



State of Georgia
Department of Community Health
Georgia Families Program

**CY 2015 Performance Improvement
Projects Report**
for
Amerigroup Community Care

Reported August 2016



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1. Background

The Georgia Department of Community Health (DCH) is responsible for administering the Medicaid program and the Children’s Health Insurance Program (CHIP) in the State of Georgia. The State refers to its CHIP program as PeachCare for Kids[®]. Both programs include fee-for-service and managed care components. The DCH contracts with three privately owned managed care organizations, referred to by the State as care management organizations (CMOs), to deliver services to members who are enrolled in the State’s Medicaid and CHIP programs. Children in state custody, children receiving adoption assistance, and certain children in the juvenile justice system are enrolled in the Georgia Families 360[°] (GF 360[°]) managed care program. The Georgia Families (GF) program serves all other Medicaid and CHIP managed care members not enrolled in the GF 360[°] program. Approximately 1.3 million beneficiaries are enrolled in the GF program.¹⁻¹

The DCH requires its contracted CMOs to conduct performance improvement projects (PIPs). As set forth in 42 CFR §438.240, the PIPs must be designed to achieve, through ongoing measurements and interventions, significant improvement, sustained over time, in clinical and nonclinical care areas. The PIPs are expected to have a favorable effect on health outcomes and member satisfaction. The DCH requires the CMOs to report the status and results of each PIP annually. Amerigroup Community Care (Amerigroup) is one of the Georgia Families CMOs.

The validation of PIPs is one of three federally mandated activities for state Medicaid managed care programs. The evaluation of CMO compliance with State and federal regulations and the validation of CMO performance measures are the other two mandated activities.

These three mandatory activities work together to assess the CMOs’ performance with providing appropriate access to high-quality care for their members. While a CMO’s compliance with managed care regulations provides the organizational foundation for the delivery of quality healthcare, the calculation and reporting of performance measure rates provide a barometer of the quality and effectiveness of the care. The DCH requires the CMOs to initiate PIPs to improve the quality of healthcare in targeted areas of low performance, or in areas identified as State priorities or healthcare issues of greatest concern. During calendar year (CY) 2015, DCH required its CMOs to conduct eight PIPs and submit the final PIP modules for annual validation in 2016. PIPs are key tools in helping DCH achieve goals and objectives outlined in its quality strategy; they provide the framework for monitoring, measuring, and improving the delivery of healthcare.

The purpose of a PIP is to assess and improve processes, and thereby outcomes of care. For such projects to achieve real and meaningful improvements in care, and for interested parties to have confidence in the reported improvements, PIPs must be designed, conducted, and reported in a

¹⁻¹ Georgia Department of Community Health. “Georgia Families Monthly Adjustment Summary Report, Report Period: 8/2015.”

methodologically sound manner. The primary objective of PIP validation is to determine each CMO's compliance with requirements set forth in 42 CFR §438.240(b)(1), including:

- Measurement of performance using objective quality indicators.
- Implementation of system interventions to achieve improvement in quality.
- Evaluation of the effectiveness of the interventions.
- Planning and initiation of activities to increase or sustain improvement.

To meet the federal requirement for the validation of PIPs, DCH contracted with Health Services Advisory Group, Inc. (HSAG), the State's external quality review organization (EQRO), to conduct the validation of Amerigroup's PIPs.

In 2014, DCH and HSAG agreed that a comprehensive overhaul of the PIP implementation and validation process was needed in order to embrace a rapid-cycle improvement process and facilitate more effective improvement efforts by the CMOs in Georgia. Consequently, HSAG developed a new PIP framework based on a modified version of the Model for Improvement developed by Associates in Process Improvement and applied to healthcare quality activities by the Institute for Healthcare Improvement.¹⁻² The rapid-cycle PIP methodology is intended to improve processes and outcomes of healthcare by way of continuous improvement focused on small tests of change. The methodology focuses on evaluating and refining small process changes to determine the most effective strategies for achieving real improvement. The DCH instructed the CMOs to conduct their rapid-cycle improvement projects over a 12-month period.

To support DCH and the CMOs' efforts, HSAG developed new guidance documents for the rapid-cycle improvement projects including:

- A detailed Companion Guide describing the new PIP framework and the requirements for each module submission.
- Forms for the CMOs to document their progress through the different stages of the new PIP process for each of the five modules.
- Corresponding validation feedback forms for communicating validation findings on each module back to the CMOs and DCH.

At the start of the new rapid-cycle improvement projects, HSAG conducted introductory webinar training sessions for DCH and the CMOs and, on an ongoing basis, provided extensive technical assistance via conference calls with the CMOs throughout the 12-month project period.

To ensure methodological soundness while meeting all state and federal requirements, HSAG follows guidelines established in the Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS) publication, *EQR Protocol 3: Validating Performance Improvement Projects*

¹⁻² Institute for Healthcare Improvement. How to Improve. Available at:
<http://www.ihl.org/resources/Pages/HowtoImprove/default.aspx>. Accessed on: Sept 24, 2015.

(PIPs): *A Mandatory Protocol for External Quality Review (EQR)*, Version 2.0, September 2012.¹⁻³ HSAG provided CMS with a crosswalk of the rapid-cycle PIP framework to the CMS PIP protocols in order to illustrate how the rapid-cycle PIP framework met the CMS requirements.¹⁻⁴ Following HSAG's presentation of the crosswalk and new PIP framework components to CMS, CMS agreed that with the pace of quality improvement science development and the prolific use of Plan-Do-Study-Act (PDSA) cycles in modern PIPs within healthcare settings, a new approach was reasonable. CMS approved HSAG's rapid-cycle PIP framework for validation of the CMOs' PIPs for the State of Georgia.

HSAG's validation of rapid-cycle PIPs includes the following key components of the quality improvement process:

1. Evaluation of the technical structure to determine whether a PIP's initiation (e.g., topic rationale, PIP team, aim, key driver diagram, and SMART Aim data collection methodology) was based on sound methods and could demonstrate reliably positive outcomes. Successful execution of this component ensures accurately reported PIP results that are capable of measuring sustained improvement.
2. Evaluation of the quality improvement activities conducted. Once designed, a PIP's effectiveness in improving outcomes depends on thoughtful and relevant intervention determination, intervention testing and evaluation using iterative PDSA cycles, and sustainability and spreading of successful change. This component evaluates how well the CMO executed its quality improvement activities and whether the desired aim was achieved.

The goal of HSAG's PIP validation is to ensure that DCH and key stakeholders can have confidence that any reported improvement in outcomes is related and can be directly linked to the quality improvement strategies and activities conducted by the CMO during the life of the PIP.

PIP Components and Process

The key concepts of the rapid-cycle PIP framework include forming a PIP team, setting aims, establishing measures, determining interventions, testing interventions, and spreading successful changes. The core component of the rapid-cycle approach involves testing changes on a small scale—using a series of PDSA cycles and applying rapid-cycle learning principles over the course of the improvement project to adjust intervention strategies—so that improvement can occur more efficiently and lead to long-term sustainability. The following outlines the rapid-cycle PIP framework.

- **Module 1—PIP Initiation:** Module 1 outlines the framework for the project. The framework follows the Associates in Process Improvement's (API's) Model, which was popularized by the Institute for Healthcare Improvement, by:

¹⁻³ Department of Health and Human Services, Centers for Medicare & Medicaid Services. *EQR Protocol 3: Validating Performance Improvement Projects (PIPs): A Mandatory Protocol for External Quality Review (EQR)*, Version 2.0, September 2012. Available at: <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-External-Quality-Review.html>. Accessed on: Feb 19, 2013.

¹⁻⁴ Ibid.

- Precisely stating a project-specific SMART Aim (specific, measurable, attainable, relevant and time-bound) including the topic rationale and supporting data so that alignment with larger initiatives and feasibility are clear.
- Building a PIP team consisting of internal and external stakeholders.
- Completing a key driver diagram which summarizes the changes that are agreed upon by the team as having sufficient evidence to lead to improvement.
- Module 2—SMART Aim Data Collection: In Module 2, the SMART Aim measure is operationalized, and the data collection methodology is described. SMART Aim data are displayed in run charts.
- Module 3—Intervention Determination: In Module 3, there is a deeper dive into the quality improvement activities reasonably thought to impact the SMART Aim. Interventions, in addition to those in the original key driver diagram, are identified for PDSA cycles (Module 4) using tools such as process mapping, failure modes and effects analysis (FMEA), Pareto charts, and failure mode priority ranking.
- Module 4—Plan-Do-Study-Act: The interventions selected in Module 3 are tested and evaluated through a thoughtful and incremental series of PDSA cycles.
- Module 5—PIP Conclusions: Module 5 summarizes key findings and presents comparisons of successful and unsuccessful interventions, outcomes achieved, plans for evaluating sustained improvement and expansion of successful interventions, and lessons learned.

Summary

For CY 2015, Amerigroup submitted eight PIPs for validation. All of the PIPs were validated using HSAG’s rapid-cycle PIP validation process. The PIP topics included:

- *Annual Dental Visits*
- *Appropriate Use of ADHD [Attention Deficit Hyperactivity Disorder] Medications*
- *Avoidable Emergency Room Visits*
- *Bright Futures*
- *Comprehensive Diabetes Care*
- *Member Satisfaction*
- *Postpartum Care*
- *Provider Satisfaction*

For each of the eight PIPs conducted in CY 2015, Amerigroup defined a SMART Aim statement that identified the narrowed population and process to be evaluated, set a goal for improvement, and defined the indicator used to measure progress toward the goal. The SMART Aim statement sets the framework for the PIP and identifies the goal against which the PIP will be evaluated for the annual validation. HSAG provided the following parameters to Amerigroup for establishing the SMART Aim for each PIP:

- **Specific:** The goal of the project: What is to be accomplished? Who will be involved or affected? Where will it take place?
- **Measurable:** The indicator to measure the goal: What is the measure that will be used? What is the current data figure (i.e., count, percent, or rate) for that measure? What do you want to increase/decrease that number to?
- **Attainable:** Rationale for setting the goal: Is the achievement you want to attain based on a particular best practice/average score/benchmark? Is the goal attainable (not too low or too high)?
- **Relevant:** The goal addresses the problem to be improved.
- **Time-bound:** The timeline for achieving the goal.

Table 1-1 outlines the PIP topics and final CMO-reported SMART Aim statements for the eight PIPs. The CMO was to specify the outcome being measured, the baseline value for the outcome measure, a quantifiable goal for the outcome measure, and the target date for attaining the goal. Amerigroup developed a SMART Aim statement that quantified the improvement sought for each PIP.

Table 1-1—PIP Titles and SMART Aim Statements

PIP Title	SMART Aim Statement
<i>Annual Dental Visits</i>	To increase the percentage of unique children <21 years old receiving a preventive dental visit by 10% (41.7% to 45.87%) who are assigned to Family Health Care Centers of Georgia, by December 31, 2015
<i>Appropriate Use of ADHD Medications</i>	To increase the percentage of children, 6 to 12 years of age, who fill an initial prescription used to treat ADHD and return within 30 days for a follow-up office visit at Medical Specialists from 23.68% to 28.68% by December 31, 2015
<i>Avoidable Emergency Room Visits</i>	To decrease the rate of avoidable ER utilization by 5 percentage points from 21% to 16% for members less than 21 years of age assigned to Nuestros Niños practice by December 31, 2015
<i>Bright Futures</i>	Increase the percentage of children assigned to Kaiser who complete their 6th visit on or before 15 months of age from 59.58% to 69.58% by December 31, 2015
<i>Comprehensive Diabetes Care</i>	To increase the number of diabetic prescriptions refilled on time, during the measurement month by 12 percentage points (from 28% to 40%) for diabetic patients age 18 and older, assigned to Absolute Care from February 1, 2015, and December 31, 2015
<i>Member Satisfaction</i>	Decrease calls by Amerigroup Georgia Members to the National Contact Center for PCP changes by 5% (from 191/1000 to 181/1000) by December 31, 2015
<i>Postpartum Care</i>	Increase the percentage of women who had a postpartum visit with an Eagle’s Landing OB/GYN Associates provider between 21–56 days from 67% to 72% by June 30, 2015
<i>Provider Satisfaction</i>	Decrease the percentage of providers terminated due to failure to recredential by 10% (from 32% to 28.8%) by December 31, 2015

Validation Overview

HSAG obtained the data needed to conduct the PIP validation from Amerigroup's module submission forms. These forms provided detailed information about each of Amerigroup's PIPs and the activities completed in Modules 1 through 5.

Amerigroup submitted Modules 1 through 3 for each PIP throughout calendar year 2015. The CMO initially submitted Modules 1 and 2, received feedback and technical assistance from HSAG, and resubmitted these modules until all validation criteria were met. Amerigroup followed the same process for Module 3. Once Module 3 was approved, the CMO initiated intervention testing in Module 4, which continued through the end of 2015. Amerigroup submitted Modules 4 and 5 to HSAG on February 29, 2016, for annual validation.

The scoring methodology evaluates whether the CMO executed a methodologically sound improvement project, whether the PIP's SMART Aim goal was achieved, and whether improvement was clearly linked to the quality improvement processes applied in the project. HSAG assigned a score of *Achieved* or *Failed* for each of the criteria in Modules 1 through 5. Any validation criteria that were not applicable were not scored. HSAG used the findings for the Modules 1 through 5 criteria for each PIP to determine a confidence level representing the validity and reliability of the PIP. Using a standardized scoring methodology, HSAG assigned a level of confidence and reported the overall validity and reliability of the findings as one of the following:

- *High confidence* = the PIP was methodologically sound, achieved the SMART Aim goal, and the demonstrated improvement was clearly linked to the quality improvement processes implemented.
- *Confidence* = the PIP was methodologically sound, achieved the SMART Aim goal, and some of the quality improvement processes were clearly linked to the demonstrated improvement; however, there was not a clear link between all quality improvement processes and the demonstrated improvement.
- *Low confidence* = (A) the PIP was methodologically sound; however, the SMART Aim goal was not achieved; or (B) the SMART Aim goal was achieved; however, the quality improvement processes and interventions were poorly executed and could not be linked to the improvement.
- *Reported PIP results were not credible* = The PIP methodology was not executed as approved.

Validation Findings

HSAG organized and analyzed Amerigroup’s PIP data to draw conclusions about the CMO’s quality improvement efforts. Based on its review, HSAG determined the overall methodological validity of the PIPs, as well as the overall success in achieving the SMART Aim goal. The validation findings for Amerigroup’s PIPs are presented in Table 2-1 through Table 2-16. The tables display HSAG’s key validation findings for each of the PIPs including the interventions tested, the key drivers and failure modes addressed by the interventions, and the impact of the interventions on the desired SMART Aim goal.

For each PIP, HSAG evaluated the appropriateness and validity of the SMART Aim measure, as well as trends in the SMART Aim measurements, in comparison with the reported baseline rate and goal. The data displayed in the SMART Aim run charts were used to determine whether the SMART Aim goal was achieved.

Annual Dental Visits

Amerigroup’s goal for the *Annual Dental Visits* PIP was to identify and test interventions to improve the preventive dental visit rates for members 21 years of age and younger who were assigned to Family Health Care Centers of Georgia. Although the PIP’s SMART Aim goal was exceeded, the quality improvement processes were not clearly linked to the demonstrated improvement; therefore, the PIP was assigned a level of *Low Confidence*. The details of the PIP’s performance leading to the assigned confidence level are described below.

The CMO’s rationale for selecting Family Health Care Centers of Georgia as the targeted facility for the PIP and the PIP’s initial key driver diagram illustrating the content theory behind the PIP were described in Module 1. The CMO documented the SMART Aim measure definition and data collection methodology in Module 2. Table 2-1 below provides a summary of the SMART Aim measure results reported by the CMO and the level of confidence HSAG assigned to the PIP. The table presents the baseline rate and goal rate for the SMART Aim measure, as well as the highest rate achieved for the SMART Aim measure.

**Table 2-1—SMART Aim Measure Results
for Annual Dental Visits**

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Highest Rate Achieved	Confidence Level
The monthly percentage of members, 0 to 21 years of age, who were assigned to Family Health Care Centers of Georgia and completed a preventive dental visit.	41.7%	45.9%	64.7%	<i>Low Confidence</i>

HSAG validated Amerigroup’s *Annual Dental Visits* PIP SMART Aim measure rates based on the rates the CMO plotted on the SMART Aim run chart in Modules 4 and 5. It should be noted that the CMO had discrepancies in the SMART Aim measure baseline and goal rates reported in Modules 4 and 5. The CMO established a goal of improving the preventive dental visit rate for members 21 years of age and younger assigned to Family Health Care Centers of Georgia by 4.2 percentage points (10 percent) from 41.7 percent to 45.9 percent. On the final SMART Aim measure run chart, the CMO plotted the baseline and goal rates as 47.0 percent and 57.0 percent, respectively. Because the highest SMART Aim rate achieved (64.7 percent) exceeded both goal rates, HSAG determined the SMART Aim goal was achieved. The details of the improvement processes used and the intervention tested for the *Annual Dental Visits* PIP are presented in Table 2-2 and in the narrative description below.

**Table 2-2—Intervention Testing
for Annual Dental Visits**

Intervention	Key Drivers Addressed	Failure Mode Addressed	Conclusions
Dental clinic events with scheduling assistance	<ul style="list-style-type: none"> • Identification of children who need a preventive dental visit • Appointment follow-up/coordination of care • Provider education and awareness • Member education and awareness 	Parents do not schedule dental appointments for their children during school and work hours	The CMO chose to adopt the intervention and pursue expansion.

The purpose of the dental events intervention was to partner with the targeted provider to offer a convenient time and place for members due for preventive dental services to complete those services. The CMO identified eligible members assigned to Family Health Care Centers of Georgia who were due or past due for a preventive dental visit and reached out to those members and their parents/caregivers to schedule an appointment during the dental clinic event. The CMO followed up with members 24 hours prior to the scheduled appointment to remind and encourage members to attend.

Although Amerigroup designed an evaluation plan to test the intervention with an intervention-specific measure of effectiveness (the percentage of members who received the intervention that also received preventive dental services at a dental event), the CMO did not report the results of this metric for Module 4. Instead, the CMO plotted and analyzed the SMART Aim measure results for Module 4 and did not report how many eligible members assigned to the targeted provider actually received the intervention; therefore, the specific impact of the intervention could not be determined. The CMO chose to adopt the intervention and was exploring the possibility of expanding it to an additional provider. Amerigroup did not provide a strong rationale for adopting and expanding the intervention because the Module 4 run chart for the intervention was not appropriate and did not meaningfully measure the impact of the intervention.

The CMO documented the following lessons learned at the conclusion of the *Annual Dental Visits* PIP:

- The timing of the dental events is an important factor to the success of the intervention as event attendance is higher when events do not conflict with school and work hours.
- The dental event “no show” rate was higher among members who lived more than 10 miles away from the provider location.

HSAG recommends that Amerigroup more carefully plan and design the PDSA cycles used to evaluate intervention effectiveness for future improvement projects. Because the planning step of the PDSA process, especially the identification and definition of appropriate measures of intervention effectiveness, is so crucial, the CMO should seek review and technical assistance from HSAG during the planning stage. The PDSA process should include the collection of both process and outcome measures that will allow Amerigroup to determine the specific impact of the intervention on the observed outcomes. Without sufficient planning and sound execution of the PDSA process, the CMO will not be able to obtain the information necessary to evaluate and refine interventions to achieve the desired improvement.

In addition to careful planning of PDSA cycles, Amerigroup must ensure the accurate and consistent documentation of the SMART Aim measure statement, baseline rate, and goal rates throughout the PIP modules. The baseline and goal rates plotted on the SMART Aim run chart must align with the baseline and goal rates established in the PIP’s SMART Aim statement. If the CMO revises the SMART Aim statement midway through the life of the PIP, supporting documentation and an explanation must be added to all relevant PIP modules.

Appropriate Use of ADHD Medications

Amerigroup’s goal for the *Appropriate Use of ADHD Medications* PIP was to identify and test interventions to improve the 30-day follow-up appointment compliance rate among members 6–12 years of age who received an initial ADHD medication prescription from a provider in the Medical Specialists provider group. Although the SMART Aim goal was achieved, the improvement could not be clearly linked to the documented quality improvement processes; therefore, the PIP was assigned a level of *Low Confidence*. The details of the PIP’s performance leading to the assigned confidence level are described below.

The CMO’s rationale for selecting Medical Specialists as the targeted facility for the PIP and the PIP’s initial key driver diagram illustrating the content theory behind the PIP were documented in Module 1. The CMO reported the SMART Aim measure definition and data collection methodology in Module 2. Table 2-3 below provides a summary of the SMART Aim measure results reported by the CMO and the level of confidence HSAG assigned to the PIP. The table presents the baseline rate and goal for the SMART Aim measure, as well as the highest rate achieved for the SMART Aim measure.

Table 2-3—SMART Aim Measure Results for Appropriate Use of ADHD Medications

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Highest Rate Achieved	Confidence Level
The monthly percentage of members, 6 to 12 years of age, who receive an initial ADHD medication prescription and return within 30 days for a follow-up visit at Medical Specialists.	23.7%	28.7%	60.0%	<i>Low Confidence</i>

The CMO established a goal of improving the ADHD medication follow-up visit rate at Medical Specialists by five percentage points, from 23.7 percent to 28.7 percent. Six of the PIP’s monthly SMART Aim measurements met or exceeded the goal rate of 28.7 percent. The details of the improvement processes used and the interventions tested are presented in Table 2-4 and in the subsequent narrative description.

Table 2-4—Intervention Testing for Appropriate Use of ADHD Medications

Intervention	Key Driver Addressed	Failure Mode Addressed	Conclusions
Clinical practice consultant	<ul style="list-style-type: none"> Appointment follow-up/Coordination of Care Provider Education/Awareness 	<ul style="list-style-type: none"> Lack of Provider office procedure for scheduling ADHD follow-up appointments within 30 days of initiating ADHD medication Coordination issues between practitioners and schedulers 	The CMO chose to abandon the intervention because improvement was not sustained and the intervention was too resource-intensive.
Member outreach and incentive	Member Education/Awareness	Parent does not understand need for ADHD follow-up evaluation within 30 days of starting medication	The CMO chose to expand the intervention to a new provider based on the SMART Aim measure results.

Amerigroup used a process map and FMEA to identify and select interventions to test for the PIP. Based on the process map and FMEA results, the CMO identified two interventions: the provider-focused clinical practice consultant intervention and the member-focused outreach and incentive intervention.

The purpose of the clinical practice consultant intervention was to train staff at the targeted provider's practice on the importance of the 30-day follow-up visit and to assist in developing strategies for facilitating member compliance with a timely follow-up visit. The CMO described a methodologically sound data collection process and data sources used for monthly measurements of intervention effectiveness. Because the clinical practice consultant intervention was provider-based and the SMART Aim measure was based on data from one targeted provider who received the intervention, it was appropriate for the CMO to use the SMART Aim measure to evaluate the effectiveness of the intervention. The SMART Aim measure run chart indicated that the clinical practice consultant intervention was initially successful at improving the follow-up visit rate among members assigned to the targeted provider; however, the improvement was not sustained and performance declined toward the end of the PIP. The CMO reported that it chose to abandon the intervention for three reasons:

- There was a downward trend (decline) on the run chart for the final three months the intervention was tested.
- The CMO identified two additional barriers, appointment "no-shows" and the provider prioritizing walk-in appointments over scheduled follow-up appoints, as issues that could not be addressed by the intervention.
- The targeted provider could not sustain the resources needed for the intervention partnership because the provider's resources were directed toward electronic medical record (EMR) implementation.

The purpose of the member outreach and incentive intervention was to educate members and their parents/caregivers on the importance of attending a follow-up visit with the targeted provider within 30 days of initiating ADHD medication. The incentive was offered to increase member motivation to schedule and attend the follow-up appointment. The CMO's use of the SMART Aim measure to evaluate the effectiveness of the intervention was not appropriate because the SMART Aim measure included all members assigned to the targeted provider and was not limited to the specific members reached by the intervention. The CMO did not document how many members assigned to the targeted provider were reached by the intervention; unless 100 percent of eligible members received the member outreach and incentive offer, the SMART Aim measure could not meaningfully evaluate the impact of the intervention. Because the CMO used an inappropriate measure to evaluate the effectiveness of the intervention, the run chart results did not provide a meaningful metric to evaluate the success of the intervention. The CMO, therefore, did not provide a sound rationale for the decision to expand the intervention to a new provider.

The CMO documented the following lessons learned at the conclusion of the *Appropriate Use of ADHD Medications* PIP:

- It is critical to thoroughly assess the targeted provider's readiness to engage in the selected intervention prior to initiating intervention testing.
- Two to three contingency plans should be created for each failure mode to ensure that a second and/or third potential intervention is prepared in the event that the CMO determines the initially selected intervention is unsuccessful and should be abandoned.

For future improvement efforts, HSAG recommends that Amerigroup seek technical assistance when planning the PDSA cycles to test interventions. The measure used for PDSA cycles must include data specific to the intervention to determine effectiveness. Frequently, as was the case with the *Appropriate Use of ADHD Medications* PIP, the SMART Aim measure cannot be used to capture the individual impact of an intervention. The CMO should design the intervention evaluation plan to collect both intervention-specific process data and outcome data for those members who received the intervention.

Avoidable Emergency Room Visits

Amerigroup’s goal for the *Avoidable Emergency Room Visits* PIP was to identify and test interventions to reduce the avoidable ER visit rate for members less than 21 years of age assigned to Nuestros Niños (Our Kids) pediatric primary care practice. Although the SMART Aim goal was achieved, the improvement could not be clearly linked to the documented quality improvement processes; therefore, the PIP was assigned a level of *Low Confidence*. The details of the PIP’s performance leading to the assigned confidence level are described below.

The CMO’s rationale for selecting the Nuestros Niños practice as the targeted facility and the initial key driver diagram illustrating the content theory behind the PIP were documented in Module 1. The CMO reported the SMART Aim measure definition and data collection methodology in Module 2. Table 2-5 below provides a summary of the SMART Aim measure results reported by the CMO and the level of confidence HSAG assigned to the PIP. The table presents the baseline rate and goal rate for the SMART Aim measure, as well as the highest rate achieved for the SMART Aim measure.

Table 2-5—SMART Aim Measure Results for Avoidable Emergency Room Visits

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Lowest Rate Achieved*	Confidence Level
The monthly avoidable ER rate for members less than 21 years of age assigned to Nuestros Niños (Our Kids) pediatric primary care practice	21.0%	16.0%	9.0%	<i>Low Confidence</i>

* The Lowest Rate Achieved is reported for the *Avoidable Emergency Room Visits* SMART Aim measure because the measure is an inverse indicator, where a lower rate is better.

The CMO established a goal of reducing the avoidable ER rate for members assigned to the Nuestros Niños practice by 5 percentage points, from 21.0 percent to 16.0 percent. The SMART Aim measure run chart included five monthly data points from July, September, October, November, and December, when the avoidable ER visit rate for members assigned to the targeted primary care provider (PCP) was lower (better) than the goal of 16.0 percent. The details of the improvement processes used and the intervention tested for the *Avoidable Emergency Room Visits* PIP are presented in Table 2-6 and in the narrative description below.

**Table 2-6—Intervention Testing
for Avoidable Emergency Room Visits**

Intervention	Key Driver Addressed	Failure Mode Addressed	Conclusions
Primary care-based member education about appropriate emergency care utilization and alternative care options	Access to alternate care levels/walk-in appointments	Parent/member not aware that they can go to Urgent Care facilities	The CMO did not provide a sound rationale for the decision to expand the intervention.

Amerigroup used a process map and FMEA to identify and select interventions to test. Based on the process map and FMEA results, the CMO identified one intervention for the PIP: primary care-based member education about alternative care options and how to appropriately use after-hours, urgent care, and emergency room services.

Amerigroup used the SMART Aim measure (the percentage of avoidable ER visits for members assigned to the targeted primary care provider) to evaluate the intervention’s effectiveness; however, the SMART Aim measure was not specific to those members who received the intervention. To evaluate the impact of the intervention, the CMO should have tracked those members who received the intervention to determine how many sought care at the urgent care facility and how many visited the ER for an avoidable diagnosis. Amerigroup did not use a metric that allowed the CMO to determine the specific impact of the intervention on the SMART Aim measure. In addition to using an inappropriate measure to evaluate intervention effectiveness, the CMO reported several potential, confounding factors that may have contributed to some of the low avoidable ER visit rates plotted on the SMART Aim run chart. Specifically, the CMO reported that the summer school break may have resulted in the low rate in July and unseasonably warm weather from October through December may have contributed to the avoidable ER visit rate being zero during these three months. Given the lack of intervention-specific evaluation results and the CMO’s reported confounding factors, it is not possible to draw an accurate conclusion of the impact of the intervention on the SMART Aim measure.

The SMART Aim measure demonstrated an improvement in the avoidable ER rate by performing better than the goal rate (16 percent) for five of the monthly measurements. The CMO concluded that the intervention was successful, chose to adopt the intervention, and described a plan for expanding it to additional providers. The CMO did not, however, provide a strong rationale for adopting and expanding the intervention because the Module 4 findings did not include intervention-specific results and could not meaningfully establish the impact of the intervention.

Amerigroup documented the following lessons learned at the conclusion of the *Avoidable Emergency Room Visits* PIP:

- The timing of the intervention, with respect to the seasonal patterns in avoidable ER visits, was important for the success of the project. Because the intervention was initiated in the summer, members who received education could apply the knowledge in the fall and winter, when avoidable ER use is typically higher.

- Improving member knowledge by providing education empowers members to make informed healthcare decisions, effectively manage conditions, and seek appropriate care.

While the CMO may have learned some lessons through the intervention testing, the lack of an appropriate measure to evaluate intervention effectiveness inhibited the CMO’s ability to determine the true impact of the intervention on improving the avoidable ER rate. HSAG recommends that future improvement efforts incorporate identification of the data sources and measures necessary to evaluate each intervention’s impact. A more thoughtful and thorough approach to the planning stage of the PDSA process will yield greater progress toward the desired improvement of future projects.

Bright Futures

Amerigroup’s goal for the *Bright Futures* PIP was to identify and test interventions to improve the rate of members assigned to the Southeastern Permanente (Kaiser) practice who received six or more well-child visits on or before 15 months of age. Although the SMART Aim goal was achieved, the improvement could not be clearly linked to the documented quality improvement processes; therefore, the PIP was assigned a level of *Low Confidence*. The details of the PIP’s performance leading to the assigned confidence level are described below.

The CMO’s rationale for selecting Southeastern Permanente (Kaiser) as the targeted facility and the initial key driver diagram illustrating the content theory behind the PIP were documented in Module 1. The CMO reported the SMART Aim measure definition and data collection methodology in Module 2. Table 2-7 provides a summary of the SMART Aim measure results reported by the CMO and the level of confidence HSAG assigned to the PIP. The table presents the baseline rate and goal rate for the SMART Aim measure, as well as the highest rate achieved for the SMART Aim measure.

**Table 2-7—SMART Aim Measure Results
for *Bright Futures***

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Highest Rate Achieved	Confidence Level
The monthly percentage of members assigned to Southeastern Permanente (Kaiser) who complete their sixth well child visit on or before 15 months of age	59.6%	69.6%	88.9%	<i>Low Confidence</i>

The CMO established a goal of improving the well-child visit rate for members 0–15 months of age at Southeastern Permanente (Kaiser) by 10 percentage points, from 59.6 percent to 69.6 percent. The PIP’s SMART Aim measurements met or exceeded the goal rate of 69.6 percent for eight consecutive months during intervention testing. The details of the improvement processes used and the intervention tested are presented in Table 2-8 and in the subsequent narrative description.

**Table 2-8—Intervention Testing
for *Bright Futures***

Intervention	Key Driver Addressed	Failure Mode Addressed	Conclusions
Member Outreach Coordinator	Member engagement and encouragement to schedule well-baby visits	Coordination and consistency of scheduling the next routine well-baby visit prior to leaving the office	The provider concluded the intervention was effective based on the SMART Aim measure results, and planned to share the PIP results with other high-volume, low-performing providers.

Amerigroup used a process map and FMEA to identify and select interventions to test for the PIP. Based on the process map and FMEA results, the CMO identified one intervention for the PIP: initiation of a Member Outreach Coordinator position at the targeted provider office. The CMO partnered with Southeastern Permanente to test the Member Outreach Coordinator position, to facilitate member engagement and proactive well-visit appointment scheduling and improve the rate of members assigned to the targeted provider who have six or more well visits by 15 months of age.

The member outreach coordinator directed the following four primary activities: (1) asking members to schedule their next well-baby visit prior to leaving the office for the current well visit; (2) working with the CMO to identify members by birthdate, and the anchor date for receiving at least six well visits by 15 months of age, for appointment scheduling outreach; (3) making reminder phone calls to eligible members 24–48 hours prior to scheduled appointments; and, (4) working with the CMO to reach out to members who were past due for a well-visit appointment or who missed an appointment.

Amerigroup’s intervention evaluation plan was not sufficient to determine the impact of the individual components of the complex member outreach coordinator intervention. The data sources and data collection processes documented for the evaluation plan did not demonstrate how all of the intervention components would be evaluated for impact on the SMART Aim measure. Because of the complexity of the intervention, the CMO needed to clearly document how each component would be tracked to determine its contribution to any demonstrated improvement in the SMART Aim measure. For example, the following questions illustrate gaps in the CMO’s documentation:

- How did the provider track which members were asked to schedule the next visit and how many members successfully scheduled a visit prior to leaving the office?
- For reminder calls prior to scheduled appointments, how did the provider track whether the member was successfully reached and whether the member completed the well visit?
- For the outreach to members who were past due for an appointment or missed an appointment, how did the CMO track whether the member was successfully reached and whether the member subsequently completed six or more visits by the anchor date?

Based on the SMART Aim measure results, Amerigroup concluded that the intervention was effective at improving the well-visit rate for members 0–15 months of age and planned to share the PIP results with

other high-volume, low-performing providers. HSAG determined that Amerigroup did not provide a sound rationale for the CMO's conclusions about intervention effectiveness. As described previously, the SMART Aim measure was not an appropriate measure for evaluating the complex member outreach coordinator intervention. Amerigroup's summary of findings did not include a discussion of any process measures related to how many members were reached for each of the four components of the intervention (scheduling prior to leaving the office; outreach calls for scheduling, reminder calls, or follow-up for past due/missed well visits). Additionally, the CMO did not discuss the issue of exceeding the SMART Aim goal for the first three months of the year, prior to initiation of the intervention. This result suggests that meaningful improvement occurred prior to the intervention and therefore could not be attributed to the intervention.

The CMO documented the following lessons learned as a result of the *Bright Futures* PIP:

- The decrease in the SMART Aim measure for the month of December suggested that future improvement efforts should strive to encourage members to schedule their sixth well-child visit prior to this month to avoid holiday-related scheduling conflicts.
- The success of the member outreach coordinator intervention relied on collaborative efforts by the CMO and the targeted provider to reconcile data on members who were eligible and due for well-child visits. A dedicated staff member from the targeted provider was crucial to the identification of and outreach to eligible members.

Based on the validation findings for the *Bright Futures* PIP, HSAG recommends that Amerigroup closely examine both the *Plan* and *Study* steps of the PDSA process as they are applied in the rapid-cycle PIP methodology. During the Plan step, the CMO must ensure that the evaluation plan is designed to measure the individual impact of each component of a complex intervention, such as the member outreach coordinator position. The data sources and measures needed to evaluate the impact of each component of the intervention should be identified and defined prior to initiating the intervention. For the Study step of the PDSA process, Amerigroup should consider factors such as timing of intervention initiation and any external changes beyond the CMO's control that may have impacted the process related to the desired improvement. Intervention timing and external changes should be considered when interpreting the SMART Aim measure results and any demonstrated improvement.

Comprehensive Diabetes Care

Amerigroup's goal for the *Comprehensive Diabetes Care* PIP was to identify and test interventions to improve the timely medication refill rate among diabetic members assigned to Absolute Care. The PIP's SMART Aim goal was achieved; however, some but not all of the quality improvement processes could be linked to the improvement; therefore, the PIP was assigned a level of *Confidence*. The details of the PIP's performance leading to the assigned confidence level are described below.

The CMO's rationale for selecting Absolute Care as the targeted facility and the initial key driver diagram illustrating the content theory behind the PIP were documented in Module 1. The CMO reported the SMART Aim measure definition and data collection methodology in Module 2. Table 2-9 provides a summary of the SMART Aim measure results reported by the CMO and the level of

confidence HSAG assigned to the PIP. The table presents the baseline rate and goal rate for the SMART Aim measure, as well as the highest rate achieved for the SMART Aim measure.

Table 2-9—SMART Aim Measure Results for Comprehensive Diabetes Care

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Highest Rate Achieved	Confidence Level
The monthly percentage of diabetic medications for members assigned to Absolute Care that were refilled on time	28.0%	40.0%	55.0%	<i>Confidence</i>

The CMO established a goal of improving the timely diabetic medication refill rate for members assigned to Absolute Care by 12 percentage points, from 28.0 percent to 40.0 percent. Three of the monthly SMART Aim measurements exceeded the goal of a timely diabetic medication refill rate of 40 percent. The details of the improvement processes used and the intervention tested are presented in Table 2-10 and subsequent narrative description.

Table 2-10—Intervention Testing for Comprehensive Diabetes Care

Intervention	Key Driver Addressed	Failure Mode Addressed	Conclusions
Clinical practice consultant partnership with Absolute Care	<ul style="list-style-type: none"> Provider processes Patient engagement and education Member compliance with medication 	<ul style="list-style-type: none"> No timely communication with practitioner office to request refill before the member runs out of medication Member did not request refill at pharmacy to allow time to obtain prior to running out of medication Member did not schedule or keep follow-up office visit for medication evaluation 	The CMO provided a sound rationale for abandoning the intervention based on the intervention evaluation results.

Amerigroup used a process map and FMEA to identify and select interventions to test for the PIP. Based on the process map and FMEA results, the CMO identified one intervention for the PIP: a clinical practice consultant (CPC) partnership with the targeted practice to provide member follow-up for missed appointments and reminders of when diabetic medications were due to be refilled. For the intervention, the Amerigroup CPC identified diabetic members assigned to the targeted primary care provider and

worked with the provider and the on-site pharmacy to follow up with members who missed appointments, remind members prior to the scheduled medication refill date, and educate members about the provider's on-site pharmacy and medication delivery options.

The CMO clearly described a methodologically sound data collection process and data sources to track the monthly SMART Aim measure (the monthly percentage of diabetic medication refills for members assigned to the targeted PCP that were refilled with “no gap in fill”). The CMO partnered with the targeted PCP to complete a manual tracking tool and use real-time pharmacy data to determine the rate of timely medication refills. The CMO also tracked the percentage of medications that were filled with only a one- or two-day gap in fill. Additionally, the CMO tracked and analyzed HbA1c levels of diabetic members assigned to the targeted PCP.

During the testing of the CPC intervention, the rate of timely diabetic medication refills for the targeted group exceeded the goal rate of 40 percent for three monthly measurements, but the rate fluctuated throughout the PIP, with three subsequent monthly measurements falling below the baseline rate. Based on the SMART Aim measure results, the CMO provided a sound rationale for abandoning the intervention. The CMO reported the following lessons learned as a result of the PIP:

- The targeted provider's on-site pharmacy, which was assumed to be an asset at the start of the PIP, proved to be a barrier because of the restrictive pharmacy delivery process.
- Attending follow-up visits, while not required for timely refills, helped to keep the member engaged and provided easy access for medication refill requests.
- Having open communication between the member and provider office influenced timely medication refills.
- Future improvement efforts should continue to focus on medication adherence as it is important for managing complications and improving HbA1c levels; however, it may be more feasible to promote timely medication refills with an allowable gap of 3–5 days while maintaining the clinical benefits of the medication.
- The CMO should prepare two to three contingency plans for intervention protocols during the intervention planning stage to allow for potential barriers to intervention deployment to be addressed (e.g., preparing for the possibility of staff absences or turnover in the partner provider office).

Based on the validation findings for the *Comprehensive Diabetes Care* PIP, HSAG recommends that Amerigroup review the processes used in Module 3 for the FMEA and identification of potential interventions. The CMO should ensure that the FMEA process includes the appropriate team members and uses the appropriate data sources, to ensure that the FMEA results in more accurately identified and prioritized failures, barriers, and root causes. By more effectively carrying out the FMEA process, Amerigroup will be more likely to select appropriate and impactful interventions for testing.

Member Satisfaction

Amerigroup’s goal for the *Member Satisfaction* PIP was to identify and test interventions to improve member satisfaction with the CMO by reducing the need for members to request a new PCP assignment through improved provider information accuracy. The CMO accurately summarized the overall key findings, linking the quality improvement processes to improvement in the SMART Aim measure, but inconsistently documented the number of SMART Aim measurements in the PIP; therefore, the PIP was assigned a level of *Confidence*. A description of the PIP’s performance leading to the assigned confidence level is provided below.

The CMO’s rationale for focusing on improving the PCP change request call rate and the initial key driver diagram illustrating the content theory for the PIP were documented in Module 1. The CMO reported the SMART Aim measure definition and data collection methodology in Module 2. Table 2-11 provides a summary of the SMART Aim measure results reported by the CMO and the level of confidence HSAG assigned to the PIP. The table presents the baseline rate and goal rate for the SMART Aim measure, as well as the highest rate achieved for the SMART Aim measure.

**Table 2-11—SMART Aim Measure Results
for *Member Satisfaction***

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Lowest Rate Achieved*	Confidence Level
The monthly PCP change request call rate	191/1,000 member months	181/1,000 member months	131/1,000 member months	<i>Confidence</i>

* The Lowest Rate Achieved is reported for the *Member Satisfaction* PIP’s SMART Aim measure because the measure is an inverse indicator, where a lower rate is better.

The CMO’s SMART Aim statement established a goal of reducing the PCP change request call rate from 191/1,000 member months to 181/1,000 member months. The SMART Aim goal was achieved for six consecutive monthly SMART Aim measurements. A total of eight monthly measurements during the PIP indicated better performance (had rates lower) than the goal of 181 PCP change request calls per 1,000 member months. The details of the improvement processes used and the intervention tested are presented in Table 2-12 and in the subsequent narrative description.

**Table 2-12—Intervention Testing
for Member Satisfaction**

Intervention	Key Driver Addressed	Failure Mode Addressed	Conclusions
Timely updates and corrections to the provider network database	<ul style="list-style-type: none"> • Identification of high-volume PCPs requested for change to a new PCP. • Provider Data/Information 	<ul style="list-style-type: none"> • Provider does not notify health plan of demographic changes (address/phone/move). • Provider data are correct; however, status is not correct (age range, panel closed but designated open, or open designated closed). 	The CMO chose to adopt the intervention based on the intervention evaluation results.

Amerigroup used a process map and FMEA to identify and select interventions to test. Based on the process map and FMEA results, the CMO identified one intervention for the PIP: timely updates to the provider network database with corrected provider information to reduce the member’s need to request a PCP change. The intervention entailed timely provider outreach to identify and update provider network participation and demographic information. The CMO’s goal was to reduce PCP change requests and delays in care resulting from PCP assignments based on out-of-date provider information. The CMO completed the following steps to test the intervention:

- Generated a monthly report of PCP change request calls to the CMO’s National Contact Center.
- Identified PCPs on the change request report with more than 10 change requests.
- Reached out to the identified providers to determine any network participation or demographic changes.
- Updated the provider database to reflect updated provider network participation and demographic information.

The CMO used a methodologically sound data collection process and data sources to evaluate the intervention. Specifically, the CMO used a monthly report generated from the call center database that identified calls for PCP change requests. The CMO tracked the monthly rate of PCP change request calls per 1,000 member months to account for month-to-month shifts in membership volume.

Amerigroup reported that the monthly call rate for PCP change requests was better than the goal rate of 181 calls per 1,000 member months for eight of the months the intervention was tested. There was a spike in the change request call rate in August and September, but the CMO noted several factors (staffing changes, competing projects, etc.) unrelated to the intervention that likely caused the increase. The CMO concluded that the intervention enabled a rapid recovery in the change request call rate, with the rate nearly reaching the goal in October and exceeding the goal in November and December.

The CMO chose to adopt the intervention based on the analysis of findings and reported the following lessons learned as a result of the PIP:

- Timely tracking of performance allowed the CMO to identify trends and respond.
- Staffing level and staff turnover can impact the success of the PIP.
- A thorough review of costs and staff required to sustain and/or expand the PIP’s interventions should be conducted at the initiation of the PIP to ensure realistic consideration for sustainability beyond the life of the PIP.

While Amerigroup’s *Member Satisfaction* PIP achieved the SMART Aim goal and the quality improvement processes were linked to the demonstrated improvement, minor inaccuracies in the CMO’s reporting of overall PIP results in the Module 5 Submission Form resulted in HSAG assigning the PIP a level of *Confidence*. While Amerigroup’s summary of key findings and interpretation of overall results were accurate, the CMO did not accurately document the number of SMART Aim measurements that were collected for the PIP. The SMART Aim run chart submitted in Modules 4 and 5 includes 11 monthly measurements (February–December); however, the Module 4 narrative describes “8 of the 12 months” and the Module 5 narrative documents “9 of the 12 months.” HSAG recommends that the CMO ensure a thorough review of all PIP documentation to ensure that all results accurately and consistently reflect the number of measurements for the PIP. The CMO should ensure that all modules of the PIP process undergo a quality assurance check so that PIP details, such as the total number of SMART Aim measurements, are accurately and consistently documented throughout all five modules.

Postpartum Care

Amerigroup’s goal for the *Postpartum Care* PIP was to identify and test interventions to improve the postpartum visit rate among members who delivered a live birth with an Eagle’s Landing Obstetrics/Gynecology (OB/GYN) Associates provider. The PIP’s SMART Aim goal was achieved; however, some but not all of the quality improvement processes could be linked to the demonstrated improvement. As a result, the PIP was assigned a level of *Confidence*. A description of the PIP’s performance leading to the assigned confidence level is provided below.

The CMO’s rationale for selecting Eagle’s Landing OB/GYN Associates as the targeted facility and the initial key driver diagram illustrating the content theory for the PIP were provided in Module 1. The CMO reported the SMART Aim measure definition and data collection methodology in Module 2. Table 2-13 provides a summary of the SMART Aim measure results reported by the CMO and the level of confidence HSAG assigned to the PIP. The table presents the baseline rate and goal rate for the SMART Aim measure, as well as the highest rate achieved for the SMART Aim measure.

**Table 2-13—SMART Aim Measure Results
for Postpartum Care**

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Highest Rate Achieved	Confidence Level
The monthly percentage of members who completed a postpartum visit with an Eagle’s Landing OB/GYN Associates provider 21–56 days after delivering a live birth	67.0%	72.0%	81.0%	<i>Confidence</i>

The CMO established a goal of improving the percentage of women who completed a postpartum visit with an Eagle’s Landing provider within 21–56 days post-delivery by 5 percentage points, from 67.0 percent to 72.0 percent. Three of the monthly SMART Aim measurements exceeded the goal of 72 percent. The details of the improvement processes used and the intervention tested are presented in Table 2-14 and in the subsequent narrative description.

**Table 2-14—Intervention Testing
for Postpartum Care**

Intervention	Key Driver Addressed	Failure Mode Addressed	Conclusions
Scheduler incentive program for Eagle’s Landing OB/GYN Associates	Provider/scheduler engagement	No appointment being scheduled	The CMO chose to abandon the intervention because testing revealed that it was too resource-intensive to sustain or expand.

Amerigroup used a process map and FMEA to identify and select interventions to test. Based on the process map and FMEA results, the CMO identified one intervention for the PIP: a scheduler incentive program for the targeted obstetrics practice. The incentive program offered a monthly reward of \$50 for every 5 percentage points that the targeted provider’s monthly postpartum visit rate exceeded the goal rate. A total of \$450 was paid out to the targeted provider during the six months of intervention testing.

To evaluate the intervention, the CMO tracked the monthly percentage of eligible members who completed a postpartum visit within 21–56 days after delivering a live birth with one of the targeted practice providers. The CMO appropriately used the SMART Aim measure to evaluate intervention effectiveness because the scheduler incentive was tested at the practice level and all members delivering to a practice provider would have been impacted by the incentive. To test the intervention, the CMO worked collaboratively with the targeted provider to identify members who had delivered a live birth with one of the targeted practice providers each month, using both internal practice records and claims data. The CMO gave the provider a manual tracking tool that included the eligible members in need of a postpartum visit. Both medical records and claims were used to identify postpartum visits that occurred, to complete the manual tracking tool.

Amerigroup reported that the rate of postpartum visits within 21–56 days among members who delivered with an Eagle’s Landing provider fluctuated during the six months of testing, from January through June. Three of the six monthly measurements exceeded the SMART Aim goal of 72.0 percent. Although the SMART Aim goal was exceeded for three monthly measurements, the CMO determined that the intervention process was too resource-intensive for both the CMO and the targeted provider. The process, which required manual tracking by the targeted provider and a hybrid data collection process—reviewing both claims and medical records—was not sustainable. Amerigroup reported the following lessons learned as a result of the PIP:

- Additional data points beyond June 2015 were needed to determine if the improvement in the SMART Aim measure was sustained.
- The hybrid data collection process, using both medical claims and medical record review to evaluate intervention effectiveness, was too resource-intensive for both the CMO and the collaborating provider. The process was not sustainable.

Given the results of the *Postpartum Care* PIP, HSAG recommends that Amerigroup ensure that the resources needed to carry out an intervention are thoroughly researched and identified prior to selecting the intervention for testing. The CMO should thoughtfully consider the reliability and sustainability of the intervention prior to selecting it for a PIP. No matter how successful an intervention is in a small-scale test, the testing results cannot be translated into long-term and widespread improvement if the intervention is too resource-intensive to support long-term sustainability.

Provider Satisfaction

Amerigroup’s goal for the *Provider Satisfaction* PIP was to identify and test interventions to reduce the percentage of providers who were terminated from the provider network for failure to complete the CMO’s provider recredentialing process. Although the SMART Aim goal was achieved, the CMO’s quality improvement processes could not be clearly linked to the demonstrated improvement; therefore, the PIP was assigned a level of *Low Confidence*. The details of the PIP’s performance leading to the assigned confidence level are described below.

The CMO’s rationale for selecting the provider recredentialing process as an area for improvement and the PIP’s initial key driver diagram illustrating the content theory behind the PIP were documented in Module 1. The CMO reported the SMART Aim measure definition and data collection methodology in Module 2. Table 2-15 below provides a summary of the SMART Aim measure results reported by the CMO and the level of confidence HSAG assigned to the PIP. The table presents the baseline rate and goal rate for the SMART Aim measure, as well as the lowest rate achieved (lower is better) for the SMART Aim measure.

**Table 2-15—SMART Aim Measure Results
for Provider Satisfaction**

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Lowest Rate Achieved*	Confidence Level
The monthly percentage of providers who were terminated from the Amerigroup provider network because of failure to complete the recredentialing process	32.0%	28.8%	6.0%	<i>Low Confidence</i>

* The Lowest Rate Achieved is reported for the *Provider Satisfaction* SMART Aim measure because the measure is an inverse indicator, where a lower rate is better.

The CMO established a goal of reducing the percentage of providers terminated from the network because of recredentialing issues by 3.2 percentage points (10 percent), from 32.0 percent to 28.8 percent. The SMART Aim measure (an inverse measure, where lower is better) indicated better performance than the goal rate of 28.8 percent for 10 of the PIP’s monthly measurements. The details of the improvement processes used and the intervention tested for the *Provider Satisfaction* PIP are presented in Table 2-16 and in the narrative description below.

**Table 2-16—Intervention Testing
for Provider Satisfaction**

Intervention	Key Driver Addressed	Failure Mode Addressed	Conclusions
Provider outreach	Provider Awareness	Provider does not receive termination letter	The CMO based its decision to adopt the intervention on the analysis of findings and conclusions, which indicated that the intervention was successful at positively impacting the SMART Aim measure.

Amerigroup used a process map and FMEA to identify and select interventions to test. Based on the process map and FMEA results, the CMO identified one intervention for the PIP: outreach to providers who were due for recertification. The outreach included information on the recredentialing process and the consequences of not meeting the recredentialing deadline (termination from the provider network). The CMO’s provider relations representatives reached out to identified providers by phone and email to ensure that the providers were aware of the need to complete the recredentialing process and the consequences of failing to do so (termination from the provider network). The outreach also allowed the CMO to determine why the provider had not submitted the recredentialing application.

Based on Amerigroup's PIP documentation, the CMO did not select an appropriate data collection process and data sources to evaluate the effectiveness of the intervention. The CMO reported that the monthly rate of providers terminated for failure to complete the recredentialing process was used to measure effectiveness. While the CMO also tracked the number of providers who were identified for the outreach intervention, the CMO did not report the percentage of providers who received the intervention or whether those who received the intervention successfully completed the recredentialing process. The CMO should have tracked and reported the number of office managers and providers who were reached by phone or email. Without this information, the evaluation data collection process did not link receiving the outreach intervention to the recredentialing outcome; therefore, the CMO could not directly measure the impact of the intervention on the SMART Aim measure.

In addition to the flaws in the intervention evaluation design, HSAG identified gaps in Amerigroup's interpretation of overall SMART Aim measure results. While the CMO accurately summarized the improvement in the annual rate of provider terminations due to recredentialing from 2014 to 2015, the CMO did not discuss the trends in the monthly SMART Aim measurements. Because the SMART Aim measure had better rates than the goal prior to initiation of the intervention, the CMO's interpretation of results should have included consideration of factors other than the intervention that may have impacted the SMART Aim measure.

The CMO based its decision to adopt the intervention on the analysis of findings and conclusions, which indicated that the intervention was successful at positively impacting the SMART Aim measure. The CMO documented the following lessons learned as a result of the PIP:

- Providers generally fail to complete the recredentialing process not because they want to leave the provider network but because of administrative gaps in the recredentialing process (e.g., not receiving the recredentialing letter or not submitting the recredentialing application by the due date).
- Provider recredentialing outreach efforts reduce provider abrasion and prevent provider termination due to recredentialing issues.

Amerigroup did not use an appropriate intervention evaluation design and did not accurately interpret the overall key PIP findings; therefore, the rationale provided for adopting the intervention was not sound. HSAG recommends that Amerigroup seek technical assistance when designing the intervention evaluation plan to ensure that a methodologically sound approach is used. Additionally, the CMO should ensure that its interpretation of key findings and overall PIP results account for the timing of the intervention initiation and consider other factors that may have contributed to any demonstrated improvement, beyond the interventions tested.

3. Conclusions and Recommendations

Conclusions

A summary table of Amerigroup's performance across all eight PIPs, including reported SMART Aim measure rates and the level of confidence HSAG assigned for each PIP, is provided in Appendix A. HSAG assigned the level of *Confidence* for three of Amerigroup's eight PIPs and the level of *Low Confidence* for the remaining five PIPs. HSAG did not assign the level of *High Confidence* for any of Amerigroup's PIPs.

HSAG determined *Confidence* in the results for three PIPs: *Comprehensive Diabetes Care*, *Member Satisfaction*, and *Postpartum Visits*. The level of *Confidence* was assigned to each of these PIPs because the SMART Aim goal was achieved; however, some but not all of the CMO's quality improvement processes could be linked to the demonstrated improvement.

HSAG assigned the level of *Low Confidence* for five of Amerigroup's PIPs: *Annual Dental Visits*, *Appropriate Use of ADHD Medications*, *Avoidable Emergency Room Visits*, *Bright Futures*, and *Provider Satisfaction*. For each of the five PIPs, the SMART Aim goal was achieved; however, the quality improvement processes could not be clearly linked to the demonstrated improvement.

Amerigroup's performance across the eight PIPs suggests that the CMO continues to have opportunities for improvement in executing the rapid-cycle PIP process. Some of the PIPs, such as the *Annual Dental Visits* PIP, had documentation flaws and inconsistencies across the five PIP modules. For other PIPs, such as the *Bright Futures* PIP, the CMO executed complex, multi-component interventions but failed to design appropriate PDSA cycles that could measure and evaluate the impact of the various intervention components. Without accurate documentation and well-designed, well-executed PDSA cycles, the CMO was unable to achieve a *High Confidence* level for any of its PIPs.

Recommendations

HSAG recommends the following for Amerigroup:

- Ensure detailed, accurate, and consistent documentation of the SMART Aim statement, SMART Aim measure definition, and baseline and goal rates to ensure consistency across all modules.
- Institute centralized oversight of the data analysis and results reporting for all PIPs so that all rates are reported accurately and consistently. SMART Aim measure baseline and goal rates, and rate results should be reported to the same number of decimal places for all PIPs. HSAG recommends reporting all PIP rates to one decimal place.
- Revisit and update the key driver diagram and FMEA throughout the improvement process. Each version of the key driver diagram and FMEA should be dated to document when it was last revised.

- As Amerigroup moves through the quality improvement process and conducts additional PDSA cycles, the CMO's PIP team should ensure that it is communicating Amerigroup's theory about changes that will lead to improvement. Without a common understanding of the theory, the CMO's PIP team may be working on changes for various perceived reasons.
- As Amerigroup tests new interventions, the CMO should ensure that it is making a prediction in each *Plan* step of the PDSA cycle and discussing the basis for the prediction. This will help keep everyone involved in the project focused on the theory for improvement.
- Incorporate detailed, process-level data into the intervention evaluation plan to further the CMO's understanding of intervention effects.
- Conduct a series of thoughtful and incremental PDSA cycles to accelerate the rate of improvement.
- When planning to test an intervention with multiple steps or components, consider staggering the initiation of the individual steps or components so that the impact of each step or component can be distinguished. A staggered approach to intervention testing may require shorter data collection intervals so that the multiple intervention components can be introduced and tested within the life of the PIP.
- When planning a test of change, Amerigroup should think proactively (future tests and implementation).
- Determine the best method to identify the intended effect of an intervention prior to testing. The intended effect of the intervention should be known upfront to help determine which data need to be collected.

Appendix A. PIP Performance Summary Table

Table A-1—CY 2015 PIP Performance Summary

PIP Title	SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Highest Rate Achieved	Confidence Level
<i>Annual Dental Visits</i>	The monthly percentage of members, 0 to 21 years of age, who were assigned to Family Health Care Centers of Georgia and completed a preventive dental visit.	41.7%	45.9%	64.7%	<i>Low Confidence</i>
<i>Appropriate Use of ADHD Medication</i>	The monthly percentage of members, 6 to 12 years of age, who receive an initial ADHD medication prescription and return within 30 days for a follow-up visit at Medical Specialists.	23.7%	28.7%	60.0%	<i>Low Confidence</i>
<i>Avoidable ER Use</i>	The monthly avoidable ER rate for members less than 21 years of age assigned to Nuestros Niños (Our Kids) primary care practice	21.0%	16.0%	9.0% (inverse measure)	<i>Low Confidence</i>
<i>Bright Futures</i>	The monthly percentage of members assigned to Southeastern Permanente (Kaiser) who complete their sixth well-child visit on or before 15 months of age	59.6%	69.6%	88.9%	<i>Low Confidence</i>
<i>Comprehensive Diabetes Care</i>	The monthly percentage of diabetic medications for members assigned to Absolute Care that were refilled on time	28.0%	40.0%	55.0%	<i>Confidence</i>
<i>Member Satisfaction</i>	The monthly PCP change request call rate	191/1,000 member months	181/1,000 member months	131/1,000 member months (inverse measure)	<i>Confidence</i>
<i>Postpartum Visits</i>	The monthly percentage of members who completed a postpartum visit with an Eagle’s Landing OB/GYN Associates provider 21–56 days after delivering a live birth	67.0%	72.0%	81.0%	<i>Confidence</i>
<i>Provider Satisfaction</i>	The monthly percentage of providers who were terminated from the Amerigroup provider network because of failure to complete the recredentialing process	32.0%	28.8%	6.0% (inverse measure)	<i>Low Confidence</i>