaster McKean	Philadelphia Somerset Venango Washington Westmoreland York

Statistically Significant Difference Compared to HealthChoices County Average				
Indicator	**MY 2009 Rate Statistically Significantly *Above* HealthChoices County Average**		**MY 2009 Rate Statistically Significantly *Below* HealthChoices County Average**	
QI 2 (HEDIS 30-day) HealthChoices County Average (70.8%)	Blair Bradford Centre Clearfield Columbia Elk	Jefferson Lackawanna Lebanon Luzerne (Wyoming)	Allegheny Bedford Cambria Dauphin Erie Lancaster	Lycoming Montgomery Philadelphia Somerset
QI A (PA-specific 7-day) HealthChoices County Average (60.5%)	Allegheny Bucks Butler Centre Delaware Elk Indiana	Lackawanna Lehigh Luzerne Mifflin (Montour) (Wyoming)	Adams Cambria Carbon Clarion Erie Fayette Lancaster	Lycoming Mercer Philadelphia Somerset Venango York
QI B (PA-specific 30-day) HealthChoices County Average (77.5%)	Blair Centre Clearfield Elk Huntingdon	Indiana Jefferson Lackawanna Luzerne Mifflin	Allegheny Cambria Chester Lancaster Lycoming	Philadelphia Washington York

Note: Counties with rates determined by less than 100 members are presented within parentheses.

Recommendations

Recommendation 1: The purpose of this re-measurement study is to inform OMHSAS, the Counties and the MCOs of the effectiveness of the interventions implemented between MY 2008 and MY 2009 to promote continuous quality improvement with regard to follow-up care after psychiatric hospitalization. The information contained within this study should be used to **further develop strategies for improving** the likelihood that **at-risk members** will receive follow-up care. The Counties and BH MCOs participating in this study should continue to **evaluate the current interventions in place** with respect to their follow-up rates to assess how these interventions affected change in follow-up rates from the prior measurement years MY 2008 and MY 2007. The Counties and BH MCOs should continue to **conduct additional root cause and barrier analyses** to identify further impediments in receiving follow-up care and then **implement action and monitoring plans** to further increase their rates.

Recommendation 2: The findings of this re-measurement indicate that there were increases in follow-up rates in MY 2009 as compared to previous measurement years. Disparities in rates between demographic populations, however, continue to persist as seen in prior studies. It is clear that the OMHSAS contracted Counties and their subcontracted BH MCOs are working to improve their overall follow-up rates, but it is important for these entities to **continue to target the demographic populations that do not perform as well as their counterparts**. Furthermore, it is essential to **ensure that improvements are consistent, sustained across measurement years, and applicable to all groups**. It is recommended that BH MCOs and Counties continue to **focus interventions on populations that continue to exhibit lower follow-up rates** (e.g., Black/African American population). Possible reasons for these rate disparities include access, cultural differences and financial factors, which should all be considered and evaluated to determine their potential impact on performance. Additionally, the BH MCOs should be encouraged to initiate targeted interventions to address disparate rates between study populations.

Recommendation 3: BH MCO and Counties are encouraged to **review the findings of the follow-up study in conjunction with inpatient psychiatric readmission rates**, as professional literature consistently indicate a high correlation between these measures. **Focused review of those individuals** that had an inpatient psychiatric readmission in less than 30 days is recommended to determine the

extent to which those individuals either had or did not have evidence of ambulatory follow-up/aftercare visit(s) during the interim period.

Recommendation 4: **Additional analyses of each BH MCO's data** should be conducted in order to **determine** if any **other trends** are noted. For example, lower follow-up rates may be associated with individuals with particular diagnoses, or with co-occurring conditions such as substance abuse and/or addiction. **After evaluating the BH MCO data** for trends, **subject-specific findings should be transmitted to BH MCO and/or County care managers for implementation of appropriate action**.

CHAPTER II: PURPOSE AND BACKGROUND

Purpose

This EQR evaluated a specific area of services provided through the HealthChoices program to members with mental illness, that is, timely follow-up care after an acute inpatient hospitalization. This report is designed to provide information that will assist OMHSAS, the Counties and the BH MCOs to: (1) evaluate current performance across the HealthChoices program, (2) facilitate the increase in members' access to needed care, (3) foster improvement in the quality of care provided to Medicaid members, and (4) set future directions for MCOs to provide timely care to MMC members.

Background

IPRO serves as the independent external quality review organization (EQRO) for DPW in accordance with Title XIX of the Social Security Act, Section 1902(a), (30), (c). In this capacity, IPRO performs an annual review of the quality and timeliness of services furnished under the physical and behavioral health HealthChoices program.

This study examines behavioral health services provided to members participating in the HealthChoices mandatory MMC behavioral health program in 67 Counties across six regions of the Commonwealth of Pennsylvania. The six regions as designated by OMHSAS include Lehigh/Capital, North/Central County Option, North/Central State Option, Northeast, Southeast, and Southwest. Forty-three of the 67 Counties in PA subcontract with BH MCOs directly to administer behavioral health services within the County. The Counties provide monitoring and oversight of the BH MCOs. Twenty-four Counties' contracts are managed directly by OMHSAS since these Counties elected not to bid on the HealthChoices contract. OMHSAS contracts with VBH to administer services in Greene County, whereas OMHSAS contracts with CCBH to administer services in 23 North/Central Counties (i.e., the North/Central State Option Counties). Among the 67 Counties included in this study, five BH MCOs are represented: CBH, CBHNP, CCBH, MBH, and VBH. The participating Counties grouped by BH MCO are presented in Table 2.

Table 2: MY 2009 Participating Counties by BH MCO

MCO	Counties		
CBH	Philadelphia		
CBHNP	Bedford Blair Clinton Cumberland	Dauphin Franklin Fulton Lancaster	Lebanon Lycoming Perry Somerset
CCBH	Adams Allegheny Berks Bradford Cameron Carbon Centre Chester Clarion Clearfield Columbia Elk	Forest Huntingdon Jefferson Juniata Lackawanna Luzerne McKean Mifflin Monroe Montour Northumberland Pike	Potter Schuylkill Snyder Sullivan Susquehanna Tioga Union Warren Wayne Wyoming York
MBH	Bucks Delaware	Lehigh Montgomery	Northampton

MCO	Counties		
VBH	Armstrong Beaver Butler Cambria Crawford	Erie Fayette Greene Indiana Lawrence	Mercer Venango Washington Westmoreland

For the past several years, OMHSAS has included Follow-up after Hospitalization for Mental Illness as a performance measure for validation. This measure continues to be of interest to OMHSAS for the purposes of comparing County and BH MCO rates to available national benchmarks and to prior years' rates. In MY 2002, the initial measurement year, IPRO and OMHSAS worked together to adapt the measures from the HEDIS methodology, allowing for a significant reduction in the time period needed for indicator development. Senior medical staff at IPRO reviewed the adapted methodology in detail to ensure consistency was maintained with regard to the specifications. Project management staff at both IPRO and OMHSAS also collaborated extensively during the indicator development phase, especially with regard to which local PA codes were considered for inclusion in the list of qualifying procedure codes, while still maintaining consistency with the HEDIS measure specifications. In addition to the adapted indicators, OMHSAS expanded the measures to include services with high utilization in the HealthChoices program. For MY 2002, since two codes of interest could not be mapped to any of the standard coding used in the HEDIS measure to identify follow-up office visits, QI 3 and QI 4 were developed to capture these codes, while still generating rates for measures (i.e., QIs 1 and 2) that could be compared to national benchmarks. For the second re-measure in MY 2004, the indicator specifications were updated to reflect changes in the HEDIS 2005 Volume 2, Technical Specifications and four more local codes were added – to bring the total to six – to QIs 3 and 4. OMHSAS staff provided IPRO with a PA local code to national code mapping document to assist in this regard. The MY 2005 re-measure saw very few changes to the measure specifications, of which the main change to the methodology involved the exclusion of an expired PA local code. The MY 2006 re-measure, however, saw significant changes to QI 3 and QI 4 from prior years. Codes added to the measures as per suggestions from OMHSAS, the Counties, and BH MCOs changed the measures substantially, and rates for these indicators were no longer comparable to those from preceding measurement years. Consequently, these indicators were updated to QI A and QI B, respectively. As these indicators represented a significant deviation from HEDIS measure specifications, comparisons to HEDIS rates were not made. In addition, for MY 2006 the follow-up measure was collected for the newly implemented HealthChoices Northeast Counties – Lackawanna, Luzerne, Susquehanna, and Wyoming. These Counties were asked to collect data for the six-month time frame that they were in service for 2006 (July to December). In effect, MY 2006 was a baseline measurement year for collection of QIs A and B, and for the Northeast region across all indicators.

For MY 2007, the indicator specifications were updated to reflect changes in the HEDIS 2008 Volume 2, Technical Specifications. The primary change was the addition of a POS code requirement to select CPT codes in the HEDIS and PA-specific measure specifications. In addition, all PA local codes previously mapped to standard CPT and HCPCS codes as per HIPAA requirements were retired and removed. For the study, the follow-up measure was implemented for the 23 North/Central State Option Counties implemented in January 2007, and the 15 North/Central County Option Counties implemented in July 2007. As with the Northeast Counties for MY 2006, the North/Central County Option Counties were asked to collect data for the six-month time frame that they were in service for 2007 (July to December).

For MY 2008, indicator specifications were again aligned to the HEDIS 2009 Volume 2, Technical Specifications. Two procedure codes (one CPT and one HCPCS code) to identify eligible follow-up visits were added to the PA-specific measures per suggestions from OMHSAS, the Counties, and the BH MCOs. These codes were added to the existing 17 PA-specific codes, totaling 19 additional service codes that distinguish the PA-specific measure from the HEDIS measure in the MY 2008 study. Furthermore, as requested by OMHSAS, the MY 2008 findings by age are presented as three cohorts: Ages 6-20 years, Ages 21-64 years, and Ages 65 years and over. The Ages 21-64 years cohort was

reported as two age ranges (Ages 21-59 years and Ages 60-64 years) in prior studies including MY 2007. As a result, the population previously reported as two cohorts are combined for comparative purposes.

For the current study using MY 2009 data, the indicators had few changes based on the HEDIS 2010 Volume 2: Technical Specifications. The primary change was the removal of CPT codes that were no longer valid, and the addition of several HCPCS codes. As requested by OMHSAS, all data analyses by region were removed, since the regional characteristics have become increasingly geographically diverse and the associated Counties are non-contiguous as the HealthChoices program has expanded beyond the initial legacy regions (Leigh/Capital, Southeast, and Southwest) over the years of re-measuring this performance indicator. In all, MY 2009 is the third re-measurement for QIs A and B, and is the second re-measurement for the Counties in the North/Central County and State Options regions across all indicators.

CHAPTER III : QUALITY INDICATOR SIGNIFICANCE

According to the *Global Burden of Disease: 2004 Update* released by the World Health Organization (WHO) in 2008, mental illnesses and mental disorders represent six of the 20 leading causes of disability worldwide. Among developed nations, depression is the leading cause of disability for people aged 0-59 years, followed by drug and alcohol use disorders and psychoses (e.g., bipolar disorder and schizophrenia)[1]. Mental disorders also contribute to excess mortality from suicide, one of the leading preventable causes of death in the United States. Additionally, patients with schizophrenia or bipolar disorder have elevated rates of preventable medical co-morbidities[2,3] such as obesity, cardiovascular diseases and diabetes, partly attributed to the epidemiology of the disorder, antipsychotic prescription patterns[4,5], reduced use of preventive services[6] and substandard medical care that they receive[7,8,9]. Moreover, these patients are five times more likely to become homeless than those without these disorders[10]. On the whole, serious mental illnesses account for more than 15 percent of overall disease burden in the U.S.[11], and they incur a growing estimate of $317 billion in economic burden through direct (e.g. medication, clinic visits, or hospitalization) and indirect (e.g., reduced productivity and income) channels[12]. For these reasons, timely and appropriate treatment for mental illnesses is essential.

It has long been recognized that continuity of care is critical to positive outcome and to prevent long-term deterioration in people with severe and persistent mental illness[13]. As noted in its 2007 *The State of Health Care Quality* report by the National Committee for Quality Assurance (NCQA), appropriate treatment and follow-up care can reduce the duration of disability from mental illnesses, and the likelihood of recurrence[14]. An outpatient visit within at least 30 days (ideally seven days) of discharge ensures that the patient's transition to home and/or work is supported and that gains made during hospitalization are maintained. These types of contacts specifically allow physicians to ensure medication effectiveness and compliance, and identify complications early on to avoid more inappropriate and costly use of hospitals and emergency departments[15]. With the expansion of evidence-based practice in the recent decade, continuity has become a core principle in care delivery and in performance measurement for mental health services[16]. And one way to improve continuity of care is to provide greater readiness of aftercare by shortening the time between discharge from the hospital and the first day of outpatient contact[17].

The difficulty in engaging psychiatric patients after inpatient hospitalization, however, has been a long standing concern of behavioral health care systems with some researchers having estimated that 40 to 60 percent of patients fail to connect with an outpatient clinician[18]. Research has demonstrated that patients who do not have an outpatient appointment after discharge were two times more likely to be re-hospitalized in the same year than patients who kept at least one outpatient appointment[19]. Over the course of a year, patients who have kept appointments have been shown to have a decreased chance of being re-hospitalized than those who do not follow-up with outpatient care[20]. Patients who received follow-up care were also found to have experienced better quality of life at endpoint, better community function, lower severity of symptoms, and greater service satisfaction[21]. Patients with higher functioning in turn had significantly lower community costs, and improved provider continuity was associated with lower hospital[22] and Medicaid costs[23].

There are various measures of treatment efficacy, such as service satisfaction, functional status and health outcomes. Among them, re-hospitalization rates continue to be used as a reliable indicator of the effectiveness of inpatient treatment[24]. Inpatient readmission is clearly a step backward in treatment and a costly alternative to effective and efficient ambulatory care. Timely follow-up care, therefore, is an important component of comprehensive care, and is an effective means to control the cost and maximize the quality of mental health services.

IPRO and OMHSAS jointly selected four key indicators to measure this critical component of comprehensive care, with an objective to assess and improve the quality and timeliness of care furnished to people receiving mental health services under the behavioral health HealthChoices program. This measure is based on NCQA's HEDIS methodology and is calculated by MCOs nationally. Each indicator measures the percentage of discharges for members six years and older who were hospitalized for

treatment of selected mental health disorders and seen on an ambulatory basis or were in day/night treatment with a mental health provider:

I: HEDIS Indicators
Quality Indicator 1 (QI 1):

Follow-up After Hospitalization for Mental Illness within seven days after discharge. (Calculation based on Industry Standard codes used in HEDIS)

Quality Indicator 2 (QI 2):

Follow-up After Hospitalization for Mental Illness within 30 days after discharge. (Calculation based on Industry Standard codes used in HEDIS)

II: PA Indicators
Quality Indicator A (QI A):

Follow-up After Hospitalization for Mental Illness within seven days after discharge. (Calculation based on Numerator 1 codes and additional PA-specific codes not used in HEDIS).

Quality Indicator B (QI B):

Follow-up After Hospitalization for Mental Illness within 30 days after discharge. (Calculation based on Numerator 1 codes and additional PA-specific codes not used in HEDIS).

CHAPTER IV : METHODOLOGY

Introduction

A cross-sectional quality improvement study design was employed. As indicated previously, the source for all information was administrative data provided to IPRO by the BH MCOs for each County participating in the current study. The source for all administrative data was the BH MCOs' transactional claims systems. Each BH MCO was required to submit their member level data files for validation purposes and verification of reported rates. Table 3 provides additional details on each of the four QIs. Complete indicator specifications can be found in Appendix II.

Table 3: Quality Indicator Summary

Eligible Population	Inclusion: members six years and older with one (or more) hospital discharge from any acute care facility with a discharge date occurring between January 1 and December 1, 2009, and a principal ICD-9-CM diagnosis code indicating one of the select mental health disorders (see Appendix II). Exclusion: members with discharges from non-acute mental health facilities (e.g., Residential Treatment or Rehabilitation Stays); members discharged from an acute hospitalization followed by a readmission or a direct transfer to a non-acute mental health facility.
HEDIS Quality Indicators	
Quality Indicator	**Criteria**
QI 1: HEDIS Follow-up After Hospitalization for Mental Illness within seven days after discharge *(Calculation based on Industry Standard codes used in HEDIS)*	Denominator: Eligible population. *Note: The eligible population for this measure is based on discharges, not members. It is possible for the denominator to contain multiple discharge records for the same individual.* Numerator: An ambulatory visit with a mental health practitioner on the date of discharge or up to seven days after hospital discharge with one of the qualifying industry standard ambulatory service codes (see Appendix II). The date of service must clearly indicate a qualifying ambulatory visit with a mental health practitioner or day/night treatment with a mental health practitioner.
QI 2: HEDIS Follow-up After Hospitalization for Mental Illness within 30 days after discharge. *(Calculation based on Industry Standard codes used in HEDIS)*	Denominator: Eligible population. *Note: The eligible population for this measure is based on discharges, not members. It is possible for the denominator to contain multiple discharge records for the same individual.* Numerator: An ambulatory visit with a mental health practitioner on the date of discharge or up to 30 days after hospital discharge with one of the qualifying industry standard ambulatory service codes (see Appendix II). The date of service must clearly indicate a qualifying ambulatory visit with a mental health practitioner or day/night treatment with a mental health practitioner.
PA-Specific Quality Indicators	
Quality Indicator	**Criteria**
QI A: PA-Specific Follow-up After Hospitalization for Mental Illness within seven days after discharge. *(Expanded calculation based on Numerator 1 codes and additional PA-specific codes not used in HEDIS)*	Denominator: Eligible population. *Note: The eligible population for this measure is based on discharges, not members. It is possible for the denominator to contain multiple discharge records for the same individual.* Numerator: An ambulatory visit with a mental health practitioner or peer support network on the date of discharge or up to seven days after hospital discharge

	with one of the qualifying industry standard or PA-specific ambulatory service codes provided (see Appendix II). The date of service must clearly indicate a qualifying ambulatory visit with a mental health practitioner or day/night treatment with a mental health practitioner.
QI B: PA-Specific Follow-up After Hospitalization for Mental Illness within 30 days after discharge. *(Expanded calculation based on Numerator 1 codes and additional codes not used in HEDIS)*	Denominator: Eligible population. *Note: The eligible population for this measure is based on discharges, not members. It is possible for the denominator to contain multiple discharge records for the same individual.* Numerator: An ambulatory visit with a mental health practitioner or peer support network on the date of discharge or up to 30 days after hospital discharge with one of the qualifying industry standard or PA-specific ambulatory service codes provided (see Appendix II). The date of service must clearly indicate a qualifying ambulatory visit with a mental health practitioner or day/night treatment with a mental health practitioner.

Performance Goals

Performance goals were set for this review year at the OMHSAS designated gold standard of 90% for all measures. In addition, the HEDIS measures are compared to industry benchmarks, where the aggregate and BH MCO indicator rates are compared to the *HEDIS 2009 Audit Means, Percentiles & Ratios.* These benchmarks contain means, 10th, 25th, 50th (median), 75th and 90th percentiles, and the enrollment ratios for nearly all HEDIS measures. There are tables published by product line (i.e., Commercial, Medicaid, and Medicare). The appropriate Medicaid benchmarks available for the measurement year were used for comparison in the findings section of this report. The PA-specific measures are not comparable to these industry benchmarks.

Eligible Population

The entire eligible population was used for all 67 Counties participating in this study.

Eligible cases were defined as those members in the HealthChoices program who met the following criteria:

- Members who have had one (or more) hospital discharges from any acute care facility with a discharge date occurring between January 1 and December 1, 2009,
- A principal ICD-9-CM diagnosis code indicating one of the specified mental health disorders;
- Six years old and over as of the date of discharge; and
- Continuously enrolled from the date of hospital discharge through 30 days after discharge, with no gaps in enrollment.

Members with multiple discharges on or before December 1, 2009, greater than 30 days apart, with a principal diagnosis indicating one of the mental health disorders specified, are counted more than once in the eligible population. If a readmission or direct transfer followed a discharge for one of the selected mental health disorders to an acute mental health facility within 30 days after discharge, only the discharge from the readmission or direct transfer was counted if that readmission discharge date occurred on or before December 1, 2009. The methodology for identification of the eligible population for these indicators was consistent with the HEDIS 2010 methodology for the Follow-up After Hospitalization for Mental Illness measure.

Each of the five BH MCOs provided IPRO with the source code used to generate their own and each of their respective County's eligible populations and numerator hits for each QI. IPRO's programming and

analytical staff reviewed the source code and data, offering technical assistance to BH MCO staff on programming issues, as necessary. This source code review entailed continued communication between IPRO and the BH MCOs in order to clarify misinterpretations of the technical specifications or other errors in execution. In combination with the source code review, IPRO validated accompanying member level data files by running several checks on each file. The BH MCOs were given the opportunity to re-submit data as time permitted. The validation process is discussed in detail in the following section. For the final analysis, 35,975 records met denominator criteria and were included in the final calculation of rates. The BH MCOs were asked to provide the data sources from which the files were extracted and sign off on final rates for each indicator.

Validation Process

In March 2010, the Counties and BH MCOs received a draft of the modifications and updates for the 2010 re-measurement. As done with prior studies, the MY 2009 indicator specifications were separated into two documents:

(1) the HEDIS Indicators 1 and 2, and
(2) the PA-Specific Indicators A and B.

Each indicator specification included the following: a summary of changes made to the specifications from the last measurement (as applicable), a general description of the indicator, a description of the eligible population, denominator and numerator requirements, a description of the required documentation for the source code review and a file layout of the required data format. The PA-specific documents also included a list of the additional procedure codes that distinguish the measure from the HEDIS measure, along with their corresponding service descriptions. Before the indicators were finalized, feedback was solicited from both County and BH MCO Staff. Given that no changes were made to the draft specifications, a Question and Answer document was not developed. All BH MCO-specific inquiries were responded to and addressed directly with the BH MCO. The final indicator specifications and notice of key dates for the project were distributed to the Counties and BH MCOs on April 29, 2010. The final indicator specifications and flow charts that were provided to the Counties and BH MCOs are presented in Appendix II.

Once the validation process began, IPRO provided technical assistance and other support as necessary. Close contact was maintained with the Counties and BH MCOs during the portion of the project when the BH MCOs were required to programmatically identify their eligible populations and determine the study denominator and numerators. To facilitate this validation process, IPRO was in contact with the person identified at each respective BH MCO as the one most familiar with the source code and programming logic used to produce the measures. As the source code review was conducted, IPRO provided feedback via a detailed validation tool. Along with comments, each BH MCO was provided with those cases for which these issues were found. The BH MCOs were given the opportunity to revise and resubmit both source code and data until validation was finalized. Final review results were provided to each of the BH MCOs along with a final e-mail indicating when the submissions were approved. Final rate sheets were sent to and signed off on by each of the BH MCOs to indicate agreement with the calculated rates. The rates and member level data from the BH MCOs' final validated submission were used by IPRO in the analysis and reporting phase of the measures.

Data Analysis

The quality indicators were defined as rates, based on a numerator and a denominator. The denominator equaled the number of discharges eligible for the quality indicator, while the numerator was the total number of members for which the particular event occurred. The overall, or aggregate, performance rate for each indicator was the total numerator divided by the total denominator, which represented the rate derived from the total population of discharges that qualified for the indicator. Year-to-year comparisons to MY 2008 data were provided where applicable, and findings were analyzed by topics based on OMHSAS interest (e.g., race, ethnicity, age, and gender). As appropriate, disparate rates were calculated for various categories in the current study. The significance of the difference between two independent proportions was determined by calculating the z-ratio. Statistically significant differences (SSD) at the .05 level between groups are noted, as well as the percentage point difference (PPD) between the rates.

In addition to the presentation of the aggregate data by topic, the results are also presented at the BH MCO and County level. The BH MCO-specific rates were calculated using the numerator and denominator for that particular BH MCO (i.e., across Counties with the same contracted BH MCO). The County-specific rates were calculated using the numerator and denominator for that particular County. For each of these rates, the 95% CI was reported. Both the HealthChoices BH MCO Average and HealthChoices County Average rates were also calculated for the indicators.

BH MCO-specific rates were compared to the HealthChoices BH MCO Average to determine if they were statistically significantly above or below that value. Whether or not a BH MCO performed statistically significantly below or above the average was determined by whether or not that BH MCO's 95% CI included the HealthChoices BH MCO Average for the indicator. Statistically significant BH MCO differences are noted.

County-specific rates were compared to the HealthChoices County Average to determine if they were statistically significantly above or below that value. Whether or not a County performed statistically significantly below or above the average was determined by whether or not that County's 95% CI included the HealthChoices County Average for the indicator. Statistically significant county-specific differences are noted.

Performance Goals

Performance goals were set for this review year at the OMHSAS designated gold standard of 90% for all measures. In addition, the HEDIS measures were compared to industry benchmarks, in that the aggregate and BH MCO indicator rates were compared to the *HEDIS 2009 Audit Means, Percentiles and Ratios.* These benchmarks contained means, 10th, 25th, 50th (median), 75th and 90th percentiles, and the enrollment ratios for nearly all HEDIS measures. There were tables published by product line (i.e., Commercial, Medicaid, and Medicare). The appropriate Medicaid benchmarks available for the measurement year were used for comparison. As indicated previously, the PA-specific measures were not comparable to these industry benchmarks.

CHAPTER V : FINDINGS

The denominator did not vary for any of the four individual QIs. Numerator compliance for each indicator varied with regard to:

(1) the specified time period (seven-day or 30-day criteria),
(2) those codes that met the qualifications for ambulatory services with a mental health practitioner under the HEDIS specifications for QIs 1 and 2, and
(3) those codes that met the qualifications for ambulatory visits with a mental health practitioner or peer support network under the PA-specific requirements for QIs A and B.

The respective numerator criteria are detailed in Chapter 4, Table 3. The eligible population for this measure was based on discharges, not members. As stated previously, it was possible for this measure to contain multiple discharge records for the same member.

The MY 2009 results for these indicators are presented in this chapter. MY 2007 and MY 2008 data are also displayed, although year-to-year comparisons are made primarily between MY 2009 and MY 2008.

I. Overall Population

Demographics

The demographic characteristics of the 35,975 discharges in the eligible population included in the 2010 (MY 2009) study are presented in Table 4. Data for both the HEDIS and PA-specific indicators are extracted from the same study population. The population increased for MY 2009 from the MY 2008 study but the population maintained similar demographic characteristics as previous studies. The population had a higher proportion of females (51.8%) than males (48.2%). The majority of members (71.9%) fell between 21 and 64 years of age at the time of their hospital discharge. Most (64.5%) of the eligible population was White, with Black/African Americans being the next largest racial group at 25.4%. Approximately 93% of the study population was designated as Non-Hispanic ethnicity.

Table 4: Study Population Characteristics – Distribution by Age, Gender & Race

AGE CATEGORY	FREQUENCY	PERCENT
Ages 6 – 20 Years	9,507	26.4%
Ages 21 – 64 Years[1]	25,877	71.9%
Ages 65 Years and Over	591	1.6%
GENDER	**FREQUENCY**	**PERCENT**
Female	18,637	51.8%
Male	17,338	48.2%
RACE	**FREQUENCY**	**PERCENT**
Black/African American	9,135	25.4%
American Indian/Alaskan Native	70	0.2%
Asian	230	0.6%
White	23,196	64.5%
Other/Chose not to Respond	3,343	9.3%
Missing or Not Available	0	0.0%
Hawaiian/Pacific Islander	1	0.0%

ETHNICITY	FREQUENCY	PERCENT
Hispanic	2,642	7.3%
Non-Hispanic	33,294	92.5%
Missing or Not Available	39	0.1%

[1]The Ages 21-64 years cohort was reported as two age ranges (Ages 21-59 years and Ages 60-64 years) in studies prior to and including MY 2007.

The distribution of eligible study members across the participating Counties is presented in Table 5. The largest percentages of discharges were for members from Philadelphia and Allegheny Counties, which accounted for 22.8% and 11.0% of the study population, respectively. The smallest percentage of discharges was for members from Forest and Sullivan Counties, which each accounted for 0.03% of the total population. Among the five BH MCOs, by enrollment, CCBH served the largest population of members in the eligible population, with 33.7% of the overall population, and CBHNP the smallest, with 10.7%.

Table 5: Study Population Characteristics – Distribution by County and BH MCO

BH MCO	FREQUENCY	PERCENT	COUNTY	FREQUENCY	PERCENT
CBH	8,215	22.8%	Philadelphia	8,215	22.8%
CBHNP	3,838	10.7%	Bedford	112	0.3%
			Blair	506	1.4%
			Clinton	87	0.2%
			Cumberland	242	0.7%
			Dauphin	731	2.0%
			Franklin	253	0.7%
			Fulton	27	0.1%
			Lancaster	997	2.8%
			Lebanon	324	0.9%
			Lycoming	319	0.9%
			Perry	64	0.2%
			Somerset	176	0.5%
CCBH	12,125	33.7%	Adams	122	0.3%
			Allegheny	3,966	11.0%
			Berks	926	2.6%
			Bradford	177	0.5%
			Cameron	24	0.1%
			Carbon	184	0.5%
			Centre	226	0.6%
			Chester	602	1.7%
			Clarion	129	0.4%
			Clearfield	417	1.2%
			Columbia	188	0.5%
			Elk	123	0.3%
			Forest	11	0.0%
			Huntingdon	123	0.3%
			Jefferson	234	0.7%
			Juniata	47	0.1%

BH MCO	FREQUENCY	PERCENT	COUNTY	FREQUENCY	PERCENT
			Lackawanna	655	1.8%
			Luzerne	977	2.7%
			McKean	174	0.5%
			Mifflin	191	0.5%
			Monroe	311	0.9%
			Montour	46	0.1%
			Northumberland	263	0.7%
			Pike	76	0.2%
			Potter	49	0.1%
			Schuylkill	498	1.4%
			Snyder	64	0.2%
			Sullivan	12	0.0%
			Susquehanna	66	0.2%
			Tioga	121	0.3%
			Union	44	0.1%
			Warren	140	0.4%
			Wayne	97	0.3%
			Wyoming	52	0.1%
			York	790	2.2%
MBH	5,115	14.2%	Bucks	828	2.3%
			Delaware	1,078	3.0%
			Lehigh	1,124	3.1%
			Montgomery	1,301	3.6%
			Northampton	784	2.2%
VBH	6,682	18.6%	Armstrong	218	0.6%
			Beaver	638	1.8%
			Butler	353	1.0%
			Cambria	475	1.3%
			Crawford	305	0.8%
			Erie	1,129	3.1%
			Fayette	630	1.8%
			Greene	186	0.5%
			Indiana	218	0.6%
			Lawrence	292	0.8%
			Mercer	492	1.4%
			Venango	204	0.6%
			Washington	529	1.5%
			Westmoreland	1,013	2.8%

II. Overall Quality Indicator Rates

For each denominator event (discharge), the follow-up visit must occur on or after the applicable discharge date to count towards the numerator. The seven-day follow-up measures (QIs 1 and A) account for an aftercare visit occurring up to seven days after the hospital discharge with the date of discharge counting as day zero. The 30-day follow-up measures (QIs 2 and B) are based on the same

criteria up to 30-days. The procedure codes that meet the qualifications for inclusion in each of the measures are included in the indicator specifications provided in Appendix II.

From MY 2008 to MY 2009, aggregate follow-up rates for the HealthChoices population statistically significantly increased for both QI 1 and QI 2. A total of 16,393 of the 35,975 discharges in this study met the criteria for QI 1, a rate of 45.6% (95% CI 45.1%, 46.1%). For the 30-day HEDIS measure, QI 2, 23,601 discharges were compliant, a rate of 65.6% (95% CI 65.1%, 66.1%). The overall rates for QIs 1 and 2 for the three most recent measurement years, MY 2007, MY 2008, and MY 2009 are presented in Figure 1. Quantitative and statistical differences between the MY 2009 indicator rates and those from prior years' studies are presented in Table 6A. The table also identifies the percentage point difference (PPD) and whether the changes in rates represent statistically significant differences (SSD). Rates for earlier years are available in Appendix V.

Figure 1: HEDIS Year-to-Year Aggregate Follow-up Rates

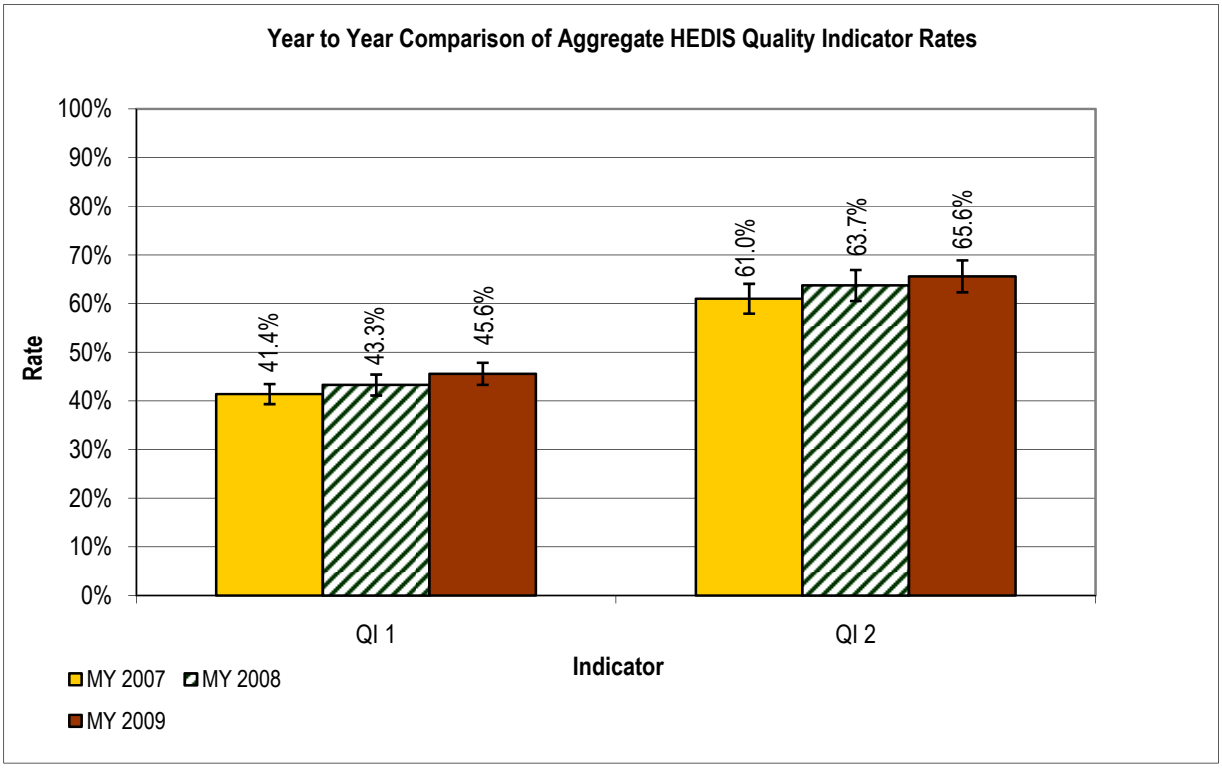


Table 6A: HEDIS MY 2009 Aggregate Rates and Year-to-Year Comparisons

	MY 2007	Comparison MY 2009 to MY 2007		MY 2008	Comparison MY 2009 to MY 2008		MY 2009
QI	%	PPD	SSD	%	PPD	SSD	%
QI 1	41.4%	4.2	YES	43.3%	2.3	YES	45.6%
QI 2	61.0%	4.6	YES	63.7%	1.9	YES	65.6%

For the PA-specific measures, aggregate rates for both QI A and QI B also statistically significantly increased from the prior year. In MY 2009, 21,203 of the 35,975 discharges were compliant for QI A, a rate of 58.9% (95% CI 58.4%, 59.4%). For QI B, 26,984 discharges met the criteria for the measure. This indicates a QI B rate of 75.0% (95% CI 74.6%, 75.5%). The overall rates for QIs A and B are presented in Figure 2, and the quantitative and statistical differences between the MY 2009 indicator rates and those from prior years' studies are presented in Table 6B.

Figure 2: PA-Specific Year-to-Year Aggregate Follow-up Rates

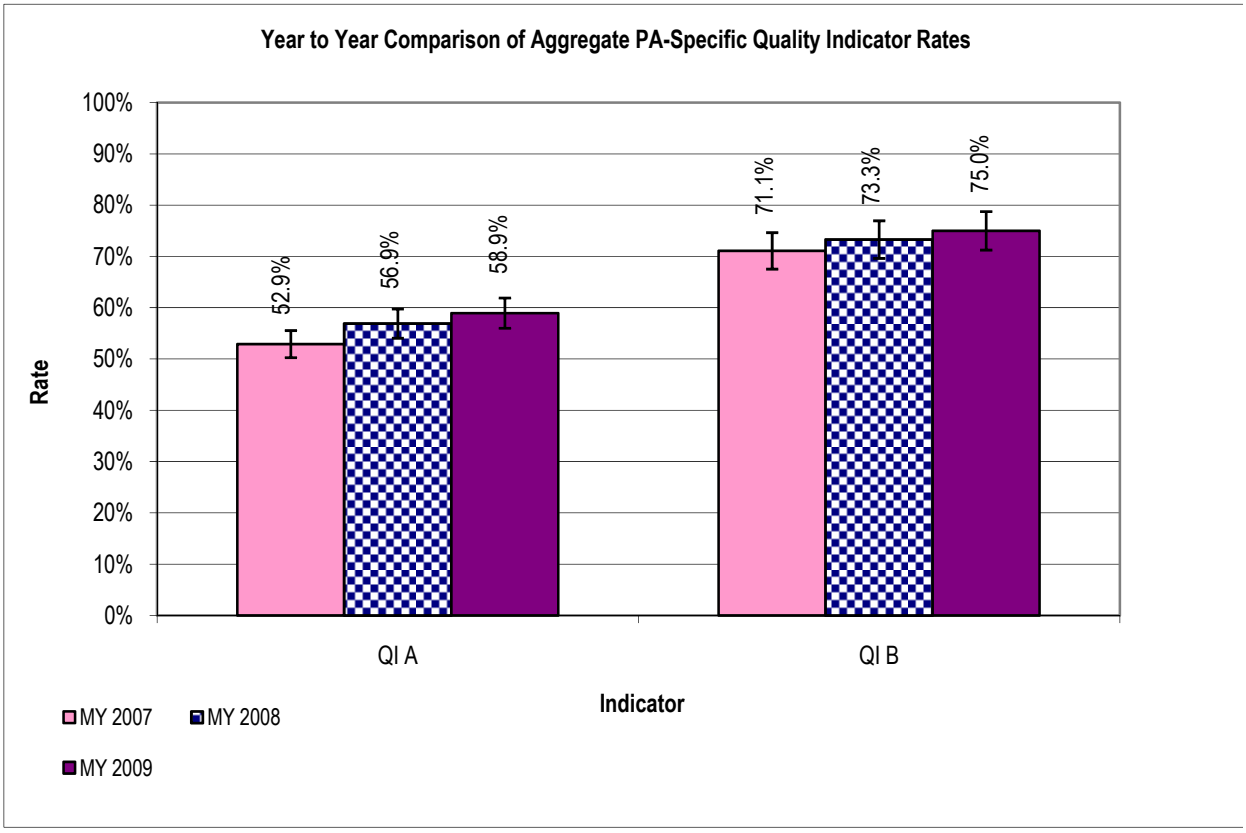


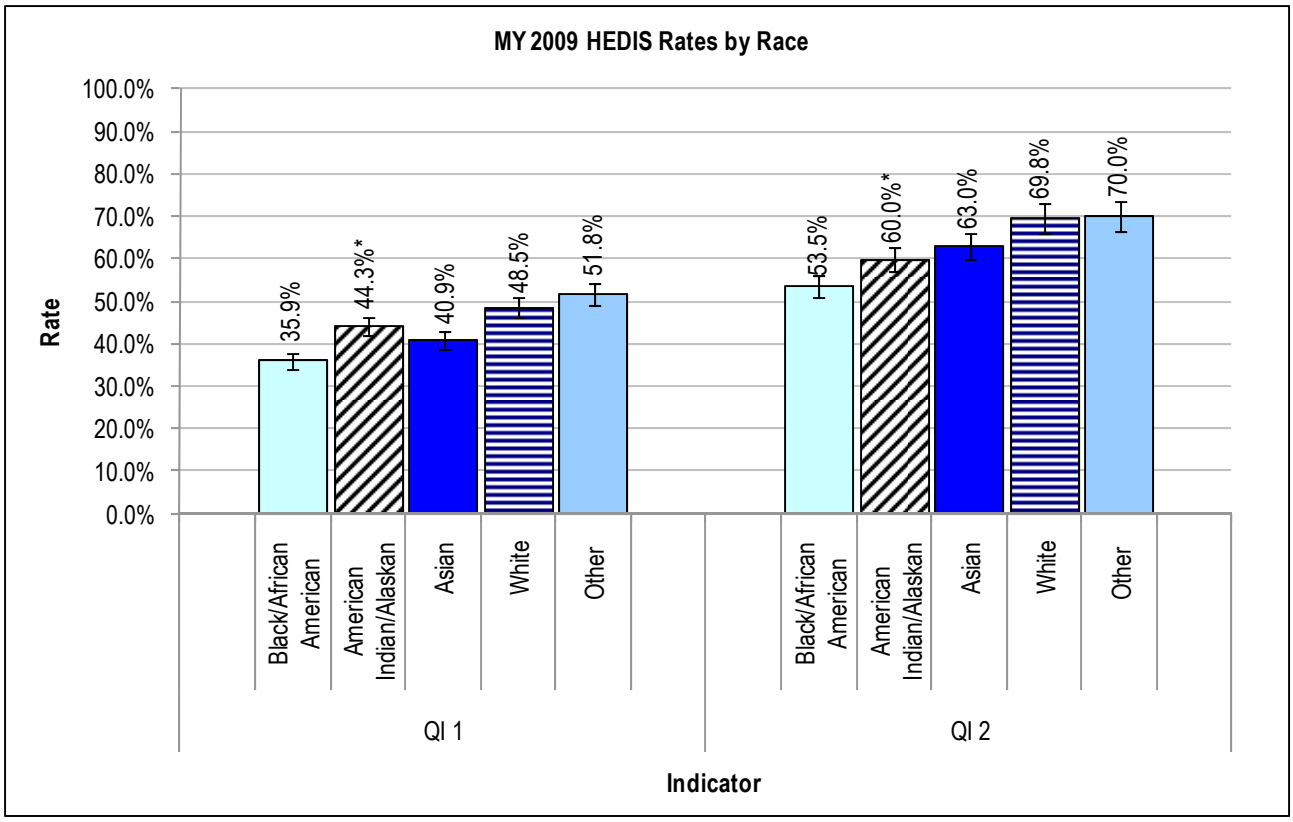
Table 6B: PA-Specific MY 2009 Aggregate Rates and Year-to-Year Comparisons

	MY 2007	Comparison MY 2009 to MY 2007		MY 2008	Comparison MY 2009 to MY 2008		MY 2009
QI	%	PPD	SSD	%	PPD	SSD	%
QI A	52.9%	6.0	YES	56.9%	2.0	YES	58.9%
QI B	71.1%	3.9	YES	73.3%	1.7	YES	75.0%

III. Follow-up Rates by Race Category

Follow-up rates were assessed for the study population to determine if differential rates were observed by race. The race categories included the following: Black/African American, American Indian/Alaskan Native, Asian, White, and Other/Recipient Chose Not to Respond. In the MY 2009 data, there were no members of Hawaiian/Pacific Islander origin.

Figure 3A: MY 2009 HEDIS Follow-up Rates by Race



* There were fewer than 100 members in the American Indian/Alaskan population.

Table 7A presents the HEDIS follow-up rates for the HealthChoices population by racial category for the three most recent measurement years, MY 2007, MY 2008, and MY 2009.

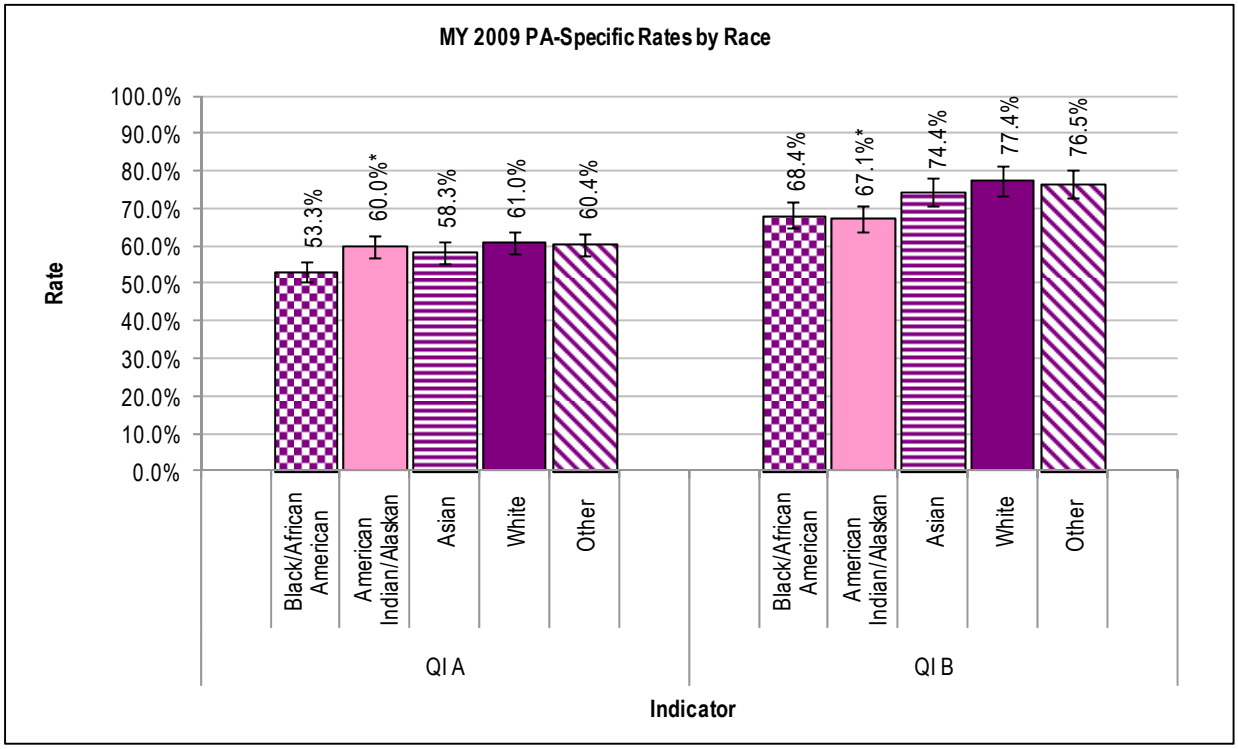
Table 7A: HEDIS MY 2009 Rates and Year-to-Year Comparisons by Race

		MY 2007	MY 2008			MY 2009			Comparison MY 2009 to MY 2008	
RACE CATEGORY	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
Black/African American	QI 1	33.6%	3,131	9,030	34.7%	3,281	9,135	35.9%	1.2	NO
	QI 2	50.6%	4,731	9,030	52.4%	4,891	9,135	53.5%	1.1	NO
American Indian/Alaskan Native	QI 1	37.9%	34	71	47.9%	31	70	44.3%	-3.6	NO
	QI 2	56.9%	45	71	63.4%	42	70	60.0%	-3.4	NO
Asian	QI 1	35.6%	83	216	38.4%	94	230	40.9%	2.5	NO
	QI 2	53.2%	127	216	58.8%	145	230	63.0%	4.2	NO

		MY 2007	MY 2008			MY 2009			Comparison MY 2009 to MY 2008	
RACE CATEGORY	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
White	QI 1	44.2%	10,267	22,284	46.1%	11,255	23,196	48.5%	2.4	YES
	QI 2	65.2%	15,092	22,284	67.7%	16,181	23,196	69.8%	2.1	YES
Other/Chose Not to Respond	QI 1	48.1%	1,226	2,464	49.8%	1,732	3,344	51.8%	2.0	NO
	QI 2	65.8%	1,719	2,464	69.8%	2,342	3,344	70.0%	0.2	NO
Hawaiian/Pacific Islander	QI 1	N/A	0	0	N/A	0	0	N/A	N/A	N/A
	QI 2	N/A	0	0	N/A	0	0	N/A	N/A	N/A

For the HEDIS measures, the rates for both QIs 1 and 2 increased statistically significantly for the White population by 2.4 and 2.1 percentage points, respectively. The rate changes for the other racial populations across HEDIS indicators were not statistically significant between the two most recent measurement years.

Figure 3B: MY 2009 PA-Specific Follow-up Rates by Race



* There were fewer than 100 members in the American Indian/Alaskan population.

Table 7B presents the PA-Specific follow-up rates for the HealthChoices population by racial category for the three most recent measurement years, MY 2007, MY 2008, and MY 2009.

Table 7B: PA-Specific MY 2009 Rates and Year-to-Year Comparisons by Race

		MY 2007	MY 2008			MY 2009			Comparison MY 2009 to MY 2008	
RACE CATEGORY	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
Black/African American	QI A	48.9%	4,706	9,030	52.1%	4,871	9,135	53.3%	1.2	NO
	QI B	65.0%	6,064	9,030	67.2%	6,245	9,135	68.4%	1.2	NO
American Indian/Alaskan Native	QI A	44.8%	41	71	57.8%	42	70	60.0%	2.2	NO
	QI B	62.1%	50	71	70.4%	47	70	67.1%	-3.3	NO
Asian	QI A	56.8%	123	216	56.9%	134	230	58.3%	1.4	NO
	QI B	73.9%	161	216	74.5%	171	230	74.4%	-0.1	NO
White	QI A	54.4%	13,088	22,284	58.7%	14,137	23,196	61.0%	2.3	YES
	QI B	73.6%	16,842	22,284	75.6%	17,964	23,196	77.4%	1.8	YES
Other/Chose Not to Respond	QI A	54.7%	1,427	2,464	57.9%	2,019	3,344	60.4%	2.5	NO
	QI B	72.3%	1,858	2,464	75.4%	2,557	3,344	76.5%	1.1	NO
Hawaiian/Pacific Islander	QI A	N/A	0	0	N/A	0	0	N/A	N/A	N/A
	QI B	N/A	0	0	N/A	0	0	N/A	N/A	N/A

As with the HEDIS measures, the PA-specific QI A and QI B rates also statistically significantly increased for the White population, by 2.3 and 1.8 percentage points. The rate changes between measurement years for the other racial populations across the PA-specific indicators were not statistically significant.

Table 8A: HEDIS MY 2009 Rates and Year-to-Year Comparisons by BH MCO

		Overall	BLACK/AFRICAN AMERICAN				WHITE				Comparison Black/African American to White	
		MY 2009	MY 2008	MY 2009			MY 2008	MY 2009				
BH MCO	QI	%	%	(N)	(D)	%	%	(N)	(D)	%	PPD	SSD
AGGREGATE	QI 1	45.6%	34.7%	3,281	9,135	35.9%	46.1%	11,255	23,196	48.5%	-12.6	YES
	QI 2	65.6%	52.4%	4,891	9,135	53.5%	67.7%	16,181	23,196	69.8%	-16.3	YES
CBH	QI 1	34.7%	30.9%	1,562	5,086	30.7%	36.8%	749	1,959	38.2%	-7.5	YES
	QI 2	51.1%	47.3%	2,418	5,086	47.5%	52.8%	1,029	1,959	52.5%	-5.0	YES
CBHNP	QI 1	43.2%	36.4%	169	497	34.0%	43.8%	1,295	2,906	44.6%	-10.6	YES
	QI 2	66.2%	56.2%	266	497	53.5%	68.3%	1,986	2,906	68.3%	-14.8	YES
CCBH	QI 1	51.5%	38.1%	918	2,049	44.8%	49.2%	4,895	9,269	52.8%	-8.0	YES
	QI 2	72.1%	57.9%	1,270	2,049	62.0%	71.3%	6,881	9,269	74.2%	-12.2	YES
MBH	QI 1	52.2%	49.5%	397	830	47.8%	52.3%	1,650	3,213	51.4%	-3.6	NO
	QI 2	69.2%	63.7%	535	830	64.5%	68.0%	2,206	3,213	68.7%	-4.2	YES
VBH	QI 1	44.4%	31.6%	235	673	34.9%	41.7%	2,666	5,849	45.6%	-10.7	YES
	QI 2	68.5%	55.6%	402	673	59.7%	66.9%	4,079	5,849	69.7%	-10.0	YES

The observed percentage point differences between the Black/African American and White populations in the MY 2009 study were 12.6 and 16.3 for QI 1 and QI 2, respectively. The rate disparity between the Black/African American and White racial groups is consistent with findings from prior studies, where although there were statistically significant increases in follow-up rates from year to year, the rates between Black/African American and White members remained statistically significantly different. The absolute differences in rates between these groups are larger in MY 2009 than those observed in the

prior studies. The percentage point differences between the two race groups were 11.4 and 15.3 in MY 2008, and 10.7 and 14.6 in MY 2007, respectively, indicating that the disparity between the Black/African American and White populations is becoming larger.

Performance rates by BH MCO and for race groups within each BH MCO were generated. The intent of doing so was to determine if disparities were noted within BH MCOs regardless of the overall performance of each specific BH MCO. Tables 8A and 8B show the performance by BH MCO for both the HEDIS and PA-specific indicators, respectively, outlining the overall indicator rate for each BH MCO, and for their corresponding Black/African American and White racial groups.

As seen in Table 8A, differences were noted for each BH MCO between the Black/African American populations for QI 1 and QI 2 in varying amounts. Black/African Americans consistently had lower rates across all BH MCOs.

For QI 1, the aggregate rates for the Black/African American and White populations were 35.9% and 48.5%, respectively. Among the five BH MCOs, the performance rates for CBH were the lowest for both groups, at 30.7% for Black/African Americans and 38.2% for Whites. The MBH rate for Black/African Americans at 47.8% and the CCBH rate for Whites at 52.8% were the highest. The largest disparity was observed for VBH, with a statistically significant difference of 10.7 percentage points between the rates for Black/African Americans and Whites. The only BH MCO for which the rate difference between Black/African Americans and Whites was not statistically significant was for MBH, at 3.6 percentage points.

For QI 2, the aggregate rates for the Black/African American and White populations were 53.5% and 69.8%, respectively. As with QI 1, the QI 2 rates for CBH were the lowest, at 47.5% for Black/African Americans and 52.5% for Whites. The highest rate for Black/African Americans was noted at MBH (64.5%), whereas the highest rate for Whites was noted at CCBH (74.2%). The rate differences between the two populations were statistically significant for all of the BH MCOs. A 14.8 percentage point difference for CBHNP was the highest, and a 4.2 percentage point difference for MBH was the lowest.

Table 8B: PA-specific MY 2009 Rates and Year-to-Year Comparisons by BH MCO

		Overall	BLACK/AFRICAN AMERICAN				WHITE				Comparison Black/African American to White	
		MY 2009	MY 2008	MY 2009			MY 2008	MY 2009				
BH MCO	QI	%	%	(N)	(D)	%	%	(N)	(D)	%	PPD	SSD
AGGREGATE	QI A	58.9%	52.1%	4,871	9,135	53.3%	58.7%	14,137	23,196	61.0%	-7.7	YES
	QI B	75.0%	67.2%	6,245	9,135	68.4%	75.6%	17,964	23,196	77.4%	-9.0	YES
CBH	QI A	52.9%	50.1%	2,597	5,086	51.1%	53.2%	1,089	1,959	55.6%	-4.5	YES
	QI B	68.0%	65.7%	3,393	5,086	66.7%	67.1%	1,340	1,959	68.4%	-1.7	NO
CBHNP	QI A	56.3%	54.5%	255	497	51.3%	56.4%	1,677	2,906	57.7%	-6.4	YES
	QI B	74.8%	68.3%	333	497	67.0%	74.9%	2,224	2,906	76.5%	-9.5	YES
CCBH	QI A	62.8%	54.3%	1184	2,049	57.8%	62.0%	5,923	9,269	63.9%	-6.1	YES
	QI B	78.4%	68.4%	1,442	2,049	70.4%	78.6%	7,436	9,269	80.2%	-9.8	YES
MBH	QI A	63.4%	61.4%	494	830	59.5%	62.9%	2,031	3,213	63.2%	-3.7	NO
	QI B	76.8%	71.6%	603	830	72.7%	75.1%	2,458	3,213	76.5%	-3.8	YES
VBH	QI A	57.5%	45.8%	341	673	50.7%	54.2%	3,417	5,849	58.4%	-7.7	YES
	QI B	76.3%	67.2%	474	673	70.4%	74.3%	4,506	5,849	77.0%	-6.6	YES

There was no correlation between overall BH MCO performance and the rates observed for the two racial groups. There was also no apparent relationship between BH MCO performance and the magnitude of

the disparity. The lowest and highest performing MCOs all evidenced differences in the rates for these groups.

For the PA-specific indicator QI A, the aggregate rates for the Black/African American and White populations were 53.3% and 61.0%, respectively. In MY 2009, the lowest rate for Black/African Americans was noted for VBH (55.6%), and the lowest rate for Whites was noted for CBH (55.6%). The rates for MBH for Black/African American (59.5%) and for CCBH for Whites (63.9%) were the highest. As noted last year, VBH exhibited the greatest disparity between groups. The rate for Black/African Americans was statistically significantly lower than the rate for Whites by 7.7 percentage points. The rates for MBH were not statistically significantly different between the two race groups.

For QI B, the aggregate rates for the Black/African American and White populations were 68.4% and 77.4%, respectively. The QI B rates for CBH were the lowest, at 66.7% for Black/African American and 68.4% for Whites. On the other hand, the MBH rate for Black/African Americans at 72.7% and the CCBH rate for Whites at 80.2% were the highest. Although disparities were noted for all BH MCOs, the greatest difference in rates between the groups was noted for CCBH, with the rate for Black/African Americans being statistically significantly lower than the rate for Whites by 9.8 percentage points. The only BH MCO for which the rate difference between the two race groups was not statistically significant was for CBH.

As shown in Tables 8A and 8B, statistically significant rate differences between the Black/African American and White populations were noted for CBHNP, CCBH, and VBH on all four indicators. For CBH, the only rate difference between the two populations that was not statistically significant was for QI B. For MBH, only rates for the 30-day indicators demonstrated statistically significant differences between the two race groups.

Overall, the greatest gaps between Black/African Americans and Whites for both 7-day indicators (QI 1 and QI A) were noted for VBH. For QI 2, rates for CBHNP demonstrated the greatest disparity out of the five BH MCOs, while CCBH had the largest difference for QI B rates. In general, findings for all four indicators in this study suggest that racial disparity was present regardless of the overall BH MCO performance. This is consistent with findings from prior studies.

Those BH MCOs that served a larger population of Black/African Americans than Whites, such as CBH, also had a statistically significant racial disparity. Overall, the study findings continue to suggest that the presence or absence of service inequality is not dictated by the overall composition of the member population. Furthermore, there was no consistent correlation between overall or categorical performance rates and the degree of disparity observed for the Black/African American and White populations that each BH MCO serves.

IV. Follow-up Rates by Ethnicity

Follow-up rates were assessed to determine if there were differences in rates between Hispanic and Non-Hispanic ethnic groups.

Table 9A represents a year-to-year comparison of HEDIS rates by ethnicity. From MY 2008 to MY 2009, the QI 1 and QI 2 rates for the Non-Hispanic group increased statistically significantly, but not for the Hispanic group.

Table 9A: HEDIS MY 2009 Rates and Year-to-Year Comparisons by Ethnicity

		MY 2007	MY 2008			MY 2009			COMPARISON MY 2009 to MY 2008	
ETHNICITY	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
HISPANIC	QI 1	46.9%	887	1,738	51.0%	1,400	2,642	53.0%	2.0	NO
	QI 2	66.3%	1,227	1,738	70.6%	1,881	2,642	71.2%	0.6	NO
NON-HISPANIC	QI 1	41.2%	13,847	32,306	42.9%	14,977	33,294	45.0%	2.1	YES
	QI 2	60.8%	20,477	32,306	63.4%	21,696	33,294	65.2%	1.8	YES

Table 9B presents the PA-specific follow-up rates for MY 2008 and MY 2009 by ethnicity. Compared to MY 2008, only the MY 2009 rates for the Non-Hispanic population showed statistically significant increases.

Table 9B: PA-Specific MY 2009 Rates and Year-to-Year Comparisons by Ethnicity

		MY 2007	MY 2008			MY 2009			COMPARISON MY 2009 to MY 2008	
ETHNICITY	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
HISPANIC	QI A	53.4%	1,018	1,738	58.6%	1,621	2,642	61.4%	2.8	NO
	QI B	72.2%	1,337	1,738	76.9%	2,050	2,642	77.6%	0.7	NO
NON-HISPANIC	QI A	52.9%	18,355	32,306	56.8%	19,563	33,294	58.8%	2.0	YES
	QI B	71.0%	23,625	32,306	73.1%	24,908	33,294	74.8%	1.7	YES

As shown in Tables 10A and 10B, the MY 2009 rates for Hispanics for all four indicators, QI 1, QI 2, QI A, and QI B, were statistically significantly higher than those rates for Non-Hispanics by 8.0, 6.0, 2.6, and 2.8 percentage points, respectively. This was consistent with findings from MY 2007 and MY 2008.

Table 10A: HEDIS MY 2009 Rates by Ethnicity

	HISPANICS MY 2009					NON-HISPANICS MY 2009					COMPARISON Hispanics to Non-Hispanics	
QI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
QI 1	1,400	2,642	53.0%	51.1%	54.9%	14,977	33,294	45.0%	44.4%	45.5%	8.0	YES
QI 2	1,881	2,642	71.2%	69.5%	72.9%	21,696	33,294	65.2%	64.6%	65.7%	6.0	YES

Table 10B: PA-Specific MY 2009 Rates by Ethnicity

	HISPANICS MY 2009					NON-HISPANICS MY 2009					COMPARISON Hispanics to Non-Hispanics	
QI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
QI A	1,621	2,642	61.4%	59.5%	63.2%	19,563	33,294	58.8%	58.2%	59.3%	2.6	YES
QI B	2,050	2,642	77.6%	76.0%	79.2%	24,908	33,294	74.8%	74.3%	75.3%	2.8	YES

V. Follow-up Rates by Age Category

Table 11A shows the HEDIS follow-up rates by age category for the three most recent MYs. A comparison of rates between MY 2009 and MY 2008 rates is presented as well. Table 11B displays the MY 2009 PA-specific rates and the applicable comparisons to MY 2008.

Table 11A: HEDIS MY 2009 Rates and Year-to-Year Comparisons by Age Category

		MY 2007	MY 2008			MY 2009			COMPARISON MY 2009 to MY 2008	
AGE CATEGORY	**QI**	**%**	**(N)**	**(D)**	**%**	**(N)**	**(D)**	**%**	**PPD**	**SSD**
AGES 6 – 20 YEARS	QI 1	54.0%	4,859	8,764	55.4%	5,353	9,507	56.3%	0.9	NO
	QI 2	72.6%	6,600	8,764	75.3%	7,271	9,507	76.5%	1.2	NO
AGES 21 – 64 YEARS	QI 1	37.7%	9,746	24,738	39.4%	10,885	25,877	42.1%	2.7	YES
	QI 2	57.8%	14,906	24,738	60.3%	16,087	25,877	62.2%	1.9	YES
AGES 65 YEARS and OVER	QI 1	20.2%	136	563	24.2%	155	591	26.2%	2.0	NO
	QI 2	31.7%	208	563	36.9%	243	591	41.1%	4.2	NO
AGES 21+ (COMBINED)	QI 1	37.2%	9,882	25,301	39.1%	11,040	26,468	41.7%	2.6	YES
	QI 2	57.2%	15,114	25,301	59.7%	16,330	26,468	61.7%	2.0	YES

The Ages 21-64 years cohort was reported as two age ranges (Ages 21-59 years and Ages 60-64 years) in prior studies. The two age groups were combined for MY 2007 to allow for comparisons.

Table 11B: PA-Specific MY 2009 Rates and Year-to-Year Comparisons by Age Category

		MY 2007	MY 2008			MY 2009			COMPARISON MY 2009 to MY 2008	
AGE CATEGORY	**QI**	**%**	**(N)**	**(D)**	**%**	**(N)**	**(D)**	**%**	**PPD**	**SSD**
AGES 6 – 20 YEARS	QI A	61.7%	5,702	8,764	65.1%	6,339	9,507	66.7%	1.6	YES
	QI B	78.8%	7,074	8,764	80.7%	7,829	9,507	82.4%	1.7	YES
AGES 21 – 64 YEARS	QI A	50.3%	13,443	24,738	54.3%	14,598	25,877	56.4%	2.1	YES
	QI B	69.0%	17,596	24,738	71.1%	18,820	25,877	72.7%	1.6	YES
AGES 65 YEARS and OVER	QI A	36.3%	240	563	42.6%	266	591	45.0%	2.4	NO
	QI B	48.0%	305	563	54.2%	335	591	56.7%	2.5	NO
AGES 21+ (COMBINED)	QI A	50.0%	13,683	25,301	54.1%	14,864	26,468	56.2%	2.1	YES
	QI B	68.5%	17,901	25,301	70.8%	19,155	26,468	72.4%	1.6	YES

The Ages 21-64 years cohort was reported as two age ranges (Ages 21-59 years and Ages 60-64 years) in prior studies. The two age groups were combined for MY 2007 to allow for comparisons.

As shown in both tables, the highest rates were observed for the Ages 6-20 years group, whereas the lowest rates were noted for the Ages 65 years and over population across the four indicators. These findings are consistent with both MY 2008 and MY 2007. When comparing MY 2009 to MY 2008, there were statistically significant increases in both HEDIS QIs for the Ages 21-64 years category. Rate increases for the Ages 6-20 years and Ages 65 years and over populations were not statistically significant. With regards to the PA-specific indicators, statistically significant increases were noted across the Ages 6-20 years and Ages 21-64 years populations for both indicators.

Tables 12A and 12B compare the follow-up rates for members in the Ages 6-20 years category with those calculated for a combined population of all members, ages 21 years and above.

Table 12A: HEDIS MY 2009 Rates by Age Category

	AGES 6 – 20 YEARS MY 2009					AGES 21 YEARS and OVER (COMBINED) MY 2009					COMPARISON Ages 6-20 to Ages 21 years +	
QI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
QI 1	5,353	9,507	56.3%	55.3%	57.3%	11,040	26,468	41.7%	41.1%	42.3%	14.6	YES
QI 2	7,271	9,507	76.5%	75.6%	77.3%	16,330	26,468	61.7%	61.1%	62.3%	14.8	YES

Table 12B: PA-Specific MY 2009 Rates by Age Category

	AGES 6 – 20 YEARS MY 2009					AGES 21 YEARS and OVER (COMBINED) MY 2009					COMPARISON Ages 6-20 to Ages 21 years +	
QI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
QI A	6,339	9,507	66.7%	65.7%	67.6%	14,864	26,468	56.2%	55.6%	56.8%	10.5	YES
QI B	7,829	9,507	82.4%	81.6%	83.1%	19,155	26,468	72.4%	71.8%	72.9%	10.0	YES

As shown in both tables, there was a statistically significant difference in follow-up care between recipients under 21 years of age and 21 years and over for all four QIs. This was also observed for MY 2007 and MY 2008. For MY 2009, rates for the Ages 6-20 years group were statistically significantly higher than those for the 21 years and over group by 14.6 percentage points for QI 1, and 14.8 percentage points for QI 2. For the PA-specific indicators, rates for the under 21 years population were statistically significantly higher by 10.5 percentage points than the 21 years and over population for QI A, and 10.0 percentage points for QI B.

The statistically significant disparity in rates observed between the Ages 6-20 years population and the 21 years and over population is consistent with findings from prior studies. It should be noted that because the derived rates are calculated based on administrative data provided by the BH MCOs for claims that the BH MCO had a payment responsibility, any appointment within that time frame that was not captured within the BH MCOs' claims systems would not be captured. Third Party Liability (TPL) eligibility is therefore a potential confounding factor that can contribute to the lower rates observed for members over 21 years of age. The potential impact of TPL coverage on ambulatory follow-up rates for this population, however, is not measured in this study.

VI. Follow-up Rates by Gender

Tables 13A and 13B presents the respective HEDIS and PA-specific rates by gender. From MY 2008 to MY 2009, statistically significant increases were noted in all four indicators for both gender groups.

Table 13A: HEDIS MY 2009 Rates and Year-to-Year Comparisons by Gender

		MY 2007	MY 2008			MY 2009			COMPARISON MY 2009 to MY 2008	
GENDER	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
FEMALES	QI 1	42.7%	7,879	17,759	44.4%	8,697	18,637	46.7%	2.3	YES
	QI 2	62.9%	11,677	17,759	65.8%	12,591	18,637	67.6%	1.8	YES
MALES	QI 1	40.1%	6,862	16,306	42.1%	7,696	17,338	44.4%	2.3	YES
	QI 2	59.0%	10,037	16,306	61.6%	11,010	17,338	63.5%	1.9	YES

Table 13B: PA-Specific MY 2009 Rates and Year-to-Year Comparisons by Gender

		MY 2007	MY 2008			MY 2009			COMPARISON MY 2009 to MY 2008	
GENDER	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
FEMALES	QI A	53.3%	10,162	17,759	57.2%	11,030	18,637	59.2%	2.0	YES
	QI B	72.1%	13,262	17,759	74.7%	14,198	18,637	76.2%	1.5	YES
MALES	QI A	52.4%	9,223	16,306	56.6%	10,173	17,338	58.7%	2.1	YES
	QI B	69.9%	11,713	16,306	71.8%	12,786	17,338	73.8%	2.0	YES

For MY 2009, as with findings from MY 2008, the rates for females were statistically significantly higher than those for males for both HEDIS indicators and QI B. These findings are displayed in Tables 14A and 14B. The magnitude of the gender disparity has not been sustained across measurement years as can be observed by the varying increases and decreases in percentage point differences between rates for the two genders in MY 2008 and MY 2009.

Table 14A: HEDIS MY 2009 Rates by Gender

	FEMALES MY 2009					MALES MY 2009					COMPARISON Females to Males	
QI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
QI 1	8,697	18,637	46.7%	46.0%	47.4%	7,696	17,338	44.4%	43.6%	45.1%	2.3	YES
QI 2	12,591	18,637	67.6%	66.9%	68.2%	11,010	17,338	63.5%	62.8%	64.2%	4.1	YES

Table 14B: PA-Specific MY 2009 Rates by Gender

	FEMALES MY 2009					MALES MY 2009					COMPARISON Females to Males	
QI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
QI A	11,030	18,637	59.2%	58.5%	59.9%	10,173	17,338	58.7%	57.9%	59.4%	0.5	NO
QI B	14,198	18,637	76.2%	75.6%	76.8%	12,786	17,338	73.8%	73.1%	74.4%	2.4	YES

VII. Performance by BH MCO

Table 15A shows the respective HEDIS follow-up rates by BH MCO. The percentage point changes and statistically significant differences between the MY 2009 and MY 2008 rates are noted.

Between MY 2008 and MY 2009, CCBH and VBH demonstrated statistically significant rate increases for both HEDIS indicators. Rate changes for the remaining three BH MCOs were not statistically significant.

Table 15A: HEDIS MY 2009 Rates and Year-to-Year Comparisons by BH MCO

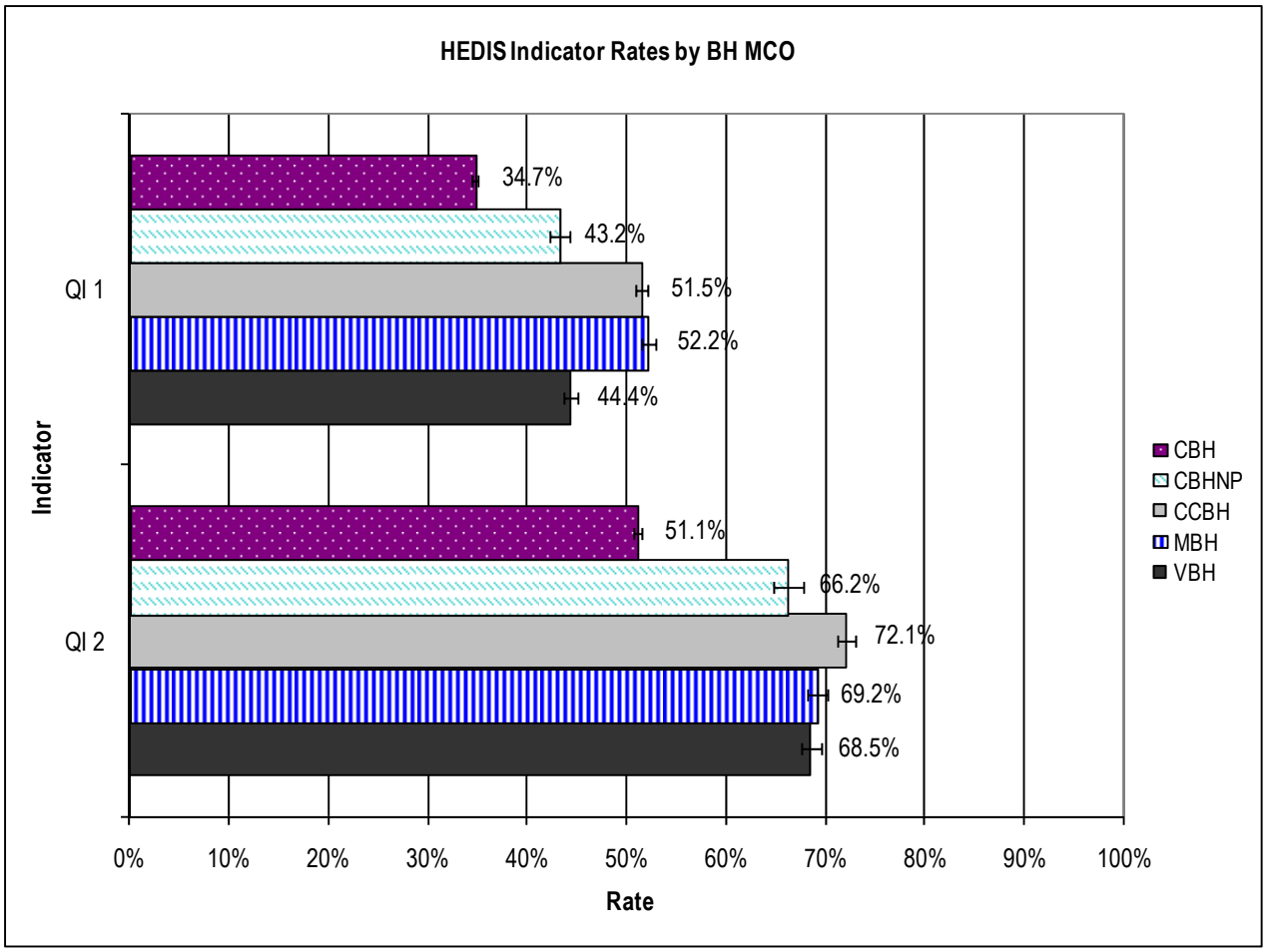
		MY 2007	MY 2008			MY 2009			RATE COMPARISON MY 2009 to MY 2008	
BY MCO	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
CBH	QI 1	33.6%	2,780	7,984	34.8%	2,854	8,215	34.7%	-0.1	NO
	QI 2	49.4%	4,088	7,984	51.2%	4,196	8,215	51.1%	-0.1	NO
CBHNP	QI 1	38.3%*	1,523	3,569	42.7%	1,657	3,838	43.2%	0.5	NO
	QI 2	61.0%*	2,382	3,569	66.7%	2,541	3,838	66.2%	-0.5	NO
CCBH	QI 1	45.8%*	5,487	11,615	47.2%	6,247	12,125	51.5%	4.3	YES
	QI 2	66.5%*	7,985	11,615	68.7%	8,747	12,125	72.1%	3.4	YES

MBH	QI 1	46.3%	2,408	4,628	52.0%	2,671	5,115	52.2%	0.2	NO
	QI 2	62.6%	3,135	4,628	67.7%	3,537	5,115	69.2%	1.5	NO
VBH	QI 1	40.6%*	2,543	6,269	40.6%	2,964	6,682	44.4%	3.8	YES
	QI 2	64.9%*	4,124	6,269	65.8%	4,580	6,682	68.5%	2.7	YES

*Applicable BH MCO rates in MY 2007 include the North/Central County Option Counties that were evaluated based on a six-month time frame from July 1 to December 1, 2007.

BH MCO-specific performance rates for the MY 2009 HEDIS indicators with 95% confidence intervals are presented in Figure 4A.

Figure 4A: HEDIS MY 2009 Follow-up Rates by BH MCO



The MY 2009 HealthChoices BH MCO Average for QI 1 was 45.2%. This QI 1 average is a 1.7 percentage point increase from the MY 2008 HealthChoices BH MCO Average of 43.5%. In this study, for QI 1 the rate for MBH was the highest at 52.2%, while the rate for CBH at 34.7% was the lowest. Using the BH MCO rates' upper and lower 95% Confidence Intervals to determine statistically significant differences from the HealthChoices BH MCO Average, for MY 2009, the QI 1 rates for CCBH and MBH were statistically significantly higher than the QI 1 HealthChoices BH MCO Average. QI 1 rates for CBH and CBHNP, in contrast, were statistically significantly lower than the QI 1 HealthChoices BH MCO Average. The QI 1 follow-up rate for VBH was not statistically significantly different from the QI 1 HealthChoices BH MCO Average. Compared to MY 2008, the QI 1 rates for CCBH increased by 4.3 percentage points and for VBH by 3.8 percentage points. QI 1 rate changes for the other three BH MCOs

were not statistically significant. The MY 2008 and MY 2009 QI 1 rate comparisons for all BH MCOs are noted in Table 15A.

The MY 2009 HealthChoices BH MCO Average for QI 2 across the five BH MCOs was 65.4%. This QI 2 average is a 1.4 percentage point increase from the QI 2 MY 2008 HealthChoices BH MCO Average of 64.0%. For this indicator, the QI 2 rate for CCBH was the highest at 72.1%, while the QI 2 rate for CBH at 51.1% was the lowest. QI 2 rates for CCBH, MBH, and VBH were statistically significantly higher than the QI 2 HealthChoices BH MCO Average, while the QI 2 rate for CBH was statistically significantly lower. Compared to MY 2008, the QI 2 rates for CCBH increased by 3.4 percentage points and VBH by 2.7 percentage points. QI 2 rate changes for the remaining three BH MCOs were not statistically significant.

Across the two HEDIS indicators measured in this study, QI 1 and QI 2 rates for CBH were both statistically significantly lower than the HealthChoices BH MCO Average. QI 1 and QI 2 indicator rates for CCBH and MBH were statistically significantly above the BH MCO Average.

MY 2009 BH MCO-specific performance rates for the PA-specific measures with comparisons to MY 2008 data are presented in Table 15B. BH MCO-specific performance rates for the MY 2009 PA-specific indicators with 95% confidence intervals are presented in Figure 4B.

Table 15B: PA-Specific MY 2008 Rates and Year-to-Year Comparisons by BH MCO

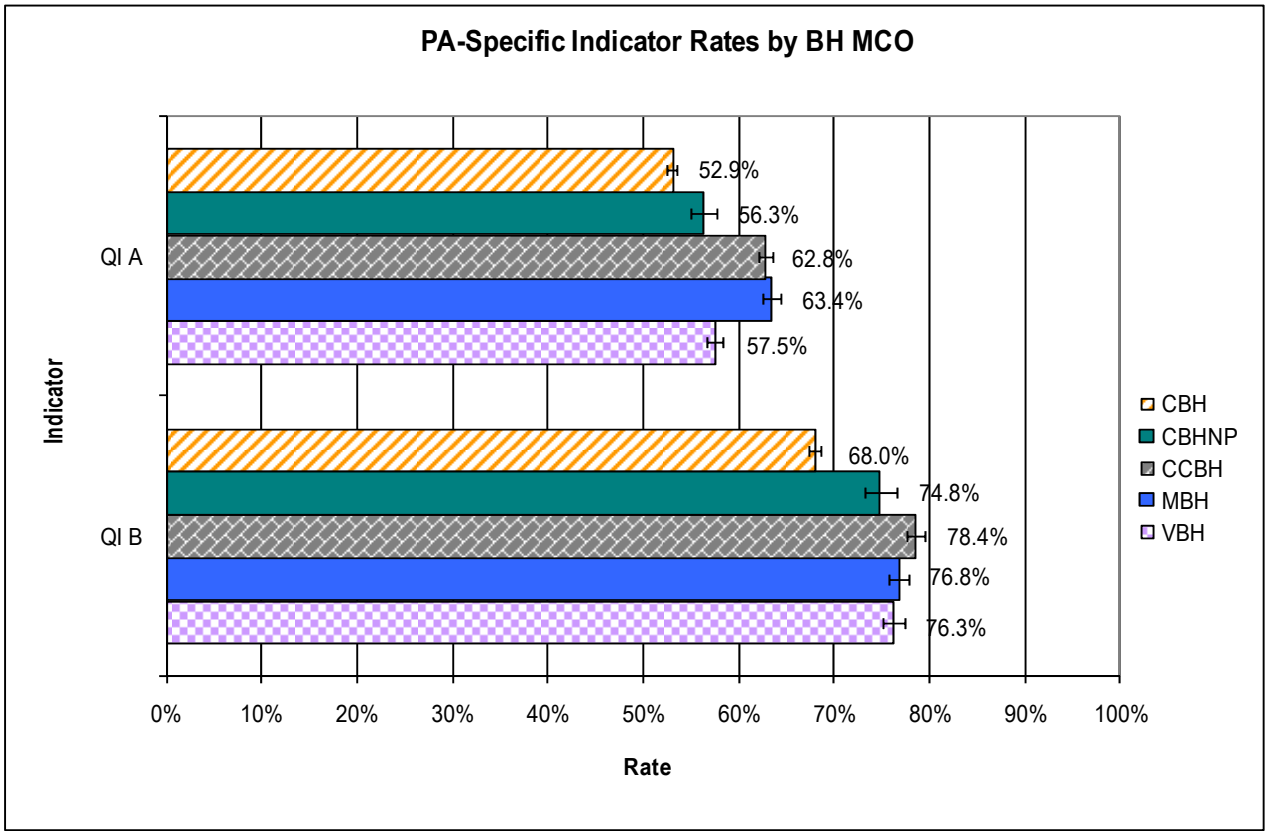
		MY 2007	MY 2008			MY 2009			RATE COMPARISON MY 2009 to MY 2008	
BY MCO	QI	%	(N)	(D)	%	(N)	(D)	%	PPD	SSD
CBH	QI A	51.6%	4,155	7,984	52.0%	4,349	8,215	52.9%	0.9	NO
	QI B	66.0%	5,383	7,984	67.4%	5,583	8,215	68.0%	0.6	NO
CBHNP	QI A	51.4%*	1,990	3,569	55.8%	2,159	3,838	56.3%	0.5	NO
	QI B	68.8%*	2,634	3,569	73.8%	2,870	3,838	74.8%	1.0	NO
CCBH	QI A	52.3%*	7,008	11,615	60.3%	7,610	12,125	62.8%	2.5	YES
	QI B	74.4%*	8,892	11,615	76.6%	9,509	12,125	78.4%	1.8	YES
MBH	QI A	57.5%	2,896	4,628	62.6%	3,244	5,115	63.4%	0.8	NO
	QI B	70.7%	3,455	4,628	74.7%	3,927	5,115	76.8%	2.1	YES
VBH	QI A	52.6%*	3,336	6,269	53.2%	3,841	6,682	57.5%	4.3	YES
	QI B	72.7%*	4,611	6,269	73.6%	5,095	6,682	76.3%	2.7	YES

*Applicable BH MCO rates in MY 2007 include the North/Central County Option Counties that were evaluated based on a six-month time frame from July 1 to December 1, 2007.

The MY 2009 HealthChoices BH MCO Average for QI A was 58.6%. The MY 2009 QI A average is a 1.8 percentage point increase from the MY 2008 QI A HealthChoices BH MCO Average of 56.8%. As with QI 1, the QI A rate for MBH was the highest at 63.4%, and the QI A rate for CBH at 52.9% was the lowest. The QI A rates for CCBH and MBH were statistically significantly higher than the QI A HealthChoices BH MCO Average. QI A rates for CBH and CBHNP, in contrast, were statistically significantly lower than the QI A HealthChoices BH MCO Average. The QI A follow-up rate for VBH was not statistically significantly different than the QI A HealthChoices BH MCO Average. Compared to MY 2008, the QI A rate for CCBH statistically significantly increased by 2.5 percentage points, and VBH by 4.3 percentage points. QI A rate changes for the remaining three BH MCOs were not statistically significant.

The MY 2009 HealthChoices BH MCO Average for QI B was 74.8%. This QI B average is a 1.6 percentage point increase from the MY 2008 QI B HealthChoices BH MCO Average of 73.2%. The QI B rate for CCBH was the highest at 78.4%, while the QI B rate for CBH at 68.0% was the lowest. QI B rates for CCBH, MBH, and VBH were statistically significantly higher than the QI B HealthChoices BH MCO Average, while the QI B rate for CBH was statistically significantly lower. Compared to MY 2008, the QI B rate for CCBH statistically significantly increased by 1.8 percentage points, MBH by 2.1 percentage points, and VBH by 2.7 percentage points. QI B rate changes for the remaining two BH MCOs were not statistically significant.

Figure 4B: PA-Specific MY 2009 Follow-up Rates by BH MCO



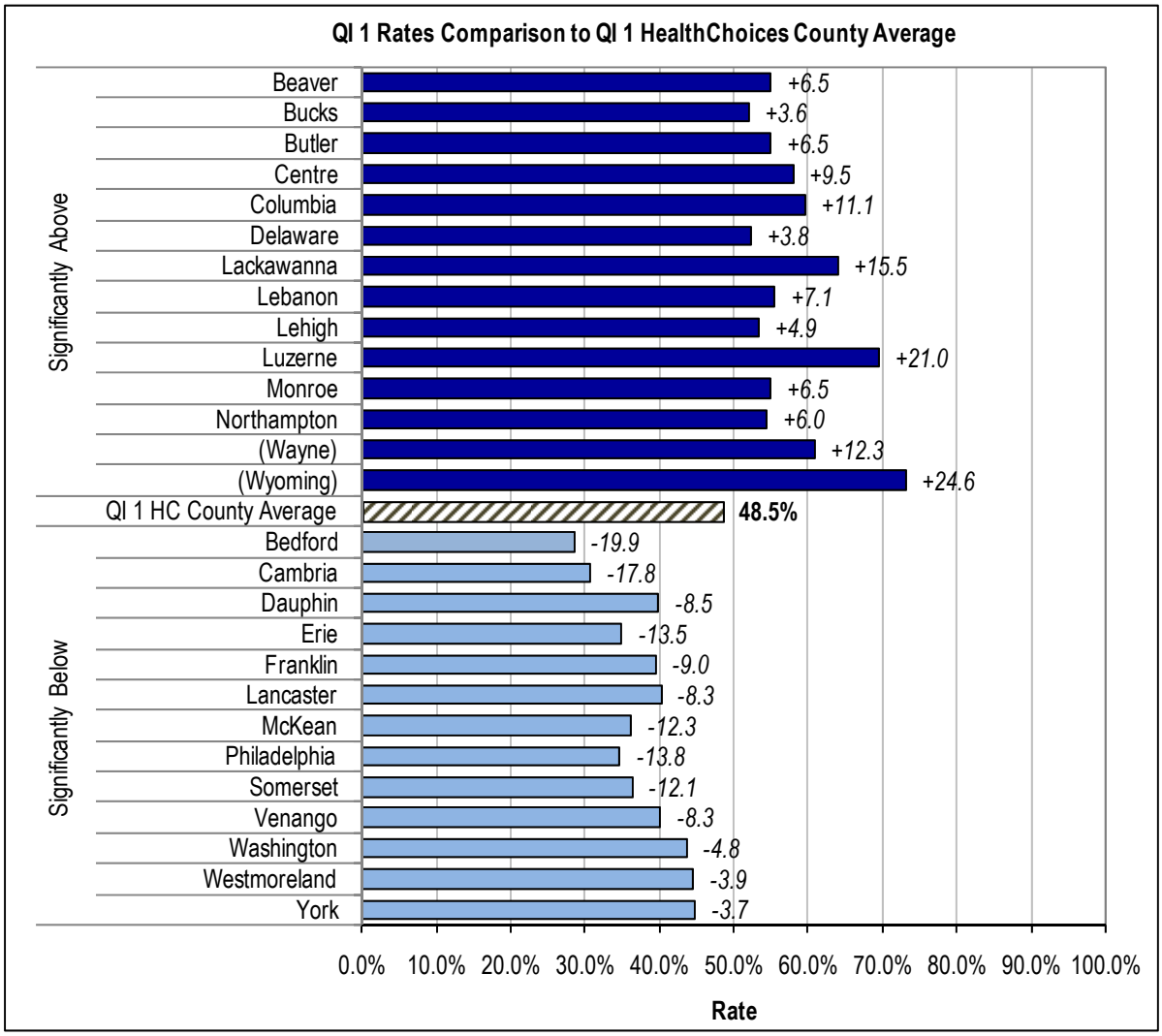
VIII. Performance by County

All 67 Counties in Pennsylvania were evaluated in this study. In this analysis, the individual County rates were first compared to MY 2008 rates to identify year-to-year differences as applicable, then to the HealthChoices County Average. Statistically significant differences were determined using each County's upper and lower 95% confidence intervals. Tables 16A, 16B, 16C and 16D list the Counties that had statistically significant rate changes for each of the four study indicators as compared to MY 2008 rates. Figures 5A, 5B, 5C, and 5D respectively present the HealthChoices County Averages for QI 1, QI 2, QI A, and QI B, as well as the individual Counties that had rates statistically significantly above or below each respective HealthChoices County Average. The percentage point differences between the County rate and the HealthChoices County Average are also indicated. As with previous studies, individual County rates were not compared to the aggregate rate, which is heavily influenced by large Counties such as Philadelphia and Allegheny, but rather to the HealthChoices County Average, in which each County's contribution is equal (i.e., an average that is not weighted). Overall, the MY 2009 HealthChoices County Averages were 48.5% for QI 1, 70.8% for QI 2, 60.5% for QI A, and 77.5% for QI B.

Table 16A: Year-to-Year QI 1 Rate Comparisons by County

	Rate Statistically Significantly *Increased* Between MY 2008 and MY 2009		Rate Statistically Significantly *Decreased* Between MY 2008 and MY 2009
QI 1	Allegheny Beaver Butler Columbia	Cumberland Indiana Luzerne Tioga	Adams Bradford Montgomery

Figure 5A: QI 1 County Rates Compared to QI 1 HealthChoices County Average

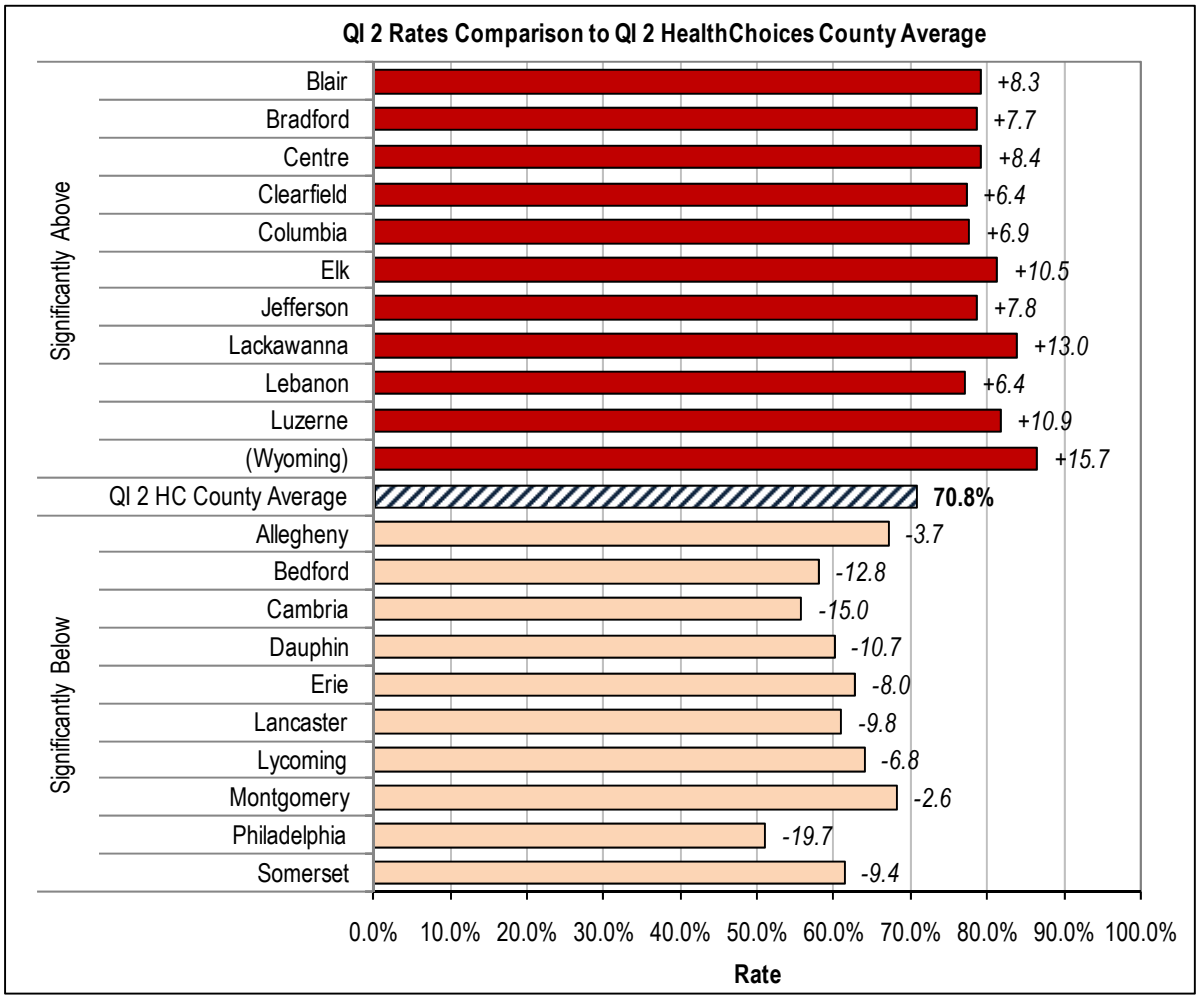


Note: Counties, for which rates were determined by less than 100 members, are presented within parentheses.
Note: Counties not statistically significantly different than the QI 1 HealthChoices County Average are not displayed.

Table 16B: Year-to-Year QI 2 Rate Comparisons by County

	Rate Statistically Significantly *Increased* Between MY 2008 and MY 2009	Rate Statistically Significantly *Decreased* Between MY 2008 and MY 2009
QI 2	Allegheny Beaver Blair Columbia Lackawanna Schuylkill	None

Figure 5B: QI 2 County Rates Compared to QI 2 HealthChoices County Average

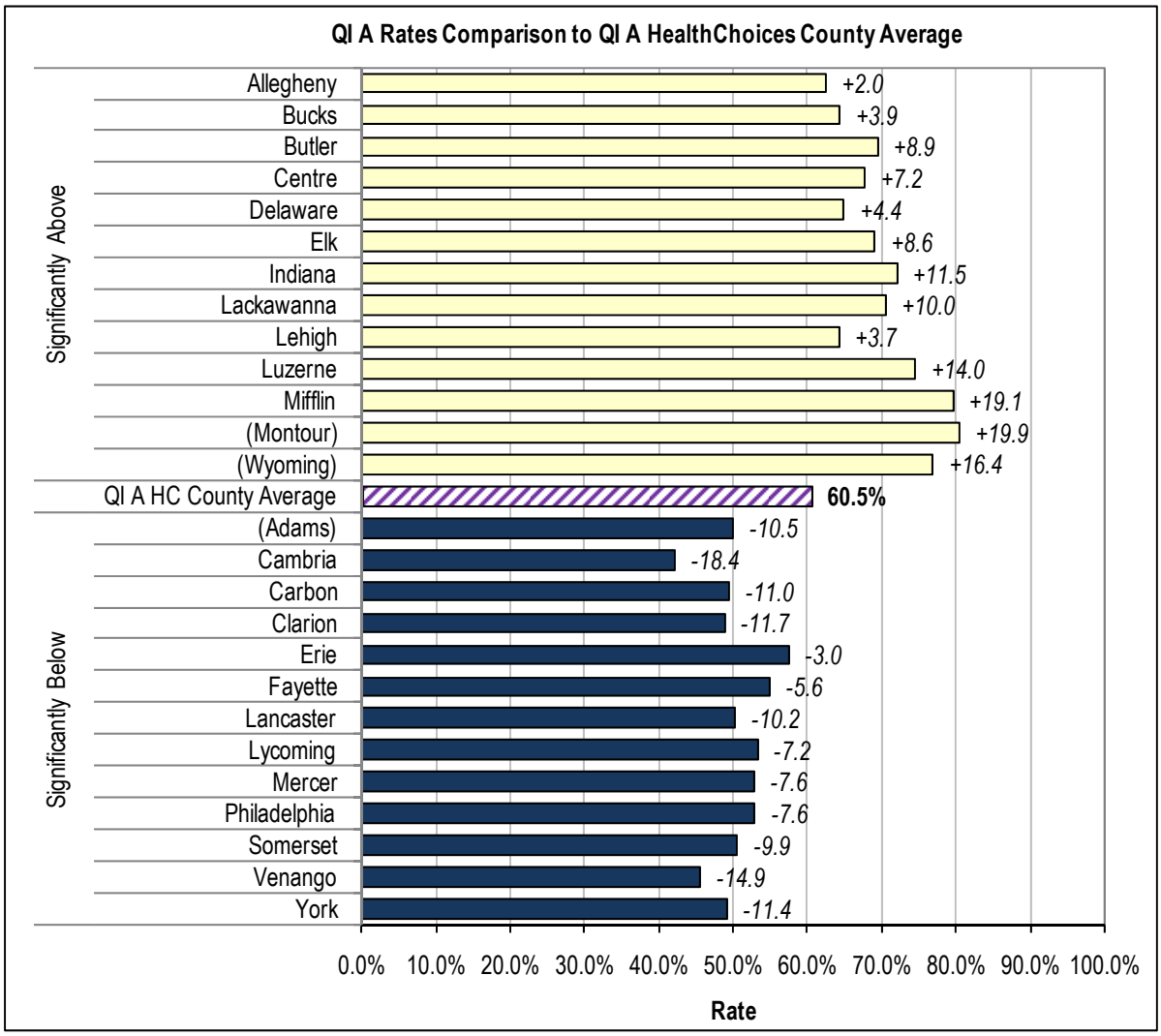


Note: Counties, for which rates were determined by less than 100 members, are presented within parentheses.
Note: Counties not statistically significantly different than the QI 2 HealthChoices County Average are not displayed.

Table 16C: Year-to-Year QI A Rate Comparisons by County

	Rate Statistically Significantly *Increased* Between MY 2008 and MY 2009		Rate Statistically Significantly *Decreased* Between MY 2008 and MY 2009
QI A	Allegheny Beaver Butler Cumberland Erie Indiana	Jefferson Lackawanna Lehigh Luzerne Mifflin	Adams Bradford Dauphin

Figure 5C: QI A County Rates Compared to QI A HealthChoices County Average

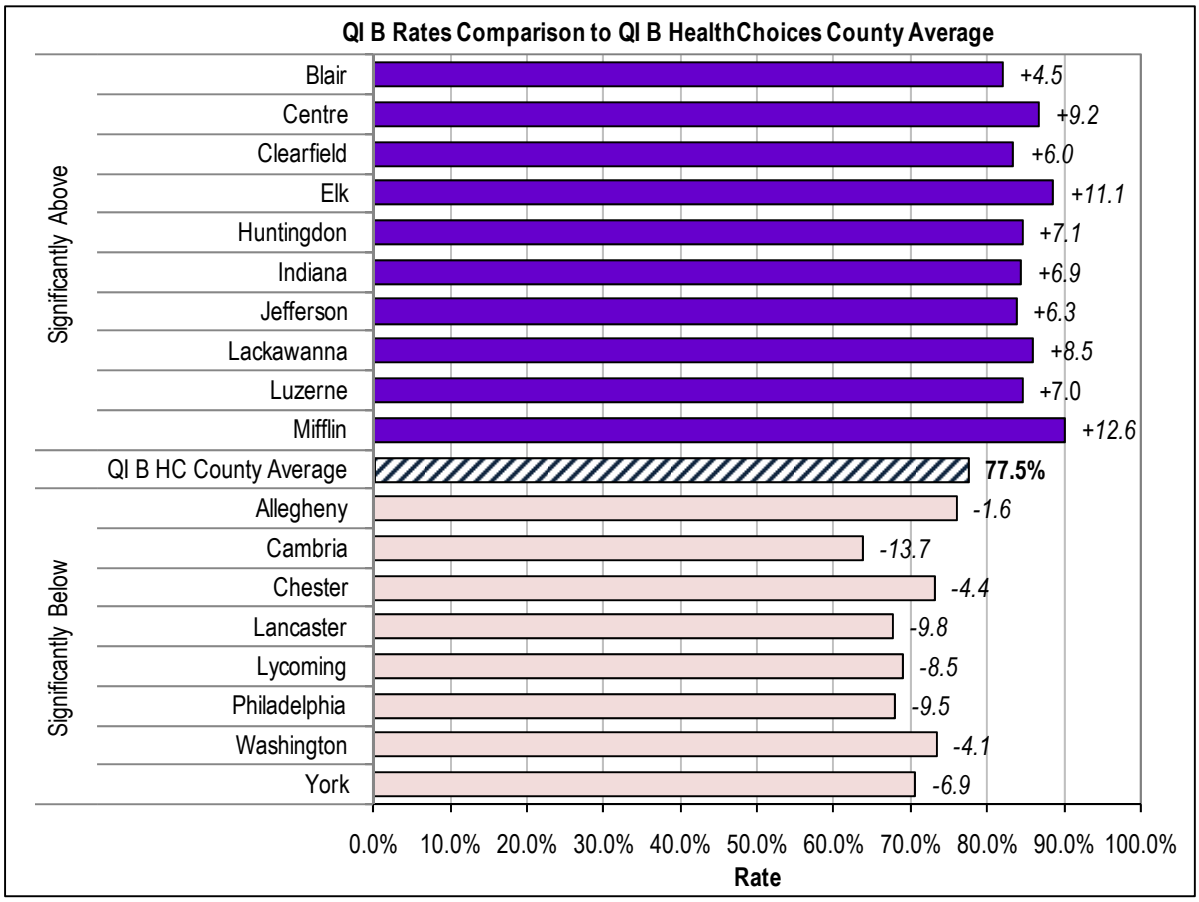


Note: Counties, for which rates were determined by less than 100 members, are presented within parentheses.
Note: Counties not statistically significantly different than the QI A HealthChoices County Average are not displayed.

Table 16D: Year-to-Year QI B Rate Comparisons by County

QI B	Allegheny Beaver Blair Delaware Indiana Lackawanna Mifflin Schuylkill	None

Figure 5D: QI B County Rates Compared to QI B HealthChoices County Average



Note: Counties, for which rates were determined by less than 100 members, are presented within parentheses.
Note: Counties not statistically significantly different than the QI B HealthChoices County Average are not displayed.

County-specific performance rates for MY 2009 with the 95% confidence intervals are presented in Tables 17A and 17B for the HEDIS and PA-specific measures, respectively. The tables also include individual County rates from MY 2008 as available, and identify whether year-to-year changes between MY 2009 and MY 2008 are statistically significant. Figures of the observed rates by County are included in the Appendix.

Table 17A: HEDIS MY 2009 Rates and MY 2008 Comparisons by County

HEDIS SPECIFICATIONS																
	QUALITY INDICATOR 1								QUALITY INDICATOR 2							
	MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008		MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008	
BY COUNTY	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
Adams	64.3%	55	122	**45.1%**	35.8%	54.3%	-19.2	YES	76.2%	85	122	**69.7%**	61.1%	78.2%	-6.5	NO
Allegheny	40.8%	1,909	3,966	**48.1%**	46.6%	49.7%	7.3	YES	60.8%	2,661	3,966	**67.1%**	65.6%	68.6%	6.3	YES
Armstrong	46.1%	111	218	**50.9%**	44.1%	57.8%	4.8	NO	75.2%	164	218	**75.2%**	69.3%	81.2%	0.0	NO
Beaver	45.3%	351	638	**55.0%**	51.1%	59.0%	9.7	YES	66.4%	464	638	**72.7%**	69.2%	76.3%	6.3	YES
Bedford	28.0%	32	112	**28.6%**	19.8%	37.4%	0.6	NO	60.0%	65	112	**58.0%**	48.5%	67.6%	-2.0	NO
Berks	51.9%	474	926	**51.2%**	47.9%	54.5%	-0.7	NO	73.6%	672	926	**72.6%**	69.6%	75.5%	-1.0	NO
Blair	47.6%	257	506	**50.8%**	46.3%	55.2%	3.2	NO	70.2%	400	506	**79.1%**	75.4%	82.7%	8.9	YES
Bradford	62.1%	90	177	**50.9%**	43.2%	58.5%	-11.2	YES	83.0%	139	177	**78.5%**	72.2%	84.9%	-4.5	NO
Bucks	49.2%	431	828	**52.1%**	48.6%	55.5%	2.9	NO	66.3%	566	828	**68.4%**	65.1%	71.6%	2.1	NO
Butler	45.6%	194	353	**55.0%**	49.6%	60.3%	9.4	YES	68.9%	264	353	**74.8%**	70.1%	79.5%	5.9	NO
Cambria	26.7%	146	475	**30.7%**	26.5%	35.0%	4.0	NO	53.1%	265	475	**55.8%**	51.2%	60.4%	2.7	NO
Cameron	50.0%	10	24	**41.7%**	19.9%	63.5%	-8.3	NO	75.0%	17	24	**70.8%**	50.6%	91.1%	-4.2	NO
Carbon	42.8%	76	184	**41.3%**	33.9%	48.7%	-1.5	NO	69.0%	128	184	**69.6%**	62.6%	76.5%	0.6	NO
Centre	51.8%	131	226	**58.0%**	51.3%	64.6%	6.2	NO	77.2%	179	226	**79.2%**	73.7%	84.7%	2.0	NO
Chester	47.5%	293	602	**48.7%**	44.6%	52.7%	1.2	NO	69.2%	415	602	**68.9%**	65.2%	72.7%	-0.3	NO
Clarion	37.5%	52	129	**40.3%**	31.5%	49.2%	2.8	NO	69.2%	90	129	**69.8%**	61.5%	78.1%	0.6	NO
Clearfield	48.6%	210	417	**50.4%**	45.4%	55.3%	1.8	NO	77.5%	322	417	**77.2%**	73.1%	81.4%	-0.3	NO
Clinton	49.4%	40	87	**46.0%**	34.9%	57.0%	-3.4	NO	74.1%	64	87	**73.6%**	63.7%	83.4%	-0.5	NO
Columbia	42.4%	112	188	**59.6%**	52.3%	66.9%	17.2	YES	67.3%	146	188	**77.7%**	71.4%	83.9%	10.4	YES
Crawford	43.3%	150	305	**49.2%**	43.4%	55.0%	5.9	NO	69.4%	222	305	**72.8%**	67.6%	77.9%	3.4	NO
Cumberland	34.4%	112	242	**46.3%**	39.8%	52.8%	11.9	YES	62.2%	157	242	**64.9%**	58.7%	71.1%	2.7	NO
Dauphin	40.9%	292	731	**40.0%**	36.3%	43.6%	-0.9	NO	64.3%	439	731	**60.1%**	56.4%	63.7%	-4.2	NO
Delaware	49.2%	564	1,078	**52.3%**	49.3%	55.3%	3.1	NO	65.7%	742	1,078	**68.8%**	66.0%	71.6%	3.1	NO
Elk	55.9%	64	123	**52.0%**	42.8%	61.3%	-3.9	NO	77.1%	100	123	**81.3%**	74.0%	88.6%	4.2	NO
Erie	33.8%	395	1,129	**35.0%**	32.2%	37.8%	1.2	NO	61.6%	709	1,129	**62.8%**	59.9%	65.7%	1.2	NO
Fayette	45.3%	290	630	**46.0%**	42.1%	50.0%	0.7	NO	67.5%	443	630	**70.3%**	66.7%	74.0%	2.8	NO
Forest	40.0%	4	11	**36.4%**	3.4%	69.3%	-3.6	NO	60.0%	7	11	**63.6%**	30.7%	96.6%	3.6	NO
Franklin	45.5%	100	253	**39.5%**	33.3%	45.8%	-6.0	NO	79.7%	186	253	**73.5%**	67.9%	79.2%	-6.2	NO
Fulton	48.2%	13	27	**48.2%**	27.5%	68.8%	0.0	NO	74.1%	18	27	**66.7%**	47.0%	86.3%	-7.4	NO
Greene	41.1%	80	186	**43.0%**	35.6%	50.4%	1.9	NO	70.0%	125	186	**67.2%**	60.2%	74.2%	-2.8	NO
Huntingdon	40.2%	59	123	**48.0%**	38.7%	57.2%	7.8	NO	73.2%	93	123	**75.6%**	67.6%	83.6%	2.4	NO
Indiana	44.4%	120	218	**55.1%**	48.2%	61.9%	10.7	YES	67.7%	164	218	**75.2%**	69.3%	81.2%	7.5	NO

HEDIS SPECIFICATIONS																
	QUALITY INDICATOR 1								QUALITY INDICATOR 2							
	MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008		MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008	
BY COUNTY	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
Jefferson	45.1%	126	234	**53.9%**	47.2%	60.5%	8.8	NO	75.3%	184	234	**78.6%**	73.2%	84.1%	3.3	NO
Juniata	50.0%	29	47	**61.7%**	46.7%	76.7%	11.7	NO	81.3%	38	47	**80.9%**	68.5%	93.2%	-0.4	NO
Lackawanna	59.3%	419	655	**64.0%**	60.2%	67.7%	4.7	NO	78.7%	549	655	**83.8%**	80.9%	86.7%	5.1	YES
Lancaster	42.6%	401	997	**40.2%**	37.1%	43.3%	-2.4	NO	63.2%	608	997	**61.0%**	57.9%	64.1%	-2.2	NO
Lawrence	43.5%	142	292	**48.6%**	42.7%	54.5%	5.1	NO	67.9%	220	292	**75.3%**	70.2%	80.5%	7.4	NO
Lebanon	57.2%	180	324	**55.6%**	50.0%	61.1%	-1.6	NO	79.0%	250	324	**77.2%**	72.4%	81.9%	-1.8	NO
Lehigh	51.2%	600	1,124	**53.4%**	50.4%	56.3%	2.2	NO	68.0%	770	1,124	**68.5%**	65.8%	71.3%	0.5	NO
Luzerne	63.9%	679	977	**69.5%**	66.6%	72.4%	5.6	YES	78.7%	798	977	**81.7%**	79.2%	84.2%	3.0	NO
Lycoming	37.2%	139	319	**43.6%**	38.0%	49.2%	6.4	NO	61.7%	204	319	**64.0%**	58.5%	69.4%	2.3	NO
McKean	45.6%	63	174	**36.2%**	28.8%	43.6%	-9.4	NO	69.2%	116	174	**66.7%**	59.4%	74.0%	-2.5	NO
Mercer	40.2%	220	492	**44.7%**	40.2%	49.2%	4.5	NO	69.0%	347	492	**70.5%**	66.4%	74.7%	1.5	NO
Mifflin	51.7%	103	191	**53.9%**	46.6%	61.3%	2.2	NO	75.6%	147	191	**77.0%**	70.7%	83.2%	1.4	NO
Monroe	49.3%	171	311	**55.0%**	49.3%	60.7%	5.7	NO	67.4%	222	311	**71.4%**	66.2%	76.6%	4.0	NO
Montgomery	54.0%	649	1,301	**49.9%**	47.1%	52.6%	-4.1	YES	67.4%	887	1,301	**68.2%**	65.6%	70.7%	0.8	NO
Montour	60.3%	26	46	**56.5%**	41.1%	71.9%	-3.8	NO	79.3%	34	46	**73.9%**	60.1%	87.7%	-5.4	NO
Northampton	56.9%	427	784	**54.5%**	50.9%	58.0%	-2.4	NO	72.0%	572	784	**73.0%**	69.8%	76.1%	1.0	NO
Northumberland	44.9%	123	263	**46.8%**	40.5%	53.0%	1.9	NO	67.4%	181	263	**68.8%**	63.0%	74.6%	1.4	NO
Perry	46.2%	27	64	**42.2%**	29.3%	55.1%	-4.0	NO	65.4%	42	64	**65.6%**	53.2%	78.0%	0.2	NO
Philadelphia	34.8%	2,854	8,215	**34.7%**	33.7%	35.8%	-0.1	NO	51.2%	4,196	8,215	**51.1%**	50.0%	52.2%	-0.1	NO
Pike	39.3%	33	76	**43.4%**	31.6%	55.2%	4.1	NO	73.2%	49	76	**64.5%**	53.1%	75.9%	-8.7	NO
Potter	44.2%	20	49	**40.8%**	26.0%	55.6%	-3.4	NO	76.9%	30	49	**61.2%**	46.6%	75.9%	-15.7	NO
Schuylkill	40.5%	232	498	**46.6%**	42.1%	51.1%	6.1	NO	63.4%	360	498	**72.3%**	68.3%	76.3%	8.9	YES
Snyder	47.1%	29	64	**45.3%**	32.3%	58.3%	-1.8	NO	76.5%	39	64	**60.9%**	48.2%	73.7%	-15.6	NO
Somerset	30.0%	64	176	**36.4%**	29.0%	43.8%	6.4	NO	60.6%	108	176	**61.4%**	53.9%	68.8%	0.8	NO
Sullivan	66.7%	6	12	**50.0%**	17.5%	82.5%	-16.7	NO	75.0%	8	12	**66.7%**	35.8%	97.5%	-8.3	NO
Susquehanna	58.2%	38	66	**57.6%**	44.9%	70.3%	-0.6	NO	78.2%	52	66	**78.8%**	68.2%	89.4%	0.6	NO
Tioga	41.1%	68	121	**56.2%**	46.9%	65.5%	15.1	YES	66.7%	92	121	**76.0%**	68.0%	84.0%	9.3	NO
Union	57.1%	24	44	**54.6%**	38.7%	70.4%	-2.5	NO	67.4%	33	44	**75.0%**	61.1%	88.9%	7.6	NO
Venango	43.3%	82	204	**40.2%**	33.2%	47.2%	-3.1	NO	74.0%	143	204	**70.1%**	63.6%	76.6%	-3.9	NO
Warren	44.9%	68	140	**48.6%**	39.9%	57.2%	3.7	NO	71.4%	102	140	**72.9%**	65.1%	80.6%	1.5	NO
Washington	39.8%	231	529	**43.7%**	39.3%	48.0%	3.9	NO	62.9%	357	529	**67.5%**	63.4%	71.6%	4.6	NO
Wayne	52.0%	59	97	**60.8%**	50.6%	71.1%	8.8	NO	74.0%	75	97	**77.3%**	68.5%	86.2%	3.3	NO
Westmoreland	42.6%	452	1,013	**44.6%**	41.5%	47.7%	2.0	NO	66.9%	693	1,013	**68.4%**	65.5%	71.3%	1.5	NO

HEDIS SPECIFICATIONS																
	QUALITY INDICATOR 1								QUALITY INDICATOR 2							
	MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008		MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008	
BY COUNTY	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
Wyoming	72.3%	38	52	**73.1%**	60.1%	86.1%	0.8	NO	83.0%	45	52	**86.5%**	76.3%	96.8%	3.5	NO
York	40.7%	354	790	**44.8%**	41.3%	48.3%	4.1	NO	65.2%	539	790	**68.2%**	64.9%	71.5%	3.0	NO
HealthChoices County Average	46.8%	**48.5%**							70.1%	**70.8%**						

Table 17B: PA-Specific MY 2009 Rates and MY 2008 Comparisons by County

PA SPECIFICATIONS																
	QUALITY INDICATOR A								QUALITY INDICATOR B							
	MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008		MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008	
BY COUNTY	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
Adams	67.9%	61	122	**50.0%**	40.7%	59.3%	-17.9	YES	81.0%	87	122	**71.3%**	62.9%	79.7%	-9.7	NO
Allegheny	59.7%	2,477	3,966	**62.5%**	60.9%	64.0%	2.8	YES	73.1%	3,011	3,966	**75.9%**	74.6%	77.3%	2.8	YES
Armstrong	60.4%	135	218	**61.9%**	55.3%	68.6%	1.5	NO	78.7%	176	218	**80.7%**	75.3%	86.2%	2.0	NO
Beaver	51.4%	396	638	**62.1%**	58.2%	65.9%	10.7	YES	70.6%	501	638	**78.5%**	75.3%	81.8%	7.9	YES
Bedford	48.0%	59	112	**52.7%**	43.0%	62.4%	4.7	NO	71.0%	87	112	**77.7%**	69.5%	85.8%	6.7	NO
Berks	62.6%	573	926	**61.9%**	58.7%	65.1%	-0.7	NO	80.4%	723	926	**78.1%**	75.4%	80.8%	-2.3	NO
Blair	57.7%	306	506	**60.5%**	56.1%	64.8%	2.8	NO	76.3%	415	506	**82.0%**	78.6%	85.5%	5.7	YES
Bradford	74.3%	98	177	**55.4%**	47.8%	63.0%	-18.9	YES	87.4%	144	177	**81.4%**	75.3%	87.4%	-6.0	NO
Bucks	60.8%	533	828	**64.4%**	61.0%	67.7%	3.6	NO	74.8%	644	828	**77.8%**	74.9%	80.7%	3.0	NO
Butler	61.2%	245	353	**69.4%**	64.5%	74.4%	8.2	YES	79.5%	287	353	**81.3%**	77.1%	85.5%	1.8	NO
Cambria	38.6%	200	475	**42.1%**	37.6%	46.7%	3.5	NO	60.6%	303	475	**63.8%**	59.4%	68.2%	3.2	NO
Cameron	71.4%	16	24	**66.7%**	45.7%	87.6%	-4.7	NO	89.3%	19	24	**79.2%**	60.8%	97.5%	-10.1	NO
Carbon	54.5%	91	184	**49.5%**	42.0%	57.0%	-5.0	NO	73.1%	138	184	**75.0%**	68.5%	81.5%	1.9	NO
Centre	61.2%	153	226	**67.7%**	61.4%	74.0%	6.5	NO	80.4%	196	226	**86.7%**	82.1%	91.4%	6.3	NO
Chester	59.8%	362	602	**60.1%**	56.1%	64.1%	0.3	NO	74.5%	440	602	**73.1%**	69.5%	76.7%	-1.4	NO
Clarion	42.5%	63	129	**48.8%**	39.8%	57.9%	6.3	NO	70.8%	93	129	**72.1%**	64.0%	80.2%	1.3	NO
Clearfield	62.7%	250	417	**60.0%**	55.1%	64.8%	-2.7	NO	84.2%	348	417	**83.5%**	79.8%	87.1%	-0.7	NO
Clinton	58.8%	52	87	**59.8%**	48.9%	70.6%	1.0	NO	80.0%	68	87	**78.2%**	68.9%	87.4%	-1.8	NO
Columbia	57.6%	124	188	**66.0%**	58.9%	73.0%	8.4	NO	77.0%	155	188	**82.5%**	76.7%	88.2%	5.5	NO
Crawford	51.0%	171	305	**56.1%**	50.3%	61.8%	5.1	NO	72.7%	229	305	**75.1%**	70.1%	80.1%	2.4	NO
Cumberland	52.2%	152	242	**62.8%**	56.5%	69.1%	10.6	YES	73.9%	189	242	**78.1%**	72.7%	83.5%	4.2	NO

PA SPECIFICATIONS																
	QUALITY INDICATOR A								QUALITY INDICATOR B							
	MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008		MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008	
BY COUNTY	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
Dauphin	66.2%	445	731	**60.9%**	57.3%	64.5%	-5.3	YES	79.1%	556	731	**76.1%**	72.9%	79.2%	-3.0	NO
Delaware	63.2%	700	1,078	**64.9%**	62.0%	67.8%	1.7	NO	74.0%	838	1,078	**77.7%**	75.2%	80.3%	3.7	YES
Elk	67.0%	85	123	**69.1%**	60.5%	77.7%	2.1	NO	83.9%	109	123	**88.6%**	82.6%	94.6%	4.7	NO
Erie	51.9%	649	1,129	**57.5%**	54.6%	60.4%	5.6	YES	74.9%	882	1,129	**78.1%**	75.7%	80.6%	3.2	NO
Fayette	53.7%	346	630	**54.9%**	51.0%	58.9%	1.2	NO	73.8%	480	630	**76.2%**	72.8%	79.6%	2.4	NO
Forest	40.0%	6	11	**54.6%**	20.6%	88.5%	14.6	NO	60.0%	7	11	**63.6%**	30.7%	96.6%	3.6	NO
Franklin	57.6%	137	253	**54.2%**	47.8%	60.5%	-3.4	NO	85.7%	205	253	**81.0%**	76.0%	86.1%	-4.7	NO
Fulton	59.3%	14	27	**51.9%**	31.2%	72.5%	-7.4	NO	77.8%	19	27	**70.4%**	51.3%	89.4%	-7.4	NO
Greene	71.1%	120	186	**64.5%**	57.4%	71.7%	-6.6	NO	82.6%	147	186	**79.0%**	72.9%	85.1%	-3.6	NO
Huntingdon	57.1%	78	123	**63.4%**	54.5%	72.3%	6.3	NO	80.4%	104	123	**84.6%**	77.8%	91.3%	4.2	NO
Indiana	57.0%	157	218	**72.0%**	65.8%	78.2%	15.0	YES	74.9%	184	218	**84.4%**	79.4%	89.4%	9.5	YES
Jefferson	54.5%	154	234	**65.8%**	59.5%	72.1%	11.3	YES	79.2%	196	234	**83.8%**	78.8%	88.7%	4.6	NO
Juniata	64.6%	33	47	**70.2%**	56.1%	84.3%	5.6	NO	85.4%	41	47	**87.2%**	76.6%	97.8%	1.8	NO
Lackawanna	65.1%	462	655	**70.5%**	67.0%	74.1%	5.4	YES	81.3%	563	655	**86.0%**	83.2%	88.7%	4.7	YES
Lancaster	51.0%	501	997	**50.3%**	47.1%	53.4%	-0.7	NO	67.0%	675	997	**67.7%**	64.7%	70.7%	0.7	NO
Lawrence	57.5%	178	292	**61.0%**	55.2%	66.7%	3.5	NO	73.7%	231	292	**79.1%**	74.3%	83.9%	5.4	NO
Lebanon	64.1%	200	324	**61.7%**	56.3%	67.2%	-2.4	NO	80.6%	265	324	**81.8%**	77.4%	86.1%	1.2	NO
Lehigh	59.7%	722	1,124	**64.2%**	61.4%	67.1%	4.5	YES	73.8%	853	1,124	**75.9%**	73.3%	78.4%	2.1	NO
Luzerne	67.4%	728	977	**74.5%**	71.7%	77.3%	7.1	YES	81.2%	826	977	**84.5%**	82.2%	86.9%	3.3	NO
Lycoming	45.3%	170	319	**53.3%**	47.7%	58.9%	8.0	NO	65.0%	220	319	**69.0%**	63.7%	74.2%	4.0	NO
McKean	68.1%	105	174	**60.3%**	52.8%	67.9%	-7.8	NO	84.0%	136	174	**78.2%**	71.7%	84.6%	-5.8	NO
Mercer	48.1%	260	492	**52.9%**	48.3%	57.4%	4.8	NO	74.6%	362	492	**73.6%**	69.6%	77.6%	-1.0	NO
Mifflin	68.8%	152	191	**79.6%**	73.6%	85.6%	10.8	YES	82.4%	172	191	**90.1%**	85.5%	94.6%	7.7	YES
Monroe	58.8%	204	311	**65.6%**	60.1%	71.0%	6.8	NO	74.2%	246	311	**79.1%**	74.4%	83.8%	4.9	NO
Montgomery	63.5%	791	1,301	**60.8%**	58.1%	63.5%	-2.7	NO	74.4%	979	1,301	**75.3%**	72.9%	77.6%	0.9	NO
Montour	77.6%	37	46	**80.4%**	67.9%	93.0%	2.8	NO	87.9%	39	46	**84.8%**	73.3%	96.2%	-3.1	NO
Northampton	66.5%	498	784	**63.5%**	60.1%	67.0%	-3.0	NO	77.3%	613	784	**78.2%**	75.2%	81.1%	0.9	NO
Northumberland	58.7%	159	263	**60.5%**	54.4%	66.6%	1.8	NO	75.4%	197	263	**74.9%**	69.5%	80.3%	-0.5	NO
Perry	55.8%	34	64	**53.1%**	40.1%	66.1%	-2.7	NO	73.1%	46	64	**71.9%**	60.1%	83.7%	-1.2	NO
Philadelphia	52.0%	4,349	8,215	**52.9%**	51.9%	54.0%	0.9	NO	67.4%	5,583	8,215	**68.0%**	66.9%	69.0%	0.6	NO
Pike	57.1%	41	76	**54.0%**	42.1%	65.8%	-3.1	NO	75.0%	52	76	**68.4%**	57.3%	79.5%	-6.6	NO
Potter	50.0%	24	49	**49.0%**	34.0%	64.0%	-1.0	NO	78.9%	35	49	**71.4%**	57.8%	85.1%	-7.5	NO
Schuylkill	53.4%	296	498	**59.4%**	55.0%	63.9%	6.0	NO	71.7%	396	498	**79.5%**	75.9%	83.2%	7.8	YES

PA SPECIFICATIONS																
	QUALITY INDICATOR A								QUALITY INDICATOR B							
	MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008		MY 2008	MY 2009					RATE COMPARISON MY 2009 to MY 2008	
BY COUNTY	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD	%	(N)	(D)	%	Lower 95% CI	Upper 95% CI	PPD	SSD
Snyder	58.8%	40	64	**62.5%**	49.9%	75.1%	3.7	NO	84.3%	48	64	**75.0%**	63.6%	86.4%	-9.3	NO
Somerset	44.4%	89	176	**50.6%**	42.9%	58.2%	6.2	NO	68.3%	125	176	**71.0%**	64.0%	78.0%	2.7	NO
Sullivan	66.7%	7	12	**58.3%**	26.3%	90.4%	-8.4	NO	75.0%	8	12	**66.7%**	35.8%	97.5%	-8.3	NO
Susquehanna	61.8%	40	66	**60.6%**	48.1%	73.2%	-1.2	NO	78.2%	53	66	**80.3%**	69.9%	90.7%	2.1	NO
Tioga	55.6%	83	121	**68.6%**	59.9%	77.3%	13.0	NO	77.8%	102	121	**84.3%**	77.4%	91.2%	6.5	NO
Union	69.4%	27	44	**61.4%**	45.8%	76.9%	-8.0	NO	79.6%	35	44	**79.6%**	66.5%	92.6%	0.0	NO
Venango	49.0%	93	204	**45.6%**	38.5%	52.7%	-3.4	NO	76.4%	146	204	**71.6%**	65.1%	78.0%	-4.8	NO
Warren	59.2%	86	140	**61.4%**	53.0%	69.9%	2.2	NO	76.2%	111	140	**79.3%**	72.2%	86.4%	3.1	NO
Washington	51.3%	299	529	**56.5%**	52.2%	60.8%	5.2	NO	70.6%	388	529	**73.4%**	69.5%	77.2%	2.8	NO
Wayne	57.1%	67	97	**69.1%**	59.4%	78.8%	12.0	NO	77.9%	76	97	**78.4%**	69.6%	87.1%	0.5	NO
Westmoreland	57.5%	592	1,013	**58.4%**	55.4%	61.5%	0.9	NO	75.9%	779	1,013	**76.9%**	74.3%	79.5%	1.0	NO
Wyoming	74.5%	40	52	**76.9%**	64.5%	89.3%	2.4	NO	83.0%	45	52	**86.5%**	76.3%	96.8%	3.5	NO
York	48.3%	388	790	**49.1%**	45.6%	52.7%	0.8	NO	70.2%	558	790	**70.6%**	67.4%	73.9%	0.4	NO
HealthChoices County Average	58.5%	**60.5%**							76.6%	**77.5%**						

IX. Comparisons to HEDIS Medicaid Benchmarks

The aggregate HEDIS indicator rates and the BH MCO rates were compared to the *HEDIS 2009 Audit Means, Percentiles & Ratios* published by NCQA. The reference rates for national normative data contain means, 10th, 25th, 50th, 75th and 90th percentiles, and the enrollment ratios for nearly all HEDIS measures. There are tables by product lines (i.e., Commercial, Medicaid, and Medicare), so that the appropriate Medicaid benchmarks were used for comparison. NCQA's means and percentiles for each product line are generated annually using HMO, POS, and HMO/POS combined products from MCOs that underwent a HEDIS Compliance Audit™. Data were included from MCOs, regardless of whether the MCO did or did not report individual HEDIS rates publicly. The means and percentiles displayed in the *HEDIS 2009 Audit Means, Percentiles & Ratios* tables are based on data from the 2008 measurement year. The benchmark values are presented in Table 18. The HealthChoices Aggregate, HealthChoices BH MCO Average, and BH MCO performances are illustrated in Figure 7A and 7B.

Table 18: HEDIS 2009 Medicaid Benchmarks

MEDICAID	SUMMARY STATISTICS FOR RATES ACROSS MCOS					
	MEAN	10TH %ILE	25TH %ILE	MEDIAN	75TH %ILE	90TH %ILE
Follow-up After Hospitalization for Mental Illness - Seven Days	42.6	15.5	31.6	44.5	56.6	64.2
Follow-up After Hospitalization for Mental Illness - 30 Days	61.7	37.3	49.6	64.3	75.7	81.2

For the MY 2009 study, the aggregate HealthChoices rate for QI was 45.6% and for QI 2 was 65.6%. The performance rates for QI 1 and QI 2 both fell between the 50th and 75th percentiles of the respective HEDIS 2009 Medicaid benchmarks. In MY 2008, the QI 1 rate of 43.3% fell between the 50th and 75th percentiles while the QI 2 rate of 63.7% fell between the 25th and 50th percentiles of the HEDIS 2008 Medicaid benchmarks. It should be noted, that although a statistically significant increase was observed for the year-to-year HealthChoices comparative data, due to overall improvements in the industry in this area of care, the benchmark data is consequently higher for the most current measurement year for which benchmarks are available.

When comparing the BH MCO's MY 2009 QI 1 rates to the seven-day HEDIS benchmark, the rates for CCBH and MBH fell between the 50th and 75th percentiles, while CBH, CBHNP and VBH fell between the 25th and 50th percentiles. The MY 2009 HealthChoices BH MCO Average for QI 1, 45.2%, fell between the 50th and 75th percentiles. In MY 2008, the BH MCO rates and HealthChoices BH MCO Average also fell between the same percentiles as MY 2009.

For QI 2 in MY 2009, rates for CBHNP, CCBH, MBH, and VBH fell between the 50th and 75th percentiles, whereas the rate for CBH fell between the 25th and 50th percentiles. The MY 2009 HealthChoices BH MCO Average of 65.4% fell between the 50th and 75th percentiles. This was an improvement from the prior study, for which the MY 2008 HealthChoices BH MCO Average of 64.0% fell between the 25th and 50th percentiles. In MY 2008, rates for CBHNP, CCBH, and MBH fell between the 50th and 75th percentiles, the rate for VBH fell between the 25th and 50th percentiles, and the rate for CBH fell between the 10th and 25th percentiles.

Figure 7A: QI 1 Rates Comparison to HEDIS Seven-Days Benchmarks

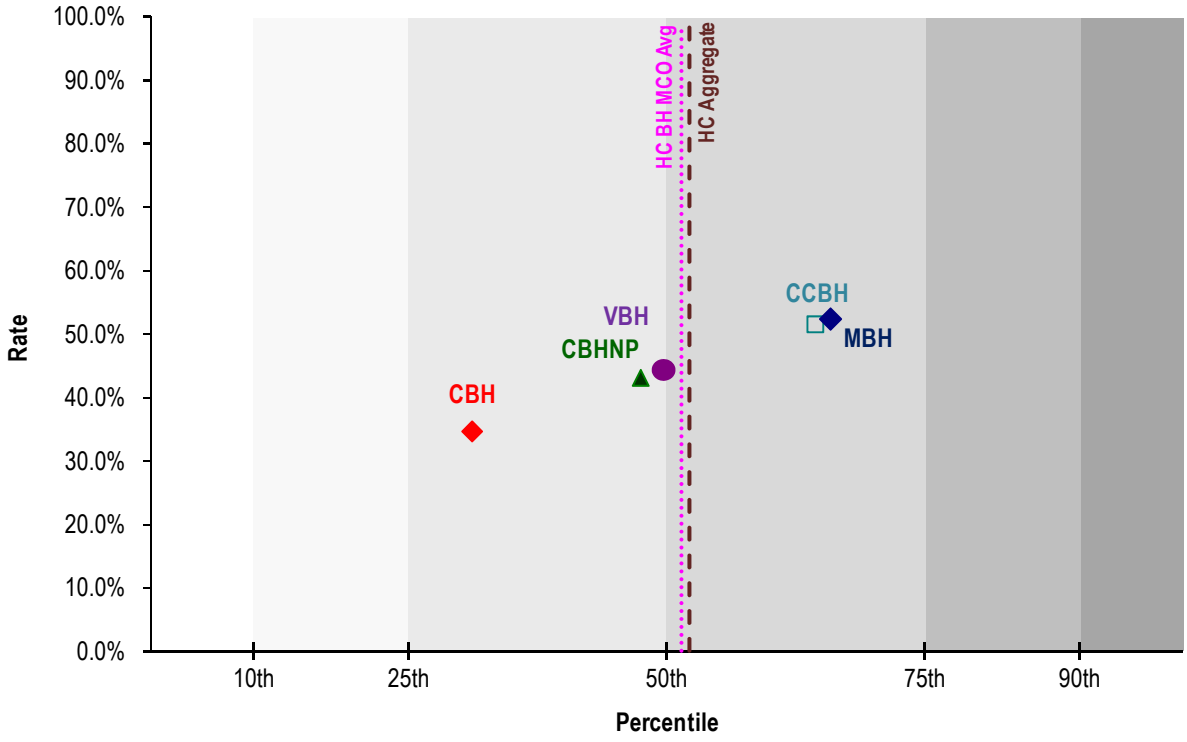
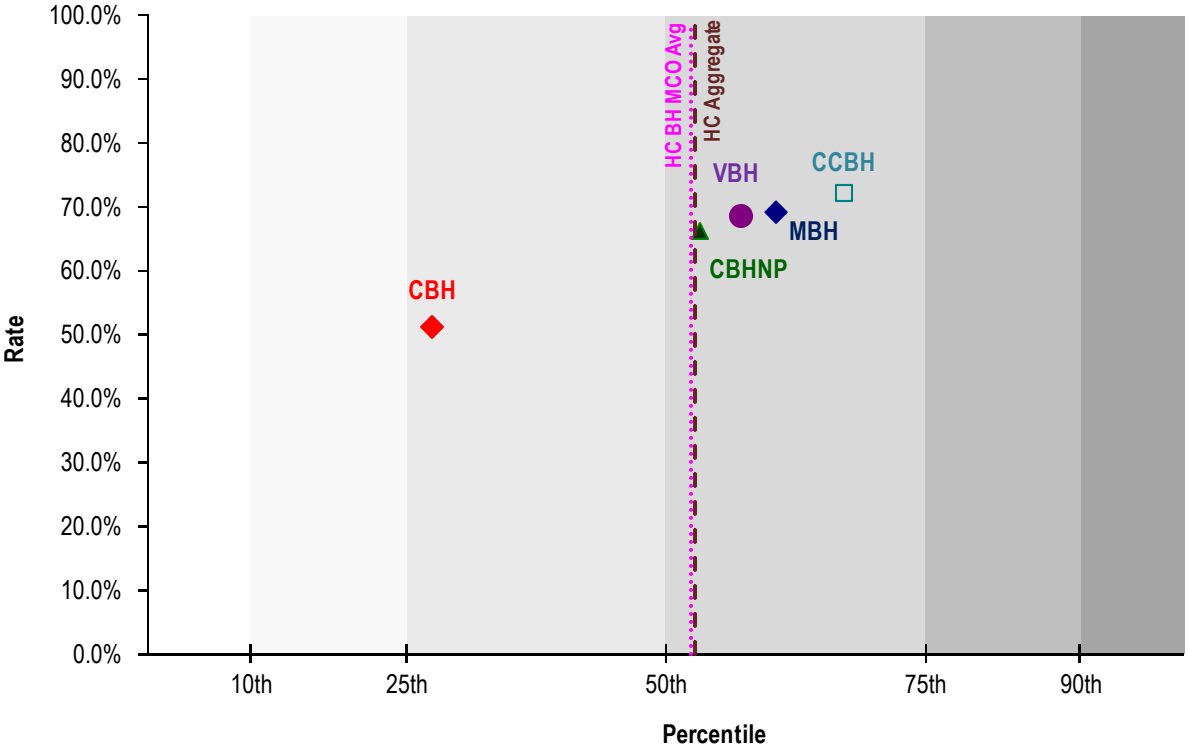


Figure 7B: QI 2 Rates Comparison to HEDIS 30-Days Benchmarks



CHAPTER VI : CONCLUSION AND RECOMMENDATIONS

Conclusion

Overall, the MY 2009 follow-up after hospitalization for mental illness rates increased statistically significantly from previous measurement years. For MY 2009, a total of the 16,393 of the 35,975 (45.6%) discharges met the criteria for QI 1, the seven-day HEDIS indicator. For the corresponding 30-day measure, QI 2, 65.6% were compliant. As compared to the *HEDIS 2009 Audit Means, Percentiles & Ratios*, the performance rates for QI 1 and QI 2 both fell between the respective 50th and 75th percentiles. For QI A, the PA-specific seven-day measure, 21,203 (58.9%) discharges were numerator compliant. For QI B, the PA-specific 30-day measure, 26,984 (75.0%) discharges were compliant. The rates for all four QIs were statistically significantly higher in MY 2009 as compared to corresponding MY 2008 rates.

As compared to MY 2008, statistically significant increases were noted for all four indicator rates for the White population in MY 2009. As with previous measurements, the rates for the Black/African Americans continued to be lower than those for the White population for all QIs. While the follow-up rates for each race increased, the disparity between the White and Black/African American populations remained statistically significant. This is consistent with findings from previous follow-up studies. Overall, a statistically significant racial disparity remained evident for all four QIs in MY 2009, and for all five BH MCOs.

Rates for the Non-Hispanic group statistically significantly increased for all four QIs in MY 2009 as compared to MY 2008. As with prior studies, rates for Hispanics were generally higher than those for Non-Hispanics. In MY 2009, all four indicator rates for Hispanics were comparatively statistically significantly higher than for Non-Hispanics.

For MY 2009, there were statistically significant increases in all four QI rates for members between the ages of 21 and 64 years. The MY 2009 HEDIS rates for the Ages 6-20 years population also statistically significantly improved as compared to MY 2008. Rates for both the HEDIS and PA-specific measures were statistically significantly higher for members six to 20 years of age than for members over 20 years of age in MY 2009.

Follow-up rates for both males and females statistically significantly increased for all four QIs from MY 2008 to MY 2009. Statistically significantly higher rates were noted for females than for males on three of four indicators (QIs 1, 2, and B). Overall, the gender disparity indicated by the HEDIS and PA-specific indicators persisted from prior studies.

For MY 2009, rates varied among the five BH MCOs. The BH MCO rates for QI 1 ranged from 34.7% to 52.2%, and from 51.1% to 72.1% for QI 2. These rates reflect a HealthChoices BH MCO Average of 45.2% for QI 1 and 65.4% for QI 2. Both rates fell between the corresponding 50th and 75th percentiles of the *HEDIS 2009 Audit Means, Percentiles & Ratio*, respectively. When comparing MY 2009 to MY 2008, both HEDIS rates for CCBH and VBH increased statistically significantly. The QI 1 rates for CCBH and MBH were statistically significantly higher than the HealthChoices BH MCO Average, while the rates for CBH and CBHNP were statistically significantly lower. As for QI 2, rates for CCBH, MBH, and VBH were statistically significantly higher than the HealthChoices BH MCO Average, while the rate for CBH was statistically significantly lower.

With regard to the PA-specific indicators, the QI A rates by BH MCO ranged from 52.9% to 63.4%, and from 68.0% to 78.4% for QI B. The respective HealthChoices BH MCO Averages for these QIs were 58.6% and 74.8%. As compared to MY 2008, both PA-specific indicator rates for CCBH and VBH, along with QI B for MBH, were statistically significantly higher in MY 2009. The QI A rates for CCBH and MBH were statistically significantly higher than the MY 2009 QI A HealthChoices BH MCO Average, while the rates for CBH and CBHNP were statistically significantly lower. The QI B rates for CCBH, MBH, and VBH were statistically significantly higher than the QI B HealthChoices BH MCO Average, while the rate for CBH was statistically significantly lower.

For the HEDIS indicators, the HealthChoices County Averages for QI 1 and QI 2 were 48.5% and 70.8%, respectively. For QI 1, rates for 14 Counties were statistically significantly above the QI 1 HealthChoices County Average, while rates for 13 Counties were statistically significantly below this average. From MY 2008 to MY 2009, QI 1 rates for eight Counties statistically significantly increased, and rates for three Counties statistically significantly decreased. With regard to QI 2, rates for 11 Counties were statistically significantly above the QI 2 HealthChoices County Average, and 10 were statistically significantly below. Compared to MY 2008, statistically significant increases were noted for six Counties. None of the MY 2009 County rates for QI 2 decreased statistically significantly from the prior year.

As for the PA-specific indicators, the HealthChoices County Averages for QI A and QI B were 60.5% and 77.5%, respectively. For QI A, rates for 13 Counties were statistically significantly above the QI A HealthChoices County Average, whereas rates for another 13 Counties were statistically significantly below this average. Between MY 2008 and MY 2009, QI A rates for 11 Counties statistically significantly increased, while rates for three Counties statistically significantly decreased. With regard to QI B, MY 2009 rates for 10 Counties were statistically significantly above the QI B HealthChoices County Average, and eight were statistically significantly below. Compared to MY 2008, statistically significant increases were noted for eight Counties, and none of the County rates demonstrated a statistically significant decrease.

Recommendations

Recommendation 1: The purpose of this re-measurement study is to inform OMHSAS, the Counties and the MCOs of the effectiveness of the interventions implemented between MY 2008 and MY 2009 to promote continuous quality improvement with regard to follow-up care after psychiatric hospitalization. The information contained within this study should be used to **further develop strategies for improving** the likelihood that **at-risk members** will receive follow-up care. The Counties and BH MCOs participating in this study should continue to **evaluate the current interventions in place** with respect to their follow-up rates to assess how these interventions affected change in follow-up rates from the prior measurement years MY 2008 and MY 2007. The Counties and BH MCOs should continue to **conduct additional root cause and barrier analyses** to identify further impediments in receiving follow-up care and then **implement action and monitoring plans** to further increase their rates.

Recommendation 2: The findings of this re-measurement indicate that there were increases in follow-up rates in MY 2009 as compared to previous measurement years. Disparities in rates between demographic populations, however, continue to persist as seen in prior studies. It is clear that the OMHSAS contracted Counties and their subcontracted BH MCOs are working to improve their overall follow-up rates, but it is important for these entities to **continue to target the demographic populations that do not perform as well as their counterparts**. Furthermore, it is essential to **ensure that improvements are consistent, sustained across measurement years, and applicable to all groups**. It is recommended that BH MCOs and Counties continue to **focus interventions on populations that continue to exhibit lower follow-up rates** (e.g., Black/African American population). Possible reasons for these rate disparities include access, cultural differences and financial factors, which should all be considered and evaluated to determine their potential impact on performance. Additionally, the BH MCOs should be encouraged to initiate targeted interventions to address disparate rates between study populations.

Recommendation 3: BH MCO and Counties are encouraged to **review the findings of the follow-up study in conjunction with inpatient psychiatric readmission rates**, as professional literature consistently indicate a high correlation between these measures. **Focused review of those individuals** that had an inpatient psychiatric readmission in less than 30 days is recommended to determine the extent to which those individuals either had or did not have evidence of ambulatory follow-up/aftercare visit(s) during the interim period.

Recommendation 4: Additional analyses of each BH MCO's data should be conducted in order to **determine** if any **other trends** are noted. For example, lower follow-up rates may be associated with

individuals with particular diagnoses, or with co-occurring conditions such as substance abuse and/or addiction. **After evaluating the BH MCO data** for trends, **subject-specific findings should be transmitted to BH MCO and/or County care managers for implementation of appropriate action**.

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APPENDIX I : CODES TO IDENTIFY FOLLOW-UP VISITS

Table 1 Codes to Identify Visits (From HEDIS 2010, Volume 2, Table FUH-C, page 182 and Technical Update, page 6, with PA-specific codes in bold*)

CPT		
Follow-up visits identified by the following CPT codes must be with a mental health practitioner.		
90804-90815, ***90899, 96101, 96116, 96118***, 98960-98962, 99078, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99383-99387, 99393-99397, 99401-99404, 99411, 99412, 99510		
CPT**	**POS**	
Follow-up visits identified by the following CPT/POS codes must be with a mental health practitioner.		
90801, 90802, 90816-90819, 90821-90824, 90826-90829, 90845, ***90846***, 90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876	***WITH***	03, 05, 07, 09, 11, 12, 13, 14, 15, 20, 22, 33, 49, 50, 52, 53, 71, 72
90801[1], 90802[1]	***WITH***	***99***
99221-99223, 99231-99233, 99238, 99239, 99251-99255,	***WITH***	52, 53
UB Revenue		
The organization does not need to determine practitioner type for follow-up visits identified by the following UB Revenue codes.		
0513, 0900-0905, 0907, 0911-0917, 0919		
Visits identified by the following UB Revenue codes must be with a mental health practitioner or in conjunction with any diagnosis code from Table A.1.		
0510, 0515-0517, 0519-0523, 0526-0529, 077x, 0982, 0983		
HCPCS		
Follow-up visits identified by the following HCPCS codes must be with a mental health practitioner.		
G0155, G0176, G0177, G0409-G0411, H0002, H0004, ***H0015, H0020***, H0031, ***H0032***, H0034-H0037, ***H0038***, H0039, H0040, ***H0046, H0047***, H2000, H2001, H2010-H2020, ***H2021, H2030, H2035***, M0064, S0201, S9480, S9484, S9485, ***T1015, T1016, T1017***		

*This includes HCPCS and other industry standard CPT codes and represents a deviation from the HEDIS measure methodology. These indicators cannot be compared to HEDIS benchmarks.

**Follow-up visits identified through these CPT codes must be identified in conjunction with applicable POS codes.

[1] Follow-up visits identified through CPT codes 90801 and 90802 can be identified in conjunction with POS code 99.

Table 2 Service Descriptions for Codes Only in the PA-Specific Measures A and B

Procedure Code	Service Description
90899	Unlisted psychiatric service or procedure
96101	Psychological testing (includes psychodiagnostic assessment of emotionality, intellectual abilities, personality and psychopathology, e.g., MMPI, Rorshach, WAIS), per hour of the psychologist's or physician's time, both face to face time with the patient and time interpreting test results and preparing the report
96116	96116 - Neurobehavioral Status Exam (clinical assessment of thinking, reasoning and judgment, e.g., acquired knowledge, attention, language, memory, planning and problem solving, and visual spatial abilities) per hour of the psychologist's or physician's time, both face to face time with the patient and time interpreting test results and preparing the report (Comprehensive Neuropsychological Evaluation with Personality Assessment)
96118	Neuropsychological testing (e.g., Halstead-Reitan Neuropsychological Battery, Wechsler Memory Scales and Wisconsin Card Sorting Test), per hour of the psychologist's or physician's time, both face to face time with the patient and time interpreting test results and preparing the report
90801 with POS 99 (other POS)	Psychiatric diagnostic interview examination
90802 with POS 99 (other POS)	Interactive psychiatric diagnostic interview examination using play equipment, physical devices, language interpreter, or other mechanisms of communication
90846	Family Psychotherapy
H0015	Alcohol and/or Drug Services; intensive outpatient (treatment program that operates at least 3 hours/day and at least 3 days/week and is based on an individualized treatment plan), including assessment, counseling, crisis intervention, & activity therapies or education
H0020	Alcohol and/or Drug Services; Methadone Administration and/or Service
H0032	Mental Health Service Plan Development by Non-physician
H0038	Self help/peer services, per 15 minutes
H0046	Mental Health Services, not otherwise specified (Community Mental Health Services)
H0047	Alcohol and/or other drug abuse services, not otherwise specified
H2021	Community-based Wraparound Services (TSS)
H2030	Mental Health Clubhouse Services (Psych Rehab)
H2035	Alcohol and/or Drug Treatment Program
T1015	Clinic Visit/Encounter, All-inclusive (Rural Health Clinic Visit)
T1016	Case Management
T1017	Targeted Case Management

APPENDIX II : QUALITY INDICATOR SPECIFICATIONS

Following are copies of the final indicator specifications that were sent to the Counties and BH MCOs.

Commonwealth of Pennsylvania Department of Public Welfare
Office of Mental Health and Substance Abuse Services
Behavioral Health External Quality Review 2010 Study (Measurement Year 2009)
QUALITY INDICATOR:
HEDIS® FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS
Eligible Population, Denominator and Numerator Specifications

SUMMARY OF CHANGES TO 2010 MEASURE

- Dates updated to reflect current time period of interest.
- Measure and code requirements aligned to Healthcare Effectiveness Data Information Set (HEDIS®) 2010 technical specifications.
  - CPT codes 90871, 99261-99263 dropped from Table 1.3 (no longer valid CPT)
  - HCPCS codes G0409-G0411 added to Table 1.3

Description: This HEDIS indicator measures the percentage of discharges for members six years of age and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner. Two rates are reported.

1. The percentage of members who received follow-up within seven days of discharge.
2. The percentage of members who received follow-up within 30 days of discharge.

STEP 1: IDENTIFY ELIGIBLE POPULATION

Definition

Product Line:	Pennsylvania HealthChoices Medicaid. Non-HealthChoices members should not be included in the eligible group.
Ages:	Six years and older as of the date of discharge.
Continuous Enrollment:	Date of discharge through 30 days after discharge.
Allowable gap:	No gaps in enrollment.
Anchor Date:	None.
Event/diagnosis:	Discharged alive from an acute inpatient setting with a principal mental health diagnosis (as listed in Table 1.1) on or between January 1 and December 1, 2009. The denominator for this measure is based on discharges, not members. Include all discharges for members who have more than one discharge on or between January 1 and December 1, 2009. MCOs should not count discharges from non-acute mental health facilities (e.g., Residential Treatment or Rehabilitation Stays). Refer to Table 1.2 for codes to identify non-acute care.

Mental health readmission or direct transfers:	If the discharge is followed by a readmission or a direct transfer to an acute facility for any mental health principal diagnosis within the 30-day follow-up period, count only the readmission discharge from the facility to which the member was transferred. Exclude discharges followed by a readmission or a direct transfer to a non-acute facility for any mental health principal diagnosis within the 30-day follow-up period. These discharges are excluded from the measure because the readmission or transfer may prevent an outpatient follow-up visit from taking place.
Non-mental health readmission or direct transfer:	Exclude discharges in which the patient was transferred directly or readmitted within 30 days after discharge to an acute or non-acute facility for a non-mental health principal diagnosis. These discharges are excluded from the measure because rehospitalization or transfer may prevent an outpatient follow-up visit from taking place.
Denied Claims:	Inpatient stay claim denials should be included in the eligible population of this measure, as appropriate. Denials due to lack of utilization review, inpatient non-authorization or late claims submission should be included (i.e., when services were rendered regardless of MCO non-payment). Denials due to duplicate billing should be excluded.

Table 1.1 Codes to Identify Applicable Mental Health Diagnoses (From HEDIS 2010, Volume 2, Table FUH-A, page 180)

ICD-9-CM Codes
295-299, 300.3, 300.4, 301, 308, 309, 311-314

Table 1.2 Codes to Identify Non-Acute Care Exclusions (From HEDIS 2010, Volume 2, Table FUH-B, page 181)*

Description	HCPCS	UB Revenue	UB Type of Bill	POS
Hospice		0115, 0125, 0135, 0145, 0155, 0650, 0656, 0658, 0659	81x, 82x	34
SNF		019x	21x, 22x, 28x	31, 32
Hospital transitional care, swing bed or rehabilitation			18x	
Rehabilitation		0118, 0128, 0138, 0148, 0158		
Respite		0655		
Intermediate care facility				54
Residential substance abuse treatment facility		1002		55
Psychiatric residential treatment center	T2048, H0017-H0019	1001		56
Comprehensive inpatient rehabilitation facility				61
Other non-acute care facilities that do not use the UB revenue or type of bill codes for billing (e.g., ICF, SNF)				

*Codes included in this table are intended as a guide to identify non-acute care exclusions. The table is not a comprehensive list of all qualifying exclusions. MCOs and Counties are advised to use all the codes listed, along with other codes that are consistent with those provided in Table 1.2.

STEP 2: IDENTIFY DENOMINATOR AND NUMERATOR POSITIVES USING ADMINISTRATIVE DATA

There are two rates that are calculated for this indicator. Both utilize the same denominator, but have different numerators:

Denominator: The eligible population

Numerators: **Numerator 1 –** An outpatient visit, intensive outpatient visit, or partial hospitalization (Table 1.3) with a mental health practitioner within seven days of discharge. Include visits that occur on the date of discharge.

Numerator 2 – An outpatient visit, intensive outpatient visit, or partial hospitalization (Table 1.3) with a mental health practitioner within 30 days of discharge. Include visits that occur on the date of discharge.

Note: Look for the earliest qualifying ambulatory visit. It is important to ensure that follow-up visits occur on dates after corresponding inpatient discharges. The indicator measures the proportion of patients who follow-up with a mental health practitioner within seven days, and the proportion of patients who follow-up with a mental health practitioner within 30 days. Therefore, a patient who is a numerator positive for the seven-day follow-up rate is automatically a numerator positive for the 30-day follow-up rate. There is no requirement for two visits within the 30-day time frame.

For a visit to meet the numerator requirements of this measure, it must satisfy the following criteria:

(1) The date of service for the qualifying follow-up visit must be between 1/1/2009 and 12/31/2009,

(2) The date of service must have occurred within seven days of the hospital discharge (on the date of discharge up to seven days after discharge) for Numerator 1 and within 30 days for Numerator 2 (on the date of discharge up to 30 days after discharge), and

(3) The date of service must clearly indicate a qualifying visit/treatment with a mental health practitioner as defined by either:

- A qualifying CPT code (Table 1.3) delivered by a mental health practitioner.

OR

- A qualifying CPT code ***with*** place of service (POS) code (Table 1.3) delivered by a mental health practitioner.

OR

- A qualifying UB Revenue Code (Table 1.3) delivered by a mental health practitioner.

OR

- A qualifying UB Revenue Code (Table 1.3) that does not require determination of the practitioner type.

OR

- A qualifying HCPCS (Table 1.3) delivered by a mental health practitioner.

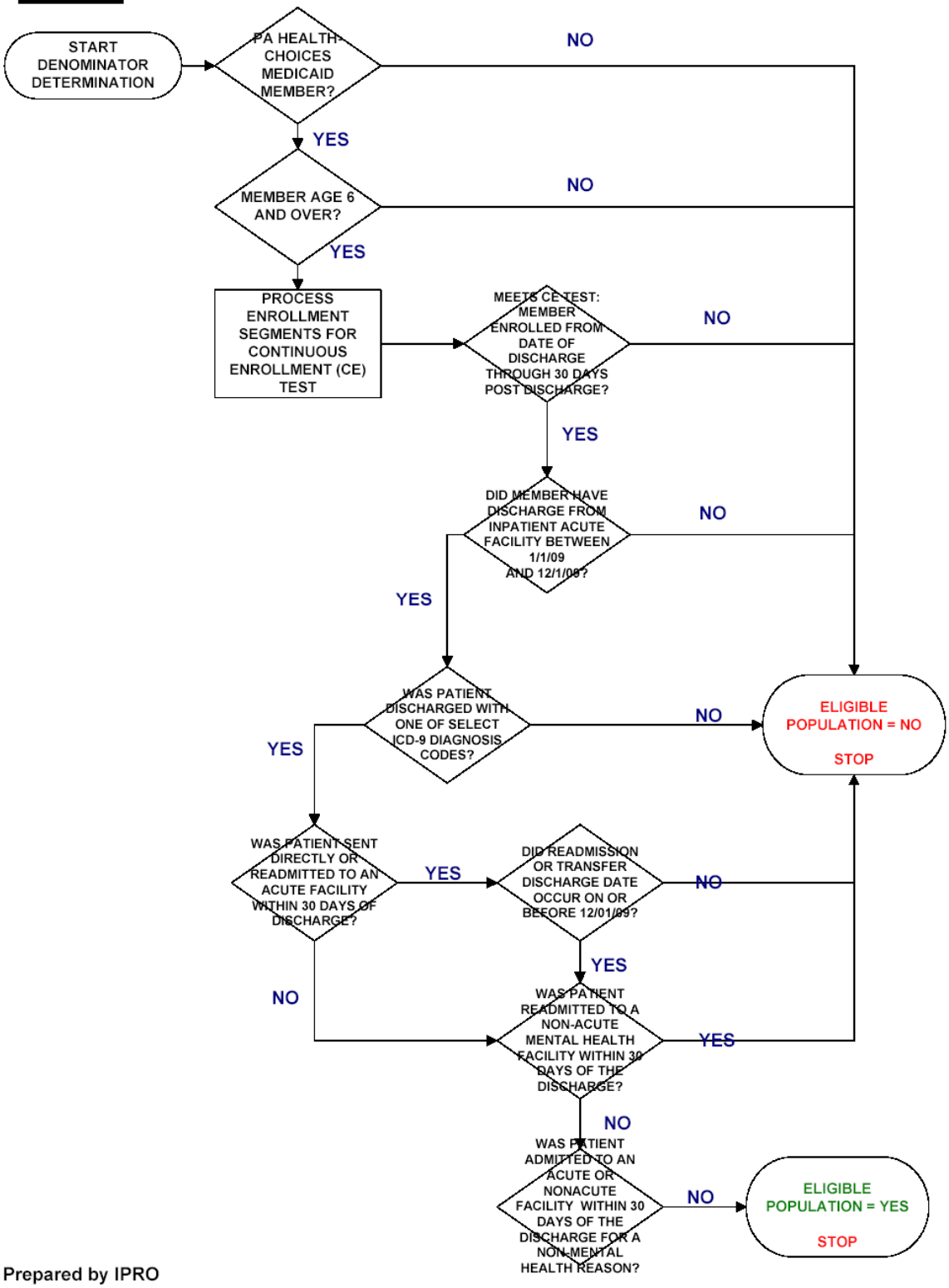
Please refer to Appendix 3, page 3 of HEDIS 2010, Volume 2: Technical Specifications for the definition of a mental health practitioner.

Table 1.3 Codes to Identify Visits (From HEDIS 2010, Volume 2, Table FUH-C, page 182 and Technical Update, page 6)

INCLUDED IN BOTH NUMERATORS (1 and 2)		
CPT		
Follow-up visits identified by the following CPT codes must be with a mental health practitioner.		
90804-90815, 98960-98962, 99078, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99383-99387, 99393-99397, 99401-99404, 99411, 99412, 99510		
CPT*	**POS**	
Follow-up visits identified by the following CPT/POS codes must be with a mental health practitioner.		
90801, 90802, 90816-90819, 90821-90824, 90826-90829, 90845, 90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876	***WITH***	03, 05, 07, 09, 11, 12, 13, 14, 15, 20, 22, 33, 49, 50, 52, 53, 71, 72
99221-99223, 99231-99233, 99238, 99239, 99251-99255	***WITH***	52, 53
UB Revenue		
The organization does not need to determine practitioner type for follow-up visits identified by the following UB Revenue codes.		
0513, 0900-0905, 0907, 0911-0917, 0919		
Visits identified by the following Revenue codes must be with a mental health practitioner or in conjunction with any diagnosis code from Table 1.1.		
0510, 0515-0517, 0519-0523, 0526-0529, 077x, 0982, 0983		
HCPCS		
Follow-up visits identified by the following HCPCS codes must be with a mental health practitioner.		
G0155, G0176, G0177, G0409-G0411, H0002, H0004, H0031, H0034-H0037, H0039, H0040, H2000, H2001, H2010-H2020, M0064, S0201, S9480, S9484, S9485		

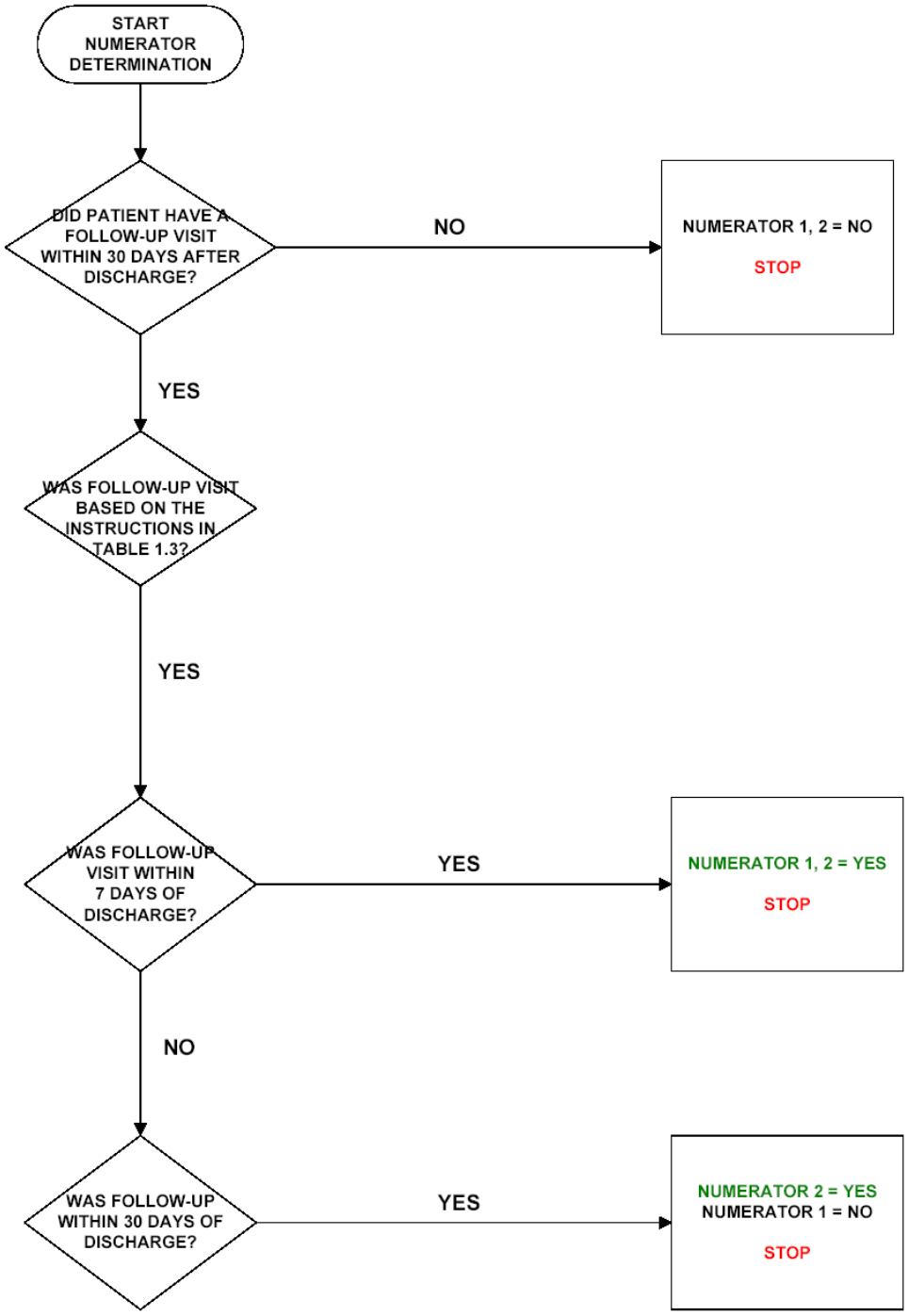
* Follow-up visits identified through these CPT codes must be identified in conjunction with applicable POS codes.

PENNSYLVANIA BEHAVIORAL HEALTH PERFORMANCE MEASURES 2010
FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS &
PENNSYLVANIA-SPECIFIC FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS
DENOMINATOR DETERMINATION



Prepared by IPRO
Final version: 4/29/10

PENNSYLVANIA BEHAVIORAL HEALTH PERFORMANCE MEASURES 2010
FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS
HEDIS MEASURE NUMERATOR COMPLIANCE DETERMINATION



Prepared by IPRO
Final version: 4/29/10

Commonwealth of Pennsylvania Department of Public Welfare
Office of Mental Health and Substance Abuse Services
Behavioral Health External Quality Review 2010 Study (Measurement Year 2009)
QUALITY INDICATOR:
PENNSYLVANIA-SPECIFIC FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS
Eligible Population, Denominator and Numerator Specifications

SUMMARY OF CHANGES TO 2010 MEASURE

- Dates updated to reflect current time period of interest.
- Measure and code requirements aligned to Healthcare Effectiveness Data Information Set (HEDIS®) 2010 technical specifications.
  - CPT codes 90871, 99261-99263 dropped from Table A.3 (no longer valid CPT)
  - HCPCS codes G0409-G0411 added to Table A.3

Description: This Pennsylvania-specific indicator measures the percentage of discharges for members six years of age and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, partial hospitalization with a mental health practitioner or peer support network meeting. Two rates are reported.

3. The percentage of members who received follow-up within seven days of discharge.
4. The percentage of members who received follow-up within 30 days of discharge.

STEP 1: IDENTIFY ELIGIBLE POPULATION

Definition

Product Line:	Pennsylvania HealthChoices Medicaid. Non-HealthChoices members should not be included in the eligible group.
Ages:	Six years and older as of the date of discharge.
Continuous Enrollment:	Date of discharge through 30 days after discharge.
Allowable Gap:	No gaps in enrollment.
Anchor Date:	None.
Event/diagnosis:	Discharged alive from an acute inpatient setting with a principal mental health diagnosis (as listed in Table A.1) on or between January 1 and December 1, 2009. The denominator for this measure is based on discharges, not members. Include all discharges for members who have more than one discharge on or between January 1 and December 1, 2009. MCOs should not count discharges from non-acute mental health facilities (e.g., Residential Treatment or Rehabilitation Stays). Refer to Table A.2 for codes to identify non-acute care.

Mental Health Readmission or Direct Transfers:	If the discharge is followed by a readmission or a direct transfer to an acute facility for any mental health principal diagnosis within the 30-day follow-up period, count only the readmission discharge from the facility to which the member was transferred. Exclude discharges followed by a readmission or a direct transfer to a non-acute facility for any mental health principal diagnosis within the 30-day follow-up period. These discharges are excluded from the measure because the readmission or transfer may prevent an outpatient follow-up visit from taking place.
Non-mental Health Readmission or Direct Transfer:	Exclude discharges in which the patient was transferred directly or readmitted within 30 days after discharge to an acute or non-acute facility for a non-mental health principal diagnosis. These discharges are excluded from the measure because rehospitalization or transfer may prevent an outpatient follow-up visit from taking place.
Denied Claims:	Inpatient stay claim denials should be included in the eligible population of this measure, as appropriate. Denials due to lack of utilization review, inpatient non-authorization or late claims submission should be included (i.e., when services were rendered regardless of MCO non-payment). Denials due to duplicate billing should be excluded.

Table A.1 Codes to Identify Applicable Mental Health Diagnoses (From HEDIS 2010, Volume 2, Table FUH-A, page 180)

ICD-9-CM Codes
295-299, 300.3, 300.4, 301, 308, 309, 311-314

Table A.2 Codes to Identify Non-Acute Care Exclusions (From HEDIS 2010, Volume 2, Table FUH-B, page 181)*

Description	HCPCS	UB Revenue	UB Type of Bill	POS
Hospice		0115, 0125, 0135, 0145, 0155, 0650, 0656, 0658, 0659	81x, 82x	34
SNF		019x	21x, 22x, 28x	31, 32
Hospital transitional care, swing bed or rehabilitation			18x	
Rehabilitation		0118, 0128, 0138, 0148, 0158		
Respite		0655		
Intermediate care facility				54
Residential substance abuse treatment facility		1002		55
Psychiatric residential treatment center	T2048, H0017-H0019	1001		56
Comprehensive inpatient rehabilitation facility				61
Other non-acute care facilities that do not use the UB revenue or type of bill codes for billing (e.g., ICF, SNF)				

*Codes included in this table are intended as a guide to identify non-acute care exclusions. The table is not a comprehensive list of all qualifying exclusions. MCOs and Counties are advised to use all the codes listed, along with other codes that are consistent with those provided in Table A.2.

STEP 2: IDENTIFY DENOMINATOR AND NUMERATOR POSITIVES USING ADMINISTRATIVE DATA

There are two rates that are calculated for this indicator. Both utilize the same denominator, but have different numerators:

Denominator: The eligible population

Numerators: **Numerator A –** An outpatient visit, intensive outpatient visit, or partial hospitalization (Table A.3) with a mental health practitioner or peer support network meeting within seven days of discharge. Include visits that occur on the date of discharge.

Numerator B – An outpatient visit, intensive outpatient visit, or partial hospitalization (Table A.3) with a mental health practitioner or peer support network meeting within 30 days of discharge. Include visits that occur on the date of discharge.

Note: Look for the earliest qualifying ambulatory visit. It is important to ensure that follow-up visits occur on dates after corresponding inpatient discharges. The indicator is measuring the proportion of patients who follow-up with a mental health practitioner or peer support network meeting within seven days, and the proportion of patients who follow-up with a mental health practitioner or peer support network meeting within 30 days. Therefore, a patient who is a numerator positive for the seven-day follow-up rate is automatically a numerator positive for the 30-day follow-up rate. There is no requirement for two visits within the 30-day time frame.

For a visit to meet the numerator requirements of this measure, it must satisfy the following criteria:

(1) The date of service for the qualifying follow-up visit must be between 1/1/2009 and 12/31/2009,

(2) The date of service must have occurred within seven days of the hospital discharge (on the date of discharge up to seven days after discharge) for Numerator A and within 30 days for Numerator B (on the date of discharge up to 30 days after discharge), and

(3) The date of service must clearly indicate a qualifying visit/treatment with a mental health practitioner or peer support service meeting as defined by either:

- A qualifying CPT code (Table A.3) delivered by a mental health practitioner or peer support network.

OR

- A qualifying CPT code ***with*** a place of service (POS) code (Table A.3) delivered by a mental health practitioner or peer support network.

OR

- A qualifying UB Revenue Code (Table A.3) delivered by a mental health practitioner or peer support network.

OR

- A qualifying UB Revenue Code (Table A.3) that does not require determination of the practitioner type.

OR

- A qualifying HCPCS (Table A.3) delivered by a mental health practitioner or peer support network meeting.

Please refer to Appendix 3, page 3 of HEDIS 2010, Volume 2: Technical Specifications for the definition of a mental health practitioner.

Table A.3 Codes to Identify Visits (From HEDIS 2010, Volume 2, Table FUH-C, page 182 and Technical Update, page 6, with additional codes for Pennsylvania-specific measure).

INCLUDED IN BOTH NUMERATORS (A and B)**		
CPT		
Follow-up visits identified by the following CPT codes must be with a mental health practitioner.		
90804-90815, 90899, 96101, 96116, 96118, 98960-98962, 99078, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99383-99387, 99393-99397, 99401-99404, 99411, 99412, 99510		
CPT* **	**POS**	
Follow-up visits identified by the following CPT/POS codes must be with a mental health practitioner.		
90801, 90802, 90816-90819, 90821-90824, 90826-90829, 90845-90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876	***WITH***	03, 05, 07, 09, 11, 12, 13, 14, 15, 20, 22, 33, 49, 50, 52, 53, 71, 72
90801, 90802[1]	***WITH***	99
99221-99223, 99231-99233, 99238, 99239, 99251-99255,	***WITH***	52, 53
UB Revenue		
The organization does not need to determine practitioner type for follow-up visits identified by the following UB Revenue codes.		
0513, 0900-0905, 0907, 0911-0917, 0919		
Visits identified by the following UB Revenue codes must be with a mental health practitioner or in conjunction with any diagnosis code from Table A.1.		
0510, 0515-0517, 0519-0523, 0526-0529, 077x, 0982, 0983		
HCPCS		
Follow-up visits identified by the following HCPCS codes must be with a mental health practitioner.		
G0155, G0176, G0177, G0409-G0411, H0002, H0004, H0015, H0020, H0031, H0032, H0034-H0037, H0038, H0039, H0040, H0046, H0047, H2000, H2001, H2010-H2021, H2030, H2035, M0064, S0201, S9480, S9484, S9485, T1015, T1016, T1017		

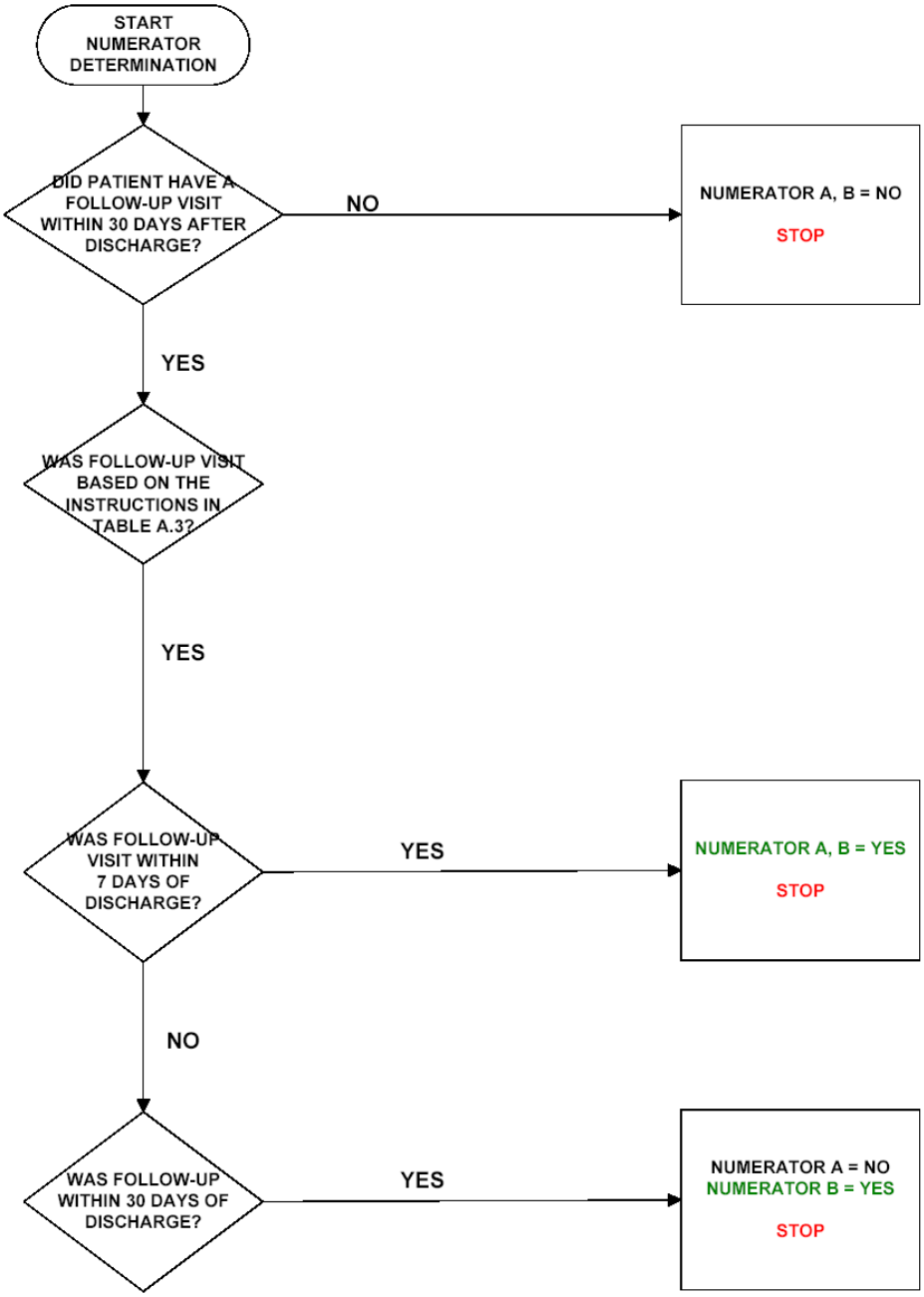
**This includes HCPCS and other industry standard CPT codes and represents a deviation from the HEDIS measure methodology. These indicators cannot be compared to HEDIS benchmarks.
***Follow-up visits identified through these CPT codes must be identified in conjunction with applicable POS codes.

[1] Follow-up visits identified through CPT codes 90801 and 90802 can also be identified in conjunction with POS code 99.

Table A.4 Narrative Description of Codes in PA Specific Measure Not Included in HEDIS Measure

90899	Unlisted Psychiatric Service or Procedure
96101	Psychological Testing (includes psychodiagnostic assessment of emotionality, intellectual abilities, personality and psychopathology, e.g., MMPI, Rorschach, WAIS), per hour of the psychologist's or physician's time, both face to face time with the patient and time interpreting test results and preparing the report
96116	96116 - Neurobehavioral Status Exam (clinical assessment of thinking, reasoning and judgment, e.g., acquired knowledge, attention, language, memory, planning and problem solving, and visual spatial abilities) per hour of the psychologist's or physician's time, both face to face time with the patient and time interpreting test results and preparing the report (Comprehensive Neuropsychological Evaluation with Personality Assessment)
96118	Neuropsychological Testing (e.g., Halstead-Reitan Neuropsychological Battery, Wechsler Memory Scales and Wisconsin Card Sorting Test), per hour of the psychologist's or physician's time, both face to face time with the patient and time interpreting test results and preparing the report
90801 with POS 99 (other POS)	Psychiatric Diagnostic Interview Examination
90802 with POS 99 (other POS)	Interactive Psychiatric Diagnostic Interview Examination Using Play Equipment, Physical Devices, Language Interpreter, or Other Mechanisms Of Communication
90846	Family Psychotherapy
H0015	Alcohol and/or Drug Services; Intensive Outpatient (treatment program that operates at least 3 hours/day and at least 3 days/week and is based on an individualized treatment plan), Including Assessment, Counseling, Crisis Intervention, and Activity Therapies Or Education
H0020	Alcohol and/or Drug Services; Methadone Administration and/or Service
H0032	Mental Health Service Plan Development by Non-physician
H0038	Self Help/Peer Services, Per 15 Minutes
H0046	Mental Health Services, Not Otherwise Specified
H0047	Alcohol and/or Other Drug Abuse Services, Not Otherwise Specified
H2021	Community-based Wraparound Services (TSS)
H2030	Mental Health Clubhouse Services
H2035	Alcohol and/or Drug Treatment Program
T1015	Clinic Visit/Encounter, All-inclusive
T1016	Case Management
T1017	Targeted Case Management

PENNSYLVANIA BEHAVIORAL HEALTH PERFORMANCE MEASURES 2010
FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS
PENNSYLVANIA-SPECIFIC NUMERATOR COMPLIANCE DETERMINATION



This is for the **Pennsylvania-specific** Follow-up After Hospitalization for Mental Illness measure only.

Prepared by IPRO
Final version: 4/29/10

APPENDIX III: AGGREGATE RATES AND FIGURES FOR MEASUREMENT YEAR 2009

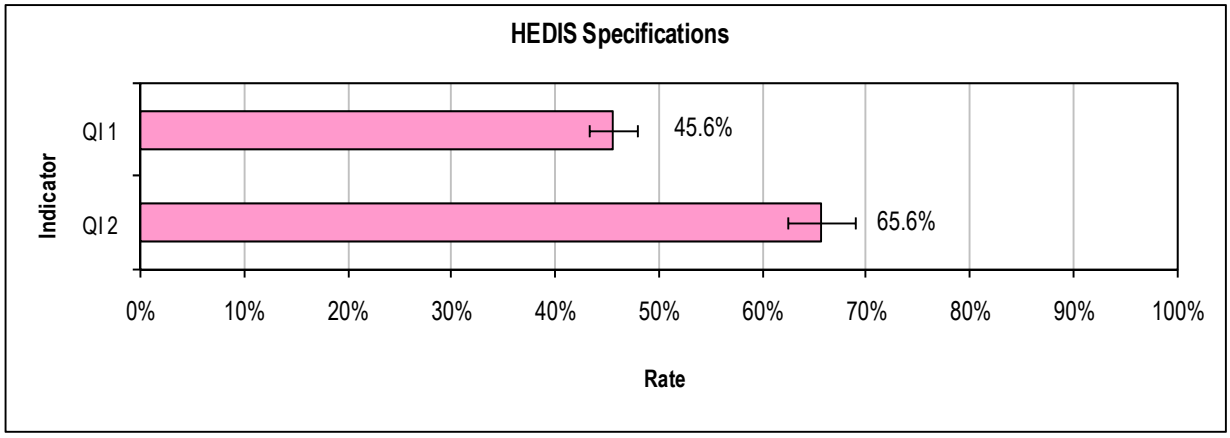
The following figures and tables outline results for the four Quality Indicators by topic (i.e. race, age, gender, BH MCO, and County categories). All figure and table results are shown with the upper and lower bounds (95% CI) indicated.

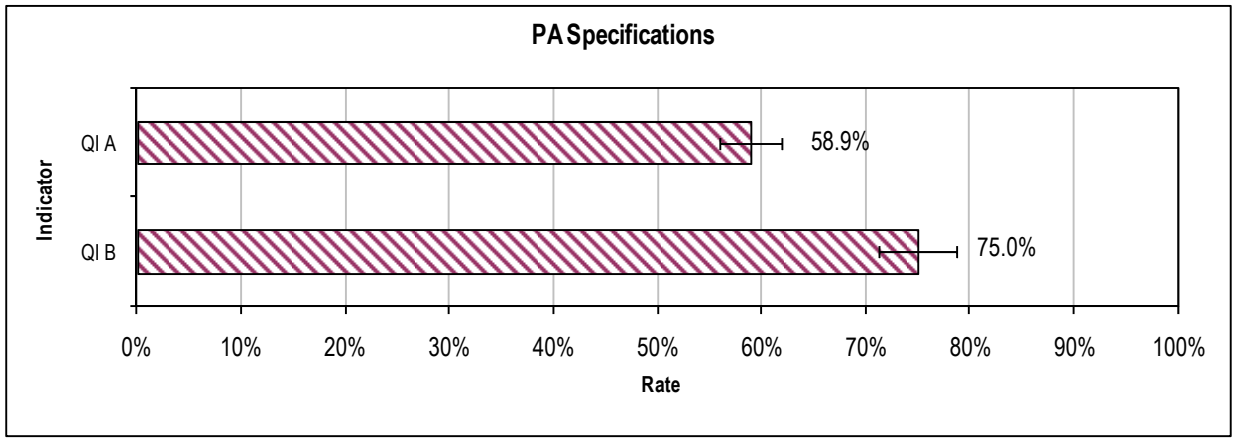
APPENDIX 3A: HEALTHCHOICES OVERALL QUALITY INDICATOR RATES

	HEDIS Specifications				
Quality Indicator	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
QI 1	16,393	35,975	**45.6%**	45.1%	46.1%
QI 2	23,601	35,975	**65.6%**	65.1%	66.1%

	PA Specifications				
Quality Indicator	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
QI A	21,203	35,975	**58.9%**	58.4%	59.4%
QI B	26,984	35,975	**75.0%**	74.6%	75.5%

Overall Quality Indicator Rates



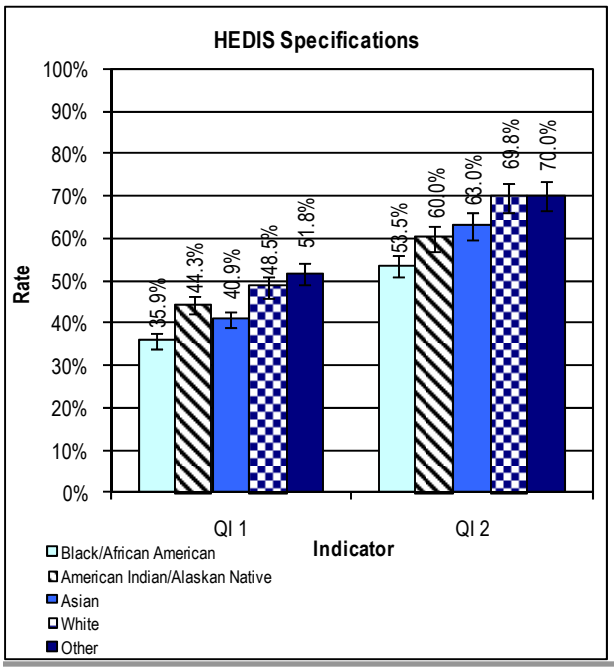


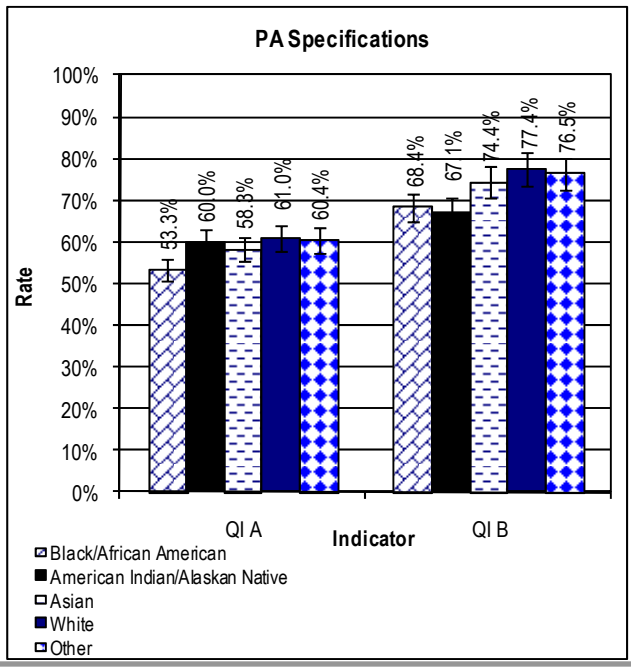
APPENDIX 3B: HEALTHCHOICES QUALITY INDICATOR RATES BY RACE

	HEDIS Specifications					
BY RACE CATEGORY	QUALITY INDICATOR	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Black/African American	QI 1	3,281	9,135	**35.9%**	34.9%	36.9%
	QI 2	4,891	9,135	**53.5%**	52.5%	54.6%
American Indian/ Alaskan Native	QI 1	31	70	**44.3%**	31.9%	56.6%
	QI 2	42	70	**60.0%**	47.8%	72.2%
Asian	QI 1	94	230	**40.9%**	34.3%	47.4%
	QI 2	145	230	**63.0%**	56.6%	69.5%
White	QI 1	11,255	23,196	**48.5%**	47.9%	49.2%
	QI 2	16,181	23,196	**69.8%**	69.2%	70.4%
Other/Chose not to Respond	QI 1	1,732	3,344	**51.8%**	50.1%	53.5%
	QI 2	2,342	3,344	**70.0%**	68.5%	71.6%
Hawaiian/Pacific Islander	QI 1	0	0	N/A		
	QI 2	0	0	N/A		

	PA Specifications					
BY RACE CATEGORY	QUALITY INDICATOR	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Black/African American	QI A	4,871	9,135	**53.3%**	52.3%	54.3%
	QI B	6,245	9,135	**68.4%**	67.4%	69.3%
American Indian/ Alaskan Native	QI A	42	70	**60.0%**	47.8%	72.2%
	QI B	47	70	**67.1%**	55.4%	78.9%
Asian	QI A	134	230	**58.3%**	51.7%	64.9%
	QI B	171	230	**74.4%**	68.5%	80.2%
White	QI A	14,137	23,196	**61.0%**	60.3%	61.6%
	QI B	17,964	23,196	**77.4%**	76.9%	78.0%
Other/Chose not to Respond	QI A	2,019	3,344	**60.4%**	58.7%	62.1%
	QI B	2,557	3,344	**76.5%**	75.0%	77.9%
Hawaiian/Pacific Islander	QI A	0	0	N/A		
	QI B	0	0	N/A		

Quality Indicator Rates by Race



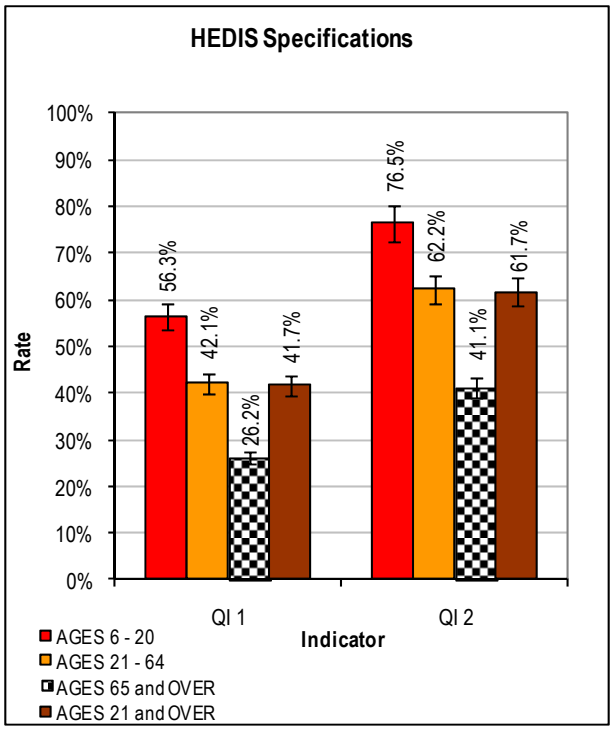


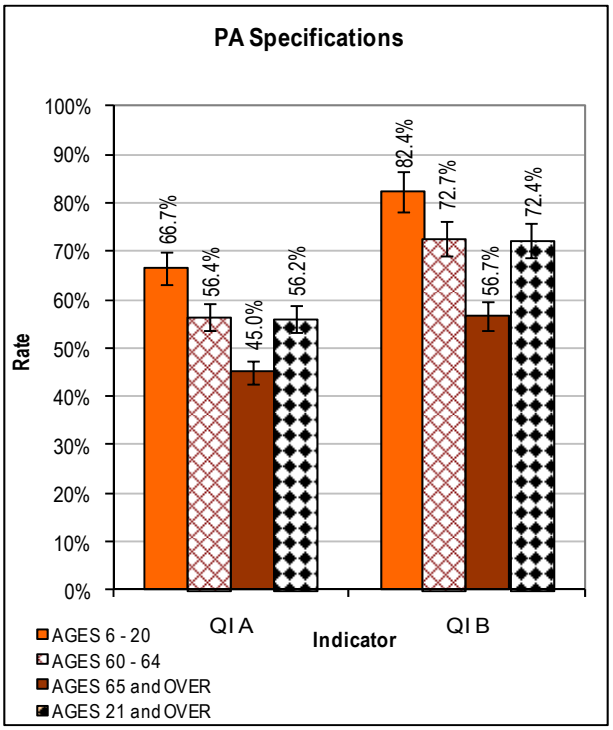
APPENDIX 3C: HEALTHCHOICES QUALITY INDICATOR RATES BY AGE CATEGORY

	HEDIS Specifications					
BY AGE CATEGORY	QUALITY INDICATOR	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Ages 6 - 20	QI 1	5,353	9,507	**56.3%**	55.3%	57.3%
	QI 2	7,271	9,507	**76.5%**	75.6%	77.3%
Ages 21 - 64	QI 1	10,885	25,877	**42.1%**	41.5%	42.7%
	QI 2	16,087	25,877	**62.2%**	61.6%	62.8%
Ages 65 and Over	QI 1	155	591	**26.2%**	22.6%	29.9%
	QI 2	243	591	**41.1%**	37.1%	45.2%
Ages 21 and Over (Combined)	QI 1	11,040	26,468	**41.7%**	41.1%	42.3%
	QI 2	16,330	26,468	**61.7%**	61.1%	62.3%

	PA Specifications					
BY AGE CATEGORY	QUALITY INDICATOR	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Ages 6 - 20	QI A	6,339	9,507	**66.7%**	65.7%	67.6%
	QI B	7,829	9,507	**82.4%**	81.6%	83.1%
Ages 21 - 64	QI A	14,598	25,877	**56.4%**	55.8%	57.0%
	QI B	18,820	25,877	**72.7%**	72.2%	73.3%
Ages 65 and Over	QI A	266	591	**45.0%**	40.9%	49.1%
	QI B	335	591	**56.7%**	52.6%	60.8%
Ages 21 and Over (Combined)	QI A	14,864	26,468	**56.2%**	55.6%	56.8%
	QI B	19,155	26,468	**72.4%**	71.8%	72.9%

Quality Indicator Rates by Age Category



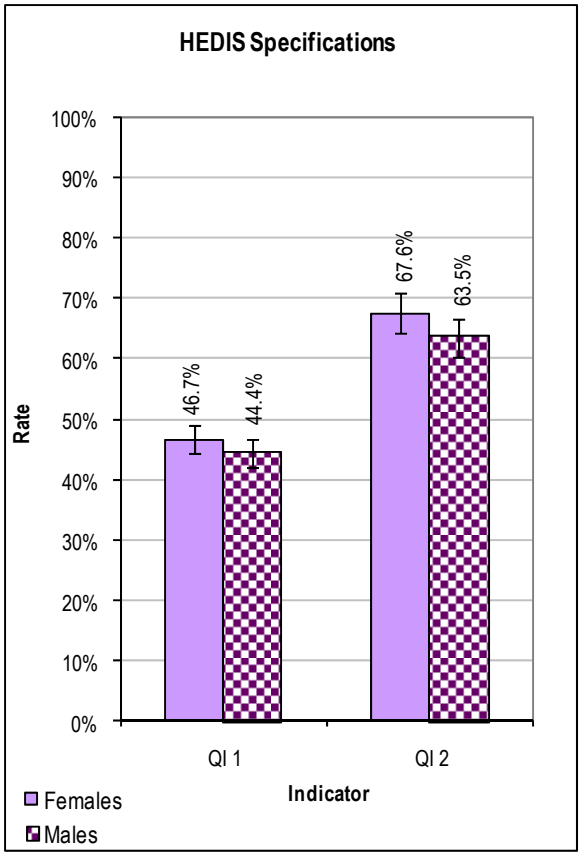


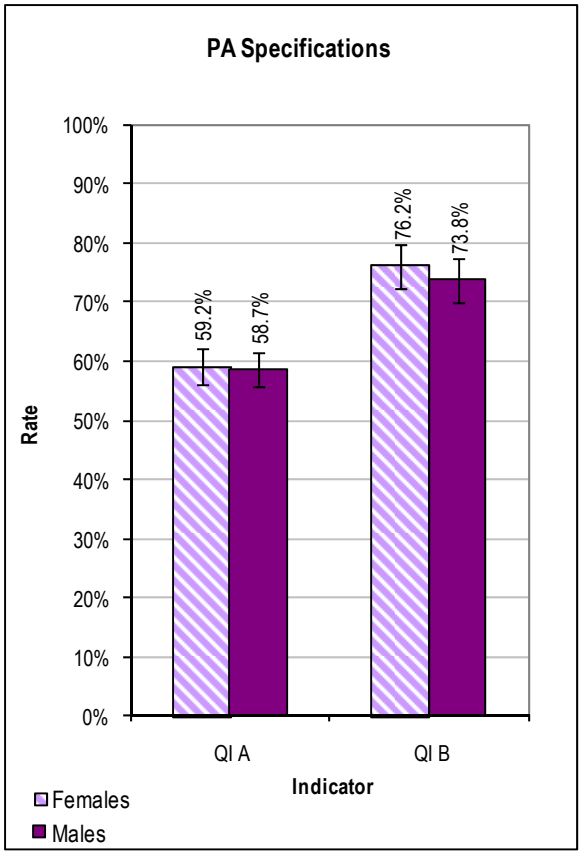
APPENDIX 3D: HEALTHCHOICES QUALITY INDICATOR RATES BY GENDER

	HEDIS Specifications									
	FEMALE					MALE				
QUALITY INDICATOR	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
QI 1	8,697	18,637	**46.7%**	46.0%	47.4%	7,696	17,338	**44.4%**	43.6%	45.1%
QI 2	12,591	18,637	**67.6%**	66.9%	68.2%	11,010	17,338	**63.5%**	62.8%	64.2%

	PA Specifications									
	FEMALE					MALE				
QUALITY INDICATOR	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
QI A	11,030	18,637	**59.2%**	58.5%	59.9%	10,173	17,338	**58.7%**	57.9%	59.4%
QI B	14,198	18,637	**76.2%**	75.6%	76.8%	12,786	17,338	**73.8%**	73.1%	74.4%

Quality Indicator Rates by Gender



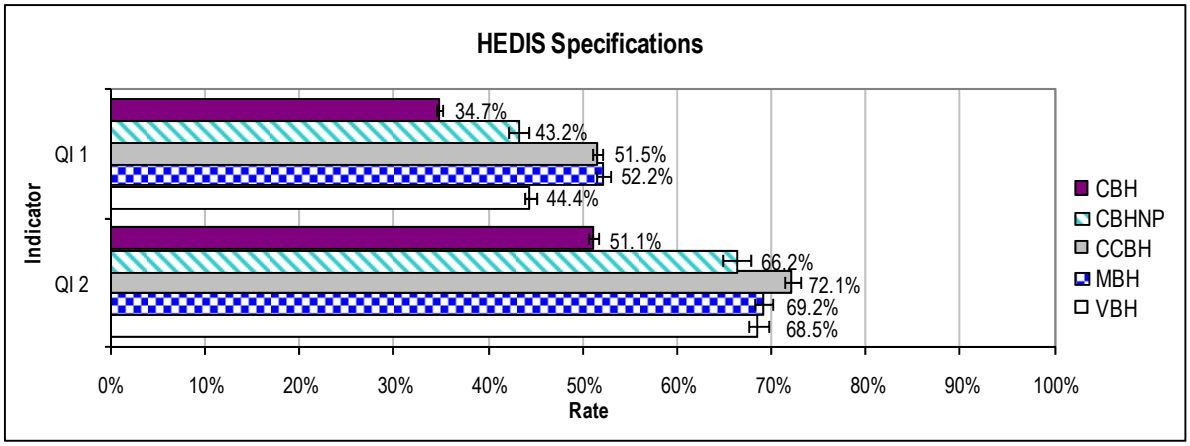


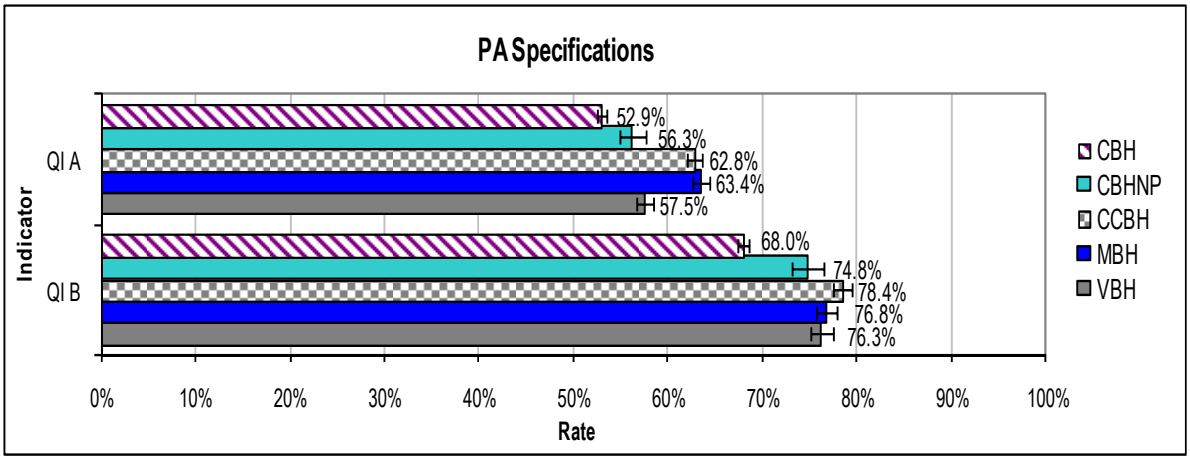
APPENDIX 3E: HEALTHCHOICES QUALITY INDICATOR RATES BY BH MCO

	HEDIS Specifications									
	QUALITY INDICATOR 1					QUALITY INDICATOR 2				
BY MCO	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
CBH	2,854	8,215	**34.7%**	33.7%	35.8%	4,196	8,215	**51.1%**	50.0%	52.2%
CBHNP	1,657	3,838	**43.2%**	41.6%	44.8%	2,541	3,838	**66.2%**	64.7%	67.7%
CCBH	6,247	12,125	**51.5%**	50.6%	52.4%	8,747	12,125	**72.1%**	71.3%	72.9%
MBH	2,671	5,115	**52.2%**	50.8%	53.6%	3,537	5,115	**69.2%**	67.9%	70.4%
VBH	2,964	6,682	**44.4%**	43.2%	45.6%	4,580	6,682	**68.5%**	67.4%	69.7%
HC BH MCO AVERAGE	**45.2%**					**65.4%**				

	PA Specifications									
	QUALITY INDICATOR A					QUALITY INDICATOR B				
BY MCO	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
CBH	4,349	8,215	**52.9%**	51.9%	54.0%	5,583	8,215	**68.0%**	66.9%	69.0%
CBHNP	2,159	3,838	**56.3%**	54.7%	57.8%	2,870	3,838	**74.8%**	73.4%	76.2%
CCBH	7,610	12,125	**62.8%**	61.9%	63.6%	9,509	12,125	**78.4%**	77.7%	79.2%
MBH	3,244	5,115	**63.4%**	62.1%	64.7%	3,927	5,115	**76.8%**	75.6%	77.9%
VBH	3,841	6,682	**57.5%**	56.3%	58.7%	5,095	6,682	**76.3%**	75.2%	77.3%
HC BH MCO AVERAGE	**58.6%**					**74.8%**				

Quality Indicator Rates by BH MCO





APPENDIX 3F: HEALTHCHOICES QUALITY INDICATOR RATES BY COUNTY

	HEDIS Specifications Quality Indicator 1				
BY COUNTY	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Adams	55	122	**45.1%**	35.8%	54.3%
Allegheny	1,909	3,966	**48.1%**	46.6%	49.7%
Armstrong	111	218	**50.9%**	44.1%	57.8%
Beaver	351	638	**55.0%**	51.1%	59.0%
Bedford	32	112	**28.6%**	19.8%	37.4%
Berks	474	926	**51.2%**	47.9%	54.5%
Blair	257	506	**50.8%**	46.3%	55.2%
Bradford	90	177	**50.9%**	43.2%	58.5%
Bucks	431	828	**52.1%**	48.6%	55.5%
Butler	194	353	**55.0%**	49.6%	60.3%
Cambria	146	475	**30.7%**	26.5%	35.0%
Cameron	10	24	**41.7%**	19.9%	63.5%
Carbon	76	184	**41.3%**	33.9%	48.7%
Centre	131	226	**58.0%**	51.3%	64.6%
Chester	293	602	**48.7%**	44.6%	52.7%
Clarion	52	129	**40.3%**	31.5%	49.2%
Clearfield	210	417	**50.4%**	45.4%	55.3%
Clinton	40	87	**46.0%**	34.9%	57.0%
Columbia	112	188	**59.6%**	52.3%	66.9%
Crawford	150	305	**49.2%**	43.4%	55.0%
Cumberland	112	242	**46.3%**	39.8%	52.8%
Dauphin	292	731	**40.0%**	36.3%	43.6%
Delaware	564	1,078	**52.3%**	49.3%	55.3%
Elk	64	123	**52.0%**	42.8%	61.3%
Erie	395	1,129	**35.0%**	32.2%	37.8%
Fayette	290	630	**46.0%**	42.1%	50.0%
Forest	4	11	**36.4%**	3.4%	69.3%
Franklin	100	253	**39.5%**	33.3%	45.8%
Fulton	13	27	**48.2%**	27.5%	68.8%
Greene	80	186	**43.0%**	35.6%	50.4%
Huntingdon	59	123	**48.0%**	38.7%	57.2%
Indiana	120	218	**55.1%**	48.2%	61.9%
Jefferson	126	234	**53.9%**	47.2%	60.5%
Juniata	29	47	**61.7%**	46.7%	76.7%

	HEDIS Specifications Quality Indicator 1				
BY COUNTY	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Lackawanna	419	655	**64.0%**	60.2%	67.7%
Lancaster	401	997	**40.2%**	37.1%	43.3%
Lawrence	142	292	**48.6%**	42.7%	54.5%
Lebanon	180	324	**55.6%**	50.0%	61.1%
Lehigh	600	1,124	**53.4%**	50.4%	56.3%
Luzerne	679	977	**69.5%**	66.6%	72.4%
Lycoming	139	319	**43.6%**	38.0%	49.2%
McKean	63	174	**36.2%**	28.8%	43.6%
Mercer	220	492	**44.7%**	40.2%	49.2%
Mifflin	103	191	**53.9%**	46.6%	61.3%
Monroe	171	311	**55.0%**	49.3%	60.7%
Montgomery	649	1,301	**49.9%**	47.1%	52.6%
Montour	26	46	**56.5%**	41.1%	71.9%
Northampton	427	784	**54.5%**	50.9%	58.0%
Northumberland	123	263	**46.8%**	40.5%	53.0%
Perry	27	64	**42.2%**	29.3%	55.1%
Philadelphia	2,854	8,215	**34.7%**	33.7%	35.8%
Pike	33	76	**43.4%**	31.6%	55.2%
Potter	20	49	**40.8%**	26.0%	55.6%
Schuylkill	232	498	**46.6%**	42.1%	51.1%
Snyder	29	64	**45.3%**	32.3%	58.3%
Somerset	64	176	**36.4%**	29.0%	43.8%
Sullivan	6	12	**50.0%**	17.5%	82.5%
Susquehanna	38	66	**57.6%**	44.9%	70.3%
Tioga	68	121	**56.2%**	46.9%	65.5%
Union	24	44	**54.6%**	38.7%	70.4%
Venango	82	204	**40.2%**	33.2%	47.2%
Warren	68	140	**48.6%**	39.9%	57.2%
Washington	231	529	**43.7%**	39.3%	48.0%
Wayne	59	97	**60.8%**	50.6%	71.1%
Westmoreland	452	1,013	**44.6%**	41.5%	47.7%
Wyoming	38	52	**73.1%**	60.1%	86.1%
York	354	790	**44.8%**	41.3%	48.3%
HC COUNTY AVG			**48.5%**		

APPENDIX 3F: HEALTHCHOICES QUALITY INDICATOR RATES BY COUNTY (continued)

	HEDIS Specifications Quality Indicator 2				
BY COUNTY	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Adams	85	122	**69.7%**	61.1%	78.2%
Allegheny	2,661	3,966	**67.1%**	65.6%	68.6%
Armstrong	164	218	**75.2%**	69.3%	81.2%
Beaver	464	638	**72.7%**	69.2%	76.3%
Bedford	65	112	**58.0%**	48.5%	67.6%
Berks	672	926	**72.6%**	69.6%	75.5%
Blair	400	506	**79.1%**	75.4%	82.7%
Bradford	139	177	**78.5%**	72.2%	84.9%
Bucks	566	828	**68.4%**	65.1%	71.6%
Butler	264	353	**74.8%**	70.1%	79.5%
Cambria	265	475	**55.8%**	51.2%	60.4%
Cameron	17	24	**70.8%**	50.6%	91.1%
Carbon	128	184	**69.6%**	62.6%	76.5%
Centre	179	226	**79.2%**	73.7%	84.7%
Chester	415	602	**68.9%**	65.2%	72.7%
Clarion	90	129	**69.8%**	61.5%	78.1%
Clearfield	322	417	**77.2%**	73.1%	81.4%
Clinton	64	87	**73.6%**	63.7%	83.4%
Columbia	146	188	**77.7%**	71.4%	83.9%
Crawford	222	305	**72.8%**	67.6%	77.9%
Cumberland	157	242	**64.9%**	58.7%	71.1%
Dauphin	439	731	**60.1%**	56.4%	63.7%
Delaware	742	1,078	**68.8%**	66.0%	71.6%
Elk	100	123	**81.3%**	74.0%	88.6%
Erie	709	1,129	**62.8%**	59.9%	65.7%
Fayette	443	630	**70.3%**	66.7%	74.0%
Forest	7	11	**63.6%**	30.7%	96.6%
Franklin	186	253	**73.5%**	67.9%	79.2%
Fulton	18	27	**66.7%**	47.0%	86.3%
Greene	125	186	**67.2%**	60.2%	74.2%
Huntingdon	93	123	**75.6%**	67.6%	83.6%
Indiana	164	218	**75.2%**	69.3%	81.2%
Jefferson	184	234	**78.6%**	73.2%	84.1%
Juniata	38	47	**80.9%**	68.5%	93.2%

	HEDIS Specifications Quality Indicator 2				
BY COUNTY	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Lackawanna	549	655	**83.8%**	80.9%	86.7%
Lancaster	608	997	**61.0%**	57.9%	64.1%
Lawrence	220	292	**75.3%**	70.2%	80.5%
Lebanon	250	324	**77.2%**	72.4%	81.9%
Lehigh	770	1,124	**68.5%**	65.8%	71.3%
Luzerne	798	977	**81.7%**	79.2%	84.2%
Lycoming	204	319	**64.0%**	58.5%	69.4%
McKean	116	174	**66.7%**	59.4%	74.0%
Mercer	347	492	**70.5%**	66.4%	74.7%
Mifflin	147	191	**77.0%**	70.7%	83.2%
Monroe	222	311	**71.4%**	66.2%	76.6%
Montgomery	887	1,301	**68.2%**	65.6%	70.7%
Montour	34	46	**73.9%**	60.1%	87.7%
Northampton	572	784	**73.0%**	69.8%	76.1%
Northumberland	181	263	**68.8%**	63.0%	74.6%
Perry	42	64	**65.6%**	53.2%	78.0%
Philadelphia	4,196	8,215	**51.1%**	50.0%	52.2%
Pike	49	76	**64.5%**	53.1%	75.9%
Potter	30	49	**61.2%**	46.6%	75.9%
Schuylkill	360	498	**72.3%**	68.3%	76.3%
Snyder	39	64	**60.9%**	48.2%	73.7%
Somerset	108	176	**61.4%**	53.9%	68.8%
Sullivan	8	12	**66.7%**	35.8%	97.5%
Susquehanna	52	66	**78.8%**	68.2%	89.4%
Tioga	92	121	**76.0%**	68.0%	84.0%
Union	33	44	**75.0%**	61.1%	88.9%
Venango	143	204	**70.1%**	63.6%	76.6%
Warren	102	140	**72.9%**	65.1%	80.6%
Washington	357	529	**67.5%**	63.4%	71.6%
Wayne	75	97	**77.3%**	68.5%	86.2%
Westmoreland	693	1,013	**68.4%**	65.5%	71.3%
Wyoming	45	52	**86.5%**	76.3%	96.8%
York	539	790	**68.2%**	64.9%	71.5%
HC COUNTY AVG			**70.8%**		

APPENDIX 3F: HEALTHCHOICES QUALITY INDICATOR RATES BY COUNTY (continued)

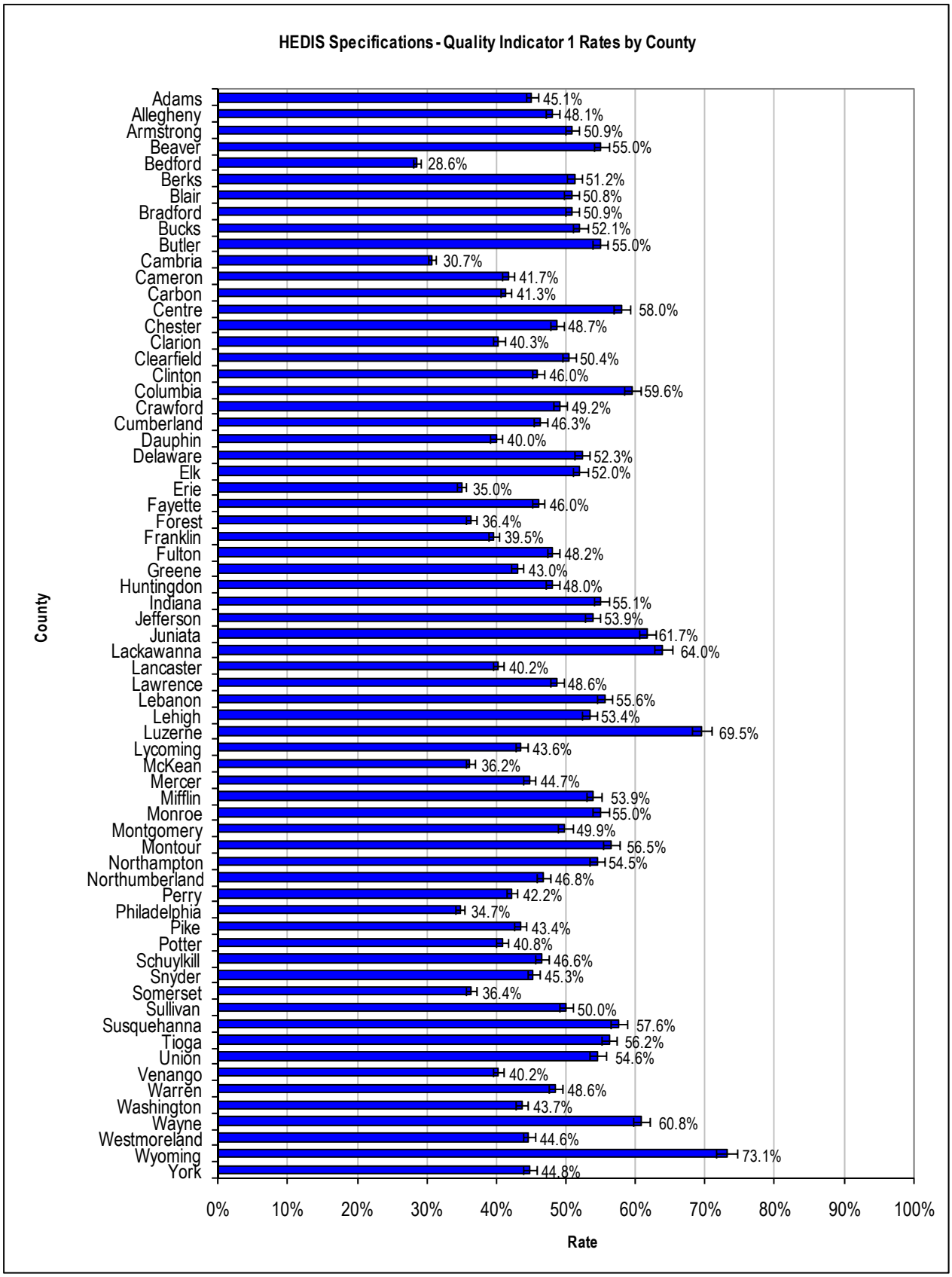
	PA Specifications Quality Indicator A				
BY COUNTY	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Adams	61	122	**50.0%**	40.7%	59.3%
Allegheny	2,477	3,966	**62.5%**	60.9%	64.0%
Armstrong	135	218	**61.9%**	55.3%	68.6%
Beaver	396	638	**62.1%**	58.2%	65.9%
Bedford	59	112	**52.7%**	43.0%	62.4%
Berks	573	926	**61.9%**	58.7%	65.1%
Blair	306	506	**60.5%**	56.1%	64.8%
Bradford	98	177	**55.4%**	47.8%	63.0%
Bucks	533	828	**64.4%**	61.0%	67.7%
Butler	245	353	**69.4%**	64.5%	74.4%
Cambria	200	475	**42.1%**	37.6%	46.7%
Cameron	16	24	**66.7%**	45.7%	87.6%
Carbon	91	184	**49.5%**	42.0%	57.0%
Centre	153	226	**67.7%**	61.4%	74.0%
Chester	362	602	**60.1%**	56.1%	64.1%
Clarion	63	129	**48.8%**	39.8%	57.9%
Clearfield	250	417	**60.0%**	55.1%	64.8%
Clinton	52	87	**59.8%**	48.9%	70.6%
Columbia	124	188	**66.0%**	58.9%	73.0%
Crawford	171	305	**56.1%**	50.3%	61.8%
Cumberland	152	242	**62.8%**	56.5%	69.1%
Dauphin	445	731	**60.9%**	57.3%	64.5%
Delaware	700	1,078	**64.9%**	62.0%	67.8%
Elk	85	123	**69.1%**	60.5%	77.7%
Erie	649	1,129	**57.5%**	54.6%	60.4%
Fayette	346	630	**54.9%**	51.0%	58.9%
Forest	6	11	**54.6%**	20.6%	88.5%
Franklin	137	253	**54.2%**	47.8%	60.5%
Fulton	14	27	**51.9%**	31.2%	72.5%
Greene	120	186	**64.5%**	57.4%	71.7%
Huntingdon	78	123	**63.4%**	54.5%	72.3%
Indiana	157	218	**72.0%**	65.8%	78.2%
Jefferson	154	234	**65.8%**	59.5%	72.1%
Juniata	33	47	**70.2%**	56.1%	84.3%

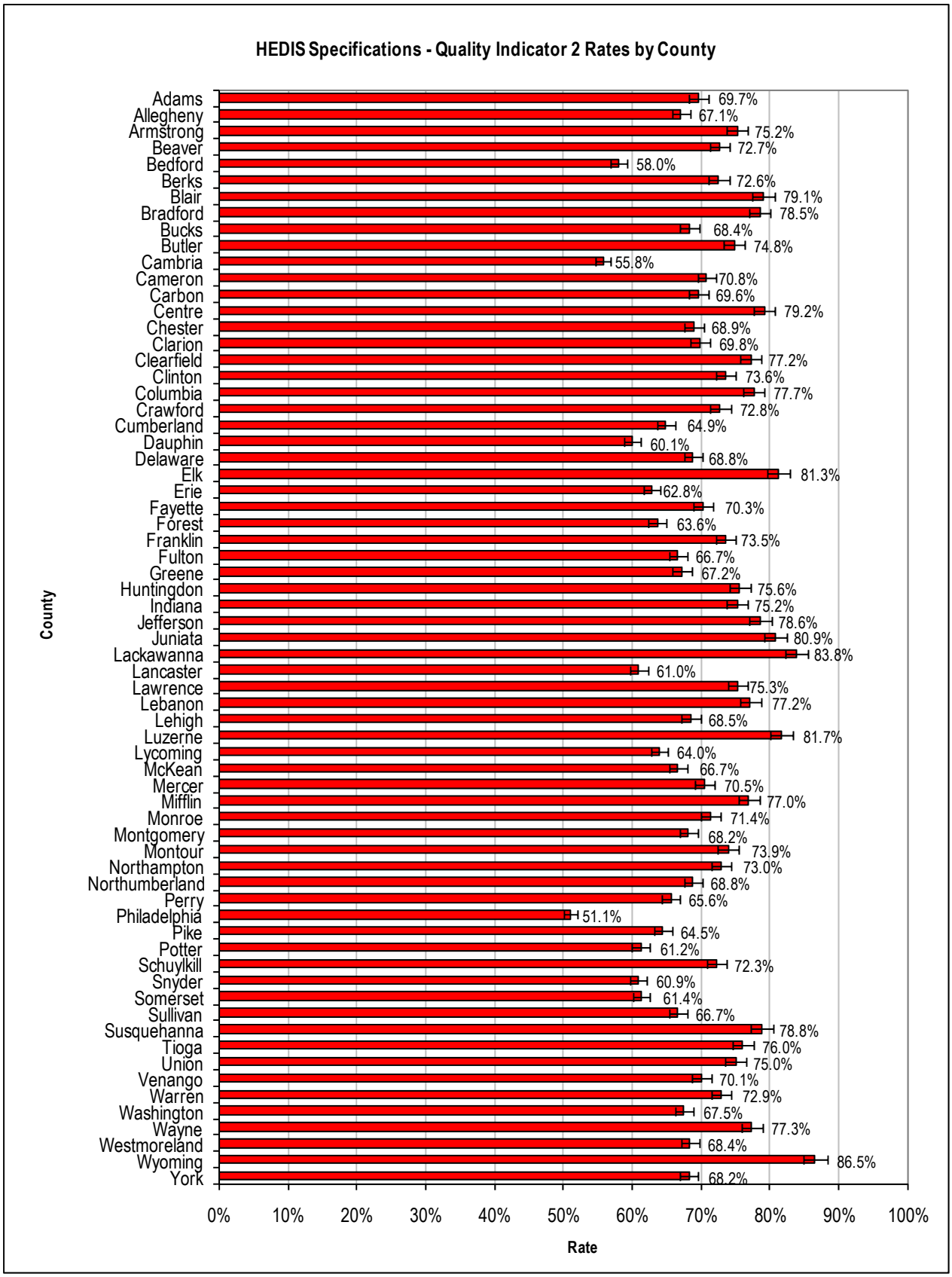
	PA Specifications Quality Indicator A				
BY COUNTY	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Lackawanna	462	655	**70.5%**	67.0%	74.1%
Lancaster	501	997	**50.3%**	47.1%	53.4%
Lawrence	178	292	**61.0%**	55.2%	66.7%
Lebanon	200	324	**61.7%**	56.3%	67.2%
Lehigh	722	1,124	**64.2%**	61.4%	67.1%
Luzerne	728	977	**74.5%**	71.7%	77.3%
Lycoming	170	319	**53.3%**	47.7%	58.9%
McKean	105	174	**60.3%**	52.8%	67.9%
Mercer	260	492	**52.9%**	48.3%	57.4%
Mifflin	152	191	**79.6%**	73.6%	85.6%
Monroe	204	311	**65.6%**	60.1%	71.0%
Montgomery	791	1,301	**60.8%**	58.1%	63.5%
Montour	37	46	**80.4%**	67.9%	93.0%
Northampton	498	784	**63.5%**	60.1%	67.0%
Northumberland	159	263	**60.5%**	54.4%	66.6%
Perry	34	64	**53.1%**	40.1%	66.1%
Philadelphia	4,349	8,215	**52.9%**	51.9%	54.0%
Pike	41	76	**54.0%**	42.1%	65.8%
Potter	24	49	**49.0%**	34.0%	64.0%
Schuylkill	296	498	**59.4%**	55.0%	63.9%
Snyder	40	64	**62.5%**	49.9%	75.1%
Somerset	89	176	**50.6%**	42.9%	58.2%
Sullivan	7	12	**58.3%**	26.3%	90.4%
Susquehanna	40	66	**60.6%**	48.1%	73.2%
Tioga	83	121	**68.6%**	59.9%	77.3%
Union	27	44	**61.4%**	45.8%	76.9%
Venango	93	204	**45.6%**	38.5%	52.7%
Warren	86	140	**61.4%**	53.0%	69.9%
Washington	299	529	**56.5%**	52.2%	60.8%
Wayne	67	97	**69.1%**	59.4%	78.8%
Westmoreland	592	1,013	**58.4%**	55.4%	61.5%
Wyoming	40	52	**76.9%**	64.5%	89.3%
York	388	790	**49.1%**	45.6%	52.7%
HC COUNTY AVG			**60.5%**		

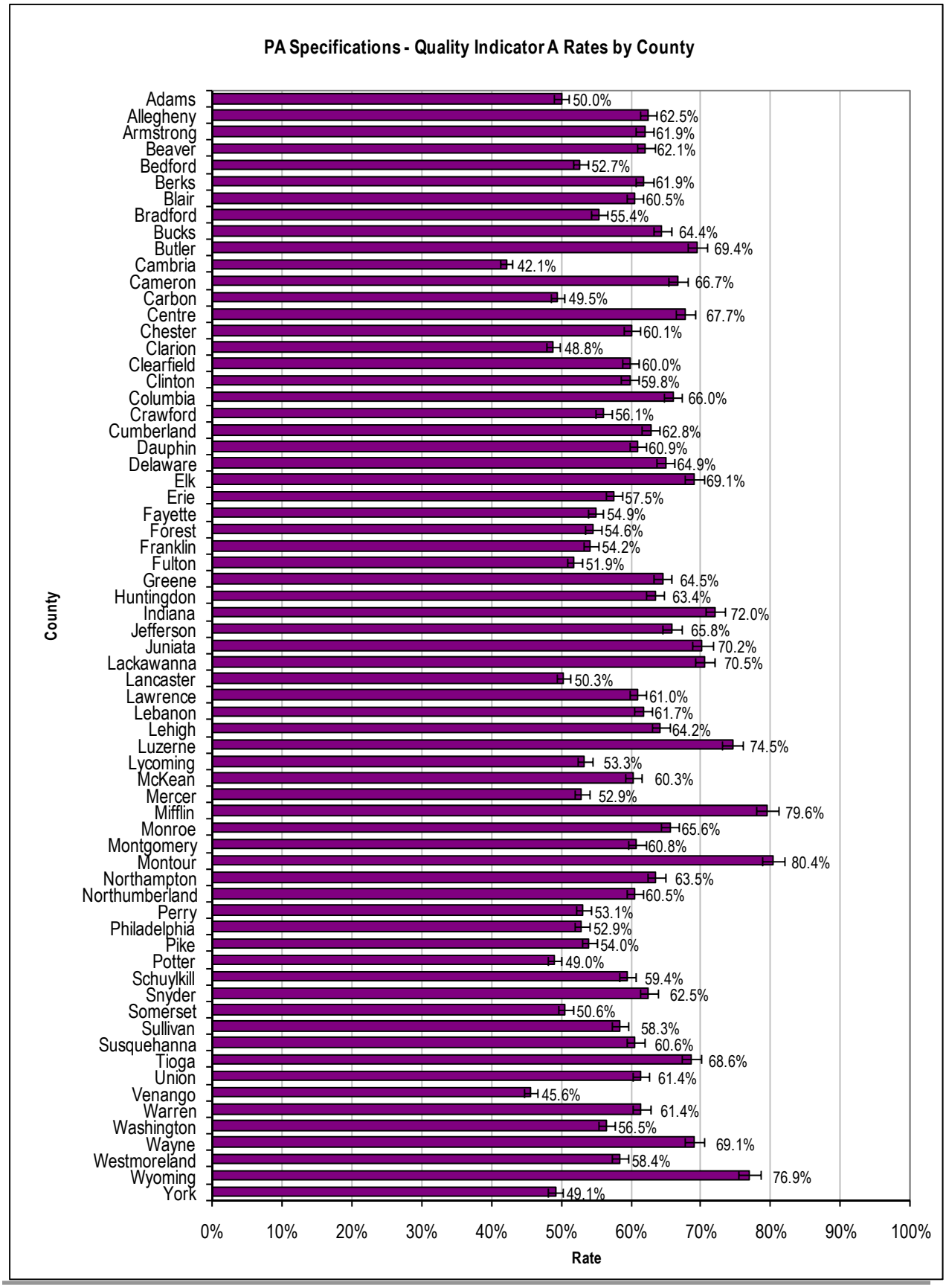
APPENDIX 3F: HEALTHCHOICES QUALITY INDICATOR RATES BY COUNTY (continued)

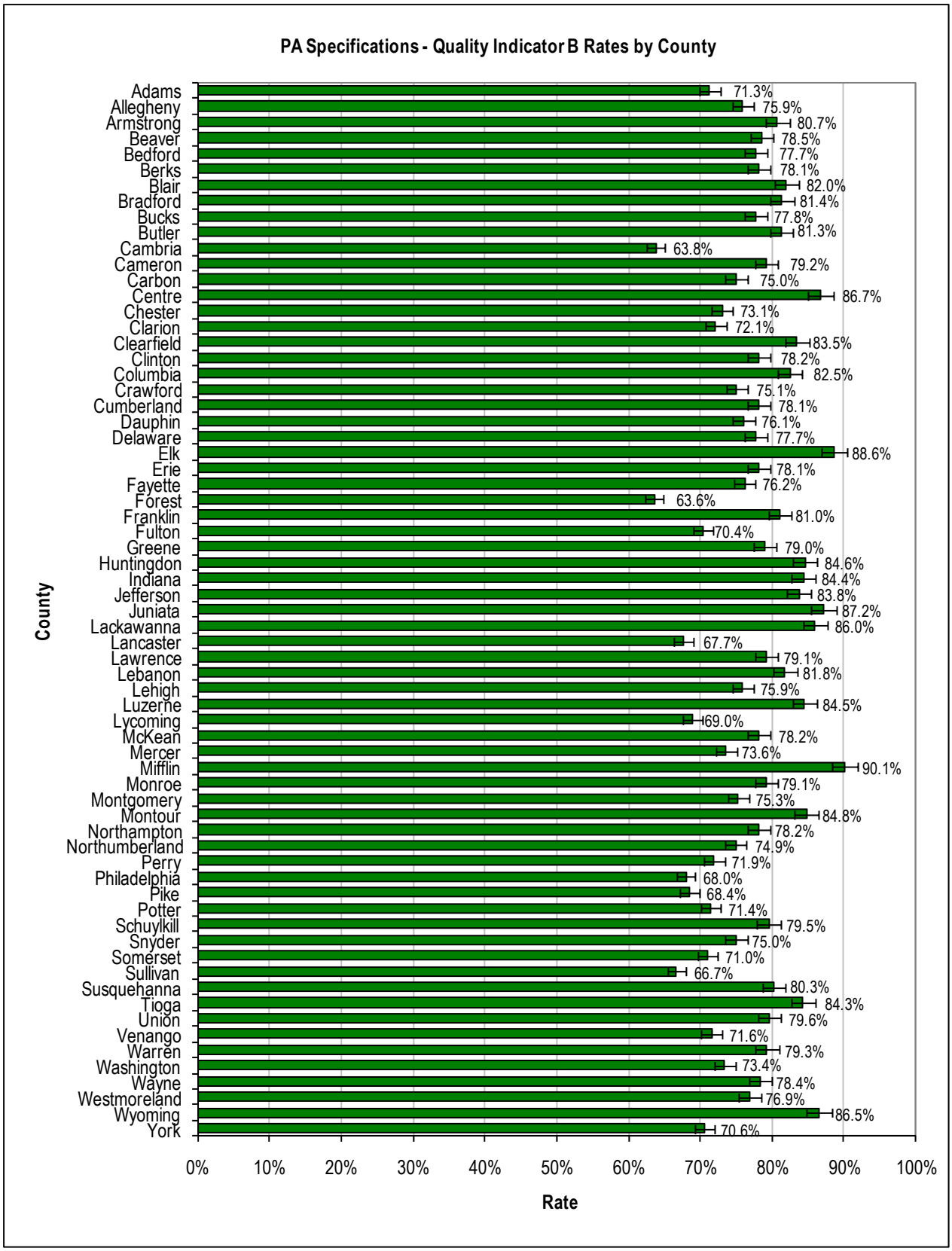
	PA Specifications Quality Indicator B				
BY COUNTY	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Adams	87	122	**71.3%**	62.9%	79.7%
Allegheny	3,011	3,966	**75.9%**	74.6%	77.3%
Armstrong	176	218	**80.7%**	75.3%	86.2%
Beaver	501	638	**78.5%**	75.3%	81.8%
Bedford	87	112	**77.7%**	69.5%	85.8%
Berks	723	926	**78.1%**	75.4%	80.8%
Blair	415	506	**82.0%**	78.6%	85.5%
Bradford	144	177	**81.4%**	75.3%	87.4%
Bucks	644	828	**77.8%**	74.9%	80.7%
Butler	287	353	**81.3%**	77.1%	85.5%
Cambria	303	475	**63.8%**	59.4%	68.2%
Cameron	19	24	**79.2%**	60.8%	97.5%
Carbon	138	184	**75.0%**	68.5%	81.5%
Centre	196	226	**86.7%**	82.1%	91.4%
Chester	440	602	**73.1%**	69.5%	76.7%
Clarion	93	129	**72.1%**	64.0%	80.2%
Clearfield	348	417	**83.5%**	79.8%	87.1%
Clinton	68	87	**78.2%**	68.9%	87.4%
Columbia	155	188	**82.5%**	76.7%	88.2%
Crawford	229	305	**75.1%**	70.1%	80.1%
Cumberland	189	242	**78.1%**	72.7%	83.5%
Dauphin	556	731	**76.1%**	72.9%	79.2%
Delaware	838	1,078	**77.7%**	75.2%	80.3%
Elk	109	123	**88.6%**	82.6%	94.6%
Erie	882	1,129	**78.1%**	75.7%	80.6%
Fayette	480	630	**76.2%**	72.8%	79.6%
Forest	7	11	**63.6%**	30.7%	96.6%
Franklin	205	253	**81.0%**	76.0%	86.1%
Fulton	19	27	**70.4%**	51.3%	89.4%
Greene	147	186	**79.0%**	72.9%	85.1%
Huntingdon	104	123	**84.6%**	77.8%	91.3%
Indiana	184	218	**84.4%**	79.4%	89.4%
Jefferson	196	234	**83.8%**	78.8%	88.7%
Juniata	41	47	**87.2%**	76.6%	97.8%

	PA Specifications Quality Indicator B				
BY COUNTY	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
Lackawanna	563	655	**86.0%**	83.2%	88.7%
Lancaster	675	997	**67.7%**	64.7%	70.7%
Lawrence	231	292	**79.1%**	74.3%	83.9%
Lebanon	265	324	**81.8%**	77.4%	86.1%
Lehigh	853	1,124	**75.9%**	73.3%	78.4%
Luzerne	826	977	**84.5%**	82.2%	86.9%
Lycoming	220	319	**69.0%**	63.7%	74.2%
McKean	136	174	**78.2%**	71.7%	84.6%
Mercer	362	492	**73.6%**	69.6%	77.6%
Mifflin	172	191	**90.1%**	85.5%	94.6%
Monroe	246	311	**79.1%**	74.4%	83.8%
Montgomery	979	1,301	**75.3%**	72.9%	77.6%
Montour	39	46	**84.8%**	73.3%	96.2%
Northampton	613	784	**78.2%**	75.2%	81.1%
Northumberland	197	263	**74.9%**	69.5%	80.3%
Perry	46	64	**71.9%**	60.1%	83.7%
Philadelphia	5,583	8,215	**68.0%**	66.9%	69.0%
Pike	52	76	**68.4%**	57.3%	79.5%
Potter	35	49	**71.4%**	57.8%	85.1%
Schuylkill	396	498	**79.5%**	75.9%	83.2%
Snyder	48	64	**75.0%**	63.6%	86.4%
Somerset	125	176	**71.0%**	64.0%	78.0%
Sullivan	8	12	**66.7%**	35.8%	97.5%
Susquehanna	53	66	**80.3%**	69.9%	90.7%
Tioga	102	121	**84.3%**	77.4%	91.2%
Union	35	44	**79.6%**	66.5%	92.6%
Venango	146	204	**71.6%**	65.1%	78.0%
Warren	111	140	**79.3%**	72.2%	86.4%
Washington	388	529	**73.4%**	69.5%	77.2%
Wayne	76	97	**78.4%**	69.6%	87.1%
Westmoreland	779	1,013	**76.9%**	74.3%	79.5%
Wyoming	45	52	**86.5%**	76.3%	96.8%
York	558	790	**70.6%**	67.4%	73.9%
HC COUNTY AVG			**77.5%**		


HEDIS Specifications - Quality Indicator 1 Rates by County
County
Adams 45.1%
Allegheny 48.1%
Armstrong 50.9%
Beaver 55.0%
Bedford 28.6%
Berks 51.2%
Blair 50.8%
Bradford 50.9%
Bucks 52.1%
Butler 55.0%
Cambria 30.7%
Cameron 41.7%
Carbon 41.3%
Centre 58.0%
Chester 48.7%
Clarion 40.3%
Clearfield 50.4%
Clinton 46.0%
Columbia 59.6%
Crawford 49.2%
Cumberland 46.3%
Dauphin 40.0%
Delaware 52.3%
Elk 52.0%
Erie 35.0%
Fayette 46.0%
Forest 36.4%
Franklin 39.5%
Fulton 48.2%
Greene 43.0%
Huntingdon 48.0%
Indiana 55.1%
Jefferson 53.9%
Juniata 61.7%
Lackawanna 64.0%
Lancaster 40.2%
Lawrence 48.6%
Lebanon 55.6%
Lehigh 53.4%
Luzerne 69.5%
Lycoming 43.6%
McKean 36.2%
Mercer 44.7%
Mifflin 53.9%
Monroe 55.0%
Montgomery 49.9%
Montour 56.5%
Northampton 54.5%
Northumberland 46.8%
Perry 42.2%
Philadelphia 34.7%
Pike 43.4%
Potter 40.8%
Schuylkill 46.6%
Snyder 45.3%
Somerset 36.4%
Sullivan 50.0%
Susquehanna 57.6%
Tioga 56.2%
Union 54.6%
Venango 40.2%
Warren 48.6%
Washington 43.7%
Wayne 60.8%
Westmoreland 44.6%
Wyoming 73.1%
York 44.8%
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Rate


HEDIS Specifications - Quality Indicator 2 Rates by County
County
Adams 69.7%
Allegheny 67.1%
Armstrong 75.2%
Beaver 72.7%
Bedford 58.0%
Berks 72.6%
Blair 79.1%
Bradford 78.5%
Bucks 68.4%
Butler 74.8%
Cambria 55.8%
Cameron 70.8%
Carbon 69.6%
Centre 79.2%
Chester 68.9%
Clarion 69.8%
Clearfield 77.2%
Clinton 73.6%
Columbia 77.7%
Crawford 72.8%
Cumberland 64.9%
Dauphin 60.1%
Delaware 68.8%
Elk 81.3%
Erie 62.8%
Fayette 70.3%
Forest 63.6%
Franklin 73.5%
Fulton 66.7%
Greene 67.2%
Huntingdon 75.6%
Indiana 75.2%
Jefferson 78.6%
Juniata 80.9%
Lackawanna 83.8%
Lancaster 61.0%
Lawrence 75.3%
Lebanon 77.2%
Lehigh 68.5%
Luzerne 81.7%
Lycoming 64.0%
McKean 66.7%
Mercer 70.5%
Mifflin 77.0%
Monroe 71.4%
Montgomery 68.2%
Montour 73.9%
Northampton 73.0%
Northumberland 68.8%
Perry 65.6%
Philadelphia 51.1%
Pike 64.5%
Potter 61.2%
Schuylkill 72.3%
Snyder 60.9%
Somerset 61.4%
Sullivan 66.7%
Susquehanna 78.8%
Tioga 76.0%
Union 75.0%
Venango 70.1%
Warren 72.9%
Washington 67.5%
Wayne 77.3%
Westmoreland 68.4%
Wyoming 86.5%
York 68.2%
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Rate


PA Specifications - Quality Indicator A Rates by County
County
Adams 50.0%
Allegheny 62.5%
Armstrong 61.9%
Beaver 62.1%
Bedford 52.7%
Berks 61.9%
Blair 60.5%
Bradford 55.4%
Bucks 64.4%
Butler 69.4%
Cambria 42.1%
Cameron 66.7%
Carbon 49.5%
Centre 67.7%
Chester 60.1%
Clarion 48.8%
Clearfield 60.0%
Clinton 59.8%
Columbia 66.0%
Crawford 56.1%
Cumberland 62.8%
Dauphin 60.9%
Delaware 64.9%
Elk 69.1%
Erie 57.5%
Fayette 54.9%
Forest 54.6%
Franklin 54.2%
Fulton 51.9%
Greene 64.5%
Huntingdon 63.4%
Indiana 72.0%
Jefferson 65.8%
Juniata 70.2%
Lackawanna 70.5%
Lancaster 50.3%
Lawrence 61.0%
Lebanon 61.7%
Lehigh 64.2%
Luzerne 74.5%
Lycoming 53.3%
McKean 60.3%
Mercer 52.9%
Mifflin 79.6%
Monroe 65.6%
Montgomery 60.8%
Montour 80.4%
Northampton 63.5%
Northumberland 60.5%
Perry 53.1%
Philadelphia 52.9%
Pike 54.0%
Potter 49.0%
Schuylkill 59.4%
Snyder 62.5%
Somerset 50.6%
Sullivan 58.3%
Susquehanna 60.6%
Tioga 68.6%
Union 61.4%
Venango 45.6%
Warren 61.4%
Washington 56.5%
Wayne 69.1%
Westmoreland 58.4%
Wyoming 76.9%
York 49.1%
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Rate


PA Specifications - Quality Indicator B Rates by County
County
Rate
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Adams 71.3%
Allegheny 75.9%
Armstrong 80.7%
Beaver 78.5%
Bedford 77.7%
Berks 78.1%
Blair 82.0%
Bradford 81.4%
Bucks 77.8%
Butler 81.3%
Cambria 63.8%
Cameron 79.2%
Carbon 75.0%
Centre 86.7%
Chester 73.1%
Clarion 72.1%
Clearfield 83.5%
Clinton 78.2%
Columbia 82.5%
Crawford 75.1%
Cumberland 78.1%
Dauphin 76.1%
Delaware 77.7%
Elk 88.6%
Erie 78.1%
Fayette 76.2%
Forest 63.6%
Franklin 81.0%
Fulton 70.4%
Greene 79.0%
Huntingdon 84.6%
Indiana 84.4%
Jefferson 83.8%
Juniata 87.2%
Lackawanna 86.0%
Lancaster 67.7%
Lawrence 79.1%
Lebanon 81.8%
Lehigh 75.9%
Luzerne 84.5%
Lycoming 69.0%
McKean 78.2%
Mercer 73.6%
Mifflin 90.1%
Monroe 79.1%
Montgomery 75.3%
Montour 84.8%
Northampton 78.2%
Northumberland 74.9%
Perry 71.9%
Philadelphia 68.0%
Pike 68.4%
Potter 71.4%
Schuylkill 79.5%
Snyder 75.0%
Somerset 71.0%
Sullivan 66.7%
Susquehanna 80.3%
Tioga 84.3%
Union 79.6%
Venango 71.6%
Warren 79.3%
Washington 73.4%
Wayne 78.4%
Westmoreland 76.9%
Wyoming 86.5%
York 70.6%

APPENDIX IV: BH MCO RATES FOR MEASUREMENT YEAR 2009

The following figures and tables outline results for the four Quality Indicators by topic (i.e. race, age, gender, and County categories). All figure and table results are shown with the upper and lower bounds (95% CI) indicated.

APPENDIX 4A: BH MCO QUALITY INDICATOR RATES BY RACE

	HEDIS Specifications																									
QI 1	CBH					CBHNP					CCBH					MBH					VBH				
BY RACE	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI
Black/African American	1,562	5,086	**30.7%**	29.4%	32.0%	169	497	**34.0%**	29.7%	38.3%	918	2,049	**44.8%**	42.6%	47.0%	397	830	**47.8%**	44.4%	51.3%	235	673	**34.9%**	31.2%	38.6%
American Indian / Alaskan Native	3	11	**27.3%**	0.0%	58.1%	4	8	**50.0%**	9.1%	90.9%	15	32	**46.9%**	28.0%	65.7%	1	5	**20.0%**	0.0%	65.1%	8	14	**57.1%**	27.6%	86.6%
Asian	34	95	**35.8%**	25.6%	46.0%	4	16	**25.0%**	0.7%	49.3%	21	52	**40.4%**	26.1%	54.7%	26	48	**54.2%**	39.0%	69.3%	9	19	**47.4%**	22.3%	72.5%
White	749	1,959	**38.2%**	36.1%	40.4%	1,295	2,906	**44.6%**	42.7%	46.4%	4,895	9,269	**52.8%**	51.8%	53.8%	1,650	3,213	**51.4%**	49.6%	53.1%	2,666	5,849	**45.6%**	44.3%	46.9%
Other/Chose not to Respond	506	1,064	**47.6%**	44.5%	50.6%	185	411	**45.0%**	40.1%	49.9%	398	723	**55.1%**	51.4%	58.7%	597	1,019	**58.6%**	55.5%	61.7%	46	127	**36.2%**	27.5%	45.0%
Hawaiian/Pacific Islander	0	0	N/A			0	0	N/A			0	0	N/A			0	0	N/A			0	0	N/A		
QI 2	CBH					CBHNP					CCBH					MBH					VBH				
BY RACE	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI
Black/African American	2,418	5,086	**47.5%**	46.2%	48.9%	266	497	**53.5%**	49.0%	58.0%	1,270	2,049	**62.0%**	59.9%	64.1%	535	830	**64.5%**	61.1%	67.8%	402	673	**59.7%**	56.0%	63.5%
American Indian / Alaskan Native	6	11	**54.6%**	20.6%	88.5%	4	8	**50.0%**	9.1%	90.9%	21	32	**65.6%**	47.6%	83.6%	1	5	**20.0%**	0.0%	65.1%	10	14	**71.4%**	44.2%	98.7%
Asian	48	95	**50.5%**	39.9%	61.1%	10	16	**62.5%**	35.7%	89.3%	39	52	**75.0%**	62.3%	87.7%	34	48	**70.8%**	56.9%	84.7%	14	19	**73.7%**	51.2%	96.1%
White	1,029	1,959	**52.5%**	50.3%	54.8%	1,986	2,906	**68.3%**	66.6%	70.0%	6,881	9,269	**74.2%**	73.3%	75.1%	2,206	3,213	**68.7%**	67.0%	70.3%	4,079	5,849	**69.7%**	68.6%	70.9%
Other/Chose not to Respond	695	1,064	**65.3%**	62.4%	68.2%	275	411	**66.9%**	62.2%	71.6%	536	723	**74.1%**	70.9%	77.4%	761	1,019	**74.7%**	72.0%	77.4%	75	127	**59.1%**	50.1%	68.0%
Hawaiian/Pacific Islander	0	0	N/A			0	0	N/A			0	0	N/A			0	0	N/A			0	0	N/A		

	PA Specifications																									
QI A	CBH					CBHNP					CCBH					MBH					VBH				
BY RACE	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI
Black/African American	2,597	5,086	**51.1%**	49.7%	52.4%	255	497	**51.3%**	46.8%	55.8%	1,184	2,049	**57.8%**	55.6%	59.9%	494	830	**59.5%**	56.1%	62.9%	341	673	**50.7%**	46.8%	54.5%
American Indian / Alaskan Native	4	11	**36.4%**	3.4%	69.3%	4	8	**50.0%**	9.1%	90.9%	24	32	**75.0%**	58.4%	91.6%	1	5	**20.0%**	0.0%	65.1%	9	14	**64.3%**	35.6%	93.0%
Asian	57	95	**60.0%**	49.6%	70.4%	6	16	**37.5%**	10.7%	64.3%	32	52	**61.5%**	47.4%	75.7%	28	48	**58.3%**	43.3%	73.3%	11	19	**57.9%**	33.1%	82.7%
White	1,089	1,959	**55.6%**	53.4%	57.8%	1,677	2,906	**57.7%**	55.9%	59.5%	5,923	9,269	**63.9%**	62.9%	64.9%	2,031	3,213	**63.2%**	61.5%	64.9%	3,417	5,849	**58.4%**	57.1%	59.7%
Other/Chose not to Respond	602	1,064	**56.6%**	53.6%	59.6%	217	411	**52.8%**	47.9%	57.7%	447	723	**61.8%**	58.2%	65.4%	690	1,019	**67.7%**	64.8%	70.6%	63	127	**49.6%**	40.5%	58.7%
Hawaiian/Pacific Islander	0	0	N/A			0	0	N/A			0	0	N/A			0	0	N/A			0	0	N/A		
QI B	CBH					CBHNP					CCBH					MBH					VBH				
BY RACE	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI
Black/African American	3,393	5,086	**66.7%**	65.4%	68.0%	333	497	**67.0%**	62.8%	71.2%	1,442	2,049	**70.4%**	68.4%	72.4%	603	830	**72.7%**	69.6%	75.7%	474	673	**70.4%**	66.9%	74.0%
American Indian / Alaskan Native	6	11	**54.6%**	20.6%	88.5%	4	8	**50.0%**	9.1%	90.9%	25	32	**78.1%**	62.2%	94.0%	1	5	**20.0%**	0.0%	65.1%	11	14	**78.6%**	53.5%	100.0%
Asian	66	95	**69.5%**	59.7%	79.3%	10	16	**62.5%**	35.7%	89.3%	43	52	**82.7%**	71.4%	93.9%	36	48	**75.0%**	61.7%	88.3%	16	19	**84.2%**	65.2%	100.0%
White	1,340	1,959	**68.4%**	66.3%	70.5%	2,224	2,906	**76.5%**	75.0%	78.1%	7,436	9,269	**80.2%**	79.4%	81.0%	2,458	3,213	**76.5%**	75.0%	78.0%	4,506	5,849	**77.0%**	76.0%	78.1%
Other/Chose not to Respond	778	1,064	**73.1%**	70.4%	75.8%	299	411	**72.8%**	68.3%	77.2%	563	723	**77.9%**	74.8%	81.0%	829	1,019	**81.4%**	78.9%	83.8%	88	127	**69.3%**	60.9%	77.7%
Hawaiian/Pacific Islander	0	0	N/A			0	0	N/A			0	0	N/A			0	0	N/A			0	0	N/A		

APPENDIX 4B: BH MCO QUALITY INDICATOR RATES BY AGE CATEGORY

	HEDIS Specifications														
QI 1	AGES 6 - 20					AGES 21 - 64					AGES 65 AND OVER				
BY MCO	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
CBH	959	1,836	**52.2%**	49.9%	54.5%	1,879	6,240	**30.1%**	29.0%	31.3%	16	139	**11.5%**	5.8%	17.2%
CBHNP	640	1,070	**59.8%**	56.8%	62.8%	1,005	2,722	**36.9%**	35.1%	38.8%	12	46	**26.1%**	12.3%	39.9%
CCBH	1,966	3,270	**60.1%**	58.4%	61.8%	4,200	8,631	**48.7%**	47.6%	49.7%	81	224	**36.2%**	29.6%	42.7%
MBH	772	1,436	**53.8%**	51.1%	56.4%	1,878	3,608	**52.1%**	50.4%	53.7%	21	71	**29.6%**	18.3%	40.9%
VBH	1,016	1,895	**53.6%**	51.3%	55.9%	1,923	4,676	**41.1%**	39.7%	42.5%	25	111	**22.5%**	14.3%	30.7%
QI 2	AGES 6 - 20					AGES 21 - 64					AGES 65 AND OVER				
BY MCO	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
CBH	1,277	1,836	**69.6%**	67.4%	71.7%	2,893	6,240	**46.4%**	45.1%	47.6%	26	139	**18.7%**	11.9%	25.6%
CBHNP	854	1,070	**79.8%**	77.4%	82.3%	1,664	2,722	**61.1%**	59.3%	63.0%	23	46	**50.0%**	34.5%	65.5%
CCBH	2,652	3,270	**81.1%**	79.7%	82.5%	5,977	8,631	**69.3%**	68.3%	70.2%	118	224	**52.7%**	45.9%	59.4%
MBH	1,011	1,436	**70.4%**	68.0%	72.8%	2,496	3,608	**69.2%**	67.7%	70.7%	30	71	**42.3%**	30.1%	54.4%
VBH	1,477	1,895	**77.9%**	76.0%	79.8%	3,057	4,676	**65.4%**	64.0%	66.8%	46	111	**41.4%**	31.8%	51.1%

	PA Specifications														
QI A	AGES 6 - 20					AGES 21 - 64					AGES 65 AND OVER				
BY MCO	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
CBH	1,119	1,836	**61.0%**	58.7%	63.2%	3,170	6,240	**50.8%**	49.6%	52.0%	60	139	**43.2%**	34.6%	51.8%
CBHNP	731	1,070	**68.3%**	65.5%	71.2%	1,407	2,722	**51.7%**	49.8%	53.6%	21	46	**45.7%**	30.2%	61.1%
CCBH	2,290	3,270	**70.0%**	68.4%	71.6%	5,208	8,631	**60.3%**	59.3%	61.4%	112	224	**50.0%**	43.2%	56.8%
MBH	946	1,436	**65.9%**	63.4%	68.4%	2,265	3,608	**62.8%**	61.2%	64.4%	33	71	**46.5%**	34.2%	58.8%
VBH	1,253	1,895	**66.1%**	64.0%	68.3%	2,548	4,676	**54.5%**	53.1%	55.9%	40	111	**36.0%**	26.7%	45.4%
QI B	AGES 6 - 20					AGES 21 - 64					AGES 65 AND OVER				
BY MCO	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI	(N)	(D)	%	LOWER 95% CI	UPPER 95% CI
CBH	1,394	1,836	**75.9%**	73.9%	77.9%	4,120	6,240	**66.0%**	64.8%	67.2%	69	139	**49.6%**	41.0%	58.3%
CBHNP	895	1,070	**83.6%**	81.4%	85.9%	1,947	2,722	**71.5%**	69.8%	73.2%	28	46	**60.9%**	45.7%	76.1%
CCBH	2,809	3,270	**85.9%**	84.7%	87.1%	6,561	8,631	**76.0%**	75.1%	76.9%	139	224	**62.1%**	55.5%	68.6%
MBH	1,137	1,436	**79.2%**	77.0%	81.3%	2,752	3,608	**76.3%**	74.9%	77.7%	38	71	**53.5%**	41.2%	65.8%
VBH	1,594	1,895	**84.1%**	82.4%	85.8%	3,440	4,676	**73.6%**	72.3%	74.8%	61	111	**55.0%**	45.2%	64.7%

APPENDIX 4C: BH MCO QUALITY INDICATOR RATES BY GENDER

	HEDIS Specifications									
QI 1	FEMALE					MALE				
BY MCO	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CBH	1,509	4,169	**36.2%**	34.7%	37.7%	1,345	4,046	**33.2%**	31.8%	34.7%
CBHNP	910	2,067	**44.0%**	41.9%	46.2%	747	1,771	**42.2%**	39.9%	44.5%
CCBH	3,266	6,303	**51.8%**	50.6%	53.1%	2,981	5,822	**51.2%**	49.9%	52.5%
MBH	1,460	2,695	**54.2%**	52.3%	56.1%	1,211	2,420	**50.0%**	48.0%	52.1%
VBH	1,552	3,403	**45.6%**	43.9%	47.3%	1,412	3,279	**43.1%**	41.3%	44.8%
QI 2	FEMALE					MALE				
BY MCO	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CBH	2,233	4,169	**53.6%**	52.0%	55.1%	1,963	4,046	**48.5%**	47.0%	50.1%
CBHNP	1,392	2,067	**67.3%**	65.3%	69.4%	1,149	1,771	**64.9%**	62.6%	67.1%
CCBH	4,634	6,303	**73.5%**	72.4%	74.6%	4,113	5,822	**70.7%**	69.5%	71.8%
MBH	1,932	2,695	**71.7%**	70.0%	73.4%	1,605	2,420	**66.3%**	64.4%	68.2%
VBH	2,400	3,403	**70.5%**	69.0%	72.1%	2,180	3,279	**66.5%**	64.8%	68.1%

	PA Specifications									
QI A	FEMALE					MALE				
BY MCO	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CBH	2,212	4,169	**53.1%**	51.5%	54.6%	2,137	4,046	**52.8%**	51.3%	54.4%
CBHNP	1,154	2,067	**55.8%**	53.7%	58.0%	1,005	1,771	**56.8%**	54.4%	59.1%
CCBH	3,932	6,303	**62.4%**	61.2%	63.6%	3,678	5,822	**63.2%**	61.9%	64.4%
MBH	1,746	2,695	**64.8%**	63.0%	66.6%	1,498	2,420	**61.9%**	59.9%	63.9%
VBH	1,986	3,403	**58.4%**	56.7%	60.0%	1,855	3,279	**56.6%**	54.9%	58.3%
QI B	FEMALE					MALE				
BY MCO	(N)	(D)	%	Lower 95% CI	Upper 95% CI	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CBH	2,896	4,169	**69.5%**	68.1%	70.9%	2,687	4,046	**66.4%**	64.9%	67.9%
CBHNP	1,541	2,067	**74.6%**	72.6%	76.5%	1,329	1,771	**75.0%**	73.0%	77.1%
CCBH	4,992	6,303	**79.2%**	78.2%	80.2%	4,517	5,822	**77.6%**	76.5%	78.7%
MBH	2,122	2,695	**78.7%**	77.2%	80.3%	1,805	2,420	**74.6%**	72.8%	76.3%
VBH	2,647	3,403	**77.8%**	76.4%	79.2%	2,448	3,279	**74.7%**	73.2%	76.2%

APPENDIX 4D: BH MCO QUALITY INDICATOR RATES BY COUNTY

HEDIS Specifications Quality Indicator 1						
By MCO	COUNTY	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CBH	Philadelphia	2,854	8,215	**34.7%**	33.7%	35.8%
CBHNP	Bedford	32	112	**28.6%**	19.8%	37.4%
	Blair	257	506	**50.8%**	46.3%	55.2%
	Clinton	40	87	**46.0%**	34.9%	57.0%
	Cumberland	112	242	**46.3%**	39.8%	52.8%
	Dauphin	292	731	**40.0%**	36.3%	43.6%
	Franklin	100	253	**39.5%**	33.3%	45.8%
	Fulton	13	27	**48.2%**	27.5%	68.8%
	Lancaster	401	997	**40.2%**	37.1%	43.3%
	Lebanon	180	324	**55.6%**	50.0%	61.1%
	Lycoming	139	319	**43.6%**	38.0%	49.2%
	Perry	27	64	**42.2%**	29.3%	55.1%
	Somerset	64	176	**36.4%**	29.0%	43.8%
CCBH	Adams	55	122	**45.1%**	35.8%	54.3%
	Allegheny	1,909	3,966	**48.1%**	46.6%	49.7%
	Berks	474	926	**51.2%**	47.9%	54.5%
	Bradford	90	177	**50.9%**	43.2%	58.5%
	Cameron	10	24	**41.7%**	19.9%	63.5%
	Carbon	76	184	**41.3%**	33.9%	48.7%
	Centre	131	226	**58.0%**	51.3%	64.6%
	Chester	293	602	**48.7%**	44.6%	52.7%
	Clarion	52	129	**40.3%**	31.5%	49.2%
	Clearfield	210	417	**50.4%**	45.4%	55.3%
	Columbia	112	188	**59.6%**	52.3%	66.9%
	Elk	64	123	**52.0%**	42.8%	61.3%
	Forest	4	11	**36.4%**	3.4%	69.3%
	Huntingdon	59	123	**48.0%**	38.7%	57.2%
	Jefferson	126	234	**53.9%**	47.2%	60.5%
	Juniata	29	47	**61.7%**	46.7%	76.7%
	Lackawanna	419	655	**64.0%**	60.2%	67.7%
	Luzerne	679	977	**69.5%**	66.6%	72.4%
	McKean	63	174	**36.2%**	28.8%	43.6%
	Mifflin	103	191	**53.9%**	46.6%	61.3%
CCBH	Monroe	171	311	**55.0%**	49.3%	60.7%
	Montour	26	46	**56.5%**	41.1%	71.9%
	Northumberland	123	263	**46.8%**	40.5%	53.0%
	Pike	33	76	**43.4%**	31.6%	55.2%
	Potter	20	49	**40.8%**	26.0%	55.6%
	Schuylkill	232	498	**46.6%**	42.1%	51.1%
	Snyder	29	64	**45.3%**	32.3%	58.3%
	Sullivan	6	12	**50.0%**	17.5%	82.5%
	Susquehanna	38	66	**57.6%**	44.9%	70.3%
	Tioga	68	121	**56.2%**	46.9%	65.5%
	Union	24	44	**54.6%**	38.7%	70.4%
	Warren	68	140	**48.6%**	39.9%	57.2%
	Wayne	59	97	**60.8%**	50.6%	71.1%
	Wyoming	38	52	**73.1%**	60.1%	86.1%
	York	354	790	**44.8%**	41.3%	48.3%
MBH	Bucks	431	828	**52.1%**	48.6%	55.5%
	Delaware	564	1,078	**52.3%**	49.3%	55.3%
	Lehigh	600	1,124	**53.4%**	50.4%	56.3%
	Montgomery	649	1,301	**49.9%**	47.1%	52.6%
	Northampton	427	784	**54.5%**	50.9%	58.0%
VBH	Armstrong	111	218	**50.9%**	44.1%	57.8%
	Beaver	351	638	**55.0%**	51.1%	59.0%
	Butler	194	353	**55.0%**	49.6%	60.3%
	Cambria	146	475	**30.7%**	26.5%	35.0%
	Crawford	150	305	**49.2%**	43.4%	55.0%
	Erie	395	1,129	**35.0%**	32.2%	37.8%
	Fayette	290	630	**46.0%**	42.1%	50.0%
	Greene	80	186	**43.0%**	35.6%	50.4%
	Indiana	120	218	**55.1%**	48.2%	61.9%
	Lawrence	142	292	**48.6%**	42.7%	54.5%
	Mercer	220	492	**44.7%**	40.2%	49.2%
	Venango	82	204	**40.2%**	33.2%	47.2%
	Washington	231	529	**43.7%**	39.3%	48.0%
	Westmoreland	452	1,013	**44.6%**	41.5%	47.7%

APPENDIX 4D: BH MCO QUALITY INDICATOR RATES BY COUNTY (continued)

HEDIS Specifications Quality Indicator 2						
By MCO	COUNTY	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CBH	Philadelphia	4,196	8,215	**51.1%**	50.0%	52.2%
CBHNP	Bedford	65	112	**58.0%**	48.5%	67.6%
	Blair	400	506	**79.1%**	75.4%	82.7%
	Clinton	64	87	**73.6%**	63.7%	83.4%
	Cumberland	157	242	**64.9%**	58.7%	71.1%
	Dauphin	439	731	**60.1%**	56.4%	63.7%
	Franklin	186	253	**73.5%**	67.9%	79.2%
	Fulton	18	27	**66.7%**	47.0%	86.3%
	Lancaster	608	997	**61.0%**	57.9%	64.1%
	Lebanon	250	324	**77.2%**	72.4%	81.9%
	Lycoming	204	319	**64.0%**	58.5%	69.4%
	Perry	42	64	**65.6%**	53.2%	78.0%
	Somerset	108	176	**61.4%**	53.9%	68.8%
CCBH	Adams	85	122	**69.7%**	61.1%	78.2%
	Allegheny	2,661	3,966	**67.1%**	65.6%	68.6%
	Berks	672	926	**72.6%**	69.6%	75.5%
	Bradford	139	177	**78.5%**	72.2%	84.9%
	Cameron	17	24	**70.8%**	50.6%	91.1%
	Carbon	128	184	**69.6%**	62.6%	76.5%
	Centre	179	226	**79.2%**	73.7%	84.7%
	Chester	415	602	**68.9%**	65.2%	72.7%
	Clarion	90	129	**69.8%**	61.5%	78.1%
	Clearfield	322	417	**77.2%**	73.1%	81.4%
	Columbia	146	188	**77.7%**	71.4%	83.9%
	Elk	100	123	**81.3%**	74.0%	88.6%
	Forest	7	11	**63.6%**	30.7%	96.6%
	Huntingdon	93	123	**75.6%**	67.6%	83.6%
	Jefferson	184	234	**78.6%**	73.2%	84.1%
	Juniata	38	47	**80.9%**	68.5%	93.2%
	Lackawanna	549	655	**83.8%**	80.9%	86.7%
	Luzerne	798	977	**81.7%**	79.2%	84.2%
	McKean	116	174	**66.7%**	59.4%	74.0%
	Mifflin	147	191	**77.0%**	70.7%	83.2%

By MCO	COUNTY	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CCBH	Monroe	222	311	**71.4%**	66.2%	76.6%
	Montour	34	46	**73.9%**	60.1%	87.7%
	Northumberland	181	263	**68.8%**	63.0%	74.6%
	Pike	49	76	**64.5%**	53.1%	75.9%
	Potter	30	49	**61.2%**	46.6%	75.9%
	Schuylkill	360	498	**72.3%**	68.3%	76.3%
	Snyder	39	64	**60.9%**	48.2%	73.7%
	Sullivan	8	12	**66.7%**	35.8%	97.5%
	Susquehanna	52	66	**78.8%**	68.2%	89.4%
	Tioga	92	121	**76.0%**	68.0%	84.0%
	Union	33	44	**75.0%**	61.1%	88.9%
	Warren	102	140	**72.9%**	65.1%	80.6%
	Wayne	75	97	**77.3%**	68.5%	86.2%
	Wyoming	45	52	**86.5%**	76.3%	96.8%
	York	539	790	**68.2%**	64.9%	71.5%
MBH	Bucks	566	828	**68.4%**	65.1%	71.6%
	Delaware	742	1,078	**68.8%**	66.0%	71.6%
	Lehigh	770	1,124	**68.5%**	65.8%	71.3%
	Montgomery	887	1,301	**68.2%**	65.6%	70.7%
	Northampton	572	784	**73.0%**	69.8%	76.1%
VBH	Armstrong	164	218	**75.2%**	69.3%	81.2%
	Beaver	464	638	**72.7%**	69.2%	76.3%
	Butler	264	353	**74.8%**	70.1%	79.5%
	Cambria	265	475	**55.8%**	51.2%	60.4%
	Crawford	222	305	**72.8%**	67.6%	77.9%
	Erie	709	1,129	**62.8%**	59.9%	65.7%
	Fayette	443	630	**70.3%**	66.7%	74.0%
	Greene	125	186	**67.2%**	60.2%	74.2%
	Indiana	164	218	**75.2%**	69.3%	81.2%
	Lawrence	220	292	**75.3%**	70.2%	80.5%
	Mercer	347	492	**70.5%**	66.4%	74.7%
	Venango	143	204	**70.1%**	63.6%	76.6%
	Washington	357	529	**67.5%**	63.4%	71.6%
	Westmoreland	693	1,013	**68.4%**	65.5%	71.3%

APPENDIX 4D: BH MCO QUALITY INDICATOR RATES BY COUNTY (continued)

PA Specifications Quality Indicator A						
By MCO	COUNTY	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CBH	Philadelphia	4,349	8,215	**52.9%**	51.9%	54.0%
CBHNP	Bedford	59	112	**52.7%**	43.0%	62.4%
	Blair	306	506	**60.5%**	56.1%	64.8%
	Clinton	52	87	**59.8%**	48.9%	70.6%
	Cumberland	152	242	**62.8%**	56.5%	69.1%
	Dauphin	445	731	**60.9%**	57.3%	64.5%
	Franklin	137	253	**54.2%**	47.8%	60.5%
	Fulton	14	27	**51.9%**	31.2%	72.5%
	Lancaster	501	997	**50.3%**	47.1%	53.4%
	Lebanon	200	324	**61.7%**	56.3%	67.2%
	Lycoming	170	319	**53.3%**	47.7%	58.9%
	Perry	34	64	**53.1%**	40.1%	66.1%
	Somerset	89	176	**50.6%**	42.9%	58.2%
CCBH	Adams	61	122	**50.0%**	40.7%	59.3%
	Allegheny	2,477	3,966	**62.5%**	60.9%	64.0%
	Berks	573	926	**61.9%**	58.7%	65.1%
	Bradford	98	177	**55.4%**	47.8%	63.0%
	Cameron	16	24	**66.7%**	45.7%	87.6%
	Carbon	91	184	**49.5%**	42.0%	57.0%
	Centre	153	226	**67.7%**	61.4%	74.0%
	Chester	362	602	**60.1%**	56.1%	64.1%
	Clarion	63	129	**48.8%**	39.8%	57.9%
	Clearfield	250	417	**60.0%**	55.1%	64.8%
	Columbia	124	188	**66.0%**	58.9%	73.0%
	Elk	85	123	**69.1%**	60.5%	77.7%
	Forest	6	11	**54.6%**	20.6%	88.5%
	Huntingdon	78	123	**63.4%**	54.5%	72.3%
	Jefferson	154	234	**65.8%**	59.5%	72.1%
	Juniata	33	47	**70.2%**	56.1%	84.3%
	Lackawanna	462	655	**70.5%**	67.0%	74.1%
	Luzerne	728	977	**74.5%**	71.7%	77.3%
	McKean	105	174	**60.3%**	52.8%	67.9%
	Mifflin	152	191	**79.6%**	73.6%	85.6%
CCBH	Monroe	204	311	**65.6%**	60.1%	71.0%
	Montour	37	46	**80.4%**	67.9%	93.0%
	Northumberland	159	263	**60.5%**	54.4%	66.6%
	Pike	41	76	**54.0%**	42.1%	65.8%
	Potter	24	49	**49.0%**	34.0%	64.0%
	Schuylkill	296	498	**59.4%**	55.0%	63.9%
	Snyder	40	64	**62.5%**	49.9%	75.1%
	Sullivan	7	12	**58.3%**	26.3%	90.4%
	Susquehanna	40	66	**60.6%**	48.1%	73.2%
	Tioga	83	121	**68.6%**	59.9%	77.3%
	Union	27	44	**61.4%**	45.8%	76.9%
	Warren	86	140	**61.4%**	53.0%	69.9%
	Wayne	67	97	**69.1%**	59.4%	78.8%
	Wyoming	40	52	**76.9%**	64.5%	89.3%
	York	388	790	**49.1%**	45.6%	52.7%
MBH	Bucks	533	828	**64.4%**	61.0%	67.7%
	Delaware	700	1,078	**64.9%**	62.0%	67.8%
	Lehigh	722	1,124	**64.2%**	61.4%	67.1%
	Montgomery	791	1,301	**60.8%**	58.1%	63.5%
	Northampton	498	784	**63.5%**	60.1%	67.0%
VBH	Armstrong	135	218	**61.9%**	55.3%	68.6%
	Beaver	396	638	**62.1%**	58.2%	65.9%
	Butler	245	353	**69.4%**	64.5%	74.4%
	Cambria	200	475	**42.1%**	37.6%	46.7%
	Crawford	171	305	**56.1%**	50.3%	61.8%
	Erie	649	1,129	**57.5%**	54.6%	60.4%
	Fayette	346	630	**54.9%**	51.0%	58.9%
	Greene	120	186	**64.5%**	57.4%	71.7%
	Indiana	157	218	**72.0%**	65.8%	78.2%
	Lawrence	178	292	**61.0%**	55.2%	66.7%
	Mercer	260	492	**52.9%**	48.3%	57.4%
	Venango	93	204	**45.6%**	38.5%	52.7%
	Washington	299	529	**56.5%**	52.2%	60.8%
	Westmoreland	592	1,013	**58.4%**	55.4%	61.5%

APPENDIX 4D: BH MCO QUALITY INDICATOR RATES BY COUNTY (continued)

PA Specifications Quality Indicator B						
By MCO	COUNTY	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CBH	Philadelphia	5,583	8,215	**68.0%**	66.9%	69.0%
CBHNP	Bedford	87	112	**77.7%**	69.5%	85.8%
	Blair	415	506	**82.0%**	78.6%	85.5%
	Clinton	68	87	**78.2%**	68.9%	87.4%
	Cumberland	189	242	**78.1%**	72.7%	83.5%
	Dauphin	556	731	**76.1%**	72.9%	79.2%
	Franklin	205	253	**81.0%**	76.0%	86.1%
	Fulton	19	27	**70.4%**	51.3%	89.4%
	Lancaster	675	997	**67.7%**	64.7%	70.7%
	Lebanon	265	324	**81.8%**	77.4%	86.1%
	Lycoming	220	319	**69.0%**	63.7%	74.2%
	Perry	46	64	**71.9%**	60.1%	83.7%
	Somerset	125	176	**71.0%**	64.0%	78.0%
CCBH	Adams	87	122	**71.3%**	62.9%	79.7%
	Allegheny	3,011	3,966	**75.9%**	74.6%	77.3%
	Berks	723	926	**78.1%**	75.4%	80.8%
	Bradford	144	177	**81.4%**	75.3%	87.4%
	Cameron	19	24	**79.2%**	60.8%	97.5%
	Carbon	138	184	**75.0%**	68.5%	81.5%
	Centre	196	226	**86.7%**	82.1%	91.4%
	Chester	440	602	**73.1%**	69.5%	76.7%
	Clarion	93	129	**72.1%**	64.0%	80.2%
	Clearfield	348	417	**83.5%**	79.8%	87.1%
	Columbia	155	188	**82.5%**	76.7%	88.2%
	Elk	109	123	**88.6%**	82.6%	94.6%
	Forest	7	11	**63.6%**	30.7%	96.6%
	Huntingdon	104	123	**84.6%**	77.8%	91.3%
	Jefferson	196	234	**83.8%**	78.8%	88.7%
	Juniata	41	47	**87.2%**	76.6%	97.8%
	Lackawanna	563	655	**86.0%**	83.2%	88.7%
	Luzerne	826	977	**84.5%**	82.2%	86.9%
	McKean	136	174	**78.2%**	71.7%	84.6%
	Mifflin	172	191	**90.1%**	85.5%	94.6%

By MCO	COUNTY	(N)	(D)	%	Lower 95% CI	Upper 95% CI
CCBH	Monroe	246	311	**79.1%**	74.4%	83.8%
	Montour	39	46	**84.8%**	73.3%	96.2%
	Northumberland	197	263	**74.9%**	69.5%	80.3%
	Pike	52	76	**68.4%**	57.3%	79.5%
	Potter	35	49	**71.4%**	57.8%	85.1%
	Schuylkill	396	498	**79.5%**	75.9%	83.2%
	Snyder	48	64	**75.0%**	63.6%	86.4%
	Sullivan	8	12	**66.7%**	35.8%	97.5%
	Susquehanna	53	66	**80.3%**	69.9%	90.7%
	Tioga	102	121	**84.3%**	77.4%	91.2%
	Union	35	44	**79.6%**	66.5%	92.6%
	Warren	111	140	**79.3%**	72.2%	86.4%
	Wayne	76	97	**78.4%**	69.6%	87.1%
	Wyoming	45	52	**86.5%**	76.3%	96.8%
	York	558	790	**70.6%**	67.4%	73.9%
MBH	Bucks	644	828	**77.8%**	74.9%	80.7%
	Delaware	838	1,078	**77.7%**	75.2%	80.3%
	Lehigh	853	1,124	**75.9%**	73.3%	78.4%
	Montgomery	979	1,301	**75.3%**	72.9%	77.6%
	Northampton	613	784	**78.2%**	75.2%	81.1%
VBH	Armstrong	176	218	**80.7%**	75.3%	86.2%
	Beaver	501	638	**78.5%**	75.3%	81.8%
	Butler	287	353	**81.3%**	77.1%	85.5%
	Cambria	303	475	**63.8%**	59.4%	68.2%
	Crawford	229	305	**75.1%**	70.1%	80.1%
	Erie	882	1,129	**78.1%**	75.7%	80.6%
	Fayette	480	630	**76.2%**	72.8%	79.6%
	Greene	147	186	**79.0%**	72.9%	85.1%
	Indiana	184	218	**84.4%**	79.4%	89.4%
	Lawrence	231	292	**79.1%**	74.3%	83.9%
	Mercer	362	492	**73.6%**	69.6%	77.6%
	Venango	146	204	**71.6%**	65.1%	78.0%
	Washington	388	529	**73.4%**	69.5%	77.2%
	Westmoreland	779	1,013	**76.9%**	74.3%	79.5%

APPENDIX V: YEAR TO YEAR COMPARISON FIGURES (MY 2004 TO MY 2009)

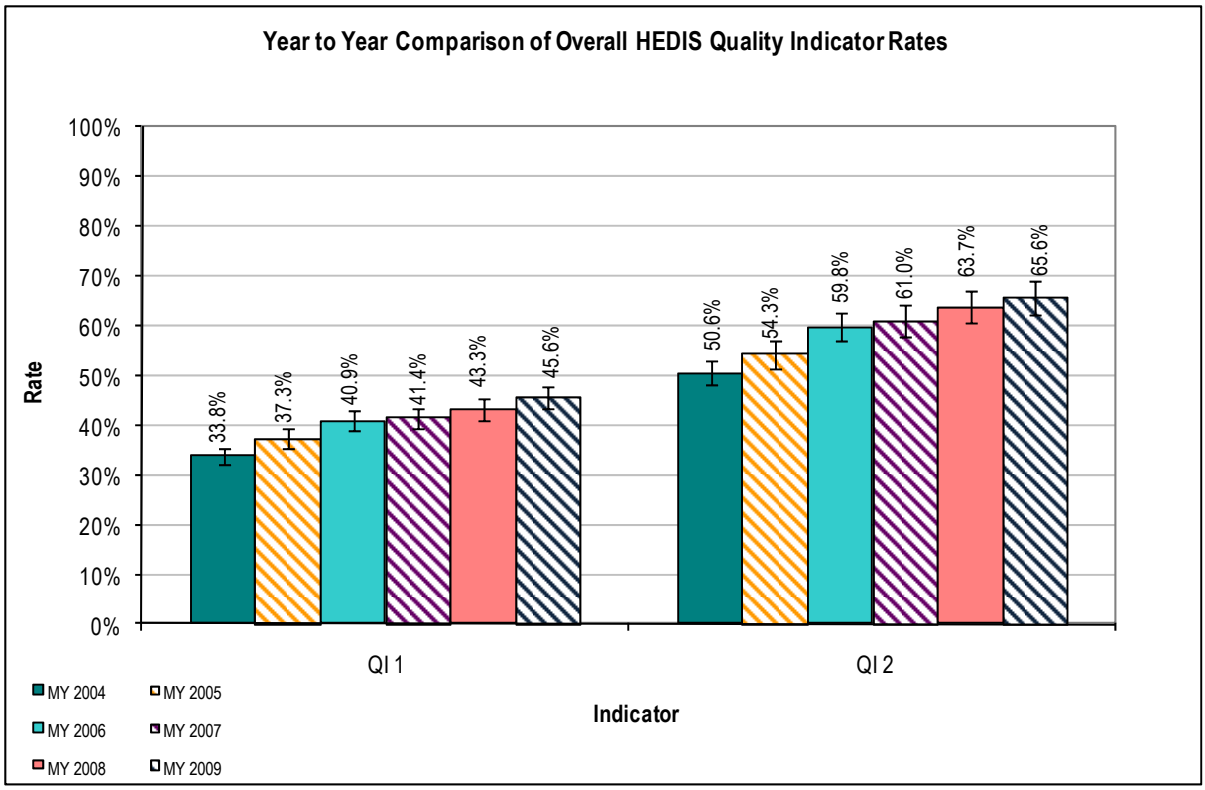
The following figures and tables outline Year-to-Year Comparison results for the HEDIS Quality Indicators 1 and 2, and PA-specific Quality Indicators A and B by topic (i.e. race, age, gender, BH MCO, and County categories). All figure and table results are shown with the upper and lower bounds (95% CI) indicated.

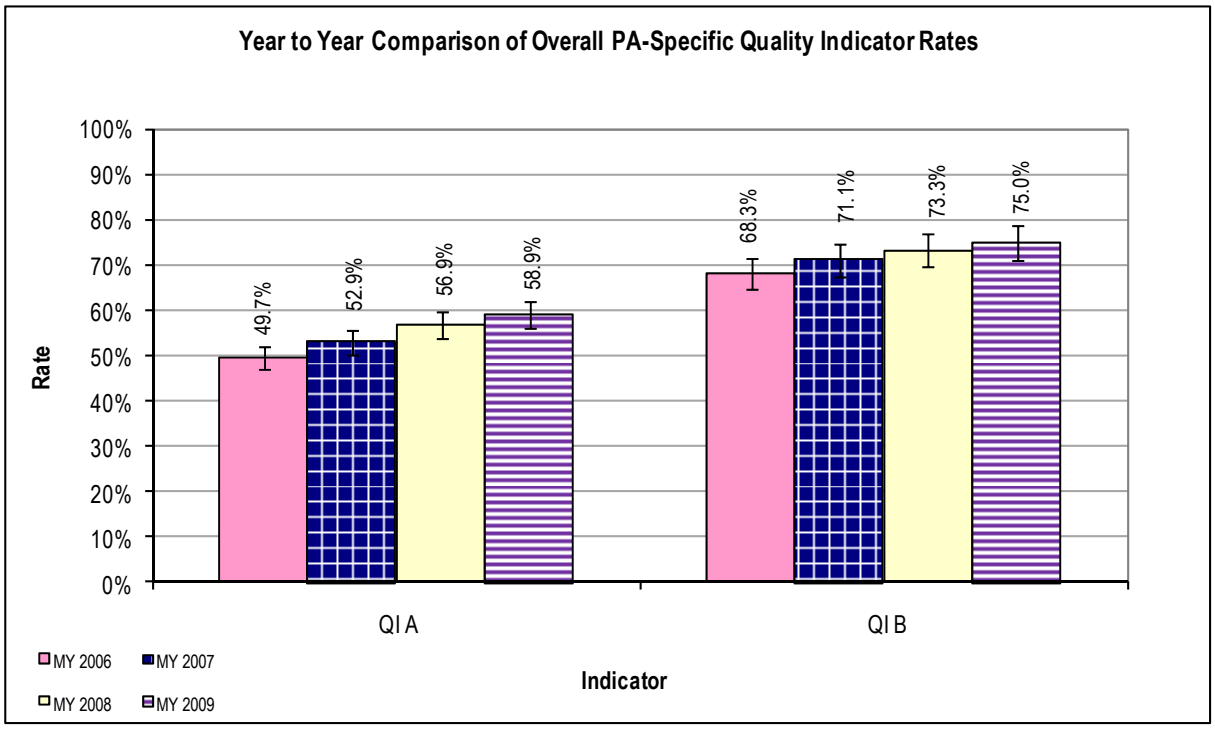
Because the MY 2006 PA-specific measure represents a significant change from prior years, 2007 was a baseline year for the PA-specific QIs A and B. These indicators cannot be compared to PA-specific measurements prior to MY 2006 or to the HEDIS measures, since the codes added to the MY 2006 PA-specific measure have changed the measure substantially.

Follow-up measures were implemented in January 2007 for the North/Central State Option region and its 23 Counties (Bradford, Cameron, Centre, Clarion, Clearfield, Columbia, Elk, Forest, Huntingdon, Jefferson, Juniata, McKean, Mifflin, Montour, Northumberland, Potter, Schuylkill, Snyder, Sullivan, Tioga, Union, Warren, and Wayne). The four quality indicators were also implemented in July 2007 for the North/Central County Option region encompassing 15 Counties (Bedford, Blair, Cambria, Carbon, Clinton, Crawford, Erie, Franklin, Fulton, Lycoming, Mercer, Monroe, Pike, Somerset, and Venango). Measurements prior to MY 2007 are not available for these Counties and regions.

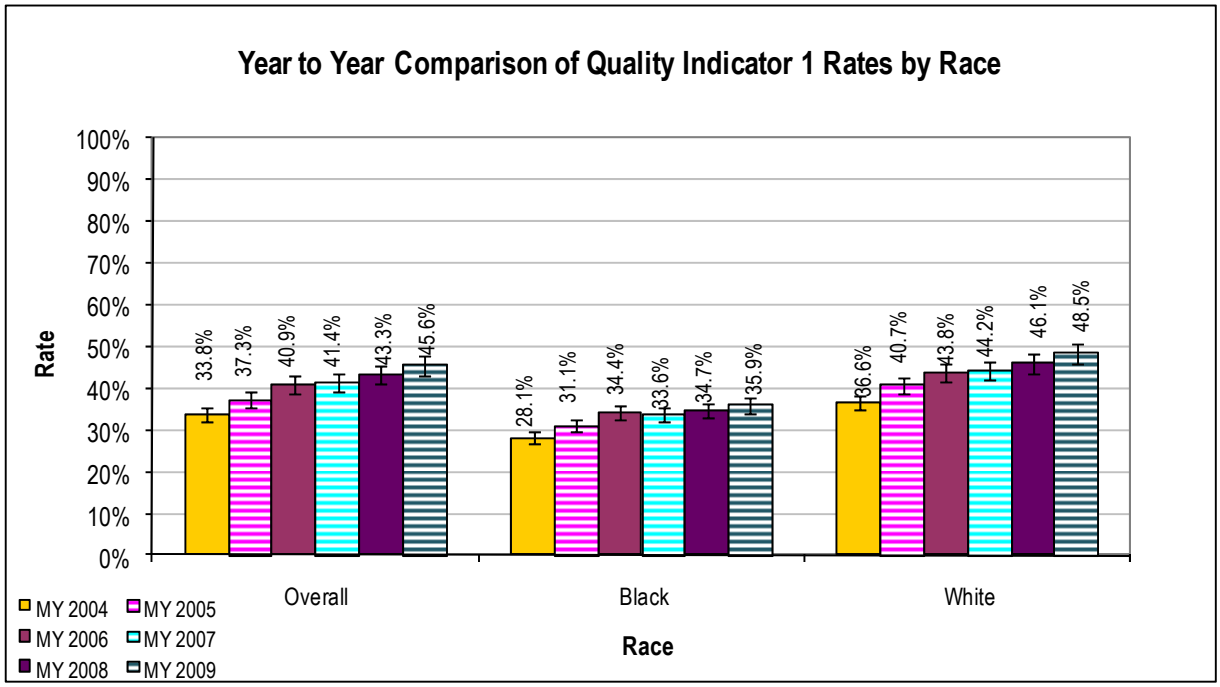
Beginning with MY 2008, findings by age are presented as three cohorts: Ages 6-20 years, Ages 21-64 years, and Ages 65 years and over. The Ages 21-64 years cohort was reported as two age ranges (Ages 21-59 years and Ages 60-64 years) in prior studies including MY 2007. Measurements for the Ages 21-64 years cohort prior to MY 2008 are not presented in this chapter. These rates can be found in Appendix V of the 2008 Follow-up After Hospitalization for Mental Illness EQR final report.

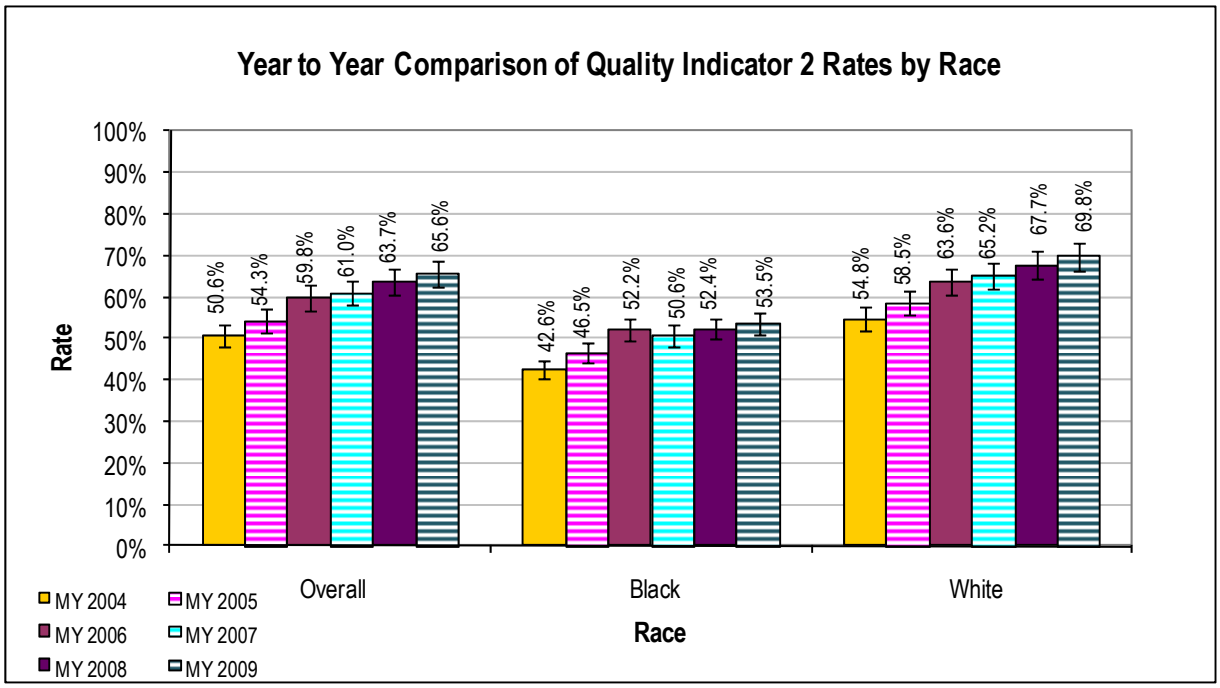
APPENDIX 5A: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES



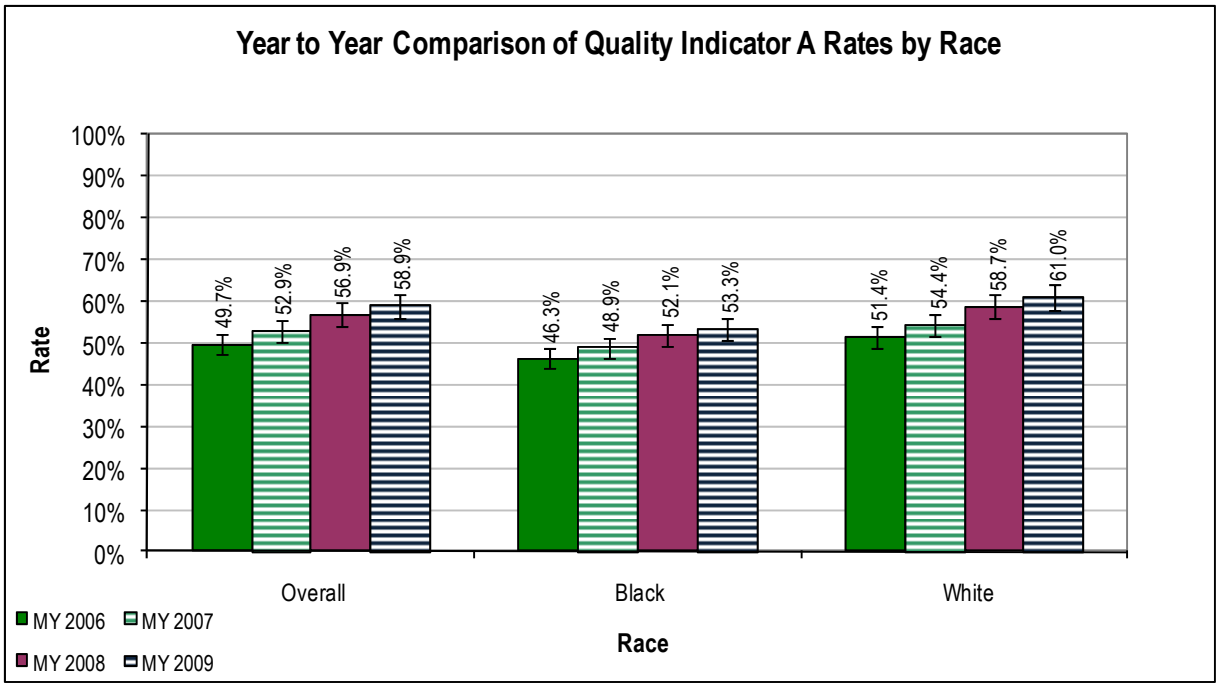


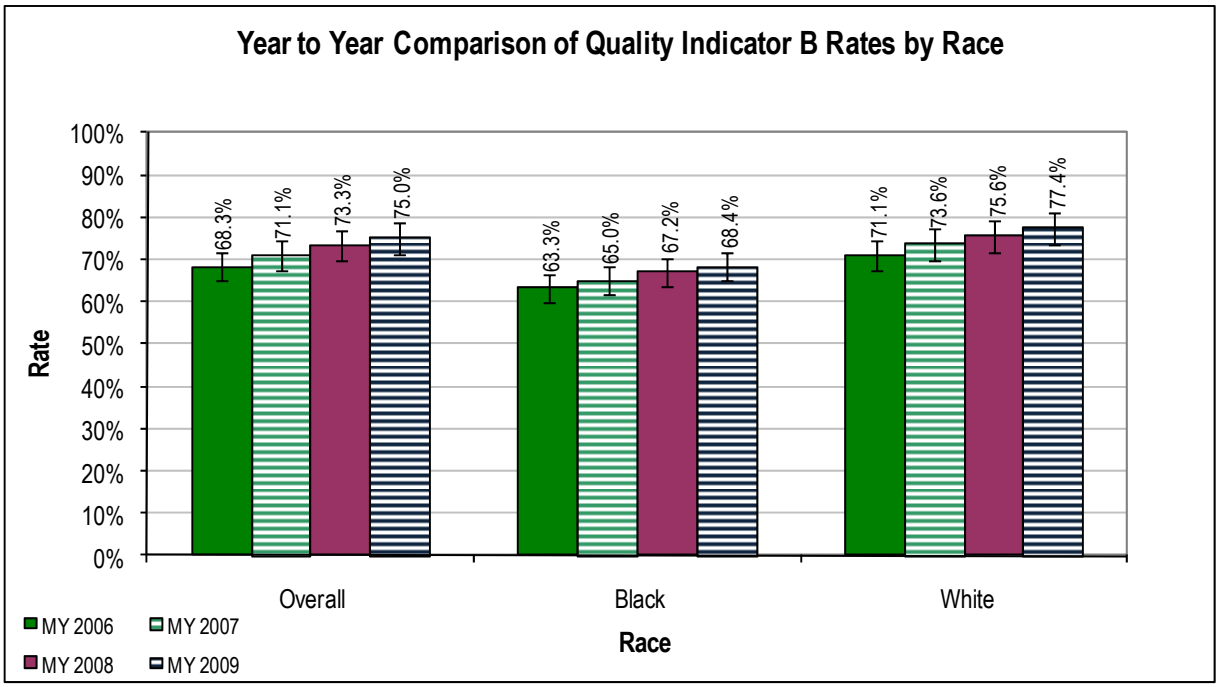
APPENDIX 5B: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES BY RACE



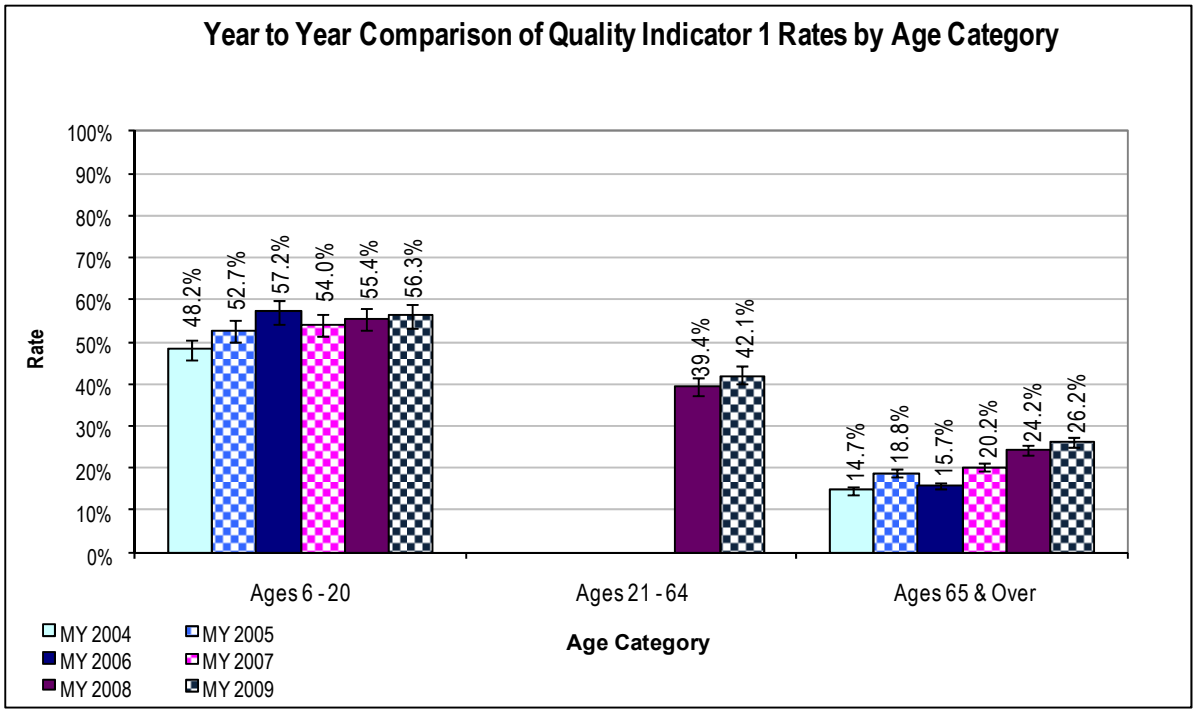


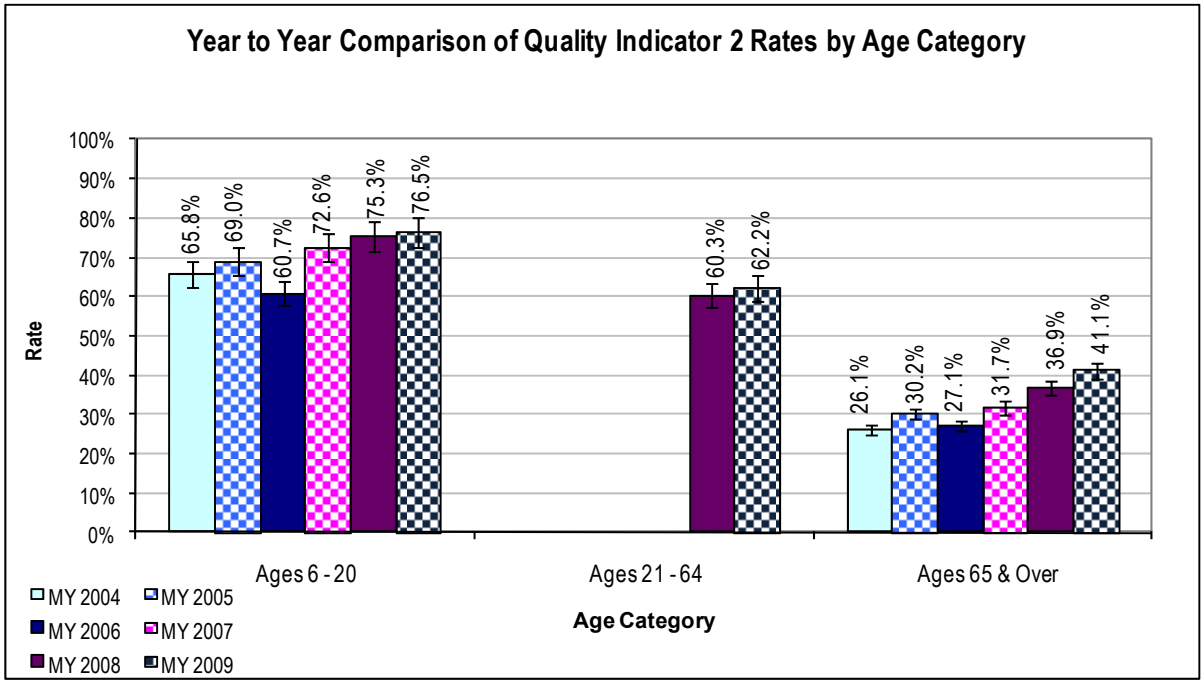
APPENDIX 5B: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES BY RACE (continued)



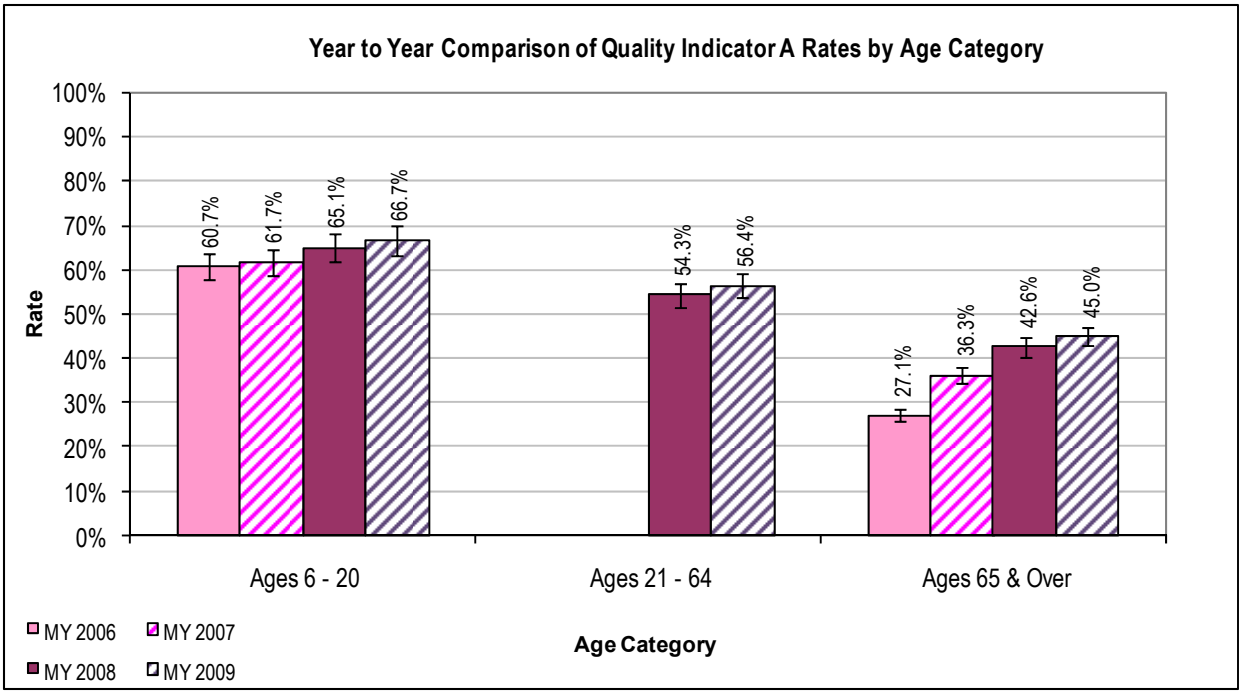


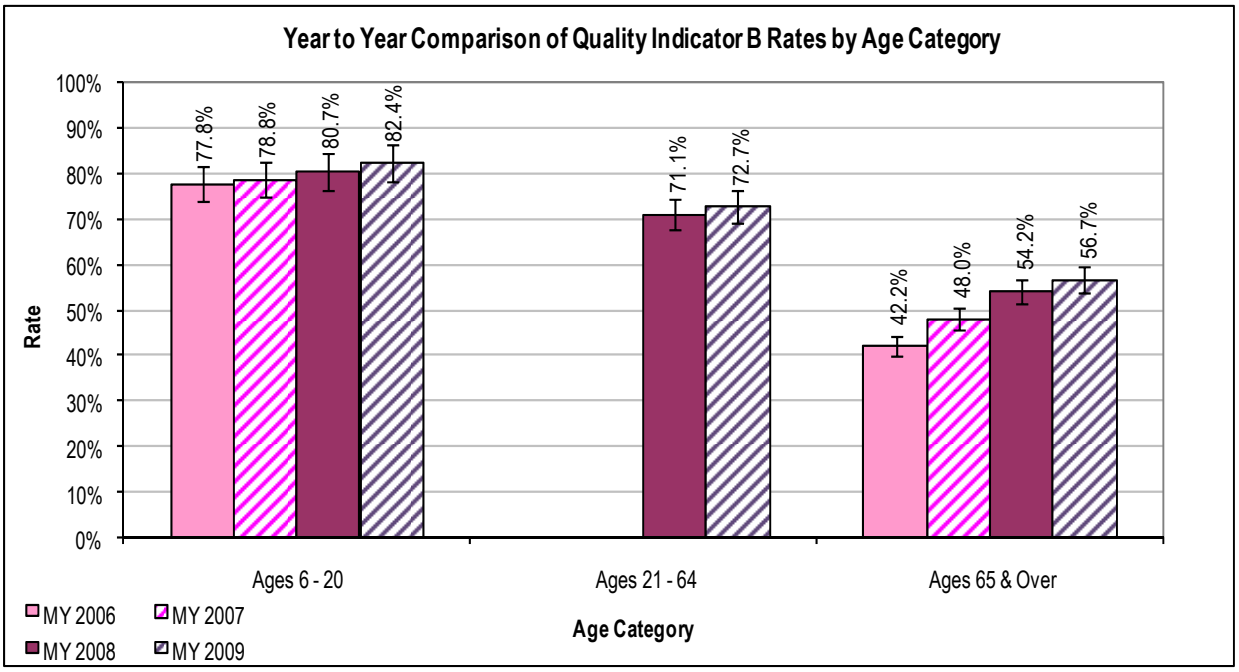
APPENDIX 5C: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES BY AGE CATEGORY



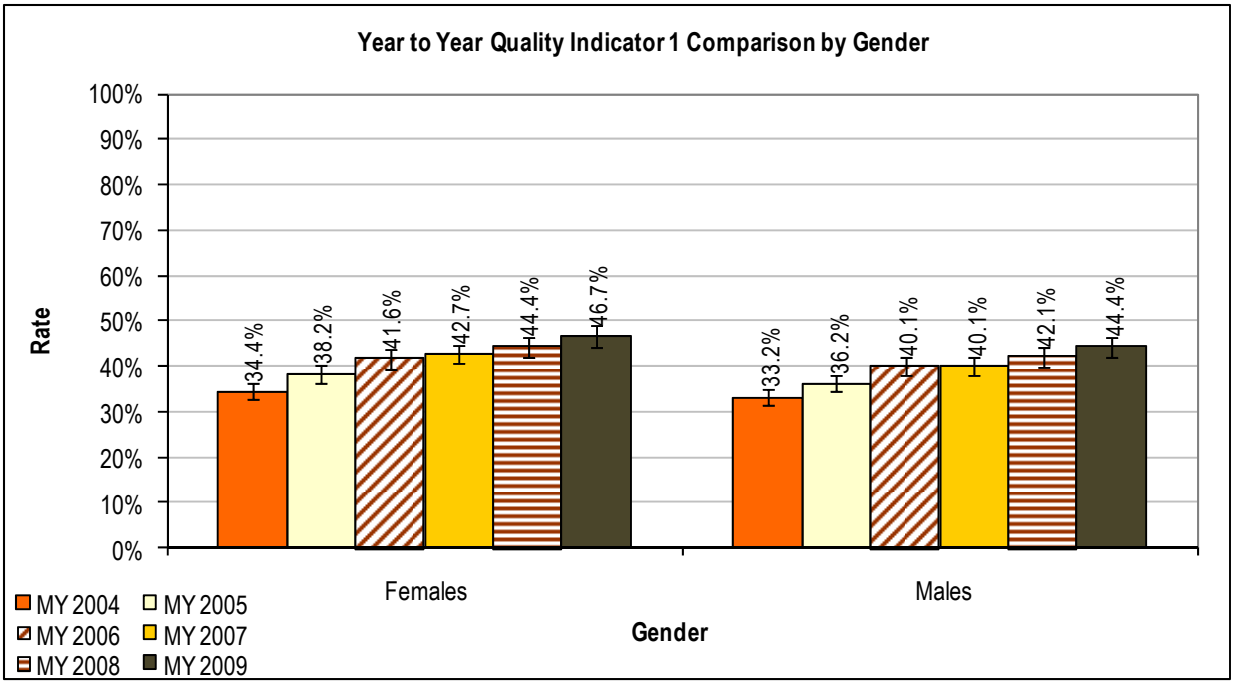


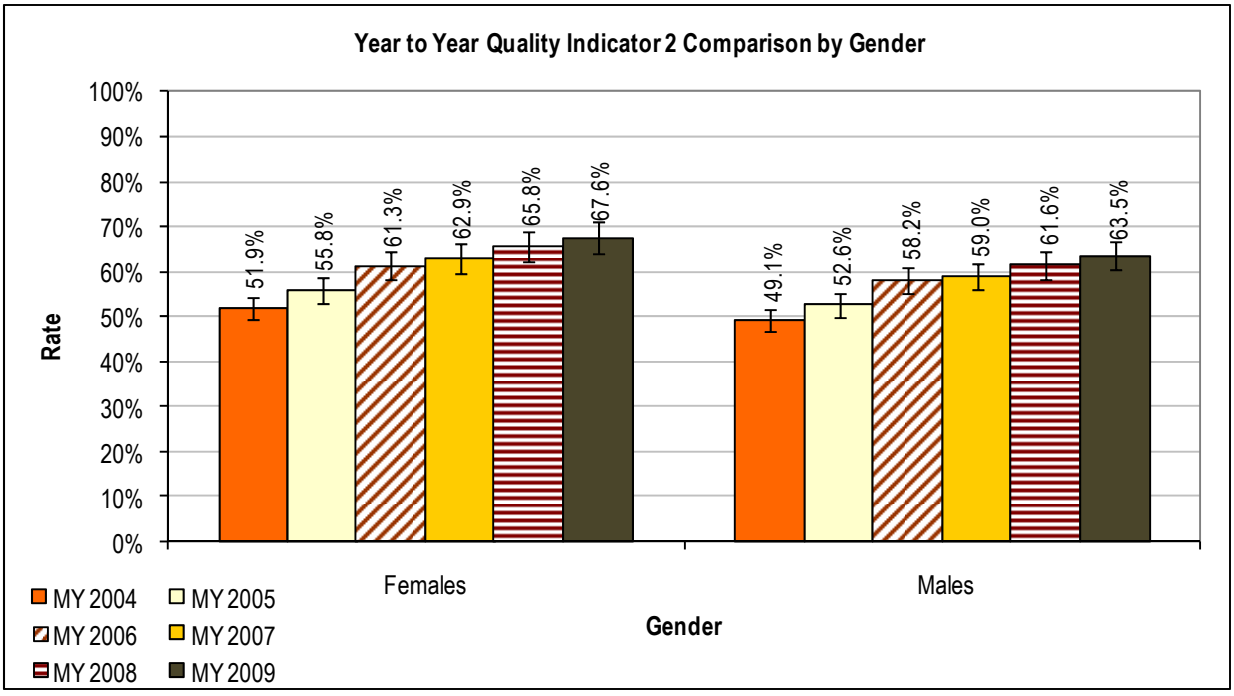
APPENDIX 5C: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES BY AGE CATEGORY (continued)



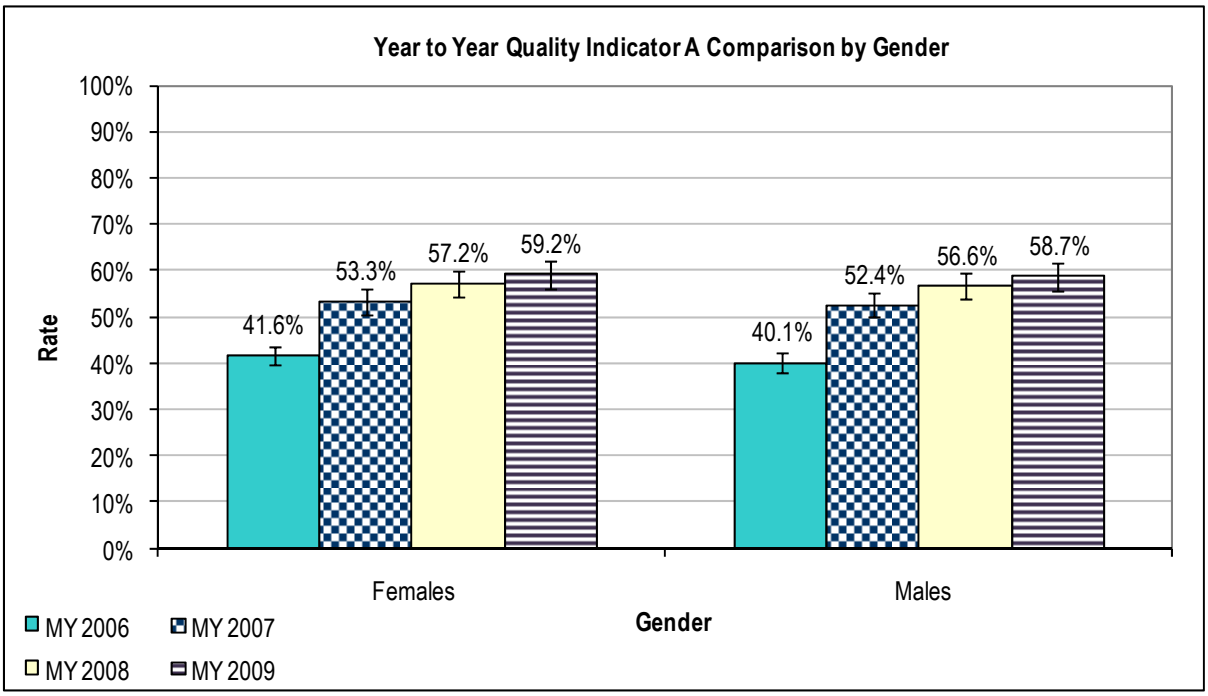


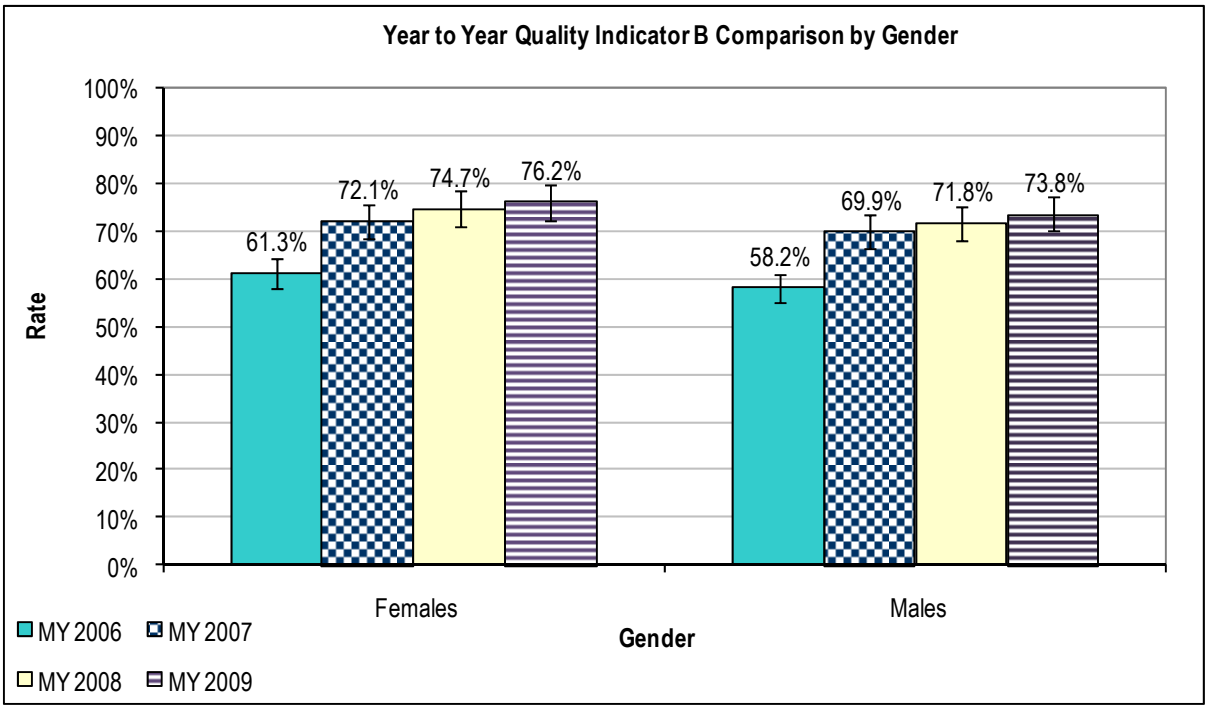
APPENDIX 5D: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES BY GENDER



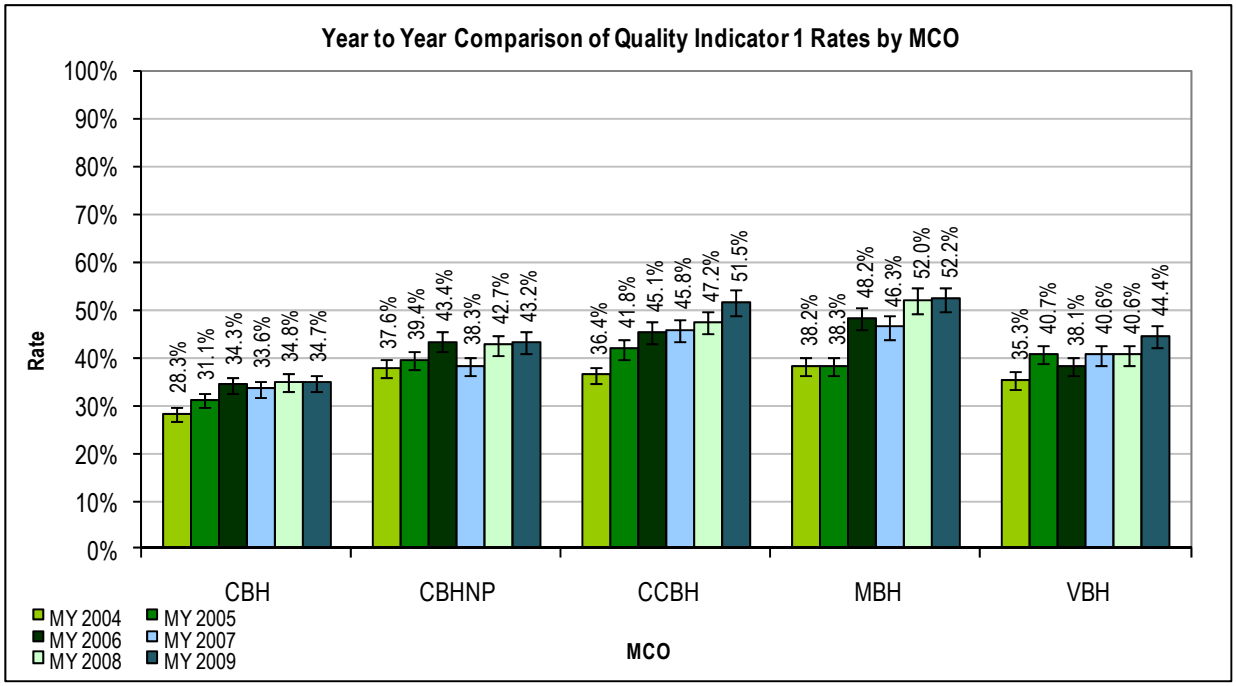


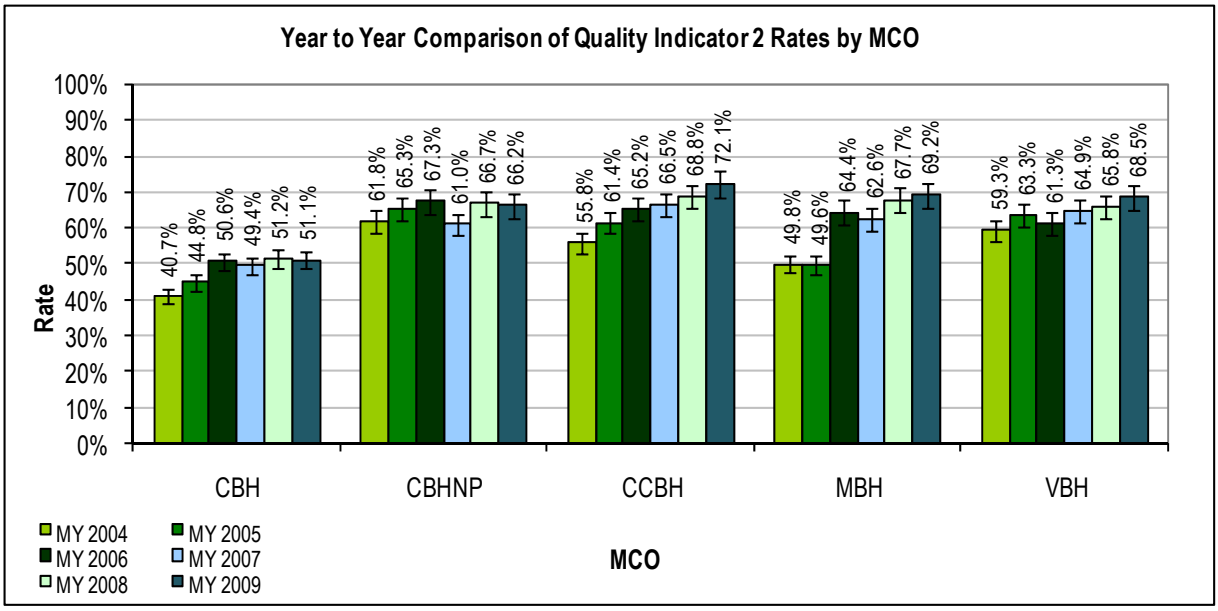
APPENDIX 5D: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES BY GENDER (continued)



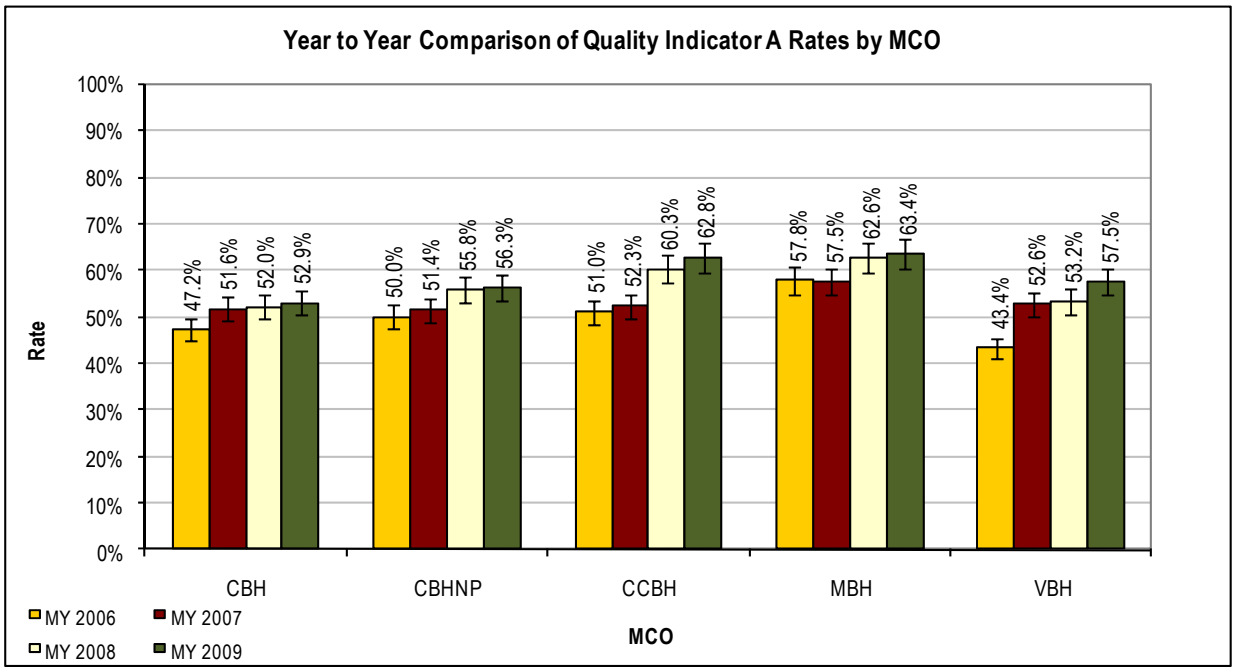


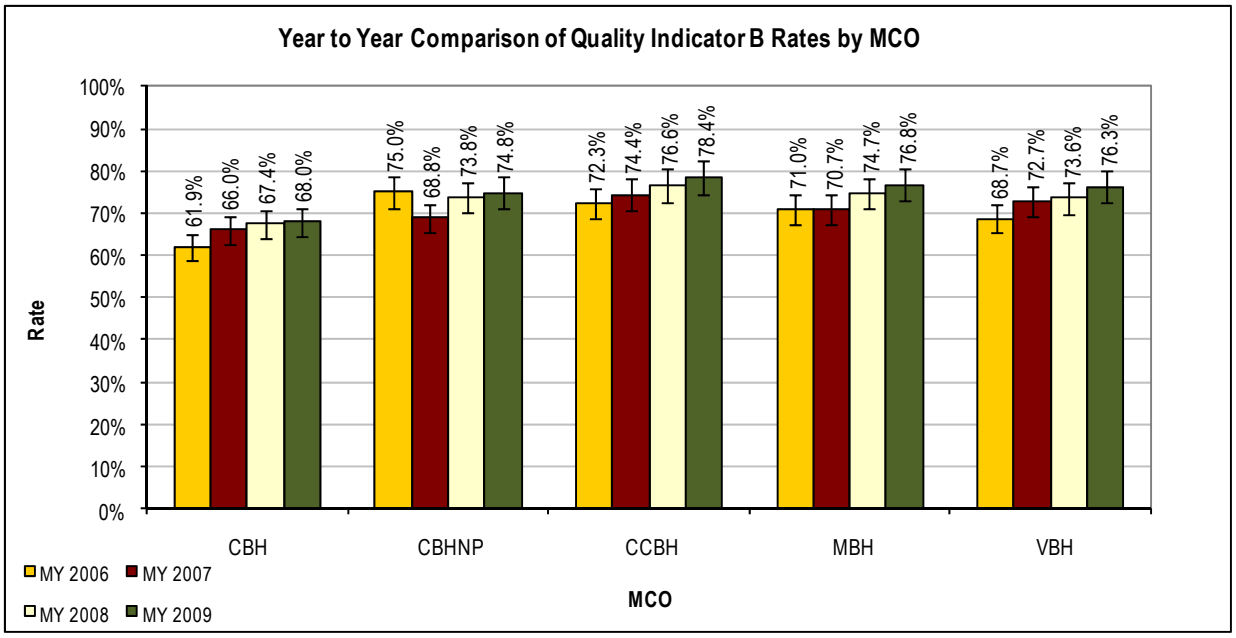
APPENDIX 5E: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES BY BH MCO



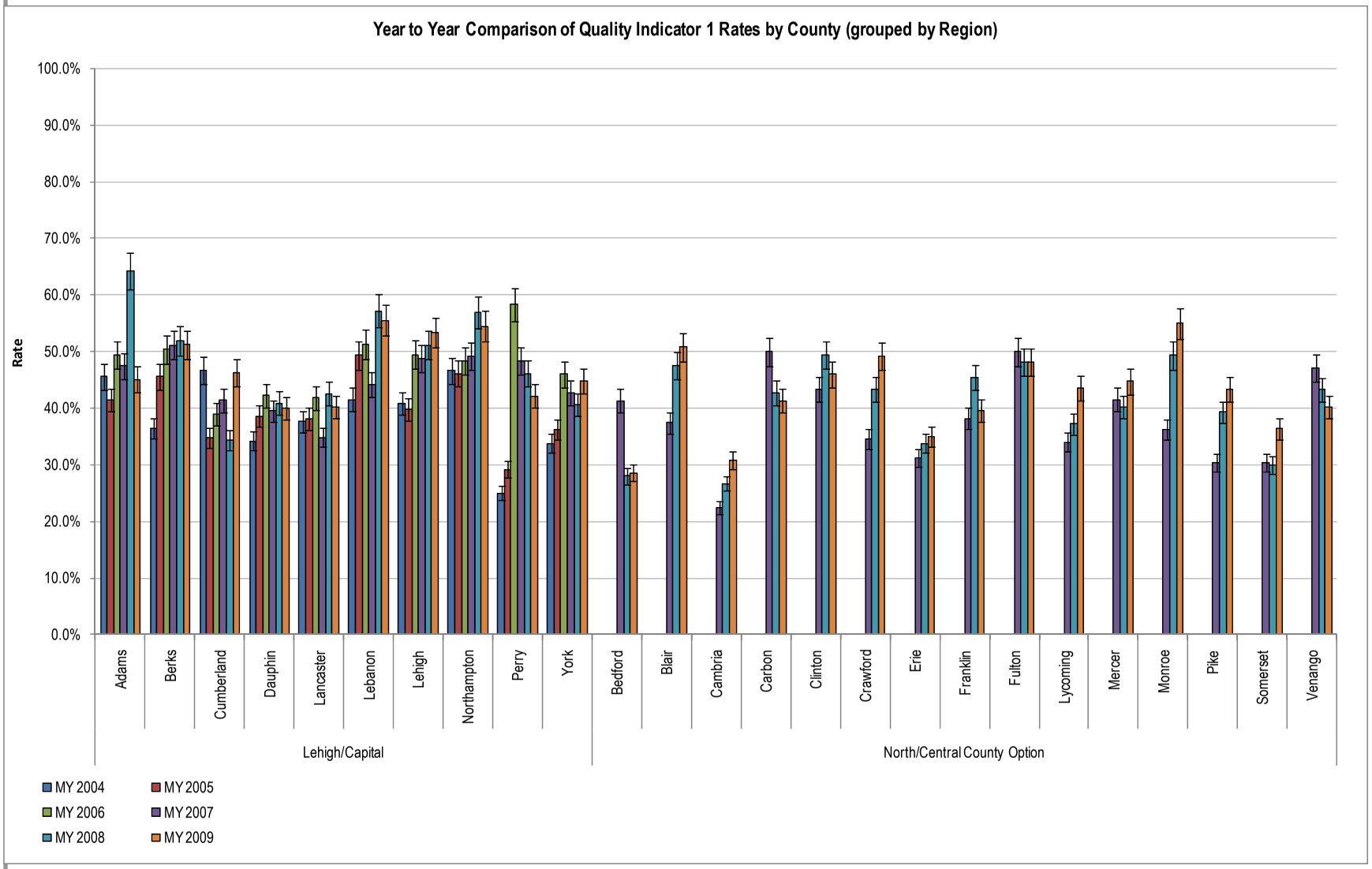


APPENDIX 5E: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR RATES BY BH MCO (continued)



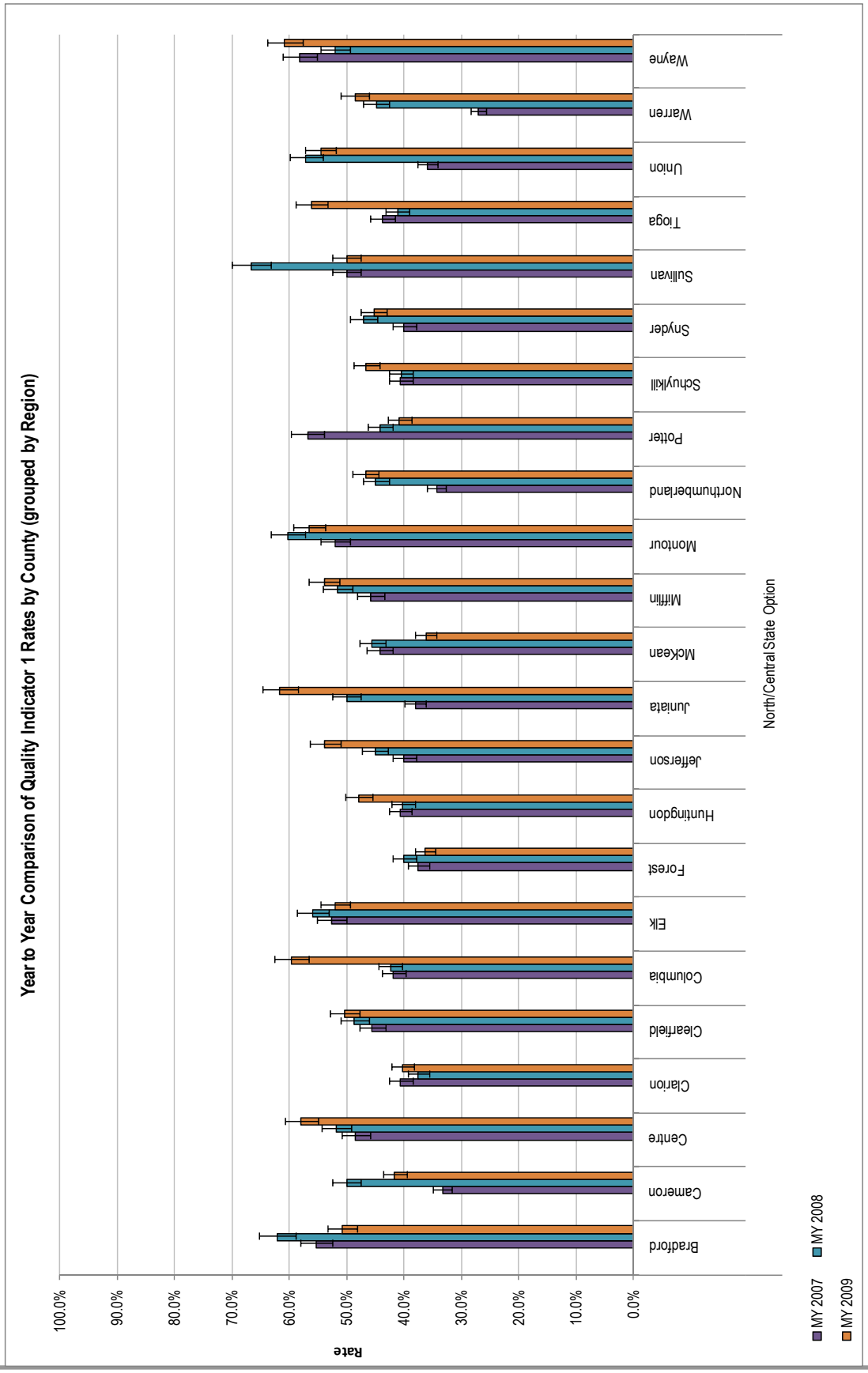


APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR 1 BY COUNTY (GROUPED BY REGION)

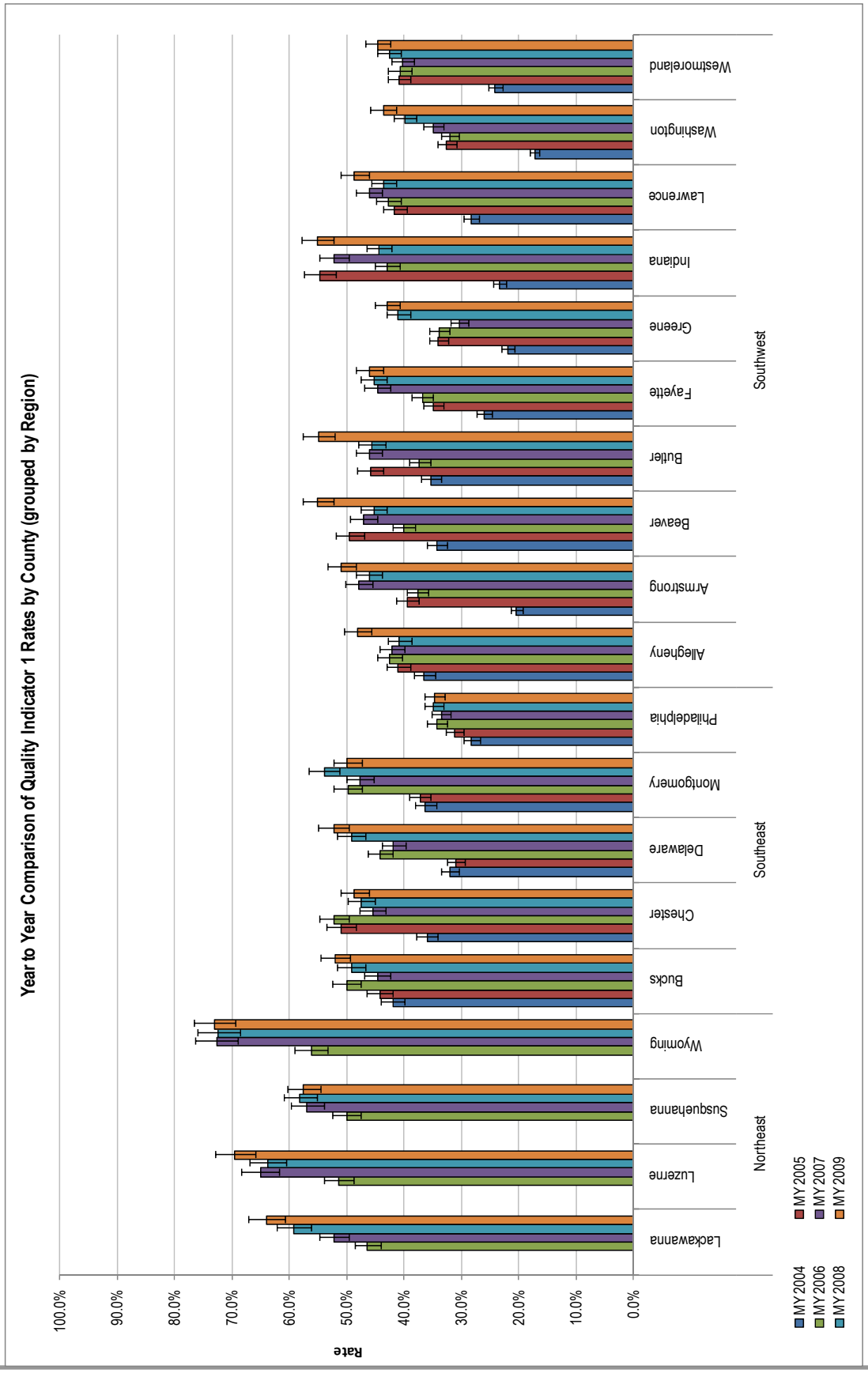


* North/Central County Option Counties were evaluated based on a six-month time frame from July 1, 2007 to December 1, 2007 in the MY 2007 study.

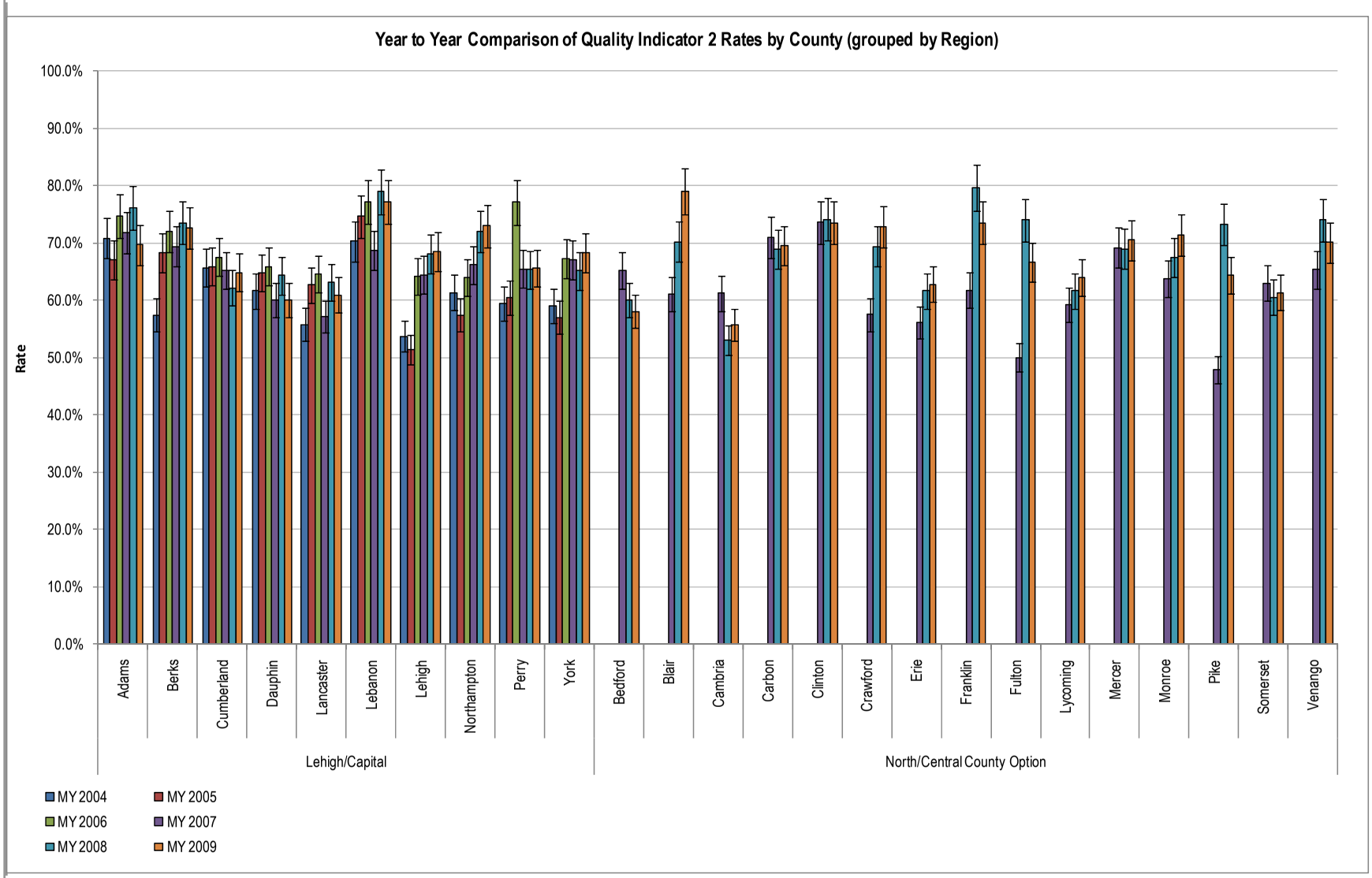
APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR 1 BY COUNTY (GROUPED BY REGION) continued



APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR 1 BY COUNTY (GROUPED BY REGION) continued

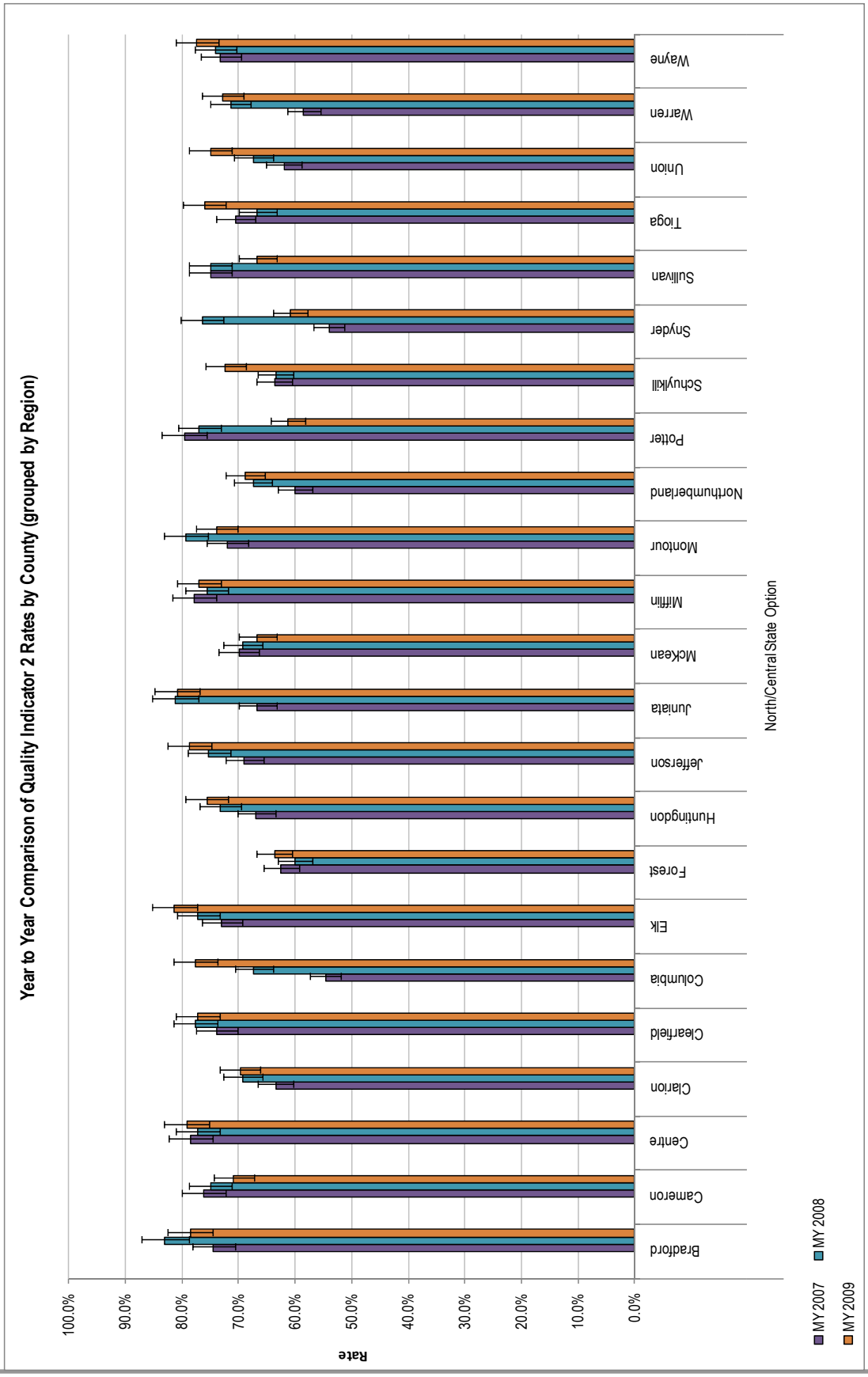


APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR 2 BY COUNTY (GROUPED BY REGION)

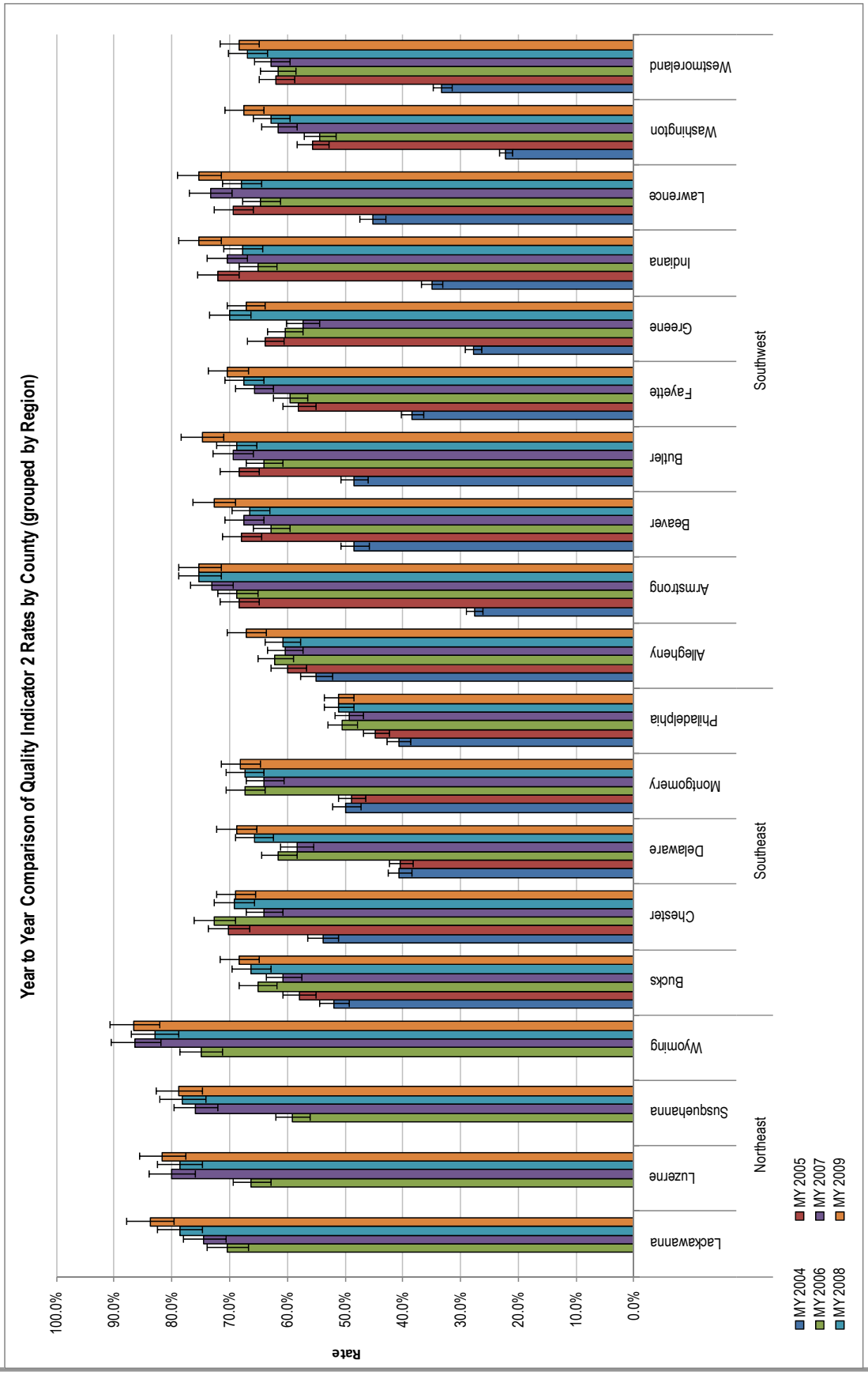


* North/Central County Option Counties were evaluated based on a six-month time frame from July 1, 2007 to December 1, 2007 in the MY 2007 study.

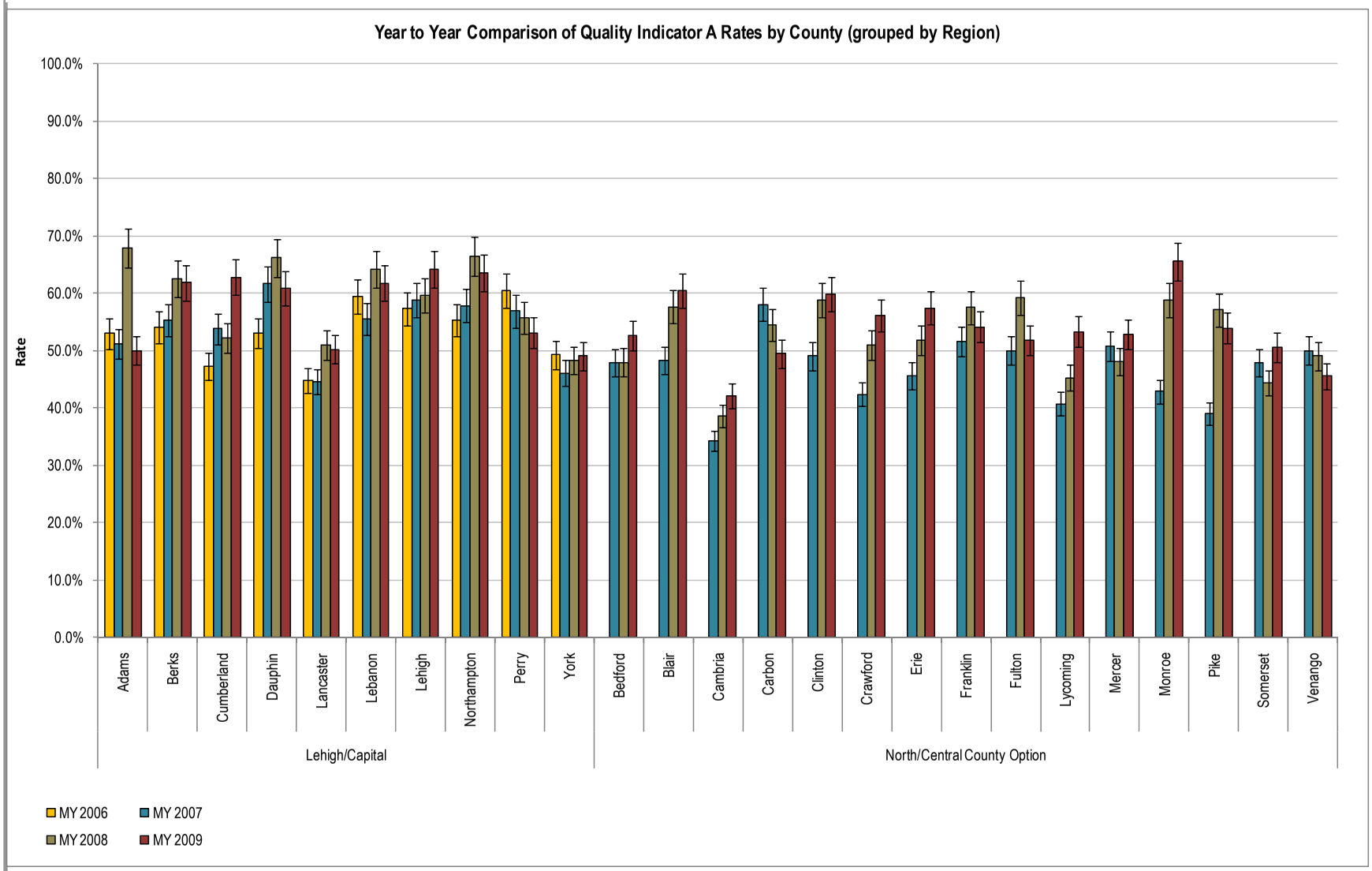
APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR 2 BY COUNTY (GROUPED BY REGION) continued



APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR 2 BY COUNTY (GROUPED BY REGION) continued

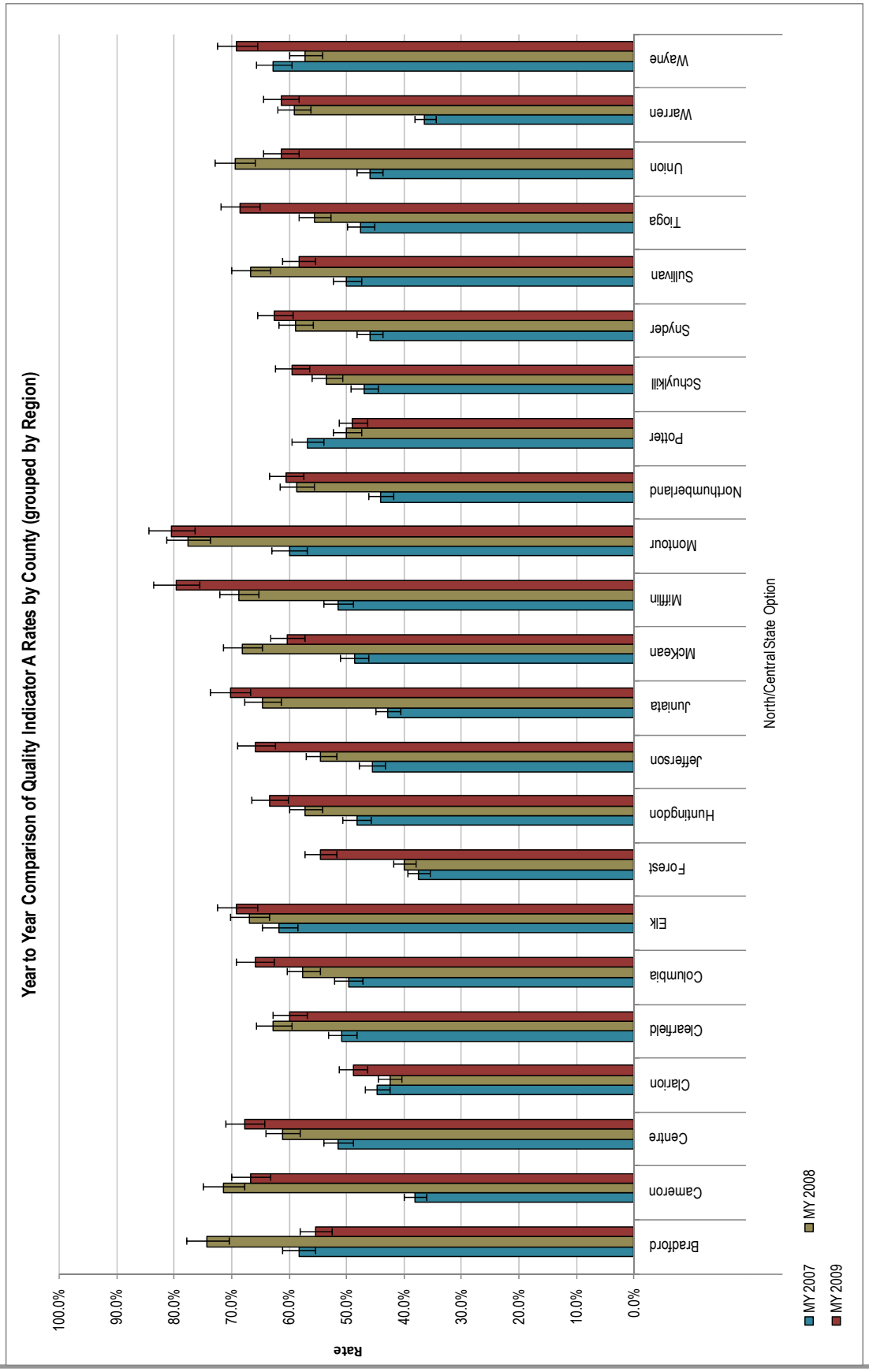


APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR A BY COUNTY (GROUPED BY REGION)

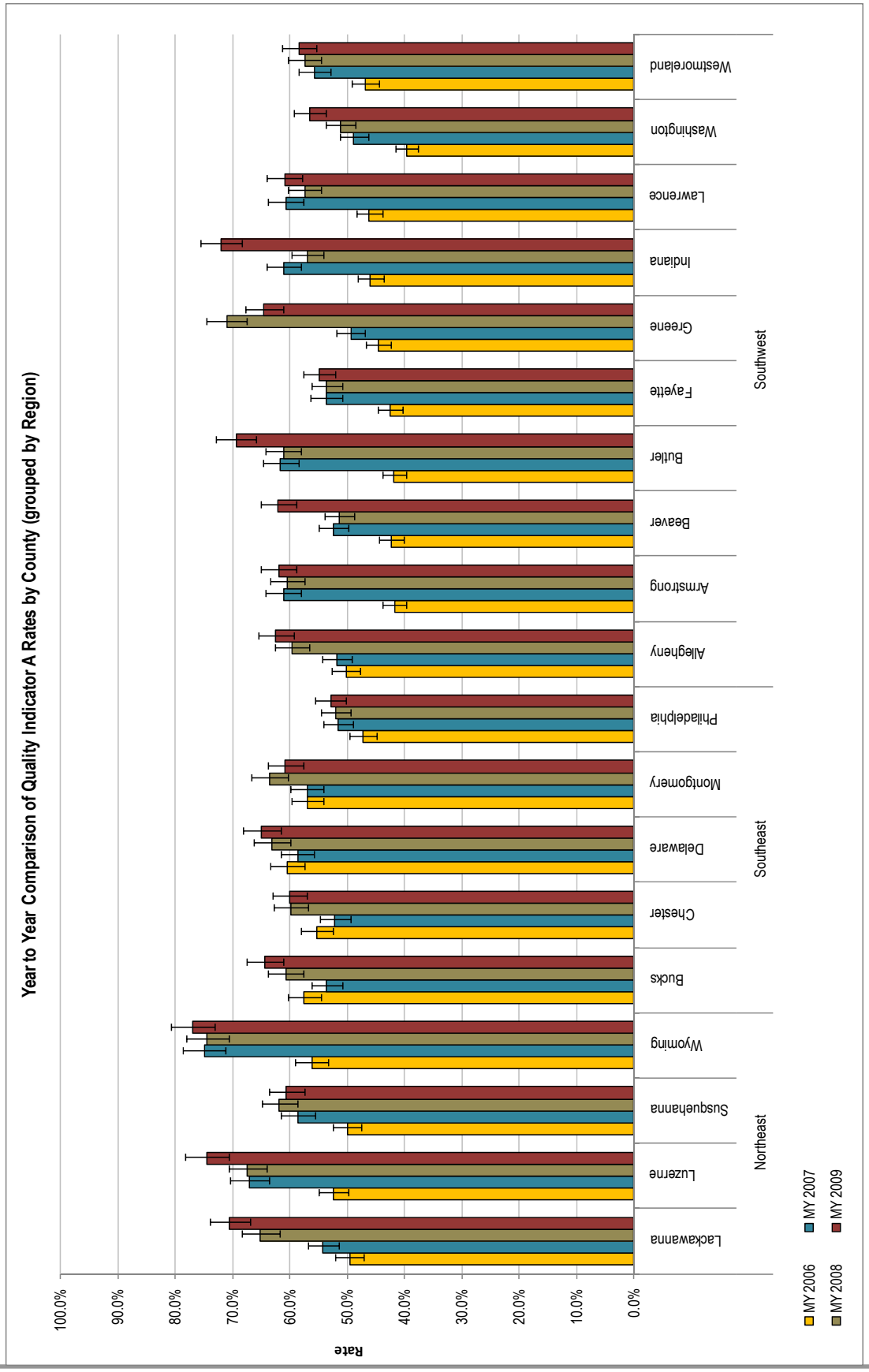


* North/Central County Option Counties were evaluated based on a six-month time frame from July 1, 2007 to December 1, 2007 in the MY 2007 study.

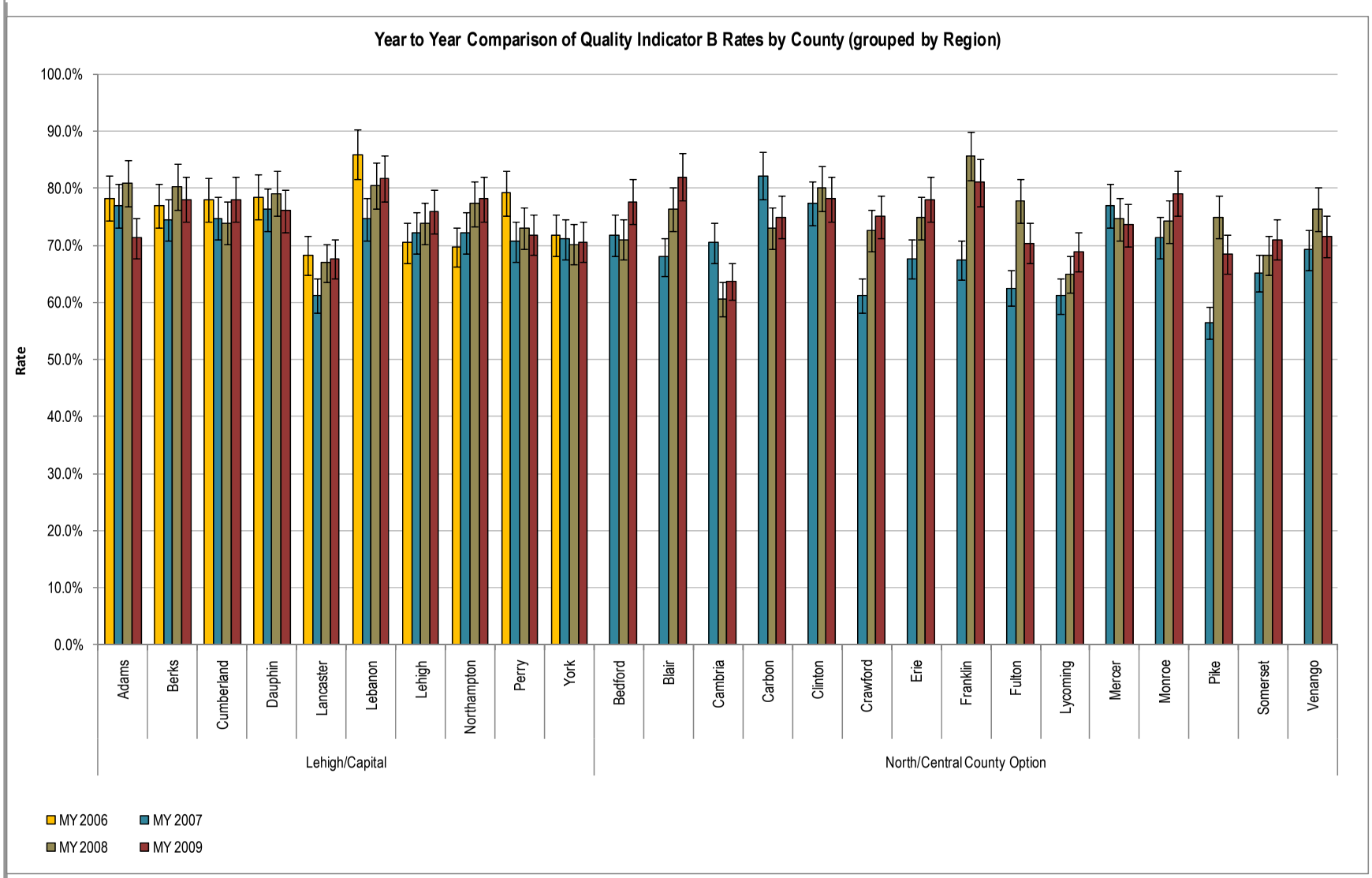
APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR A BY COUNTY (GROUPED BY REGION) continued



APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR A BY COUNTY (GROUPED BY REGION) continued

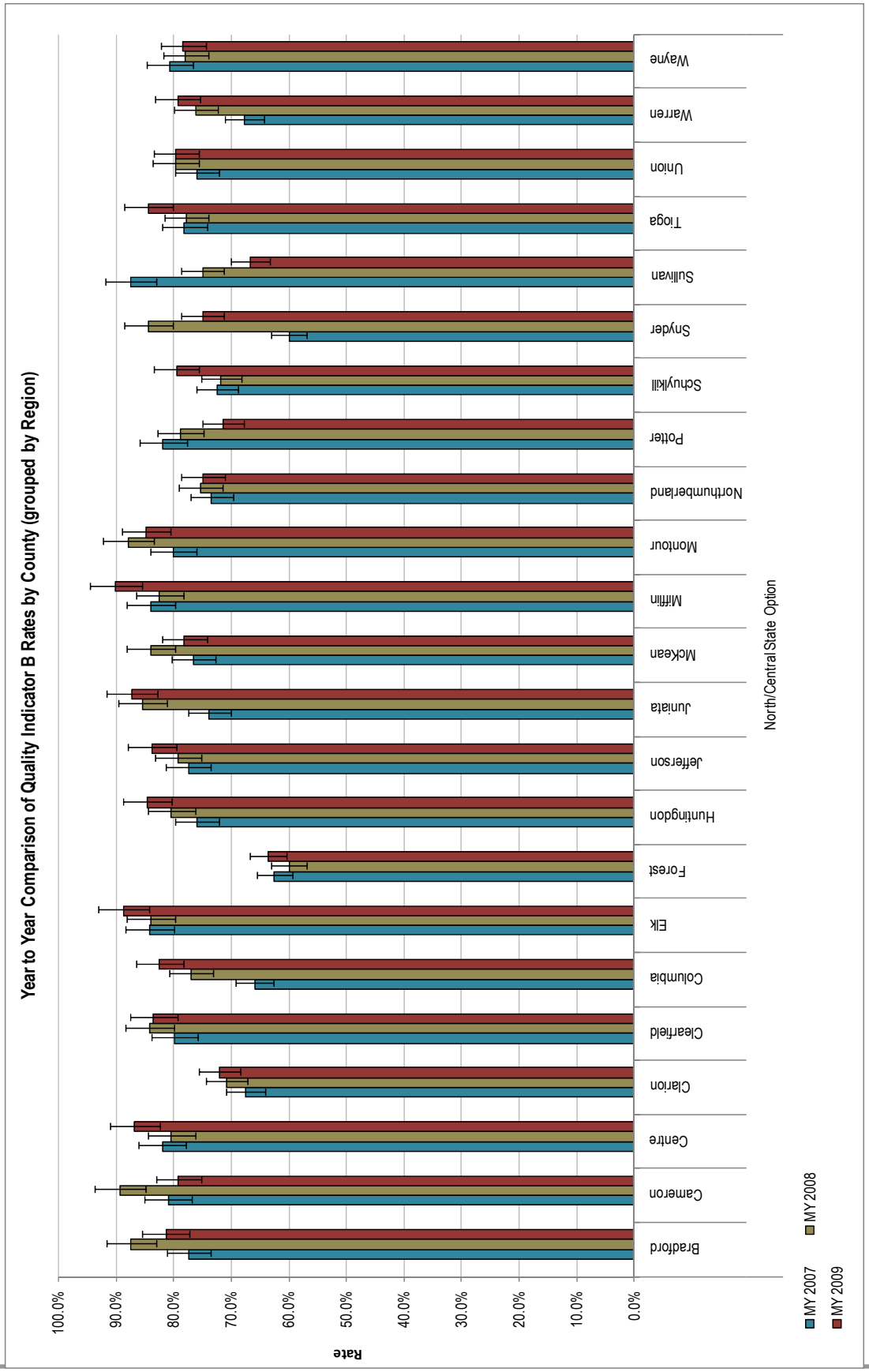
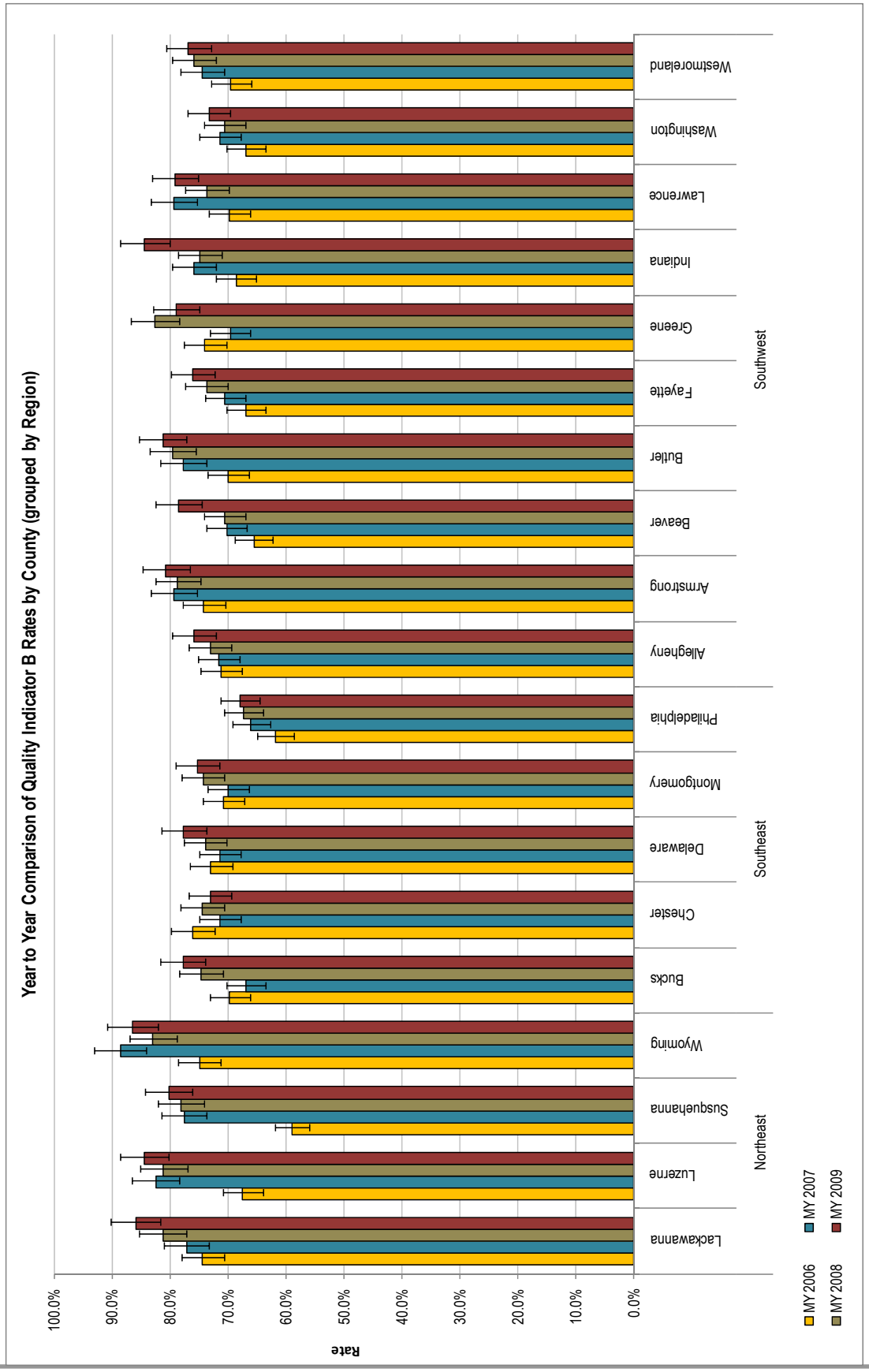


APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR B BY COUNTY (GROUPED BY REGION)



* North/Central County Option Counties were evaluated based on a six-month time frame from July 1, 2007 to December 1, 2007 in the MY 2007 study.

APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR B BY COUNTY (GROUPED BY REGION) continued



APPENDIX 5F: YEAR-TO-YEAR COMPARISON OF QUALITY INDICATOR B BY COUNTY (GROUPED BY REGION)