



**Health Choice**



# Medicaid Managed Care Organization

## Chronic Kidney Disease Performance Improvement Project

2005-2008  
Final Report



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HealthChoice and Acute Care Administration  
Division of HealthChoice Management and Quality Assurance



# Chronic Kidney Disease Performance Improvement Project Final Report

## Introduction

The Maryland Department of Health and Mental Hygiene (DHMH) is responsible for the evaluation of the quality of care provided to Medical Assistance recipients enrolled in the HealthChoice program. DHMH contracts with Delmarva Foundation (Delmarva) to serve as the External Quality Review Organization (EQRO). As the EQRO, Delmarva is responsible for evaluating the Performance Improvement Projects (PIPs) submitted by the Managed Care Organizations (MCOs).

The Chronic Kidney Disease PIP addressed members of the HealthChoice population that were at increased risk of developing Chronic Kidney Disease. According to the Journal of the American Medical Association, the prevalence of Chronic Kidney Disease is estimated in the United States from 1999-2004 to be approximately 7.69% of adults age 20 and older, or 15.5 million. The PIP was designed to assess the percentage of members screened for reduced kidney function, identifying those with impaired renal function prior to a diagnosis of End Stage Renal Disease (ESRD).

According to the 2007 US Renal Data System Annual Report, 485,012 individuals were under treatment for ESRD in 2005, including 179,157 individuals treated due to Diabetes and 117,438 individuals treated due to Hypertension. In addition, there were 85,790 deaths in 2005 due to ESRD. A report from the National Institute for Health, The US Department of Health and Human Services, and The National Institute of Diabetes and Digestive and Kidney Disease states that the cost for the ESRD Program in public and private spending is 32 billion dollars each year.

Recognizing the importance of preventive care to this specific HealthChoice population, DHMH required the seven MCOs to establish opportunities and effective systems of care for Chronic Kidney Disease and identification of high risk and/or preventive measures for ESRD. The MCOs are:

AMERIGROUP Community Care (ACC)  
Diamond Plan from Coventry Health Care, Inc. (DIA)  
Jai Medical Systems, Inc. (JMS)  
Maryland Physicians Care (MPC)

MedStar Family Choice (MFSC)  
Priority Partners (PPMCO)  
UnitedHealthcare (UHC)



DIA's PIP results are not included in this report as they were not required to start their Chronic Kidney Disease PIP until CY 2007 due to the size of their membership. Since the MCO had only begun to develop interventions, the impact of those interventions had not impacted the indicator rates. Therefore, only six MCO's PIPs are included in this Chronic Kidney Disease PIP Final Report.

## **PIP Purpose and Objectives**

Each MCO was required to conduct PIPs that were designed to achieve, through ongoing measurements and interventions, significant improvement, sustained over time in clinical care and non-clinical care areas that were expected to have a favorable effect on health outcomes. The PIPs included measurements of performance using objective quality indicators, the implementation of system interventions to achieve improvement in quality, evaluation of the effectiveness of the interventions, and planning and initiation of activities for increasing or sustaining improvement. In addition to improving the quality, access, or timeliness of service delivery, the process of completing a PIP functions as a learning opportunity for the MCO. The processes and skills required in PIPs, such as indicator development, root cause analysis, and intervention development are transferable to other projects that can lead to improvement in other health areas.

## **Validation Process**

As part of the annual external quality review, Delmarva conducted a review of the Chronic Kidney Disease PIPs submitted by each HealthChoice MCO. The guidelines utilized for PIP review activities were CMS' *Validation of PIPs* protocols. CMS' *Validation of PIPs* assists EQROs in evaluating whether or not the PIP was designed, conducted, and reported in a sound manner and the degree of confidence a state agency could have in the reported results.

Reviewers evaluated each project submitted using a standard validation tool that employed the CMS validation methodology. This included assessing each project in ten critical areas. These ten areas are:

- Step 1: Review the Selected Study Topics
- Step 2: Review the Study Questions
- Step 3: Review the Selected Study Indicator(s)
- Step 4: Review the Identified Study Population



Step 5: Review Sampling Methods

Step 6: Review the MCO's Data Collection Procedures

Step 7: Assess the MCO's Improvement Strategies

Step 8: Review Data Analysis and Interpretation of Study Results

Step 9: Assess the Likelihood that Reported Improvement is Real Improvement

Step 10: Assess Whether the MCO has Sustained its Documented Improvement

As Delmarva staff conducted the review, each component within a standard (step) was rated as “yes,” “no,” or “N/A” (not applicable). Components were then rolled up to create a determination of “met”, “partially met”, “unmet” or “not applicable” for each of the ten standards. Table 1 describes this scoring methodology.

**Table 1. Rating Scale for Performance Improvement Project Validation Review**

| <b>Rating</b>         | <b>Rating Methodology</b>                              |
|-----------------------|--|
| <b>Met</b>            | <b>All required components were present.</b>           |
| <b>Partially Met</b>  | <b>One but not all components were present.</b>        |
| <b>Unmet</b>          | <b>None of the required components were present.</b>   |
| <b>Not Applicable</b> | <b>None of the required components are applicable.</b> |

## **Topic Selected and Performance Measures**

Recognizing opportunities for improvement, DHMH selected Chronic Kidney Disease as a PIP topic. Each MCO was instructed to select appropriate performance measures within the topic area. Project titles and selected measures for each MCO are listed in Table 2.



Table 2. MCO Project Titles and Selected Performance Measures

| MCO   | Project Title          | Measure(s)                                     |
|-------|------------------------|--|
| ACC   | Chronic Kidney Disease | HEDIS <sup>1</sup> Comprehensive Diabetes Care |
| JMS   | Chronic Kidney Disease | HEDIS <sup>1</sup> Comprehensive Diabetes Care |
| MPC   | Chronic Kidney Disease | HEDIS <sup>1</sup> Comprehensive Diabetes Care |
| MSFC  | Chronic Kidney Disease | HEDIS <sup>1</sup> Comprehensive Diabetes Care |
| PPMCO | Chronic Kidney Disease | HEDIS <sup>1</sup> Comprehensive Diabetes Care |
| UHC   | Chronic Kidney Disease | HEDIS <sup>1</sup> Comprehensive Diabetes Care |

<sup>1</sup> HEDIS<sup>®</sup> is a registered trademark of the National Committee for Quality Assurance.

## Project Summaries

PIP summaries are described below for six HealthChoice MCOs. Presented in Tables 3-8, each summary includes a description of the Project Goals, Outcomes, Identified Barriers to Care, and Interventions.



Table 3. Project Summary for AMERIGROUP Community Care

| ACC Chronic Kidney Disease PIP Summary |   |
|--|---|
| <b>Goal</b>                            | <p><b>Indicator 1: HEDIS Comprehensive Diabetes Care, Nephropathy Monitoring Rate:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 59%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 57.7%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 62.22%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 83.37%</p> <p><b>Indicator 2: Percent of members diagnosed with hypertension that received at least one serum creatinine:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 59%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 79.7%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 73.9%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 76.98%</p>  |
| <b>Outcomes</b>                        | <p><b>Indicator 1:</b><br/> Baseline (CY 2004): 57.7%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 62.22%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 83.37%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 80.29%</p> <p><b>Indicator 2:</b><br/> Baseline (CY 2004): 79.7%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 73.9%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 76.98%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 77.64%</p>  |
| <b>Identified Barriers to Care</b>     | <ul style="list-style-type: none"> <li>• Inaccurate ICD-9-CM coding/claims data.</li> <li>• Difficulty in communicating with the PCP office and no established practitioner member relationship.</li> <li>• Practitioners not referring for screening tests.</li> <li>• Transient population which is difficult to reach via phone, mail and/or home visits.</li> <li>• Members' monthly renewal/loss of eligibility of benefits and ability to change plan monthly.</li> <li>• Member compliance with follow-up care.</li> <li>• Transportation issue to medical appointments.</li> <li>• Possibility of members appearing symptom free.</li> <li>• Multiple databases to abstract and correlate data (pharmacy, vision, care provider, and AMERICAID).</li> </ul> |
| <b>Interventions</b>                   | <ul style="list-style-type: none"> <li>• Phone calls to members with diagnosis of hypertension and diabetes to encourage ambulatory visits.</li> <li>• Mailing of AMERItips to members with a diagnosis of diabetes and hypertension.</li> <li>• Referral to case management for education and coordination of care.</li> </ul>   |



Table 4. Project Summary for Jai Medical Systems, Inc.

| JMS Chronic Kidney Disease PIP Summary |   |
|--|---|
| <b>Goal</b>                            | <p><b>Indicator 1: HEDIS Comprehensive Diabetes Care, Nephropathy Monitoring Rate:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 59%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 59%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 59%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 59%</p> <p><b>Indicator 2: Percent of members diagnosed with hypertension that received at least one serum creatinine:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 59%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 59%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 59%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 59%</p> |
| <b>Outcome(s)</b>                      | <p><b>Indicator 1:</b><br/> Baseline (CY 2004): 87.72%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 73.10%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 90.88%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 95.88%</p> <p><b>Indicator 2:</b><br/> Baseline (CY 2004): 87.59%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 89.39%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 88.38%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 92.47%</p>   |
| <b>Identified Barriers to Care</b>     | <ul style="list-style-type: none"> <li>Members' noncompliance with regular visits to the PCP.</li> <li>Members do not respond to outreach attempts or they do not receive them due to bad addresses and phone numbers.</li> <li>Members refuse to provide urine samples as they are afraid they will be used for drug testing.</li> </ul>   |
| <b>Interventions</b>                   | <ul style="list-style-type: none"> <li>Refer all members without a recent PCP visit to Outreach.</li> <li>Provider education highlighting the importance of testing for microalbuminuria and discussing the need to provide a urine sample.</li> <li>Home visits provided to members who have not had a PCP visit in the last 2 years and who have been unable to be contacted by phone.</li> <li>Perform chart reviews on a sample of the members failing the first two indicators to compare the data sets. It is possible that the final result is lower than it is reported due to missing data.</li> <li>Perform provider education on hypertension.</li> </ul>                                      |



Table 5. Project Summary for Maryland Physicians Care

| MPC Chronic Kidney Disease PIP Summary |   |
|--|---|
| <b>Goals</b>                           | <p><b>Indicator 1: HEDIS Comprehensive Diabetes Care, Nephropathy Monitoring Rate:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 54%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 54%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 54%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 63%</p> <p><b>Indicator 2: Percent of members diagnosed with hypertension that received at least one serum creatinine:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 59%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 54%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 54%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 63%</p>   |
| <b>Outcomes</b>                        | <p><b>Indicator 1:</b><br/> Baseline (CY 2004): 47.69%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 46.23%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 78.81%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 74.79%</p> <p><b>Indicator 2:</b><br/> Baseline (CY 2004): 84.14%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 82.98%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 85.3%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 71.2%</p>   |
| <b>Identified Barriers to Care</b>     | <ul style="list-style-type: none"> <li>• Lack of organized approach to members identified with hypertensives.</li> <li>• Behavior modification needs of members.</li> <li>• Members' lack of education regarding CHRONIC KIDNEY DISEASE.</li> <li>• Lack of consistent outreach.</li> <li>• Lack of reports identifying members with diabetes and hypertension.</li> </ul>  |
| <b>Interventions</b>                   | <ul style="list-style-type: none"> <li>• Outreach calls to members with a diagnosis of diabetes.</li> <li>• 100% of MPC members with a diagnosis of diabetes were assessed and referred to case management.</li> <li>• Provided transportation for members who needed assistance to get to medical appointments.</li> <li>• Member newsletters featuring articles regarding kidney disease.</li> <li>• Blast fax to physician and pharmacy providers regarding coverage for 72 hours of non-formulary and non-preferred medications following discharge of a member from the hospital.</li> <li>• Expansion of MD P3 Program for chronic kidney disease to assist in the management of the health care diabetic member and provide active communication with the member's health care providers.</li> </ul> |



Table 6. Project Summary for MedStar Family Choice

| MSFC Chronic Kidney Disease PIP Summary |  |
|---|--|
| <b>Goals</b>                            | <p><b>Indicator 1: HEDIS Comprehensive Diabetes Care, Nephropathy Monitoring Rate:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 54%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 54%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 67%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 87.96%</p> <p><b>Indicator 2: Percent of members diagnosed with hypertension that received at least one serum creatinine:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 79%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 79%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 79%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 79%</p> |
| <b>Outcomes</b>                         | <p><b>Indicator 1:</b><br/> Baseline (CY 2004): 38.57%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 61.78%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 85.46%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 87.44%</p> <p><b>Indicator 2:</b><br/> Baseline (CY 2004): 71%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 77.5%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 73.9%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 83.3%</p>  |
| <b>Identified Barriers to Care</b>      | <ul style="list-style-type: none"> <li>• Member's reluctance to provide urine for tests because they feared the urine would be used for drug testing.</li> <li>• Providers were confused about the appropriate lab tests to order.</li> <li>• Providers felt the testing was unnecessary if the patient was already on an ACE or ARB inhibitor.</li> </ul>   |
| <b>Interventions</b>                    | <ul style="list-style-type: none"> <li>• Incentive programs for both members and provider to improve compliance in nephropathy monitoring.</li> <li>• Provided member education regarding the use and purpose of urine testing.</li> <li>• Provided physician education regarding the appropriate lab tests to be ordered and the need to monitor members who are already on ACE and ARB inhibitor.</li> <li>• Reorganization of Care Management Department to manage specific diseases and the implementation of Disease Management Module to assist with identification and treatment.</li> </ul>  |



Table 7. Project Summary for Priority Partners

| PPMCO Chronic Kidney Disease PIP Summary |   |
|--|---|
| <b>Goals</b>                             | <p><b>Indicator 1: HEDIS Comprehensive Diabetes Care, Nephropathy Monitoring Rate:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 51%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 51%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 51%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 51%</p> <p><b>Indicator 2: Percent of members diagnosed with hypertension that received at least one serum creatinine:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 59%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 59%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 59%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 59%</p>   |
| <b>Outcomes</b>                          | <p><b>Indicator 1:</b><br/> Baseline (CY 2004): 46%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 51%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 77%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 84%</p> <p><b>Indicator 2:</b><br/> Baseline (CY 2004): 62%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 66%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 68%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 67%</p>   |
| <b>Identified Barriers to Care</b>       | <ul style="list-style-type: none"> <li>• Lack of PCP coordination of care.</li> <li>• Member non-compliance.</li> <li>• Member lack of transportation.</li> <li>• Member and physician lack of education regarding CHRONIC KIDNEY DISEASE.</li> </ul>   |
| <b>Interventions</b>                     | <ul style="list-style-type: none"> <li>• Develop and disseminate patient specific list to PCPs identifying their patients with hypertension who have not had early Chronic Kidney Disease screening by serum creatinine testing.</li> <li>• Member mailing regarding the need for early Chronic Kidney Disease detection and testing.</li> <li>• Provide education regarding Chronic Kidney Disease on PPMCO Website.</li> <li>• Hired HEDIS Program Manager to improve data gathering and analysis of administrative data. Valuable information is provided to MCO and providers regarding various populations.</li> <li>• Member newsletters featuring articles on Chronic Kidney Disease.</li> <li>• Purchased van for transportation to specialty medical/dental appointments for PPMCO members.</li> </ul> |



Table 8. Project Summary for UnitedHealthcare

| UHC Chronic Kidney Disease PIP Summary |   |
|--|---|
| <b>Goal</b>                            | <p><b>Indicator 1: HEDIS Comprehensive Diabetes Care, Nephropathy Monitoring Rate:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 59%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 59%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 59%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 59%</p> <p><b>Indicator 2: Percent of members diagnosed with hypertension that received at least one serum creatinine:</b><br/> Baseline Goal: Calendar Year (CY) 2004 Results 59%<br/> 1<sup>st</sup> Remeasurement Goal: CY 2005 Results 59%<br/> 2<sup>nd</sup> Remeasurement Goal: CY 2006 Results 59%<br/> 3<sup>rd</sup> Remeasurement Goal: CY 2007 Results 59%</p> |
| <b>Outcomes</b>                        | <p><b>Indicator 1:</b><br/> Baseline (CY 2004): 44.04%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 42.3%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 74.7%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 77.6%</p> <p><b>Indicator 2:</b><br/> Baseline (CY 2004): 76.6%<br/> 1<sup>st</sup> Remeasurement (CY 2005): 81%<br/> 2<sup>nd</sup> Remeasurement (CY 2006): 80%<br/> 3<sup>rd</sup> Remeasurement (CY 2007): 78%</p>  |
| <b>Identified Barriers to Care</b>     | <ul style="list-style-type: none"> <li>• Delayed receipt of health risk assessments identifying members with diabetes.</li> <li>• Member lack of knowledge of prevention of cardiovascular and kidney complications relate to diabetes.</li> <li>• PCP detection and intervention of members who have risk factors for Chronic Kidney Disease but have no evidence of kidney disease.</li> <li>• Inability to locate members.</li> </ul>  |
| <b>Interventions</b>                   | <ul style="list-style-type: none"> <li>• Outreach calls to members that were non compliant with kidney nephropathy testing.</li> <li>• Hired HEDIS analyst to verify data mapping and assure that the correct members are identified for Chronic Kidney Disease measure.</li> <li>• Member education and case management.</li> <li>• Newsletters featuring articles on diabetes.</li> <li>• Public service announcements on diabetes.</li> <li>• Postcard mailings to members diagnosed with hypertension.</li> </ul>   |



## Results

This section presents an overview of the validation findings for each Chronic Kidney Disease PIP submitted to Delmarva. Each MCO's PIP was reviewed against all 27 components contained within the ten standards. The results of the ten activities assessed for each PIP submitted by the plans are presented in Tables 9-14 below.

**Table 9. ACC Chronic Kidney Disease PIP Summary**

| Step | Description  | Review Determinations |      |      |       |
|------|--|-----------------------|------|------|-------|
|      |  | 2005                  | 2006 | 2007 | 2008  |
| 1    | Assess the Study Methodology                             | Met                   | Met  | Met  | Met   |
| 2    | Review the Study Question(s)                             | Met                   | Met  | Met  | Met   |
| 3    | Review the Selected Study Indicator(s)                   | Met                   | Met  | Met  | Met   |
| 4    | Review the Identified Study Population                   | Met                   | Met  | Met  | Met   |
| 5    | Review Sampling Methods                                  | Met                   | Met  | Met  | Met   |
| 6    | Review Data Collection Procedures                        | Met                   | Met  | Met  | Met   |
| 7    | Assess Improvement Strategies                            | N/A                   | Met  | Met  | Unmet |
| 8    | Review Data Analysis and Interpretation of Study Results | N/A                   | Met  | Met  | Met   |
| 9    | Assess Whether Improvement is Real Improvement           | N/A                   | Met  | Met  | Met   |
| 10   | Assess Sustained Improvement                             | N/A                   | N/A  | Met  | Met   |

ACC's Chronic Kidney Disease PIP received a rating of "Not Applicable" for Steps 7 - 10 in 2005 because those steps could not be evaluated as this was the baseline year (January 1 through December 31, 2004) of data collection and validation for this PIP. ACC received a rating of "Not Applicable" for Step 10 in 2006 because Sustained Improvement cannot be assessed until after the second remeasurement period.



**Table 10. JMS Chronic Kidney Disease PIP Summary**

| Step | Description  | Review Determinations |      |      |      |
|------|--|-----------------------|------|------|------|
|      |  | 2005                  | 2006 | 2007 | 2008 |
| 1    | Assess the Study Methodology                             | Met                   | Met  | Met  | Met  |
| 2    | Review the Study Question(s)                             | Met                   | Met  | Met  | Met  |
| 3    | Review the Selected Study Indicator(s)                   | Met                   | Met  | Met  | Met  |
| 4    | Review the Identified Study Population                   | Met                   | Met  | Met  | Met  |
| 5    | Review Sampling Methods                                  | N/A                   | N/A  | N/A  | N/A  |
| 6    | Review Data Collection Procedures                        | Met                   | Met  | Met  | Met  |
| 7    | Assess Improvement Strategies                            | N/A                   | Met  | Met  | Met  |
| 8    | Review Data Analysis and Interpretation of Study Results | N/A                   | Met  | Met  | Met  |
| 9    | Assess Whether Improvement is Real Improvement           | N/A                   | Met  | Met  | Met  |
| 10   | Assess Sustained Improvement                             | N/A                   | N/A  | Met  | Met  |

JMS received a rating of “Not Applicable” for Step 5 throughout all measurement years because the study did not use sampling methodologies and included the entire eligible population in this project. A rating of “Not Applicable” for Steps 7 - 10 was received in 2005 because those steps could not be evaluated as this was the baseline year (January 1 through December 31, 2004) of data collection and validation for this PIP. JMS received a rating of “Not Applicable” for Step 10 in 2006 because Sustained Improvement cannot be assessed until after the second remeasurement period.



Table 11. MPC Chronic Kidney Disease PIP Summary

| Step | Description  | Review Determinations |               |      |               |
|------|--|-----------------------|---------------|------|---------------|
|      |  | 2005                  | 2006          | 2007 | 2008          |
| 1    | Assess the Study Methodology                             | Met                   | Met           | Met  | Met           |
| 2    | Review the Study Question(s)                             | Met                   | Met           | Met  | Met           |
| 3    | Review the Selected Study Indicator(s)                   | Met                   | Met           | Met  | Met           |
| 4    | Review the Identified Study Population                   | Met                   | Met           | Met  | Met           |
| 5    | Review Sampling Methods                                  | Met                   | Met           | Met  | Met           |
| 6    | Review Data Collection Procedures                        | Met                   | Met           | Met  | Met           |
| 7    | Assess Improvement Strategies                            | N/A                   | Met           | Met  | Met           |
| 8    | Review Data Analysis and Interpretation of Study Results | N/A                   | Met           | Met  | Met           |
| 9    | Assess Whether Improvement is Real Improvement           | N/A                   | Partially Met | Met  | Partially Met |
| 10   | Assess Sustained Improvement                             | N/A                   | N/A           | Met  | Met           |

MPC's Chronic Kidney Disease PIP received a rating of "Not Applicable" for Steps 7 - 10 in 2005 because those steps could not be evaluated as this was the baseline year (January 1 through December 31, 2004) of data collection and validation for this PIP.

In 2006 and 2008, MPC received ratings of "Partially Met" for step 9 because there was no quantitative improvement in either indicator rate for the calendar year. A rating of "Not Applicable" for Step 10 was received in 2006 because Sustained Improvement cannot be assessed until after the second remeasurement period.



**Table 12. MSFC Chronic Kidney Disease PIP Summary**

| Step | Description  | Review Determinations |      |      |      |
|------|--|-----------------------|------|------|------|
|      |  | 2005                  | 2006 | 2007 | 2008 |
| 1    | Assess the Study Methodology                             | Met                   | Met  | Met  | Met  |
| 2    | Review the Study Question(s)                             | Met                   | Met  | Met  | Met  |
| 3    | Review the Selected Study Indicator(s)                   | Met                   | Met  | Met  | Met  |
| 4    | Review the Identified Study Population                   | Met                   | Met  | Met  | Met  |
| 5    | Review Sampling Methods                                  | Met                   | Met  | Met  | Met  |
| 6    | Review Data Collection Procedures                        | Met                   | Met  | Met  | Met  |
| 7    | Assess Improvement Strategies                            | N/A                   | Met  | Met  | Met  |
| 8    | Review Data Analysis and Interpretation of Study Results | N/A                   | Met  | Met  | Met  |
| 9    | Assess Whether Improvement is Real Improvement           | N/A                   | Met  | Met  | Met  |
| 10   | Assess Sustained Improvement                             | N/A                   | N/A  | Met  | Met  |

MSFC's Chronic Kidney Disease PIP received a rating of "Not Applicable" for Steps 7 - 10 in 2005 because those steps could not be evaluated as this was the baseline year (January 1 through December 31, 2004) of data collection and validation for this PIP. MSFC received a rating of "Not Applicable" for Step 10 in 2006 because Sustained Improvement cannot be assessed until after the second remeasurement period.



**Table 13. PPMCO Chronic Kidney Disease PIP Summary**

| Step | Description  | Review Determinations |      |      |      |
|------|--|-----------------------|------|------|------|
|      |  | 2005                  | 2006 | 2007 | 2008 |
| 1    | Assess the Study Methodology                             | Met                   | Met  | Met  | Met  |
| 2    | Review the Study Question(s)                             | Met                   | Met  | Met  | Met  |
| 3    | Review the Selected Study Indicator(s)                   | Met                   | Met  | Met  | Met  |
| 4    | Review the Identified Study Population                   | Met                   | Met  | Met  | Met  |
| 5    | Review Sampling Methods                                  | Met                   | Met  | Met  | Met  |
| 6    | Review Data Collection Procedures                        | Met                   | Met  | Met  | Met  |
| 7    | Assess Improvement Strategies                            | N/A                   | Met  | Met  | Met  |
| 8    | Review Data Analysis and Interpretation of Study Results | N/A                   | Met  | Met  | Met  |
| 9    | Assess Whether Improvement is Real Improvement           | N/A                   | Met  | Met  | Met  |
| 10   | Assess Sustained Improvement                             | N/A                   | N/A  | Met  | Met  |

PPMCO's Chronic Kidney Disease PIP received a rating of "Not Applicable" for Steps 7 - 10 in 2005 because those steps could not be evaluated as this was the baseline year (January 1 through December 31, 2004) of data collection and validation for this PIP. PPMCO received a rating of "Not Applicable" for Step 10 in 2006 because Sustained Improvement cannot be assessed until after the second remeasurement period.



**Table 14. UHC Chronic Kidney Disease PIP Summary**

| Step | Description  | Review Determinations |      |      |      |
|------|--|-----------------------|------|------|------|
|      |  | 2005                  | 2006 | 2007 | 2008 |
| 1    | Assess the Study Methodology                             | Met                   | Met  | Met  | Met  |
| 2    | Review the Study Question(s)                             | Met                   | Met  | Met  | Met  |
| 3    | Review the Selected Study Indicator(s)                   | Met                   | Met  | Met  | Met  |
| 4    | Review the Identified Study Population                   | Met                   | Met  | Met  | Met  |
| 5    | Review Sampling Methods                                  | Met                   | Met  | Met  | Met  |
| 6    | Review Data Collection Procedures                        | Met                   | Met  | Met  | Met  |
| 7    | Assess Improvement Strategies                            | N/A                   | Met  | Met  | Met  |
| 8    | Review Data Analysis and Interpretation of Study Results | N/A                   | Met  | Met  | Met  |
| 9    | Assess Whether Improvement is Real Improvement           | N/A                   | Met  | Met  | Met  |
| 10   | Assess Sustained Improvement                             | N/A                   | N/A  | Met  | Met  |

UHC's Chronic Kidney Disease PIP received a rating of "Not Applicable" for Steps 7 - 10 in 2005 because those steps could not be evaluated as this was the baseline year (January 1 through December 31, 2004) of data collection and validation for this PIP. UHC received a rating of "Not Applicable" for Step 10 in 2006 because Sustained Improvement cannot be assessed until after the second remeasurement period.



## Conclusions

Through the validation process, Delmarva has determined that the MCO's have utilized sound study methodology, sampling methodology, and data collection procedures throughout their Chronic Kidney Disease PIPs. Since the PIP indicators were HEDIS measures, the methodologies, and data collection procedures were also evaluated by independent auditors each year in addition to Delmarva.

Delmarva identified the following areas of difficulty for the MCOs throughout the PIP process:

- Barrier Analysis: MCOs must complete a comprehensive barrier analysis that results in identifying member, provider, and administrative barriers.
- Intervention Development: Once barriers are identified, aggressive interventions that target members, providers, and administrative barriers should be implemented.

For most MCO's, the indicator rates increased. The average increase across all MCOs for the HEDIS Nephropathy Monitoring Rate was 30 percentage points, with one MCO increasing by 48 percentage points. The second indicator, percent of members diagnosed with hypertension that received at least one serum, increased an average of only 1 percentage point. If the MCO's continue the interventions currently in place, it is expected that these rates will continue to be sustained as demonstrated throughout the remeasurement periods within this study.