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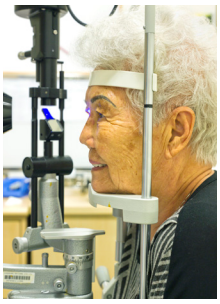



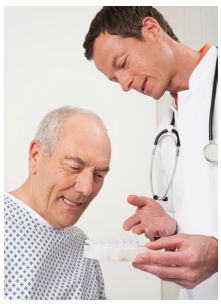

External Quality Review of Indiana's Care Programs: Hoosier Healthwise, Hoosier Care Connect and HIP 2.0 Review Year Calendar 2016

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FINAL REPORT
2017 External Quality Review of Indiana's Health Coverage Programs:
Hoosier Healthwise, Hoosier Care Connect and Healthy Indiana Plan 2.0

ACKNOWLEDGMENTS

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ABBREVIATIONS LIST

Abbreviation	Meaning
AAP	Adult Ambulatory and Preventive Care
ADHD	Attention Deficit Hyperactivity Disorder
ADT	Admission/Discharge/Transfer
AMB	Ambulatory Care
AOD	Alcohol or Other Drug Dependence
APR-DRG	All Payer Refined Diagnostic Related Grouping
B&A	Burns & Associates, Inc.
CCM	Complex Care Management
CDC	Centers for Disease Control
CHIP	Children's Health Insurance Program
CHIRP	The Children and Hoosiers Immunization Registry Program
CMHC	Community Mental Health Center
CMS	Centers for Medicare and Medicaid Services
COPD	Chronic Obstructive Pulmonary Disease
CPT	Current Procedural Terminology
CY	Calendar Year
DME	Durable Medical Equipment
DRG	Diagnosis-Related Group
DXC	DXC Technology (OMPP's fiscal agent)
DUR	Drug Utilization Review
ECHD	East Chicago Health Department
ED	Emergency Department
EDW	Enterprise Data Warehouse
EPA	Environmental Protection Agency
EPSDT	Early Periodic Screening, Diagnosis and Treatment
EQR	External Quality Review
EQRO	External Quality Review Organization
FPL	Federal Poverty Level
FSSA	Family and Social Services Administration
FUH	Follow-Up Visit After Inpatient Hospitalization
HCPCS	Healthcare Common Procedure Coding System
HEDIS	Healthcare Effectiveness Data and Information Set
HCC	Hoosier Care Connect
HHW	Hoosier Healthwise
HIP	Healthy Indiana Plan
HMO	Health Maintenance Organization
HNS	Health Needs Screening
HUD	Housing and Urban Development
ICD-10	International Statistical Classification of Diseases and Related Health Problems 10th Version
IET	Initiation and Engagement of Drug Dependence
IHCP	Indiana Health Coverage Programs

Abbreviation	Meaning
IKE	Improving Kids' Environment
IPPS	Inpatient Prospective Payment System
ISDH	Indiana State Department of Health
IT	Information Technology
IVR	Interactive Voice Response
LSC	Lead Screening in Children
MCE	Managed Care Entity
MCO	Managed Care Organization
MH	Mental Health
MHIN	Michiana Health Information Network
MHS	Managed Health Solutions
MPR	Medication Possession Ratio
MMR	Measles, Mumps, and Rubella
MTM	Medication Therapy Management
MUE	Medically Unlikely Edit
NCQA	National Committee on Quality Assurance
NDC	National Drug Code
NICU	Neonatal Intensive Care Unit
NIP	Network Improvement Program
OMPP	Office of Medicaid Policy and Planning
P4O	Pay For Outcomes
P4P	Pay for Performance
PBM	Pharmacy Benefit Manager
PDC	Percent of Days Covered
PDL	Preferred Drug List
PHI	Protected Health Information
PIPs	Performance Improvement Projects
PMP	Primary Medical Provider
POWER	Personal Wellness and Responsibility Acct
PPE	Potentially Preventable Events
PPR	Potentially Preventable Readmissions
PTP	Procedure to Procedure
QIP	Quality Improvement Project
RCP	Right Choices Program
RFP	Request for Proposals
RID	Medicaid Recipient ID
SAS	Statistical Analysis System
SOI	Severity of Illness
STELLAR	Systematic Tracking of Elevated Lead Levels and Remediation
Ug/dL	Micrograms/Decileter
URI	Upper Respiratory Infections
WIC	Women, Infants and Children

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EXECUTIVE SUMMARY

The Family and Social Services Administration (FSSA) and the Indiana Office of Medicaid Policy and Planning (OMPP) have responsibility for the administration and oversight of Indiana's Medicaid program under two different Section 1115 demonstration waiver authorities. There are three risk-based managed care programs in place and each serves a targeted population—Hoosier Healthwise (HHW), Healthy Indiana Plan (HIP) 2.0, and Hoosier Care Connect (HCC).

The **Hoosier Healthwise (HHW)** program began in 1994 with members having the option to voluntarily enroll with a managed care entity (MCE)[1] in 1996. By 2005, enrollment with an MCE was mandatory for select populations, namely, low income families, pregnant women, and children. Most enrollees in Indiana's Children's Health Insurance Program (CHIP), which covers children in families up to 250 percent of the Federal Poverty Level (FPL)[2], are also enrolled in HHW.

The **Healthy Indiana Plan (HIP)** was first created in January 2008 under a separate Section 1115 waiver authority. This program covered two groups of adults with family income up to 200 percent of the FPL. The first group was uninsured custodial parents and caretaker relatives of children eligible for Medicaid or CHIP who were not otherwise eligible for Medicaid or Medicare. The second group was uninsured noncustodial parents and childless adults ages 19 through 64 who were not otherwise eligible for Medicaid or Medicare.

In January 2015, the State received a new Section 1115 demonstration waiver authority from the Centers for Medicare and Medicaid Services (CMS) to change the design of HIP (the original version now referred to as HIP 1.0) to a non-traditional Medicaid model (the new version called HIP 2.0) that effectively terminated HIP 1.0 on January 31, 2015. The HIP 2.0 model is a health insurance program for uninsured adults under 138 percent of the FPL between the ages of 19 and 64. The **Healthy Indiana Plan (HIP) 2.0** program began February 1, 2015. In addition to the existing HIP 1.0 enrollees, adults from the HHW program (with some exceptions) were transitioned into HIP 2.0. Additionally, individuals in the federal marketplace under 138 percent FPL were allowed to join HIP 2.0 at this time.

The **Hoosier Care Connect (HCC)** program was implemented April 1, 2015. Enabling state legislation in CY 2013 tasked the FSSA with considering a managed care model for the aged, blind and disabled Medicaid enrollees. This new program means that its predecessor program, Care Select, expired June 30, 2015. Whereas HCC is administered by MCEs, the Care Select program was administered by Care Management Organizations who were not at full risk.

In CY 2016, which is the focus of this External Quality Review (EQR), there were three MCEs that contracted with the OMPP to administer services to the HHW, HIP 2.0 and HCC populations. Anthem Insurance Companies, Inc. (Anthem) has been under contract with Indiana Medicaid since 2007. Coordinated Care Corporation, Inc. d/b/a Managed Health Services (MHS) is a subsidiary of the Centene Corporation and has been under contract with Indiana Medicaid since the inception of HHW in 1994. MDwise, Inc. has also been participating in HHW since its inception. MDwise subcontracts the management of services to nine delivery systems.

[1] In Indiana, the term MCE is synonymous with the term managed care organization and will be used as such throughout this report. It refers to those entities that Indiana Medicaid contracts with under a full-risk arrangement. Each MCE is a health maintenance organization (HMO) authorized by the Indiana Department of Insurance.
[2] CHIP children in families up to 150% FPL do not pay a premium. Children in families whose income is between 151% and 250% FPL pay a premium on a sliding scale.

There have been some changes in the program since the CY 2016 review year. Effective January 1, 2017, CareSource became the fourth MCE to contract with the OMPP to deliver services to the HHW and HIP 2.0 populations. Effective March 31, 2017, MDwise withdrew from the HCC program. Its enrolled HCC members were transitioned to Anthem and MHS.

Net enrollment in Indiana Medicaid's program grew by almost 39,000, or 2.8 percent, from the end of CY 2015 to the end of CY 2016, but this is directly due to a 14 percent increase in enrollment in HIP 2.0. Enrollment in HHW and HCC remained relatively steady over the course of CY 2016. At the end of CY 2016, just over 77 percent of all Medicaid members were enrolled in one of the three managed care programs while 23 percent were enrolled in fee-for-service. Among the 1,102,566 enrollees in Indiana's Medicaid managed care programs as of December 31, 2016, 602,772 (54.7%) were enrolled in HHW, 405,264 (36.8%) were enrolled in HIP 2.0, and 94,530 (8.6%) were enrolled in HCC[3].

EQRO Activities in CY 2017

Burns & Associates (B&A) has served as the External Quality Review Organization (EQRO) and has conducted annual EQRs for Indiana Medicaid each year since 2007. For our reviews, we have relied on the protocols defined by CMS. This year was no exception. B&A utilized the protocols released by CMS in September 2012 to serve as the basis for the format of the EQR this year.

B&A has worked with the OMPP on the topics to cover in each annual review. This year, in cooperation with the OMPP, B&A developed focus studies in addition to the mandatory activities. This year's topics include the following:

- Validation of Performance Measures
- Validation of Performance Improvement Projects
- Focus Study on Lead Testing and Related Outreach Efforts
- Focus Study on Medication Adherence
- Focus Study on Potentially Preventable Readmissions
- Focus Study on Claims Processing

Validation of Performance Measures

B&A selected performance measures to validate from among the various reports that the MCEs submit to the OMPP on a regular (usually quarterly) basis. This year's reports selected for validation are reports designed by the OMPP to track the number of HHW, HCC and HIP members identified and engaged in the MCEs' complex case and care management programs. There are four reports submitted each quarter—two for complex case (the highest level) and two for care (the middle level) management. There are also reports required for disease management (the lowest level) which were not in the scope of this review. In all, B&A tabulated and reviewed information from 48 reports from each MCE (4 reports per quarter x 4 quarters = 16 reports x 3 programs = 48 reports).

The format for all four of OMPP's reports is identical. The top part of each report requests information on the unduplicated number of members in case or care management (depending on the report) for physical or behavioral health conditions of interest. The reports differ in the bottom part of the report in which the MCEs are requested to provide information on case or care management measures for members within a specific condition of interest.

[3] Source: Optum, OMPP's data warehouse vendor, provided enrollment data to B&A on May 8, 2017.

After tabulating and identifying some anomalous data on the quarterly submissions, the B&A team met with each MCE individually to discuss their report submissions. After the onsite meeting, B&A requested a report from each MCE that effectively tracked every member enrolled in case or care management in CY 2016 by OMPP program. From this database delivered by each MCE, B&A validated the source data against what was submitted on the self-reported quarterly reports.

Each MCE has different levels of enrollment in OMPP's program and the design of each MCE's case and care management programs differ. To account for this, B&A created performance measures so that results could be analyzed across the MCEs on a comparable basis. Examples of these included average days enrolled in case management, average number of verbal contacts made to each member for every 30 days enrolled in case management, and the percent of members with both physical and behavioral health conditions identified, to name a few.

B&A found significant variation *across* the MCEs on the key measures for case and care management utilization defined for this study. Further, B&A could not validate these key measures *within* an MCE when comparing the member-level detail file submitted by the MCE to B&A as part of this EQR to the results that were reported by the MCE on its quarterly report submissions to the OMPP. The root cause of many of the differences was determined to be duplication of members reported on the OMPP reports in a given quarter or differing interpretations of the terms used in the columns of the OMPP reports. The duplication issue was allowed in the OMPP report instructions but the different interpretations were not allowed or known until this review.

It was recognized through this process that the OMPP report design and terminology used in the reports needed to be amended. Both the OMPP and the MCEs readily concurred with this assessment. The B&A team facilitated a meeting with all MCEs during this EQR to discuss the redesign of the OMPP reports, to provide more clarity around the definitions of terms used in the report, and to provide examples of how specific case management situations should be reported (e.g., terminated participation in case management and later returned). The redesign of these reports is underway and each MCE will have a chance to test completing the newly designed report prior to its official introduction.

Validation of Performance Improvement Projects

The OMPP uses the term "Quality Improvement Project" (QIP) to describe the projects in this review. The QIPs reviewed in this year's EQR included the following:

MCE	QIP Topic	QIP for HHW?	QIP for HCC?	QIP for HIP?
Anthem	Follow up after Hospitalization for a Psychiatric Stay	No	Yes	Yes
Anthem	Adult Access to Preventive Care	No	No	Yes
Anthem	Health Needs Screening	Yes	Yes	Yes
MHS	AOD Dependence	Yes	Yes	No
MHS	Adult Access to Preventive Care	No	No	Yes
MHS	Emergency Department Utilization	Yes	Yes	Yes
MDwise	Follow up after Hospitalization for a Psychiatric Stay	Yes	Yes	Yes
MDwise	Adult Access to Preventive Care	No	Yes	Yes
MDwise	Health Needs Screening	No	No	Yes

Throughout this report, references to "QIPs" means the same thing as "PIPs" in CMS's EQR Protocol 3. The MCEs are required to submit an annual report on each QIP to the OMPP using a pre-defined format. In the CY 2016 EQR when B&A completed this validation exercise, it was found that elements of the QIP report introduced in CY 2015 by the OMPP needed to be amended. The revised version of the QIP template was introduced in a meeting with all MCEs in November 2016. B&A used this latest template to review the annual QIP reports for this year's validation study.

EQR Team members reviewed the QIP Report submissions as part of a desk review first. Then the team members conducted onsite meetings with each MCE to discuss the QIPs under review. This included follow-up questions from our desk review as well as a discussion with the relevant staff who had primary responsibility for the interventions that were put in place for the QIPs that were selected.

Upon our review, B&A makes the following recommendation to the OMPP and to the MCEs:

1. B&A suggests that the OMPP convene the MCEs in a QIP "pre-meeting" prior to the start of CY 2018 where each MCE gives a brief presentation of their QIPs for the year. This meeting serves not only as a learning collaborative but also as a way for the OMPP to gain a better understanding of why the QIPs will be put in place, why specific interventions are being proposed, and specific methods that will be used to assess the effectiveness of interventions.

2. Two of the three MCEs have QIPs related to the Health Needs Screening (HNS) tool which is required by OMPP to be completed on all new members. Although there has been considerable work completed related to the transfer of data to and from the MCEs to the OMPP vendor who captures the HNS data, B&A offers specific recommendations to the OMPP on how the integrity of the HNS results can be further strengthened.

3. Anthem illustrated evidence in all three of its QIPs how it responded in short order to making data-driven decisions to adapt, where necessary, to make changes to its interventions. Anthem has also built an impressive suite of drilldown reports for all three of its QIPs. B&A's only recommendation to Anthem is to continue to build on its QIP reporting to better inform where the greatest opportunities occur within its membership (e.g. by age group, provider affiliation).

4. B&A is making multiple recommendations to MHS on defining the interventions in its QIPs and how they will be evaluated and measured. Further, B&A recommends that MHS customize the annual goals for measures in a QIP specifically to each program.

5. MDwise took action on changing some of the interventions in its QIPs that were deemed to be ineffective or unable to effectively assess. As it continues these QIPs and creates new ones, B&A suggests that MDwise be thoughtful at the outset about defining and measuring the interventions selected. There also appears to be opportunities to analyze interventions at a more refined level.

Focus Study on Lead Testing and Related Outreach Efforts

An incident occurred in the summer of 2016 in which the residents of a public housing project in East Chicago, Indiana were forced to evacuate their homes due to the imminent threat of exposure to lead. Efforts to educate and encourage Medicaid members and their primary care physicians to get children tested for lead has a long history in Indiana. Significant reductions in funding from the Centers for Disease Control (CDC) in 2012, however, saw many lead programs in Indiana severely reduced or eliminated. This incident brought an even more targeted effort statewide to conduct lead testing than what had been done previously.

The MCEs all responded diligently to the situation that occurred in East Chicago. The OMPP asked B&A as part of this EQR, however, to also review lead testing and outreach efforts more holistically on a statewide level.

The purpose of the study, therefore, included the following:

1. An examination of trends in lead testing in Indiana's Medicaid program
2. A review of MCE efforts to educate and encourage lead testing
3. A review of each MCE's approach to assist children with elevated lead levels
4. Successes and challenges cited by the MCEs related to lead testing
5. Recommendations to the OMPP and the MCEs for continued improvement in lead testing

B&A conducted in-person interviews with representatives from each MCE knowledgeable about lead testing, education and awareness; interviewed the Director at the ISDH responsible for lead testing; and analyzed claims submitted by laboratories to the MCEs for lead testing and contrasted this with tests submitted to an ISDH database. Whereas the claims submitted to the MCEs do not contain test results, the tests submitted to the ISDH do contain this information. Therefore, for a limited set of tests, B&A assessed whether there were locations in the state like the East Chicago area where there may be elevated lead levels among Medicaid children.

B&A's finding overall was that there did not appear to be other areas in the state with a concentration of children with elevated lead levels. Among tests conducted and submitted to the ISDH in CY 2016 for Medicaid children, only 1.1 percent of the tests showed results greater than 5 micrograms per deciliter (the threshold defined by the OMPP as an elevated lead level).

There is a caveat to this finding, however, in that B&A found that in addition to the opportunity for significantly greater lead testing in the state overall, the majority of known test results for Medicaid children (as evidenced by claims paid by the MCEs) were not found in the ISDH database. Although providers are, by state law, required to submit the tests to the ISDH, up until recently there has been little enforcement of this requirement. Through this study, B&A found that:

- In the years CY 2013-2016, there was no proof of lead testing either through ISDH or MCE claims for 66 percent of 1-year-olds and 77 percent of 2-year-olds. There was slight improvement in the testing rates for both age groups in CY 2016 (63% and 74% not screened).
- Among the children with evidence of a lead test, only 20 to 30 percent of these tests were found in the ISDH database in the years 2013-2015. This rate improved to 55 percent in 2016.

B&A created a visual map that showed the percent of Medicaid children tested in each county in CY 2016. This map was created using both the MCE claims plus the ISDH data and compared to a map using ISDH data alone to identify where the greatest gaps in reporting to the ISDH are occurring.

When elevated lead levels are found among Medicaid children, each of the MCEs showed evidence of their approach to addressing the needs of these children. A key difference, however, was that both Anthem and MDwise assess the needs of every child with a lead level above 5 µg/dL. Although there may be cases where MHS's policy is to engage with children at these levels, its policy states that children will be engaged in complex case management only when the level is 45 µg/dL or greater.

B&A's recommendations to the MCEs included the following:

1. Cross-walk the tests that they are receiving from claims against the tests reported in the ISDH database to serve as a feedback loop both to the provider community and to the ISDH.
2. Consider building a provider report card to show the gaps in member lead tests.
3. For MDwise specifically, B&A suggests loading the lead test data in its provider portal in a manner to what is offered by Anthem and MHS.
4. For MHS specifically, evaluate initiating case or care management to members with elevated lead levels below 45 µg/dL.
5. B&A supports the ISDH Director's recommendation that the MCEs should interrogate the ISDH immunization database for its members who received an MMR immunization (measles, mumps and rubella) at 12 months of age against the lead database to identify missed opportunities.

Focus Study on Medication Adherence

The elements of this focus study included:

1. An overview of the medication adherence programs and methods of measurement at the MCEs
2. A review of each MCE's efforts to engage with members on medication adherence
3. A review of each MCE's efforts to engage with providers on their patients' medication adherence
4. Challenges and opportunities cited by the MCEs related to medication adherence
5. B&A's independent evaluation of medication adherence within OMPP's managed care programs
6. Recommendations for continued improvement

All of the MCEs have implemented a Medication Therapy Management (MTM) program for, at minimum, the HCC and HIP populations. The MTM programs came online in late 2015 or early 2016. The MCEs utilize State-defined criteria for nominating members for MTM which include three chronic conditions or prescriptions for eight or more medications. Anthem reported 14 to 16 percent engagement from members at some level. MHS reported that engagement for them was closer to 30 percent. MDwise did not report information on this statistic.

Each of the MCEs also utilizes the resources from its pharmacy benefit manager (PBM) to provide drilldown reports to assess medication adherence rates and gaps in filled scripts for members with chronic conditions. The MCEs reported how this information is analyzed and interpreted by its internal pharmacy team and then disseminated to the MCE's case management team.

Given that the MCEs' MTM programs are still relatively new, each MCE is also testing out new ways in which to outreach to members about medication adherence. For example, Anthem described its New Start program which began as a pilot with children age six to 12 who take medication for ADHD. MHS has developed a more focused outreach program for members with Hepatitis C. MDwise described its INcontrol program for members to self-refer to case or disease management and targeted mailings to members taking antidepressants to reinforce the importance of medication adherence.

With respect to outreach to providers, Anthem appears to have easy-to-understand, succinct reports to send to its providers related to medication adherence for HHW, HCC and HIP members. With a summary letter, Anthem gives the provider some highlights of individual members on potential issues, an action list of issues to follow-up with individual members, and a medication graphic that shows the chronic medications filled by the member. Separate notifications are sent to providers about members taking controlled substances and antipsychotic medications.

MHS sends monthly letters to providers that have members not using asthma controlled medication regularly. It also sends out a separate, more detailed, letter to providers about individual patients who are not adherent to antipsychotic medications. MDwise does not provide feedback to providers in any systematic manner.

All of the MCEs use the Percent of Days Covered (PDC) measure as a means to assess medication adherence. Information was shared with the EQR team about PDC rates for the cohort populations studied at each MCE. For this study, B&A independently computed PDC rates for members in HHW, HCC and HIP for five conditions of interest—asthma, COPD, diabetes, psychoses and schizophrenia. Our methodology, which is described fully in Section V of the report, was vetted with the OMPP's Pharmacy Director as well as the Pharmacy Managers at each MCE.

Details on the PDC rates for each condition of interest appear in the report where B&A examined the rates by MCE, by program, by geographic region, by race/ethnicity and by age group. In summary, the PDC rates varied across the conditions of interest studied but did not vary by MCE within each condition of interest studied. Nationally, a PDC rate of 80 percent is generally considered at or near compliance with medication. Using the methodology defined in this study and using data from the CY 2016 study year, B&A found the following PDC rates:

- Asthma: HHW- 42%, HCC- 50%, HIP- 50%
- COPD: HCC- 47%, HIP- 43% (HHW was not reported due to very low sample size)
- Diabetes: HHW- 75%, HCC- 80%, HIP- 79%
- Psychoses: 69% (all programs combined due to small sample sizes at the program level)
- Schizophrenia: 79% (all programs combined due to small sample sizes at the program level)

B&A found little variation in the PDC rates by region for any condition. In most situations, the PDC rate was lower for African-American members and sometimes Hispanic members as well. For some conditions of interest, there was variation in the PDC rates by age group as well.

B&A's recommendations to the MCEs pertaining to medication adherence are as follows:

1. All MCEs are encouraged to perform drilldowns within the conditions of interest that it focuses on in a similar manner that B&A has done using its own method to compute PDC rates.

2. The MCEs should consider evaluating the effectiveness of their MTM program, such as comparing medication adherence rates among those enrolled and not enrolled in MTM.

3. MHS and MDwise are encouraged to offer reports to providers similar to Anthem's and to solicit feedback on the utility or effectiveness of such reports.

4. The opportunities cited by each MCE for improving medication adherence among its members sounded viable. Each MCE is encouraged to pilot these initiatives and to measure their effectiveness by measuring PDC rates among those impacted against a control group.

Focus Study on Potentially Preventable Readmissions

B&A conducted an evaluation of the rate of potentially preventable readmissions (PPRs) using 3M's proprietary Core Grouping Software as part of the EQR conducted in CY 2015. The OMPP asked B&A to conduct this study again given the fact that the HCC program has come online since the last study and the HIP program has grown substantially.

B&A used the same methodology in this year's study as was completed in the CY 2015 study. B&A computed an Actual PPR rate for each OMPP program, each MCE and each hospital for the years CY 2014, CY 2015 and CY 2016 separately. Then, the cases for each hospital or MCE are risk-adjusted using four risk groups—adult and pediatric, major mental health indicator or not—to compute an Expected PPR rate given the composition of cases presented to each hospital or MCE. In the end, not only can the Actual PPR rates be analyzed for trends, but the Actual-to-Expected ratios can be evaluated for hospitals or MCEs against their peers since these ratios have been risk-adjusted.

The Actual-to-Expected ratio computations were developed in consultation with 3M. In essence,

- If the entity (hospital, MCE) has an Actual-to-Expected ratio at or near 1.0, then the entity performed as expected.
- If the ratio is below 1.0, then the entity performed better than expected.
- If the ratio is above 1.0, then the entity performed worse than expected.

Key findings of this study revealed the following:

- The Actual PPR rates dropped from CY 2014 to CY 2016 for each of the three OMPP programs. But the PPR rates themselves vary significantly by program.
    - The PPR rate for HHW dropped from 5.2% in CY 2014 to 4.3% in CY 2016.
    - The PPR rate for HCC dropped from 14.0% in CY 2015 to 11.9% in CY 2016.
    - The PPR rate for HIP dropped from 8.8% in CY 2014 to 6.7% in CY 2016

- There is little variation in the Actual PPR rates among the three MCEs within each program.

- What does vary is the Actual-to-Expected ratio. For the three years examined,
    - Anthem performed as expected in CY 2014 and better than expected in CYs 2015 and 2016.
    - MDwise performed worse than expected in all three years.
    - MHS performed better than expected in all three years.

- There are significant differences in the Actual-to-Expected ratios across regions in the state. What is interesting is that when these Actual-to-Expected ratios are examined at the region level for each MCE individually, the results are not similar across MCEs.

- It is expected that there will be variation in the Actual-to-Expected ratios for the individual hospitals. Among the approximately 130 hospitals meeting a volume threshold to be included in the study each year, only about five percent of the hospitals met expectations for their PPR rate. For the remaining 95 percent, about half performed better than expected and half performed worse than expected.

B&A offers recommendations to both the MCEs and the OMPP regarding how the data that have been provided can assist in targeted approaches to improving hospital readmission rates. B&A has prepared both a Hospital Report Card and an MCE Report Card as part of this study. Supporting files that illustrate PPR rates for individual hospitals at the DRG level have also been provided to each MCE. It was found that certain DRGs have a higher prevalence of readmissions than others. The MCEs can utilize this information to work with individual hospitals on ways to improve the readmission rates among the DRGs most commonly found as readmissions at each facility that are potentially preventable.

Focus Study on Claims Processing

The elements of this focus study included:

1. To gain an understanding of the similarities and differences between the three MCEs with respect to the claims adjudication process;
2. To evaluate claims adjudication timeliness across the MCEs within each of OMPP's programs;
3. To validate the results reported by the MCEs on claims processing reports against the encounters submitted by the MCEs to the OMPP; and
4. To report the results of an audit of the pricing of a sample of claims adjudicated by the MCEs within HHW, HCC and HIP.

B&A conducted onsite meetings each MCE individually at the start of the study to learn more about their claims adjudication process, specifically the entities that perform claims processing for the MCE, a step-by-step flow of the claims adjudication process, the application of edits and audits to claims, the methods in which the MCE conducts oversight of its internal staff and its delegated contractors, the notifications given to providers on the results from claims, and the process that each MCE uses to submit encounters to the OMPP data warehouse. The EQR team also reviewed materials as part of the desk review to enhance and support the onsite interviews.

Although there were three MCEs contracted with the OMPP in CY 2016, the claims processing function involved six entities at Anthem, five entities at MHS and five entities at MDwise. In general, the claims processing functions are segmented by categories of service, with different entities performing claims processing for acute and behavioral health claims, vision claims, dental claims, transportation claims and pharmacy scripts. Each MCE described its oversight of its delegated MCEs. In general, the oversight being conducted appeared to be meaningful and appropriate at Anthem and MHS. B&A has specific recommendations to MDwise for enhanced oversight of its delegated entities, particularly in light of the fact that MDwise changed vendors at the end of CY 2016 due to poor performance.

The application of National Correct Coding Initiative (NCCI) edits was another area in which oversight could be enhanced at MDwise and for one minor item at MHS. There are two varieties of NCCI edits—Procedure-to-Procedure (PTP) and Medically Unlikely Edits (MUEs). The vendor that MDwise terminated did not report information on the application of NCCI edits in CY 2016 as requested in this review. The other MDwise vendor that is responsible for claims that would utilize NCCI edits only reported information on the PTP edits and not MUEs. MHS did not report information for one category of MUEs but did so for the other two categories. There appeared to be no issues with the application of NCCI edits at Anthem.

B&A also reviewed the lists of codes that each MCE used to transmit information to providers with respect to claims that were rejected due to incomplete information and the codes used in notifications of explanation of payment (EOP) for claims processed through the adjudication system and paid or denied by the MCE. Both Anthem and MHS had what appeared to be reasonable and complete rejection codes. MDwise had only a few rejection codes and the descriptions were very brief. With respect to the EOP codes, the variety of codes reported and the top codes based on volume when used in claims adjudication appeared to be reasonable to the EQR review team. What is somewhat confusing from the perspective of the provider is that the EOP codes vary across the MCEs in both number and meaning. To complicate this, the EOP codes vary within Anthem and MDwise where there are two claims processors for acute care claims in particular (at Anthem, the MCE itself and CMCS; at MDwise, CMCS and DST in CY 2016 and not Evolent in CY 2017).

In addition to reviewing claims adjudication processes, B&A also evaluated the timeliness for each MCE to adjudicate claims. The OMPP requires that claims submitted electronically be adjudicated by the MCEs within 21 days of receipt; for paper claims, within 30 days of receipt. The MCEs must submit a quarterly report to the OMPP for each of its programs (HHW, HCC and HIP) on the number of claims paid on time, paid late and denied. The volume of claims adjudicated within date ranges is also required (e.g., 0-10 days, 11-21 days, 22-30 days, etc.).

B&A provides detailed analysis in the report to track the adjudication timeliness of institutional claims, professional claims and dental claims for both in-network and out-of-network providers. In summary, MDwise did not always meet timeliness targets in CY 2016 particularly in Quarters 1 and 2 in the HIP program and, to a lesser degree, in the HCC program at the start of CY 2016. There were also issues with higher-than-expected denial rates. This was directly attributable to the vendor that has since been replaced. Even prior to the changeover, timeliness rates improved in the second half of CY 2016. Anthem also had some timeliness issues but this was isolated to Quarter 1 in CY 2016. Anthem also had higher-than-expected denial rates for out-of-network providers but no issues with in-network providers. There were no specific concerns found at MHS with respect to meeting timeliness or denial rates.

B&A also validated the number of encounters submitted by each MCE to the OMPP data warehouse against the quarterly report that each MCE submits with respect to clean claim adjudication volume. This validation was done to test if all claims are making it as encounters into the OMPP's warehouse. B&A saw significant differences between the totals on the reports submitted by the MCEs as claims that they adjudicated compared to the number of encounters stored in the OMPP's data warehouse. The difference lies in the segmentation between encounters marked as paid and encounters marked denied. When the two subtotals are added together, the match of counts between B&A and both Anthem and MHS is much closer. This was not true, however, for MDwise.

The reason for these differences may be due to the fact that the OMPP data warehouse categorizes denied encounters as both claims that were denied by the MCE and claims paid by the MCE but were rejected by DXC, the OMPP fiscal agent, for failure to pass validation edits as an encounter. Although B&A created logic to reassign the latter group of denied encounters as paid claims (as per the MCE's attribution), B&A still had significantly more denied encounters. This implies that potentially not all "denied" encounters were, in fact, denied claims by the MCE. As a result of this validation, B&A offers recommendations to the OMPP on ways to improve the reporting of encounters by the MCEs as well as more generally ways to convey information to the MCEs about rejected encounters. B&A also recommends to MDwise more robust tracking of its encounters rejected by DXC (both Anthem and MHS are already doing this).

The final component of the claims adjudication study was a validation by B&A of the pricing of a sample of 796 claims that were evenly distributed between Anthem, MDwise and MHS. Within each MCE's list of claims, B&A drew a sample that represented claims from HHW, HCC and HIP. Further, the claims within each program were sampled across 11 service categories. B&A provided the list of claims and the pay to providers to each MCE so that the MCE could indicate the contracted rate to each provider. B&A utilized the OMPP fee schedule (for HHW and HCC), the Medicare fee schedule (for HIP), the MCE contracted rate to each provider and standard pricing logic (e.g. modifier pricing) to test if the paid amount as reported by the MCE matched B&A's independent calculation.

For HHW claims, B&A matched the MCEs 94 to 99 percent of the time (the rate varied by MCE). For HCC claims, B&A also matched the MCEs 94 to 99 percent of the time. For HIP claims, B&A matched the MCEs only 77 to 90 percent of the time. The claims in which there was most often not a match in HIP were similar for all three MCEs and were for physicians, mental health providers and outpatient hospital services.

SECTION I: OVERVIEW OF INDIANA'S MEDICAID MANAGED CARE PROGRAMS

Introduction

The Family and Social Services Administration (FSSA) and the Indiana Office of Medicaid Policy and Planning (OMPP)[4] have responsibility for the administration and oversight of Indiana's Medicaid program under two different Section 1115 demonstration waiver authorities. There are three risk-based managed care programs in place and each serves a targeted population—Hoosier Healthwise (HHW), Healthy Indiana Plan (HIP) 2.0, and Hoosier Care Connect (HCC).

The **Hoosier Healthwise (HHW)** program began in 1994 with members having the option to enroll with a managed care entity (MCE)[5] in 1996. By 2005, enrollment with an MCE was mandatory for select populations, namely, low income families, pregnant women, and children. Most enrollees in Indiana's Children's Health Insurance Program (CHIP), which covers children in families up to 250 percent of the Federal Poverty Level (FPL)[6], are also enrolled in HHW.

The **Healthy Indiana Plan (HIP)** was first created in January 2008 under a separate Section 1115 waiver authority. This program covered two groups of adults with family income up to 200 percent of the FPL. The first group was uninsured custodial parents and caretaker relatives of children eligible for Medicaid or CHIP who were not otherwise eligible for Medicaid or Medicare. The second group was uninsured noncustodial parents and childless adults ages 19 through 64 who were not otherwise eligible for Medicaid or Medicare.

The HHW and HIP were aligned in Calendar Year (CY) 2011 under a family-focused model such that the programs were aligned to allow a seamless experience for Hoosier families and to establish a medical home model for continuity of care. The same MCEs were contracted to serve both the HHW and HIP populations.

In January 2015, the State received a new Section 1115 demonstration waiver authority from the Centers for Medicare and Medicaid Services (CMS) to change the design of HIP (the original version now called HIP 1.0) to a non-traditional Medicaid model (the new version called HIP 2.0) that effectively terminated HIP 1.0 on January 31, 2015. The HIP 2.0 model is a health insurance program for uninsured adults between the ages of 19 and 64. The **Healthy Indiana Plan (HIP) 2.0** program began February 1, 2015. In addition to the existing HIP 1.0 enrollees, adults from the HHW program (with some exceptions) were transitioned into HIP 2.0. Additionally, the marketplace was open for new uninsured Hoosiers who met the enrollment criteria to join HIP 2.0 at this time.

HIP 2.0 is a State-sponsored health insurance program where monthly contributions are required of each enrolled member. The Personal Wellness and Responsibility (POWER) Account is the feature of HIP that makes it unique among programs developed nationally for the low-income uninsured. The POWER Account was used in HIP 1.0 and continues to be used in the HIP 2.0 program. A $2,500 deductible is provided to each member annually. Depending upon which product the member is enrolled under in HIP

[4] FSSA and OMPP are collectively referred to as Indiana Medicaid throughout this report.

[5] In Indiana, the term MCE is synonymous with the term managed care organization and will be used as such throughout this report. It refers to those entities that Indiana Medicaid contracts with under a full-risk arrangement. Each MCE is a health maintenance organization (HMO) authorized by the Indiana Department of Insurance.

[6] CHIP children in families up to 150% FPL do not pay a premium. Children in families whose income is between 151% and 250% FPL pay a premium on a sliding scale.

2.0 (HIP Plus, HIP Basic or HIP State Plan), individuals may be responsible for contributing to their POWER Account deductible (based on a sliding scale using household income as the test) as well as co-payments for inpatient and outpatient hospital services and pharmacy scripts. Contributions to the member's POWER Account may also come from the State (with federal matching dollars) and, in some cases, the member's employer.

The POWER Account is intended for members to use to purchase health care services. However, in an effort to promote preventive care, the first $500 in preventive care benefits are covered by the MCE and are not drawn from a member's POWER Account.

There is a financial incentive for members to seek the required preventive care for their age, gender and health status. If a HIP member is deemed to be eligible upon redetermination 12 months after enrolling and there are funds remaining in the member's POWER Account, the funds are rolled over into the next year's account if the member met program requirements in the prior year. This will effectively reduce the amount of the member's monthly POWER Account contribution in the next year.

The **Hoosier Care Connect (HCC)** program was implemented April 1, 2015. Enabling state legislation in CY 2013 tasked the FSSA with managing the care for the aged, blind and disabled Medicaid enrollees. After convening a task force of key FSSA divisions, the FSSA developed the HCC program. This new program means that its predecessor program, Care Select, expired June 30, 2015. Whereas HCC is administered by MCEs, the Care Select program was administered by Care Management Organizations who were not at full risk. The MCEs who administered HCC in CY 2016 are the same ones that administered HHW and HIP 2.0.

Traditional Medicaid is comprised of the remaining Medicaid enrollees who are not members of HHW, HIP 2.0 or HCC. Specifically, the following populations are covered under Traditional Medicaid under a fee-for-service environment:

- Individuals dually enrolled receiving Medicare and Medicaid benefits;
- Individuals receiving home- and community-based waiver benefits;
- Individuals receiving care in a nursing facility or other State-operated facility;
- Individuals in specific aid categories (e.g., refugees); and
- Individuals awaiting an assignment to an MCE.

Applicants to HHW, HIP 2.0 and HCC are asked to select the MCE they would like to join if determined eligible for the program. If a member does not select an MCE within 14 days of obtaining eligibility, then Indiana Medicaid auto-assigns the member to an MCE. Once assigned, the MCE then has 30 days to work with the member to select a primary medical provider (PMP). If the member does not make a selection within this time frame, the MCE will auto-assign the member to a PMP.

In CY 2016, which is the focus of this External Quality Review (EQR), there were three MCEs that contracted with the OMPP to administer services to the HHW, HIP 2.0 and HCC populations. Anthem Insurance Companies, Inc. (Anthem) has been under contract with Indiana Medicaid since 2007. Coordinated Care Corporation, Inc. d/b/a Managed Health Services (MHS) is a subsidiary of the Centene Corporation and has been under contract with Indiana Medicaid since the inception of HHW in 1994. MDwise, Inc. has also been participating in HHW since its inception. MDwise subcontracts the management of services to nine delivery systems.

There have been some changes in the program since the CY 2016 review year. Effective January 1, 2017, CareSource became the fourth MCE to contract with the OMPP to deliver services to the HHW and HIP

2.0 populations. Effective March 31, 2017, MDwise withdrew from the HCC program. Its enrolled HCC members were transitioned to Anthem and MHS.

Enrollment at a Glance

As seen in Exhibit I.1 below, net enrollment in Indiana Medicaid's program grew by almost 39,000, or 2.8 percent, from the end of CY 2015 to the end of CY 2016, but this is directly due to a 14 percent increase in enrollment in HIP 2.0. Enrollment in HHW and HCC remained relatively steady over the course of CY 2016. At the end of CY 2016, just over 77 percent of all Medicaid members were enrolled in one of the three managed care programs while 23 percent were enrolled in fee-for-service.

Exhibit I.1
Change in Enrollment Across Indiana Medicaid's Programs, Dec 2015 to Dec 2016

	Managed Care Programs				
	Hoosier Healthwise	**Healthy Indiana Plan**	**Hoosier Care Connect**	**Fee-for-Service**	**All Combined**
December 2015	600,431	355,164	97,609	338,180	1,391,384
	43.2%	25.5%	7.0%	24.3%	100.0%
	75.7%			24.3%	100.0%
December 2016	602,772	405,264	94,530	327,688	1,430,254
	42.1%	28.3%	6.6%	22.9%	100.0%
	77.1%			22.9%	100.0%
Change from Dec 15 to Dec 16	**2,341**	**50,100**	**-3,079**	**-10,492**	**38,870**
	0.4%	**14.1%**	**-3.2%**	**-3.1%**	**2.8%**

Source: OMPP Enterprise Data Warehouse.
Data provided by B&A by Optum (OMPP's vendor) on May 8, 2017.

Exhibit I.2 shows that Anthem and MDwise have a similar proportion (37%-38%) of total managed care members when considering the three programs combined, and MHS has 25 percent. Within the three programs, MDwise has a higher proportion of HHW and HCC members while Anthem has a higher proportion of HIP 2.0 members.

Exhibit I.2
Managed Care Program Enrollment by MCE
As of December 2016

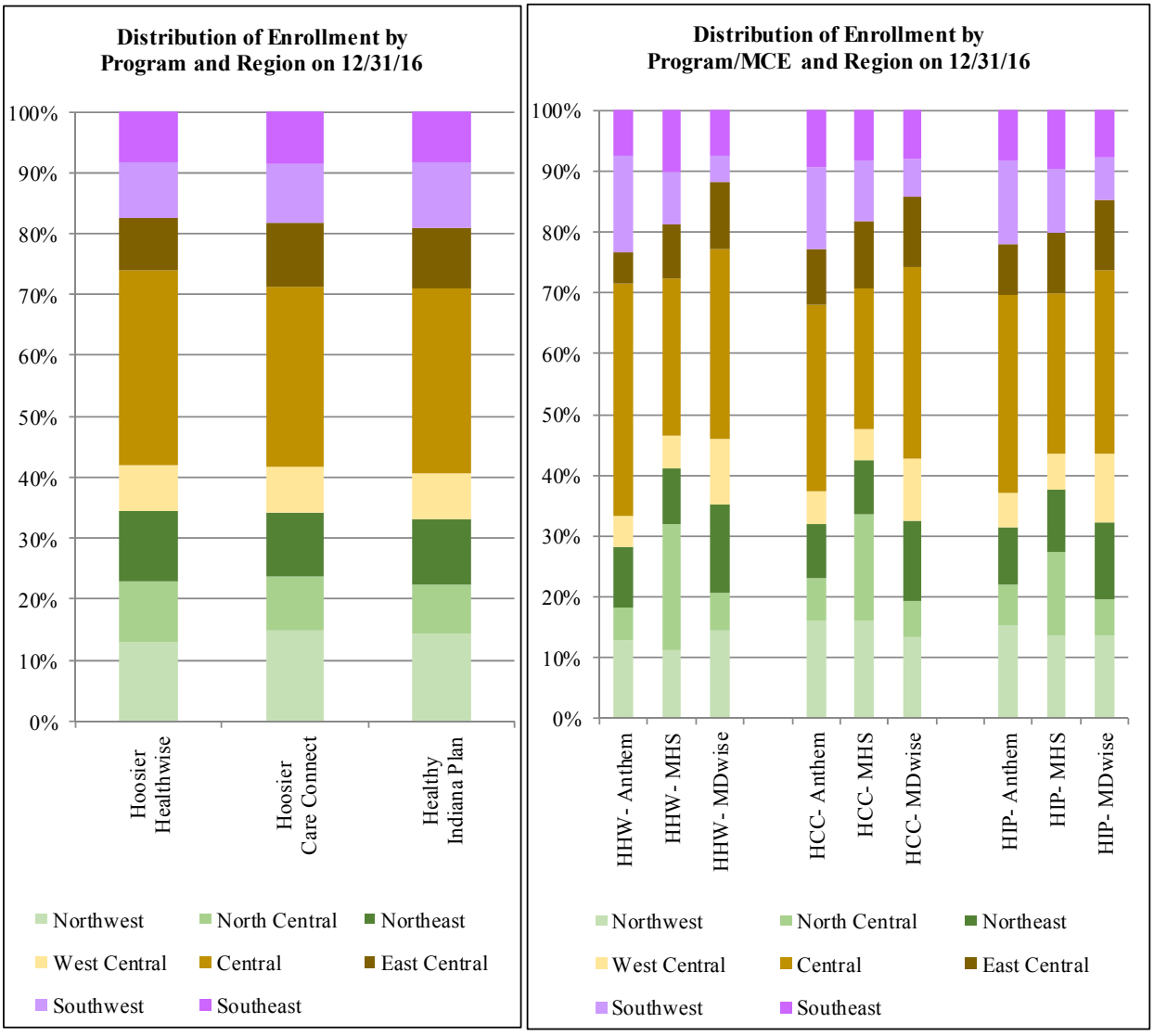
	Hoosier Healthwise	**Healthy Indiana Plan**	**Hoosier Care Connect**	**All Combined**
Anthem	33%	44%	37%	37%
MHS	27%	22%	21%	25%
MDwise	40%	34%	42%	38%

Source: OMPP Enterprise Data Warehouse
Data provided by B&A by Optum (OMPP's vendor) on May 8, 2017.

Exhibit I.3 below illustrates the enrollment patterns of the three managed care programs across the eight regions defined by the OMPP. Each of the 92 counties in Indiana has been mapped to one of eight MCE regions. The county-to-region mapping appears in Appendix A. There are three regions in the northern part of the state (shown in the green colors), three regions in the central part of the state (shown in the gold/brown colors), and two regions in the southern part of the state (shown in the purple colors).

In general, as seen in the left box of the exhibit, the distribution of the enrollment for HHW, HCC and HIP is consistent across the regions. In the right box of the exhibit, the enrollment is further distributed by both managed care program and MCE. When comparing the left box (statewide) against the right box (by MCE), there is some variation at the MCE level. MHS tends to have a higher percentage of the enrollment in all programs in the northern regions, whereas MDwise tends to have a higher percentage of the enrollment in all programs in the central regions.

Exhibit I.3
Managed Care Program Enrollment by Region and MCE
As of December 2016



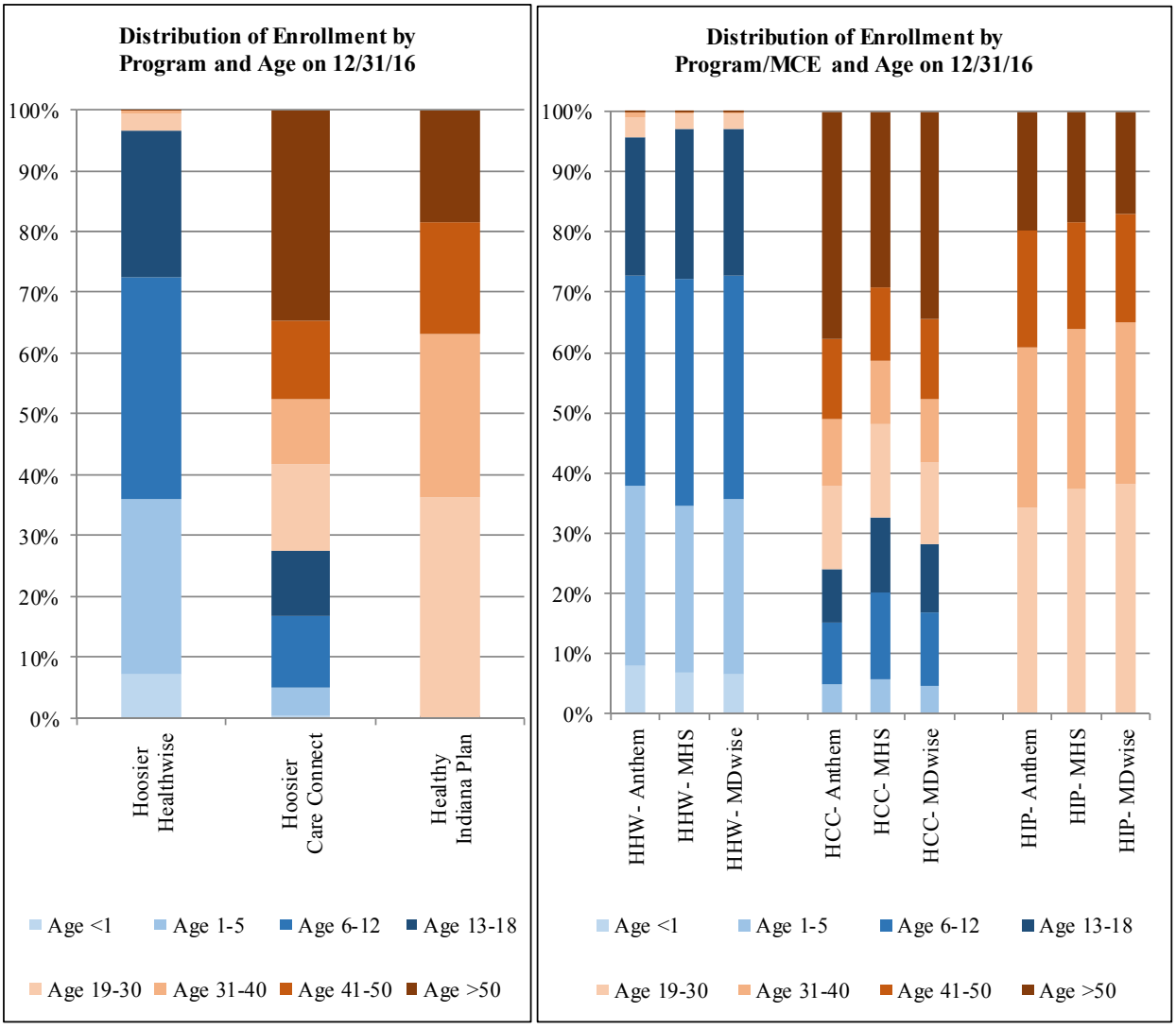
Source: OMPP Enterprise Data Warehouse
Data provided by B&A by Optum (OMPP's vendor) on May 8, 2017.

The display for Exhibit I.4 is similar to what was shown in Exhibit I.3 on the previous page, but instead of distributing the enrollment by region, the enrollment is distributed by the age of the members. In this exhibit, the blue colors represent different age groups among children while the peach/orange colors represent different age groups among adults.

Exhibit I.4 illustrates the targeted populations of each of Indiana's managed care programs. As of December 2016, more than 96 percent of the HHW population is children. Conversely, all of the HIP population is adults. The HCC program is mixed with 28 percent children and 72 percent adults. Even within HCC, the children that are enrolled are mostly older children.

As shown in the box on the right, there are no significant differences in the distribution of the enrollment by age group across the MCEs in any of the three managed care programs.

Exhibit I.4
Managed Care Program Enrollment by Age and MCE
As of December 2016



Source: OMPP Enterprise Data Warehouse
Data provided by B&A by Optum (OMPP's vendor) on May 8, 2017.

Indiana Medicaid's CY 2017 Quality Strategy Plan

Indiana Medicaid, like other State Medicaid Agencies, develops a Quality Strategy Plan. The OMPP updated it Plan in CY 2015 and CY 2017. In its 2017 Plan, Indiana outlined specific initiatives for the HHW, HIP and HCC programs as well as the Traditional Medicaid program. The initiatives for the managed care programs are shown on the next page in Exhibit I.5. Most of the initiatives carried forward from what was released in the 2015 Quality Strategy Plan. The items that are new in 2017 are identified in italics.

The initiatives outlined stem from four global aims that the OMPP has identified that support the objectives for all of its programs. These are[7]:

1. Quality – Monitor quality improvement measures and strive to maintain high standards.
    a. Improve health outcomes
    b. Encourage quality, continuity and appropriateness of medical care

2. Prevention – Foster access to primary and preventive care services with a family focus.
    a. Promote primary and preventive care
    b. Foster personal responsibility and healthy lifestyles

3. Cost – Ensure medical coverage in a cost-effective manner.
    a. Deliver cost-effective coverage
    b. Ensure the appropriate use of health care services
    c. Ensure utilization management best practices

4. Coordination/Integration – Encourage the organization of patient activities to ensure appropriate care.
    a. Integrate physical and behavioral health services
    b. Emphasize communication and collaboration with network providers

The Quality Strategy Committee meets quarterly throughout the year. The subcommittees also meet quarterly in different sessions from the main Committee meetings. MCEs are involved with the Quality Strategy Committee in multiple ways. Most importantly, the MCEs are required to submit to OMPP quarterly updates to their quality improvement projects that were identified in their annual work plan. The Quality Strategy Committee is briefed on these updates by the MCEs.

[7] From the Indiana Medicaid Managed Care Quality Strategy Plan 2017, page 4.
www.in.gov/fssa/hip/files/2017_IN_Medicaid_Qual_Strategy_Plan.pdf

Exhibit I.5
OMPP Quality Strategy Initiatives for 2017

Area of Focus	Goal	HHW	HIP	HCC
Improvements in Children and Adolescent Well-Care	Achieve at or above the 90th percentile for improvements in children and adolescent well-child visits (HEDIS).	✓		
Early Periodic Screening, Diagnosis and Treatment (EPSDT)	Achieve at or above 80% participation rate in the EPSDT program.	✓		
Improvement in Behavioral Health	Achieve at or above the 90th percentile for members who receive follow-up within 7 days of discharge from hospitalization for mental health disorders (HEDIS).	✓	✓	
Ambulatory Care	Achieve at or above the HEDIS percentile (for HHW, the 75th percentile, for HIP, the 90th percentile) of Ambulatory Outpatient Care Visits.	✓	✓	
	Continue to establish baseline data.			✓
Emergency Room Visits	Achieve at or below the 10th percentile of Ambulatory Emergency Department Care Visits (HEDIS).	✓	✓	
	Achieve at or below 75 visits per 1000 member months.		✓	
Pregnant Women Smoking Cessation	Achieve an increase in the percentage who are referred to and have one contact with the Indiana Tobacco Quitline.	✓	✓	
Freqency of Prenatal and Post-Partum Care	Achieve at or above the 90th percentile for the frequency of prenatal and at or above the 90th percentile for post-partum care (HEDIS).	✓		
Right Choices Program (RCP)	Achieve at or above 96% of the RCP periodic reviews that are completed on time.	✓		
	A minimum of 90% of the findings of appeals filed by members to be removed from RCP will be upheld because the member was correctly assessed as requiring RCP services. (*new in 2017*)		✓	
Access to Care	90% of all HIP members shall have access to primary care within a minimum of 30 miles of a member's residence and at least two providers of each specialty type within 60 miles of their residence.		✓	
Access to Care	90% of all HIP members shall have access to dental and vision care within a minimum of 60 miles of a member's residence and at least two providers of each type within 60 miles of their residence.		✓	
POWER Account Rollover	Achieve at or above 85% of the number of members who receive a preventive exam during the year.		✓	
Medically Frail	Identify individuals who meet the medically frail criteria and offer access to enhanced services. (*new in 2017*)		✓	
Preventive Care (HEDIS AAP-like)	Continue to establish baseline data.			✓
Completion of Health Needs Screen	Percentage of newly enrolled MCE members, net of terminated members, that have had a health screen assessment completed within 90 days will be greater than or equal to 70% of total.			✓
Completion of Comprehensive Health Assessment Tool	Exceed baseline percentage of newly enrolled MCE members, net of terminated members, that have had a comprehensive health assessment completed within 150 days.			✓
Identification of Hoosier Care Connect Members	Exceed baseline of the number of members identified by stratification level, program participation length and average contacts per month.			✓
Complex Case Management	Exceed baseline of the number of CCM members by disease state, total contacts and average contacts per reporting period.			✓

Source: Indiana Medicaid Managed Care Quality Strategy Plan 2017

The OMPP also has a robust Pay for Outcomes (P4O) program as part of its contracts with the MCEs for each of the three managed care programs. Most measures used in the P4O program as based on HEDIS®[8] measures and are focused to the populations within each of the three programs. The P4O measures for CY 2017 are listed in Exhibit I.6 below.

Exhibit I.6
OMPP Pay for Outcomes Program in Effect for CY 2017

HEDIS Code	Description	HHW	HIP	HCC
AMB	Ambulatory Care	✓		
AMB	ER Admissions per 1000 Member Months		✓	✓
W15	Well-Child Visits in the First 15 Months of Life - Six or More Visits	✓		
W34	Well-Child Annual Visit in the Third, Fourth, Fifth and Sixth Years of Life	✓		
AWC	Adolescent Well-Child Visit	✓		
FUH	Follow-up After Hospitalization for Mental Illness: 7-Day Follow-up	✓	✓	✓
FUH	Follow-up After Hospitalization for Mental Illness: 30-Day Follow-up			✓
FPC	Frequency of Ongoing Prenatal Care	✓		
PPC	Postpartum Care- Percentage of Deliveries with Post-Partum Visit	✓		
AAP	Adult Ambulatory and Preventive Care		✓	✓
n/a	OMPP Measure: Health Needs Screener Completion		✓	✓
n/a	OMPP Measure: Comprehensive Health Assessment Tool Completion			✓
n/a	OMPP Measure: Referral to Quitline for Pregnant Members who Smoke		✓	

Source: Indiana Medicaid Managed Care Quality Strategy Plan 2017

[8] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

SECTION II: APPROACH TO THIS YEAR'S EXTERNAL QUALITY REVIEW

Background

Burns & Associates, Inc. (B&A) has served as the External Quality Review Organization (EQRO) and has conducted annual External Quality Reviews (EQRs) for Indiana Medicaid each year since 2007. B&A is a Phoenix-based health care consulting firm whose clients almost exclusively are state Medicaid agencies or sister state agencies. In the State of Indiana, B&A is contracted only with the Office of Medicaid Policy and Planning (OMPP).

The Centers for Medicare and Medicaid Services (CMS) require that EQROs complete three mandatory activities on a regular basis as part of the EQR:

1) A review to determine MCE compliance with federal Medicaid managed care regulations;
2) Validation of performance measures produced by an MCE; and
3) Validation of performance improvement projects (PIPs) undertaken by the MCEs

For the first activity, B&A completed a full review of compliance with all federal Medicaid managed care regulations as well as additional contractual requirements mandated by Indiana Medicaid in its contract with the managed care entities (MCEs) in the EQR conducted in 2012 covering Calendar Year (CY) 2011. B&A utilized the CMS Protocol *Monitoring Medicaid Managed Care Organizations (MCOs) and Prepaid Inpatient Health Plans (PIHPs): A protocol for determining compliance with Medicaid Managed Care Proposed Regulations at 42 CFR Parts 400, 430, et al.* to complete this review. This periodic review was completed in 2012 because the OMPP entered into new contracts with the MCEs effective January 1, 2011 in which the requirements for administering the Hoosier Healthwise (HHW) and Healthy Indiana Plan (HIP) programs were subsumed under one contract.

In other years, B&A has worked with the OMPP to develop focus studies covering specific aspects of the HHW and HIP programs. This approach began with the CY 2009 review. The functional areas where focus studies have been completed in the last six years appears in Exhibit II.1 on the next page.

The OMPP released a Request for Proposals (RFP) to contract with MCEs for the HHW and HIP programs with a contract effective date of January 1, 2017. There will be new benefit coverage and other policy requirements in the new contract. Therefore, B&A will conduct the review of MCO compliance once again in CY 2018 under this new contract.

In the meantime, B&A continues to perform the activities related to the validation of performance measures, the validation of performance improvement projects, and targeted focus studies related to OMPP quality initiatives.

For the mandatory activity related to the validation of performance measures, B&A has selected a sample of reports that the MCEs are required to submit to the OMPP on a regular basis in order to validate the performance measures reported.

For the mandatory activity related to the validation of performance improvement projects, B&A worked with the OMPP during the EQR conducted in CY 2014 by convening a workgroup with all of the MCEs to develop a streamlined and standardized reporting tool for Quality Improvement Projects (in Indiana, PIPs are referred to as QIPs). This tool was further refined at the conclusion of the CY 2016 EQR. The review of QIPs in this year's EQR included information reported by the MCEs in the latest QIP reporting template.

Exhibit II.1
EQR Focus Studies Conducted of MCE Operations in HHW, HIP and HCC, 2011 - 2016

Year Review Conducted	Review Year	Program	Functional Area	Review Topic
CY 2011	CY 2010, Q1 2011	HHW, HIP	Disease Management	Review of Disease, Case and Care Management Practices
CY 2011	CY 2010	HHW, HIP	Clinical Practices	Clinical Review of Complicated C-sections and Hospital Readmissions
CY 2011	CY 2010	HHW, HIP	Emergency Services	ER Utilization and Payment Practices
CY 2012	CY 2011	HHW, HIP	Utilization Management Behavioral Health	Review of Inpatient Psychiatric Stays
CY 2012	CY 2011	HHW, HIP	Utilization Management	Review of the Right Choices Program
CY 2013	CY 2012	HHW, HIP	Access to Care	Review of member access to care and provider perceptions of the MCEs
CY 2013	CY 2012	HHW, HIP	Mental Health Utilization and Care Coordination	Clinical review of care plans and review of care coordination for members with co-morbid physical health and behavioral health ailments
CY 2014	CY 2013	HHW	Access to Care	Review of Non-Emergency Medical Transportation Services
CY 2014	CY 2013	HHW, HIP	Member Services	New Member Activities
CY 2014	CY 2013	HHW, HIP	Provider Relations	Review of MCE Provider Services Staff and Communication with Providers
CY 2014	CY 2013	HHW, HIP	Program Integrity	Review of Processes Related to Third Party Liability
CY 2015	CY 2014	HHW, HIP	Utilization Management	Review of Service Authorization Processes including sample review
CY 2015	CY 2014	HHW, HIP	Inpatient Hospital Readmissions	Assessment of Potentially Preventable Hospital Readmissions
CY 2015	CY 2014	HHW, HIP	Emergency Services	Assessment of Potentially Preventable Emergency Department Visits
CY 2016	CY 2015	HHW, HIP, HCC	Access to Care	Audit of MCE Provider Directories
CY 2016	CY 2015	HHW, HIP, HCC	Access to Care	Review of Beneficiary Access to Providers
CY 2016	CY 2015	HIP, HCC	Dental Care	Review of the Utilization and Access to Dental Services
CY 2016	CY 2015	HHW, HIP, HCC	Mental Health Utilization	Review of the Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
CY 2016	CY 2015	HHW, HIP	Prenatal Care	Review of the Delivery of Prenatal Care
CY 2016	CY 2015	HHW, HCC	Well Child Visits and Primary Care	Review of the Delivery of Well Care and Primary Care to Children

EQRO Activities in CY 2017

B&A met with the OMPP in early 2017 and developed the following topics for this year's EQR:

- Validation of Performance Measures
- Validation of MCE Performance Improvement Projects (Quality Improvement Projects, QIPs)
- Optional EQR Activity: Focus Study on Lead Testing and Related Outreach Efforts
- Optional EQR Activity: Focus Study on Medication Adherence
- Optional EQR Activity: Focus Study on Potentially Preventable Readmissions
- Optional EQR Activity: Focus Study on Claims Processing

For the validation of performance measures and QIPs, B&A utilized the September 2012 editions of CMS Protocols EQR Protocol #2: *Validation of Performance Measures* and EQR Protocol #3: *Validating Performance Improvement Projects* for guidance in completing these mandatory activities. For the four focus studies, B&A worked with the OMPP Quality Director to develop the elements of each study.

The details pertaining to each aspect of this year's EQR were released to the MCEs in an EQR Guide on April 24, 2017. The EQR Guide appears in Appendix B of this report. It contains information about the focus of each review topic in the EQR, the expectations of MCEs in the review, a document request list, and a schedule of events. For all review topics, a desk review, onsite reviews and post-onsite follow-up occurred. All of this year's EQR tasks were conducted during May through October, 2017.

In preparation for the study, B&A received data from the OMPP Enterprise Data Warehouse (EDW) with the transfer of data facilitated by OMPP's EDW vendor, Optum. A data request specific to this EQR was given to Optum and the data was delivered to B&A in an agreed upon format. All data delivered to B&A from the OMPP came directly from the EDW. B&A leveraged all data validation techniques used by Optum before the data is submitted to the EDW. When additional data was deemed necessary, B&A outreached directly to the MCEs to obtain this data for the study and ran validations of this data. Specific data received from the EDW included:

- An enrollment file that contained demographic information about each Medicaid enrollee;
- A member month file that tracked a Medicaid member's enrollment in any of the three programs (HHW, HCC or HIP) as well as Traditional Medicaid on a monthly basis for CYs 2012-2016;
- A provider roster file that contained demographic information about each provider enrolled with Indiana Medicaid (a provider must be enrolled with Indiana Medicaid before the provider can contract with an MCE for any Medicaid managed care program);
- A dataset of fee-for-service claims with dates of service in CYs 2012-2016 for individuals who moved from fee-for-service to a managed care program (or back to fee-for-service); and
- A dataset of encounters with dates of service in CYs 2012-2016 representing all services submitted by the MCEs to OMPP for members enrolled in HHW, HIP or HCC.

For both the fee-for-service claims and encounter data, services included institutional services, professional services, dental services and pharmacy scripts.

Sections III through VIII of this report describes in detail the methodology and findings of each of the EQR activities stated above. Because the MCEs that contract with the OMPP serve all three programs (HHW, HCC and HIP), the review of all three programs was conducted simultaneously. This report, therefore, serves as the EQR study for all three of Indiana's managed care programs for CY 2016. Throughout the report, where applicable, information is presented for each program individually. For the

study of lead testing only, information is shown for children in HHW and HCC combined since most all of the children in managed care are enrolled in HHW. (There are no children enrolled in HIP).

A series of onsite meetings were held with each MCE individually at their home office in Indianapolis over the course of the EQR period. Multiple members of the EQR Review Team participated in these meetings either in person or telephonically based on their role in this year's EQR. The Project Director facilitated all of the onsite meetings in person. The focus of all meetings was either to interview MCE staff appropriate to the study topic or to review preliminary findings completed by B&A related to the study topic. A summary of the onsite meeting schedule is shown below:

- May 16-17: In-person interviews were held to walk through the MCE's claims processing systems, the MCE's lead screening efforts and related analytics, and the MCEs' approach to assessing medication adherence. B&A also walked through its initial review of case/case management reports submitted by the MCE to the OMPP.

- July 26-27: B&A hosted a webinar to review the initial results from the claims processing and adjudication focus study as well as the review of case/care management database files submitted to B&A by each MCE for this EQR.

- August 23-24: B&A met in-person with each MCE to review the initial results from the analytics related to lead screening, medication adherence and potentially preventable readmissions. Items requiring follow-up from the July 26-27 webinar related to claims adjudication were also discussed.

- August 24: An all-MCE meeting was held with OMPP staff in attendance to review additional results related to potentially preventable readmissions as well as case/care management reporting.

- September 5-6: In-person interviews were held to discuss and ask questions related to each MCE's QIP reports.

The EQR Review Team

This year's review team included the following staff:

- Mark Podrazik, Project Director, Burns & Associates, Inc. Mr. Podrazik provided project oversight and participated in onsite reviews for this year's EQR. He led the B&A team responsible for all analytics pertaining to this year's focus studies. He has worked with the OMPP in various capacities since 2000. Previously, Mr. Podrazik led the EQRs in CYs 2007-2016. Although it was not required since the program was not a managed care program, Mr. Podrazik also conducted an external review of Indiana's Care Select program (the predecessor to HCC) at OMPP's request in CY 2009.

- Dr. Linda Gunn, AGS Consulting, Inc. Dr. Gunn participated as a team member in the review of medication adherence by reviewing desk materials submitted by the MCEs related to this study as well as participating in the in-person interviews. Dr. Gunn also participated in B&A's EQRs for Indiana programs in CYs 2009-2016.

- Debbie Saxe, Saxe Consulting, LLC under contract to AGS Consulting. Ms. Saxe joined the EQR team last year and continued her participation this year with a focus on the claims processing and adjudication focus study. Ms. Saxe brings over 25 years working at a state

Medicaid agency where she was responsible for managing policy, reimbursement and, for part of her tenure, a managed care oversight unit.

- Kristy Lawrance, Lawrance Policy Consulting, LLC. Ms. Lawrence participated as a team member in the review of lead testing by reviewing desk materials submitted by the MCEs related to this study as well as participating in the in-person interviews. She also shared responsibility with Mark Podrazik conducting the desk review of QIPs and led the onsite interviews related to this topic. Ms. Lawrance also participated in B&A's EQRs for Indiana programs in CYs 2013-2016.

- James Maedke, SAS Programmer, Burns & Associates, Inc. Mr. Maedke conducted analytical support in SAS for the focus study related to potentially preventable readmissions. He has participated in analytical aspects of B&A's EQRs conducted in CYs 2014-2016 and he has also served as the lead analyst on B&A's project to write an independent evaluation of Indiana's CHIP. He also assists in preparing Indiana's annual CHIP report to CMS.

- Ryan Sandhaus, SAS Programmer, Burns & Associates, Inc. Mr. Sandhaus conducted analytical support in SAS for the focus studies related to lead testing and claims processing. He also served as a primary reviewer in examining the accuracy of the MCEs' claims adjudication pricing process. Mr. Sandhaus joined the EQR team in CY 2016 when he participated in the validation of performance measures and the calculation of findings related to the well care/primary care utilization study, the prenatal care study, the dental access study and the access to providers study.

- Akhilesh Pasupulati, SAS Programmer, Burns & Associates, Inc. joined the EQR team this year by conducting the analytical support in SAS for the focus study related to medication adherence. He leveraged his experience working for a national pharmacy benefit manager to inform the analytics for this study.

- Barry Smith, Analyst, Burns & Associates, Inc. Mr. Smith conducted the analytical support related to validating performance measures as well as the validation and tabulation of results related to the claims adjudication pricing process. Mr. Smith has previously worked on the Data Analysis Team for the EQRs conducted in CYs 2009-2016.

- Bledar Malaj, Analyst, Burns & Associates, Inc. joined the EQR team this year by conducting the analytic support related to tabulating information from the Indiana Department of Health's database of lead tests conducted throughout the state for use in the focus study on lead testing. He also used geomapping software to create data visualizations of findings from the lead testing focus study.

SECTION III: VALIDATION OF PERFORMANCE MEASURES

Introduction

In previous External Quality Reviews (EQRs), Burns & Associates, Inc. (B&A) has selected performance measures to validate from among the various reports that the managed care entities (MCEs) submit to the Office of Medicaid Policy and Planning (OMPP) on a regular basis. The OMPP has created an MCE Reporting Manual for each of the three managed care programs—Hoosier Healthwise (HHW), Hoosier Care Connect (HCC) and Healthy Indiana Plan (HIP) 2.0. The MCEs are required to submit results in pre-set reporting templates in Excel. Most reports must be submitted on a quarterly basis. In addition to the report template, the OMPP provides instructional guidance to the MCEs on how to complete each report.

For this year's EQR, in consultation with the OMPP, the following reports were selected for validation:

- QR-CRPH1: Care Management Report – Physical Health Conditions of Interest
- QR-CRBH1: Care Management Report – Behavioral Health Conditions of Interest
- QR-CMPH1: Complex Case Management Report – Physical Health Conditions of Interest
- QR-CMBH1: Complex Case Management Report – Behavioral Health Conditions of Interest

These are quarterly reports that are submitted by each MCE to the OMPP for the HHW, HCC and HIP programs separately. As a result, for each MCE, results from 48 reports were validated (4 reports total per quarter x 4 quarters = 16 reports x 3 programs = 48 reports).

A summary of the measures that are reported by the MCEs appear in Exhibit III.1 on the next page. The format of all four OMPP reports (CRPH1, CRBH1, CMPH1 and CMBH1) is identical. The top part of each report requests information on the unduplicated number of members in case or care management (depending on the report) for physical or behavioral health conditions of interest. This portion is the same across all reports. The reports differ in the bottom part of the report in which the MCEs are requested to provide information on case or care management measures for members within a specific condition of interest.

B&A also validated a quarterly report submitted by the MCEs related to claims processing statistics. This was one component of a more holistic focus study related to claims processing in this year's EQR. Refer to Section VIII for more details on this study for information related to the claims processing report validation.

In conducting this validation, B&A considered the elements for review suggested in the CMS EQR *Protocol 2: Validation of Performance Measures Reported by the MCO, Version 2.0* released in September 2012. This included the three main activities as outlined in the protocol:

- Activity 1: Pre-Onsite Visit Activities
- Activity 2: Onsite Visit Activities
- Activity 3: Post-Onsite Visit Activities

Due to the nature of this year's selected measures, some items in the protocol were not applicable. For example, medical records were not applicable and there was no sampling process since the measures validated represented the entire population. The OMPP reports only had a few measures that utilized both a numerator and denominator. As such, B&A developed its own measures that utilized data

Exhibit III.1
Example of OMPP Quarterly Report Template for MCEs to Report Information on their Complex Case and Care Management Programs

Note: This format is used for all three programs (HHW, HCC, HIP) as well as for all four quarterly case/care management reports (CRPH1, CRBH1, CMPH1, CMBH1).

MCE Name: _____
Report Name: **Complex Case Management Report - Physical Health Conditions of Interest**
Report Code: **QR-CMPH1**
Submission Date: _____

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)
Program Title	**Reporting Period**	**Experience Period**	**Total Identified (through any method) in the Reporting Period**	**Total Identified through HRS or NOP Specifically in the Reporting Period**	**Total Opt Outs (Refusals) in the Reporting Period**	**Total Active Ever Enrolled in the Reporting Period**	**Total Participation Days in the Reporting Period Represented by the Active Ever Enrolled**	**Total Live Verbal Contacts in the Reporting Period Represented by the Active Ever Enrolled**	**Total Disenrolled in the Reporting Period**	**Total Enrolled at the End of the Reporting Period**	**Total Full Time Eqivalent Case Managers**	**Full Period Equivalent Participant Caseload per Case Manager**	**Average Program Participation Length (days in reporting period)**	**Average Live Verbal Contacts Per Member Per Month in Reporting Period**
All Conditions of Interest Combined (Unique Members)	**Current Period Submission**											calculated	calculated	calculated
	Previous Period											calculated	calculated	calculated
	Second Previous Period											calculated	calculated	calculated
	Third Previous Period											calculated	calculated	calculated

Specific Conditions of Interest:

Asthma	**Current Period Submission**									
	Previous Period									
	Second Previous Period									
	Third Previous Period									

On the reports related to physical health, the rows illustrated above for asthma are also shown for the following additional conditions: diabetes, pregnancy, COPD, coronary artery disease, congestive heart failure, chronic kidney disease, Right Choices Program, MCE-specific conditions (MCE should indicate what these are).

On the reports related to beahvioral health, the rows illustrated above for asthma are shown for the following conditions: depression, ADHD, autism/pervasive developmental disorder, bipolar disorder, inpatient discharges from a psychiatric facility, MCE-specific conditions (MCE should indicate what these are).

from the reports as a means to validate the integrity of numerators and denominators in the context of the measures reported on. Factoring in the intent of the EQR protocol, B&A created a methodology specific to validating these reports and measures as outlined in the section below.

Methodology Related to the Validation Process

1. B&A tabulated the results for the four quarters for each report by MCE/program.

2. B&A examined the results of each report by MCE/program across the quarters for face validity.

3. The results compiled in Step 2 were shared with each MCE in one-on-one meetings held May 17-18, 2017. Questions were posed to each MCE related to its reported results.

4. At the May meetings, a request was made by B&A to each MCE to provide a member-level detail file that shows information about each member's participation in the MCE's case or care management program in Calendar Year (CY) 2016. A standardized format for submission was developed by B&A. The data elements requested for each member tie to the OMPP quarterly report template.

5. Upon receipt of the member-level detail file, B&A validated and tabulated the results for each MCE/program. Additionally, B&A developed additional metrics to compare:
    a. Results between the MCE's complex case and care management programs.
    b. Results across MCEs for the complex case management program and separately for the care management program.

    Examples of the performance measures tabulated by B&A included:
    - Members identified for case or care management as a percent of all unique enrolled members (using the enrollment file provided to B&A for this project from the OMPP data warehouse)
    - The percent of members identified for case or care management who opted out
    - The percent of members enrolled in case or care management (after excluding the opt out members)
    - The average days members were enrolled in case or care management, across years
    - The average days members were enrolled in case or care management, in CY 2016 only
    - The percent of members enrolled in case or care management for more than 180 days (a way to measure the integrity of the dates reported)
    - The percent of members enrolled in case or care management for 0 days (a way to measure the integrity of the dates reported)
    - The average number of verbal contacts that the MCE had with its members in case or care management for every 30 days enrolled in the program
    - The percent of members with both a physical and behavioral health condition of interest reported
    - The percent of members with more than one physical or more than one behavioral health condition of interest reported

6. The first round of results tabulated in Step 5 was shared with each MCE in one-on-one meetings held July 26-27, 2017. Because some items were found to be invalid for two of the three MCEs, an opportunity was provided to submit an updated member-level file to B&A to address these reporting issues.

7. Updated results of B&A's tabulation of the member-level detail file were provided to each MCE in one-on-one meetings held August 23-24. At these meetings, B&A also shared the results of our validation against the MCE's quarterly report submissions related to these measures.

Findings

A summary of the measures tabulated by B&A for case and care management distinctly across the MCEs/programs appears in Exhibit III.2 on page III-6. It should be noted that these findings are for all of CY 2016 combined and not individual quarters. When examining these results, B&A's findings showed:

- With one exception, there were similarities across the MCEs in the percentage of all members identified for complex case management. There were differences, however, in the percentage identified for care management. One MCE stood out quite differently from the other two pertaining to members identified for care management in the HCC program. Upon further discussion with this MCE, they indicated that their approach to the HCC population has changed in CY 2017 and that they expect that the percent identified will be more similar to what was found for the other MCEs.

- The percentage of members identified for enrollment into case or care management who opted out also varied by MCE. Upon further consultation with the MCEs, this appears to be how each MCE defines the term "opted out".

- The enrolled members as a percent of total identified (exclusive of those opted out) should be near 100 percent unless there are members identified who are still in a queue to be outreached to by the MCE. This statistic was near 100 percent for one MCE but not the other two MCEs. Among other things, this appears to be an artifact of how "opted out" is being defined by each MCE as well as the definition of "identified".

- The difference in the average days of enrollment in case and care management across the MCEs implies that the MCEs have different approaches in member assignment to case and care management. For two of the MCEs, the average days of enrollment in care management were higher than the average for complex case management. In consultation with the MCEs, this is because they are more often classifying members into complex case management to mitigate a short-term crisis situation. Care management, on the other hand, is intended to address long-term chronic conditions. The third MCE, however, had the opposite results on the average days of enrollment. Their response to this statistic was that individuals in complex case management could be to address short-term crises as well as long-term chronic conditions. Often, after an individual's needs have been addressed in complex case management, the individual does not "step down" to care management. Therefore, many of this MCE's care management members were never in complex case management.

- The average number of verbal contacts for every 30 days enrolled also varied across MCEs, particularly for complex case management. The results were more similar across the MCEs for care management and these results were usually lower than the corresponding result for complex case management. After discussing this measure with each MCE, the reason for the difference is in how each MCE is defining and capturing verbal contacts. The MCE with the highest volume of contacts captures any verbal contact related to management of the member, including calls made on behalf of members to providers or other support agencies. The MCE with the lowest volume had both a data capture issue as well as taking the approach that verbal contacts were only to members and only related to discussing care plan goals.

- Anthem had members "enrolled" in case or care management but then reported an enrollment and disenrollment date that was the same day. In consultation with this MCE, this finding is an artifact of a two-step approach to enrollment in case or care management. The initial "identified" group, as defined by the MCE's predictive model, is the first step in the process. Each of these members is "enrolled" in complex case or care management based on these criteria. From here, the case manager reviews the list and excludes members for a variety of reasons including the following: member opted out, member targeted based on the predictive model but is adhering to medication regimen, or member cannot be located. For any of these reasons, the member is "disenrolled" the same day as enrollment, meaning the member was never actually in case or care management. The other MCEs do not follow this process. The other MCEs define "enrolled" as a verbal acceptance by the member upon invitation to engage in case or care management. Despite this, MHS had some zero day enrollment members as well, but this appeared to be a data reporting issue more than a policy-driven issue like Anthem.

- The OMPP has requested that specific conditions of interest be reported on in its quarterly reports. There appears to be opportunities for improvement in reporting this information from all three MCEs.
    - For MHS, information on members with specific behavioral health conditions was limited to those conditions identified by the MCE rather than the conditions identified by the OMPP.
    - For Anthem, information on members with specific physical health conditions of interest was often classified as "other". B&A asked the MCE for further detail on what comprised this "other" category. The MCE provided this information on 45 percent of HHW members, 63 percent of HCC members and 65 percent of HIP members where "other" was assigned.
    - For MDwise, behavioral health conditions of interest were reported for members in complex case management but not for care management. Similar to MCE 2, the most common physical health condition of interest found was "other", but this was limited to the care management population. When asked for more details about "other" conditions, hypertension was the only one cited.
    - When behavioral health conditions of interest were reported, there was wide variation across the MCEs when examining the percentage of members enrolled with the MCE for either complex case or care management who had both a physical health and behavioral health condition of interest.

In addition to the variation in reporting *across* the MCEs on key measures for case and care management utilization, B&A could not validate these key measures *within* an MCE when comparing the member-level detail file submitted by the MCE to B&A as part of this EQR to the results that were reported by the MCE on its quarterly report submissions to the OMPP. The main reasons found why these reports could not be validated include the following:

- Individual members on the quarterly reports could be counted on more than one report each quarter (complex case and care management, physical health and behavioral health). This means that a member could be counted on four reports in a single quarter if they moved from complex case to care management within the quarter. B&A only counted them once. This affected measures related to total identified, ever enrolled, average days enrolled, and total verbal contacts.

- The number of opt outs on the file submitted to B&A never matched the quarterly reports for any MCE.

Exhibit III.2

Utilization Statistics of MCE Complex Case and Care Management Programs in CY 2016

Source Data: MCE Submissions to Burns & Associates as part of the EQR

		COMPLEX CASE MGMT			CARE MANAGEMENT		
		HHW	HCC	HIP	HHW	HCC	HIP
Identified as Pct of All Unique Enrollees	MHS	0.3%	1.4%	0.6%	3.7%	67.5%	2.3%
	Anthem	0.5%	2.5%	0.7%	1.5%	7.7%	2.9%
	MDwise	0.9%	6.8%	1.2%	0.2%	3.0%	0.2%
Opted Out as Pct of Identified	MHS	1.3%	6.9%	2.5%	0.9%	2.3%	4.5%
	Anthem	26.7%	3.9%	13.0%	6.3%	6.7%	8.7%
	MDwise	9.3%	3.7%	4.3%	3.8%	4.4%	3.9%
Enrolled as a Percent of Identified (after backing out the Opt Outs)	MHS	101%	107%	103%	101%	102%	105%
	Anthem	59%	103%	103%	68%	85%	55%
	MDwise	78%	91%	72%	56%	81%	39%
Average Days Enrolled in Program	MHS	130	182	167	214	294	163
	Anthem	227	290	267	151	165	138
	MDwise	162	209	190	177	182	223
Average Days Enrolled in Program (using CY 2016 days only)	MHS	91	119	108	115	208	108
	Anthem	132	163	141	83	96	76
	MDwise	115	200	136	125	162	140
Integrity of Enrollment Time Reported Pct of Members with 0 Days Enrollment	MHS	0%	0%	0%	2%	1%	7%
	Anthem	4%	0%	2%	9%	1%	7%
	MDwise	0%	0%	0%	0%	0%	0%
Integrity of Enrollment Time Reported Pct of Members with >180 Days Enrollment	MHS	23%	44%	43%	49%	74%	39%
	Anthem	47%	65%	56%	33%	36%	31%
	MDwise	25%	66%	30%	36%	51%	44%
Average Verbal Contacts for Every 30 Days Enrolled in CY 2016	MHS	4.6	5.3	4.4	1.2	0.9	2.5
	Anthem	0.3	0.1	0.1	0.4	0.3	0.5
	MDwise	1.8	2.1	1.6	1.4	2.0	1.9
Percent of Members Enrolled with More than 1 Condition of Interest Identified	MHS	24%	51%	36%	7%	21%	30%
	Anthem	21%	37%	43%	26%	43%	47%
	MDwise	13%	21%	15%	0%	0%	0%
Percent of Members Enrolled with both a Physical & Behavioral Health Condition	MHS	15%	34%	25%	4%	14%	20%
	Anthem	3%	5%	22%	2%	2%	16%
	MDwise	1%	4%	2%	0%	0%	0%
Conditions Where More than 30% of Enrolled Members Have the Condition	MHS	Pregnancy	Asthma, Diabetes, "Other" PH	Pregnancy	None	None	None
	Anthem	Pregnancy, "Other" PH	None	"Other" PH	"Other" PH	Diabetes	"Other" PH
	MDwise	Pregnancy, IP Psych	IP Psych	IP Psych	"Other" PH	"Other" PH	"Other" PH

Recommendations Related to the Validation of Performance Measures

Upon review of the data tabulated pertaining to this validation exercise, B&A recommended to the OMPP that remediation occur more expeditiously than would normally occur during the feedback process for the annual EQR. The OMPP concurred with this recommendation and, as a result, B&A facilitated a meeting with all of the MCEs in conjunction with the OMPP on August 24, 2017 to review the findings presented in the previous section. The purpose of the meeting was to discuss reasons why B&A could not validate the results submitted on the quarterly reports to the OMPP against each MCE's own data warehouse of information related to case/care management measures. B&A shared the following conclusions with the MCEs:

- In some instances, there are recommendations specific to an MCE in which the data captured for measures related to case/care management can be improved. These recommendations were made in the one-on-one meetings with each MCE on July 26-27 with follow-up, as necessary, in meetings held on August 23-24.

- In most instances, B&A found that the results of specific measures were not necessarily incorrect. Rather, the results when compared across MCEs were inconsistent due to the manner in which each MCE interpreted the instructions for filling out each report. For example,
    - The MCEs made different assumptions in how to capture the number of members "identified".
    - The MCEs used different definitions for members who "opted out".
    - The MCEs defined and tracked "live verbal contacts" differently.
    - Two MCEs indicated that, in their programs, a member could not be enrolled simultaneously in both complex case and care management. The third MCE indicated that this could occur if the reasons for enrollment in each program were different.

<u>Recommendations to the OMPP</u>

1. If the OMPP is interested in tracking the measures reported in this validation exercise, it should require that the MCEs provide member-specific data from the MCEs similar to what was provided by the MCEs to B&A during this EQR.

2. Since the current complex case and care management reports are delivered to the OMPP in Excel, a new template can be developed such that the member-specific records can automatically roll up to the summary report using Excel functions. This will assist in the validation of specific measures in real time and give the MCEs an opportunity to address data validation issues prior to the submission of the quarterly reports.

3. In an effort to eliminate the multiple counting of the same member on multiple case and care management reports, B&A recommends that the OMPP develop a report that encompasses information on both the complex case and care management programs and includes both physical health and behavioral health conditions of interest.

4. The OMPP needs to provide more specific guidance on the definitions of the following terms as it relates to the complex case and care management reports:
    a. Identified for complex case or care management
    b. Opted out of complex case or care management
    c. Enrolled in complex case or care management (including active or passive enrollment)
    d. What constitutes a countable live verbal contact

Recommendations to the MCEs

1. The MCEs need to ensure that their case and care management reporting systems capture the data as required in the reporting template in an efficient and verifiable manner. In some instances, this means tracking data through check boxes or drop down lists as opposed to free-form notes fields.

2. All MCEs need to provide more integrity to the enrollment and disenrollment dates for members enrolled in complex case or care management.
    a. All MCEs reported some members enrolled in care management over multiple years. This may be true, but it needs to be verified.
    b. Two MCEs reported enrollment and disenrollment dates that showed the same day. Verification on enrollment duration should be checked prior to submitting data to the OMPP. Since the OMPP will be defining "enrolled" only for those members who actively accept enrollment into case or care management, there should no longer be members listed with same-day enrollment and disenrollment.
    c. One MCE originally had members with date spans of enrollment in both complex case and care management. This was later corrected by the MCE as part of the EQR submission. The OMPP has decided that a member can only be enrolled in one portion of the program at a single time. The MCE should ensure that this new process is followed on an ongoing basis.

3. The MCEs need to adhere to the definitions as will be further defined by the OMPP for *identified*, *opted out*, *enrolled*, and *live verbal contact*.

4. Each MCE needs to improve the way it tracks the conditions of interest associated with each member enrolled in complex case or care management. In the findings, it was found that some MCEs tracked this better than others. The specific recommendations on this matter have been discussed with each MCE individually.

Action Items for Moving Forward

The recommendations listed above have already been communicated to both the OMPP and to the MCEs. As a means to take action to remediate the inconsistency in reporting on case and care management measures to the OMPP, the following action items are already underway:

1. The reporting of case and care management measures will continue to occur on a quarterly basis to the OMPP for each of its managed care programs. However, rather than submitting four reports for each program as is done currently, the MCEs will submit one consolidated report that includes information on both care management and complex case management and will include information on members with both physical health and behavioral health conditions of interest.

2. The new consolidated report will be submitted in Excel format. There will be a report template in which each MCE will provide information that is at the member level. This detailed report will be summarized in another report in the Excel file that will be formula-driven to avoid errors in tabulation.

3. The prototypes of both the detail table and the summary table are being developed by B&A for release to the MCEs for comment. Although there was discussion at the all-MCE meeting about the ability to capture specific data items within each MCE's case/care management systems, the

comment period is intended to give the MCEs an opportunity to confirm their ability to easily capture and report on each data element that is being requested.

4. In conjunction with the new report template, the instructions for completing the detailed report are being drafted by B&A for comment by the MCEs. The instructions will include definitions of the terms that B&A found in its validation of these reports were inconsistently interpreted by the MCEs. In addition to definitions and instructions, scenarios will be presented for how to capture information about each member on a rolling basis to submit to the OMPP. Examples of scenarios include how to report when a member moves from complex case to care management or vice versa, how to capture when additional conditions of interest are identified, and how to capture when a member exits case or care management and then re-enrolls. The MCEs will also be given an opportunity to comment on the instructions and the scenarios presented.

5. Once all feedback is collected, the report template and instructions will be finalized by B&A. The new report will be released for the reporting period starting in 2018 Quarter 1.

SECTION IV: VALIDATION OF PERFORMANCE IMPROVEMENT PROJECTS

Introduction

The OMPP uses the term Quality Improvement Plan, or QIP, to differentiate between it and the Performance Improvement Projects that it requires of its managed care entities (MCEs) resulting from Corrective Action Plans. Therefore, in this report, references to "QIPs" mean the same thing as "PIPs" as described in CMS EQR Protocol 3: *Validating Performance Improvement Projects*. Burns & Associates, Inc. (B&A) utilized the guidance for this CMS Protocol to complete this year's validation which includes the following steps:

Activity 1: Assess the Study Methodology

1. Review the selected study topic(s)
2. Review the study question(s)
3. Review the identified study population
4. Review the selected study indicators
5. Review sampling methods
6. Review the data collection procedures
7. Assess the MCE's improvement strategies
8. Review data analysis and interpretation of study results
9. Assess the likelihood that reported improvement is "real" improvement
10. Assess sustainability of the documented improvement

Activity 2, Verify Study Findings (an optional activity not completed as part of this year's EQR)

Activity 3, Evaluate and Report Overall Validity and Reliability of QIP Results

B&A customized some of the components in the CMS Protocol's PIP Review Worksheet to better assess the specific QIPs at each MCE. In particular, more focus was spent on the MCE interventions for each QIP to determine if each intervention was measurable and how the results of interventions informed the MCE's assessment of the QIP.

It should be noted that as part of the EQR conducted in Calendar Year (CY) 2014, B&A assisted the Office of Medicaid Policy and Planning (OMPP) in revising the format that the MCEs submit their annual QIP reports. The QIPs cover a calendar year period and the annual report on each QIP is due to the OMPP the August 1 following the calendar year. The new QIP reporting tool took effect for QIPs in place in CY 2015.

The EQR conducted in CY 2016, therefore, was the first year in which the new QIP reporting tool was fully utilized since the annual reports for QIPs conducted in CY 2015 were due August 1, 2016. After the EQR was completed in CY 2016, both B&A and the MCEs had proposed recommendations for further refining the tool after using it in practice for one year. At the OMPP's request, B&A convened a meeting with all of the MCEs on November 15, 2016 to discuss the proposed refinements to the tool. These refinements were agreed to and implemented for use in reporting the results from CY 2016 QIPs in the annual submissions due to the OMPP on August 1, 2017. The one exception to this is the inclusion of a new section whereby the MCEs provide qualitative updates on a quarterly basis during the year in which the QIP was in place. Since the revised tool was not finalized until December 2016, the quarterly updates for CY 2016 were not required for the annual reports of CY 2016 QIPs. Instead, the B&A team reviewed the 2nd Quarter 2017 submissions for QIPs from CY 2016 that continued into CY 2017.

Quality Improvement Projects Reviewed

The MCEs are required to have QIPs for all three programs that it administers—Hoosier Healthwise (HHW), Hoosier Care Connect (HCC) and Healthy Indiana Plan (HIP) 2.0. The MCEs have the option to conduct the same QIP across programs. Although the MCEs select their own QIPs, oftentimes the choice of QIPs reflects measures in the OMPP's Pay for Outcomes (P4O) program. For this year's EQR, B&A selected the QIPs shown in Exhibit IV.1 for validation.

Exhibit IV.1
Quality Improvement Projects Reviewed in this Year's EQR

MCE	QIP Topic	QIP in place for HHW	QIP in place for HCC	QIP in place for HIP	Q2-2017 update also reviewed?	Was this QIP reviewed in 2016 EQR?
Anthem	Follow up after Hospitalization for a Psychiatric Stay	No	Yes	Yes	Yes	Yes
Anthem	Adult Access to Preventive Care	No	not until CY17	Yes	Yes	Yes
Anthem	Health Needs Screening	Yes	Yes	Yes	Yes	Yes
MHS	AOD Dependence	Yes	Yes	not until CY17	Yes	Yes
MHS	Adult Access to Preventive Care	No	No	Yes	No, QIP discontinued	No
MHS	Emergency Department Utilization	Yes	Yes	Yes	Yes	Yes
MDwise	Follow up after Hospitalization for a Psychiatric Stay	Yes	Yes	Yes	Yes	Yes
MDwise	Adult Access to Preventive Care	No	Yes	Yes	No, QIP discontinued	No
MDwise	Health Needs Screening	not until CY17	No	Yes	Yes	No

Methodology Related to the Validation Process

1. B&A verified with each MCE the QIPs in place for CY 2016 and the programs that each QIP pertained to.

2. B&A then selected QIPs from each MCE for inclusion in this year's validation.

3. The MCEs submitted the annual QIP reports to B&A for desk review that were due to the OMPP on August 1, 2017. Separately, B&A obtained the Q2-2017 updates from the OMPP (due July 31, 2017) of the QIPs that are still active in CY 2017.

4. B&A team members Mark Podrazik and Kristy Lawrance independently conducted a desk review of each annual QIP report and the associated quarterly updates submitted. Specific elements conducted as part of the desk review included examining the study question, the definition of performance measures, the definition of interventions, the method in which numerators and

denominators are defined as ways to assess the effectiveness of interventions, the methods in which the MCEs assess their interventions, the qualitative summary provided by the MCE in its annual QIP report, and indications of how the MCE is continually improving upon its QIP by reviewing the 2nd Quarter 2017 quarterly updates.

5. The B&A team members developed customized questions to pose to each MCE in an onsite meeting related to its CY 2016 QIPs.

6. One-on-one meetings were held with each MCE on September 5 or 6 to discuss their QIP reports. The MCEs had representatives from their team who were the leads for each QIP and those that could speak to the specific QIP interventions available for the onsite interviews. The EQR team members jointly met with MCE representatives to go over the questions in the customized interview protocols for each QIP. In some instances, the MCEs brought supplemental information to the meeting to explain more fully the analytics completed on QIP measure results.

7. The EQR team members considered the items from the desk review, the responses in onsite interviews, and supplemental information provided by the MCEs to complete the assessment on each MCE QIP as part of a post-onsite evaluation.

Anthem QIP Findings

Follow-up After Hospitalization for a Psychiatric Stay

Is the QIP related to an OMPP P4O initiative?	No
QIP in place in the following Program(s)	HCC, HIP
Year in which the QIP began	2016
Will the QIP continue in the coming year?	Yes

Anthem utilizes two measures to assess the impact of this QIP:

- Follow-up visit within seven days after inpatient discharge (FUH, as defined by HEDIS)
- Follow-up visit within 30 days after inpatient discharge (FUH, as defined by HEDIS)

Interventions

Anthem defined one intervention as part of this QIP, namely, reminder calls to members to attend follow-up appointments. The intervention is measured as the number of members reached divided the number of members identified as being discharged from a psychiatric facility. In CY 2016, Anthem identified opportunities to improve its documentation of this intervention. Additional analysis of the intervention revealed to Anthem that the intervention was starting upon notification to Anthem of the discharge, which often occurred a few days after discharge and thus reduced the time to conduct reminder calls to meet the 7-day threshold. A process improvement was developed to initiate reminders for follow-up starting as early as date of hospital admission.

Starting in March 2017, Anthem now tracks the following on a monthly basis:

- The number of members in need of a reminder call (the HEDIS denominator),
- The number of members who received a reminder call
- The number of members with an appointment documented
- The number of members with both a reminder call and an appointment documented

Impact of the QIP

The effect of the 2016 intervention on this QIP appeared to have shown real improvement in the HCC program but not in the HIP program. The measure results by program are as follows:

- For both HCC and HIP, this year's goal for 7-day follow-up after hospitalization was 64.2% (HEDIS 90th percentile).
  - In HCC, the result from measurement year 2016 was 54.2%. Although the goal was not achieved, Anthem saw a statistically significant change from the prior measurement year's result of 45.9%.
  - For HIP, the result from measurement year 2016 was 43.2%. The goal was not achieved and Anthem saw a decline from the prior measurement year's result of 46.0%.
- For both HCC and HIP, this year's goal for 30-day follow-up after hospitalization was 80.2% (HEDIS 90th percentile).
  - In HCC, the result from measurement year 2016 was 69.2%. The goal was not achieved, but Anthem did see improvement from the prior measurement year's result of 67.8% (although this was not statistically significant).
  - For HIP, the result from measurement year 2016 was 59.4%. The goal was not achieved and Anthem saw a decline from the prior measurement year's result of 62.6%.

Anthem pointed that although the rates for 7-day and 30-day declined from the prior year, this was mostly due to the large influx of HIP members from the prior study year (the denominator increased by 69%). In absolute terms, the number of members with 7-day visits increased 59 percent while the number of members with 30-day visits increased 60 percent.

Lessons Learned / Next Steps

As the QIP moves into CY 2017, Anthem is now tracking the HEDIS 7-day and 30-day rates at the county level on a map along with member volume as a means to easily identify the areas of greatest opportunity. As a result of this analysis, six counties and the Community Mental Health Centers (CMHCs) in these counties have been targeted for enhanced outreach.

Additional interventions have also begun in CY 2017. Anthem has also started to send Community Health Workers to engage with members in the field, particularly those who could not be reached by their third day post-hospital discharge. Once contact is made with that member, Anthem is immediately providing or scheduling appointments through telepsychiatry.

Members who were contacted through outreach calls who make an appointment and keep it are now given a $20 incentive payment as well.

In the acute care setting, members have an assigned primary medical provider for primary care services. There is currently no equivalent for behavioral health services. Anthem is starting work to link members to either an inpatient facility or a CMHC to serve as their behavioral health "home".

Adult Access to Preventive Care

Is the QIP related to an OMPP P4O initiative?	Yes
QIP in place in the following Program(s)	HIP (will begin in HCC starting in CY 2017)
Year in which the QIP began	2016
Will the QIP continue in the coming year?	Yes

Anthem utilizes the HEDIS measure for Adult Ambulatory and Preventive Care (AAP) to assess the impact of this QIP.

Interventions

Anthem defined two interventions as part of this QIP, namely, reminder calls to members to have a well visit and Anthem Clinic Days which are targeted days to promote well visits at high-volume primary care sites for Medicaid members to receive well care visits.

Anthem determined that the return on investment of the labor-intensive calls was not effective since the number of members reached was low. Anthem Clinic Days had historically been utilized in pediatric physician offices with long-standing relationships in HHW and Anthem learned that the relationships with non-pediatric offices had not been cultivated enough to make Anthem Clinic Days focusing on the adult population very effective.

Impact of the QIP

The effect of the interventions on this QIP did not show improvement in the measure being assessed:

- This year's goal for percentage of HIP members who had an adult preventive care visit was 89.3% (HEDIS 90th percentile). For HIP, the result from measurement year 2016 was 82.3%. The goal was not achieved and Anthem saw a decline from the prior measurement year's result of 83.2%.

Lessons Learned / Next Steps

Based on what was learned in CY 2016, Anthem redirected its intervention for this QIP for CY 2017. The new intervention utilizes text, email or interactive voice response (IVR) as the first mode of communication to HIP members for reminders to seek a preventive visit. Anthem stated that they receive affirmative responses from members who are texted or emailed. A system has been developed so that Anthem's claims system is swept to determine opportunities among members with no evidence of a preventive visit. When a member has the preventive care visit, they are given a member incentive.

Anthem has developed a more comprehensive tracking system related to this QIP. Examples of reports that are continually maintained include the following:

- Tracking the number of member incentives awarded to the number of members outreached
- Opportunities for preventive care visits counting members by county, by provider group and by provider
- A year-to-date running total of closed gaps (numerator adherence) for the AAP measure comparing CYs 2017 and 2016

New Member Health Needs Screening

Is the QIP related to an OMPP P4O initiative?	Yes (for HCC and HIP)
QIP in place in the following Program(s)	HHW, HCC, HIP
Year in which the QIP began	2016
Will the QIP continue in the coming year?	Yes

Anthem utilizes the same measure for each program distinctly to assess the impact of this QIP, that is, the percentage of new members (not with the MCE in the last 12 months) who have completed a health needs screening (HNS) tool within 90 days of Anthem's notification of their new member. The numerator is the number of HNS completed within 90 days of notification to the MCE of a new member (or the member's eligibility date, whichever is greater). The denominator is all new members to the MCE needing an HNS less any members that terminated prior to 90 full days of enrollment.

Interventions

Anthem defined one intervention as part of this QIP, namely, the use of Pursuant Health kiosks located in Walmart Pharmacies in the State of Indiana. A member inserts his or her Anthem Rewards card into the kiosk. The kiosk determines if the member has/has not completed a HNS already. If not, then the member can complete the HNS at the kiosk and, upon completion, immediately receive a member incentive to redeem at Walmart. The kiosks began in August 2016.

Although not shown as a 2016 intervention, Anthem also launched a web-based HNS for members to complete. Anthem reports that the web-based version is more interactive than the kiosk; that is, the HNS questions that pop up on the web-based version are based on responses to earlier questions but the kiosk version asks all possible questions. Anthem is working to enhance the kiosk-based version to be more interactive towards the end of CY 2017.

Impact of the QIP

The effect of the intervention(s) on this QIP appeared to have shown real improvement in all three programs. The measure results by program are as follows:

- For HHW, the result from measurement year 2016 was 39.1% compared to 31.9% in 2015.
- For HCC, the result from measurement year 2016 was 50.4% compared to 25.5% in 2015.
- For HIP, the result from measurement year 2016 was 34.2% compared to 22.0% in 2015.

Despite statistically significant improvement for all three programs, Anthem acknowledges that there is still work to be done since the goal that was set for each program in CY 2016 was 70 percent.

Lessons Learned / Next Steps

Anthem reported that the kiosks have continued to increasingly be a successful way to obtain HNSs. Use of the website mode also continues to increase. New interventions have also been added in CY 2017 whereby within five days of notification by OMPP of a new member, the member will receive a text or email prompting the member to complete an HNS. Additionally, Anthem has created a subcontract relationship with a team that makes outbound calls to members from Anthem's offices. The location is important because the subcontractor has access to Anthem's system so that, in real time, the callers can determine if the new member has already completed an HNS through the website or by kiosk. This avoids unnecessary and duplicative reminder calls.

Anthem has also created additional sophistication in its reporting for this QIP in CY 2017. A report series of user-friendly, real time reports can now be generated with ease to track:

- Number of HNS completions by website or by kiosk (tracked by day of the week)
- Number of HNS completions by kiosk location
- The percentage of members who redeem their reward and how quickly after completing the HNS
- Time from outbound call from Anthem's contractor to HNS completion at a kiosk
- Reason codes for why member chose to complete the HNS

Managed Health Services (MHS) QIP Findings

Alcohol and Other Drug Dependence (AOD) Treatment

Is the QIP related to an OMPP P4O initiative?	No
QIP in place in the following Program(s)	HHW, HCC, HIP
Year in which the QIP began	2015
Will the QIP continue in the coming year?	Yes

MHS utilizes two measures to assess the impact of this QIP. Both utilize aspects of the HEDIS Measure IET for the Initiation and Engagement of Alcohol and Other Drug Dependence (AOD) Treatment:

- Initiation of AOD Treatment
- Engagement of AOD Treatment

Interventions

MHS defined one intervention as part of this QIP, namely, the implementation of an integrated medical-behavioral case management team so that behavioral health-related needs are communicated in real time to the behavioral health case management team.

MHS cited in its QIP report the number of referrals to behavioral health case management during the study year CY 2016 (n=741) but did not provide any information on the outcomes related to these individuals.

Impact of the QIP

The effect of the 2016 intervention on this QIP is unknown; however, MHS did see improvement nonetheless for the measures examined in HCC and HIP. For HHW, there was no improvement or a decline. The measure results by program are as follows:

- For all three programs, this year's goal for initiation of AOD treatment was 42.8% (HEDIS 75th percentile). The goal was met for HHW and MHS was near the goal for HCC.
    - In HHW, the result from measurement year 2016 was 46.0%, a decline from the prior year rate of 53.5%.
    - In HCC, the result from measurement year 2016 was 41.8%. This is a modest improvement from the prior year rate of 38.1%.
    - For HIP, the result from measurement year 2016 was 39.9%. Although the goal was not achieved, MHS had a statistically significant improvement from the prior year rate of 35.5%.

- For all three programs, this year's goal for engagement of AOD treatment was 13.2% (HEDIS 75th percentile). The goal was met for HHW and HCC but not for HIP.
  - In HHW, the result from measurement year 2016 was 14.2%, a slight increase from the prior year rate of 13.7%.
  - In HCC, the result from measurement year 2016 was 8.0%, a slight increase from the prior year rate of 7.6%.
  - For HIP, the result from measurement year 2016 was 13.8% which was a statistically significant improvement from the prior year rate of 11.1%.

Lessons Learned / Next Steps

As the QIP moves into CY 2017, MHS has additional interventions to improve the rates on the initiation and engagement measures which include the following:

- Intake and review of next day information from the Michiana Health Information Network (MHIN) on admission/discharge/transfer (ADT) information
- Developing a focus study with primary care practice sites in Northwest Indiana where the IET rates are the lowest in the state
- Setting up a contract with Clean Slate, a medication assisted treatment (MAT) provider, to increase access to treatment for the target population.

Adult Access to Preventive Care

Is the QIP related to an OMPP P4O initiative?	Yes
QIP in place in the following Program(s)	HIP
Year in which the QIP began	2016
Will the QIP continue in the coming year?	No

MHS utilizes the HEDIS measure for Adult Ambulatory and Preventive Care (AAP) to assess the impact of this QIP.

Interventions

MHS defined one intervention as part of this QIP. The intervention was centered on educational visits by Provider Relations staff to high-volume primary care offices. At these face-to-face meetings, the Provider Relations staff educated the provider offices about identifying gaps in care among HIP members, share best practices to close these gaps and explain MHS's P4P program directed to providers about this measure.

In its annual report on this QIP, MHS provided information on the number of provider offices that received P4P dollars compared to the total number of offices that were visited. There was no correlation, however, between a member's completion of a preventive visit among the panels represented at these physician offices to determine if the physician offices visited performed better than the MHS average.

Impact of the QIP

The effect of the 2016 intervention on this QIP is unknown; however, MHS did see improvement nonetheless for this measure. Results were reported by MHS segmenting its HIP 2.0 population across the three coverage brands: HIP Plus, HIP Basic and HIP State. The measure results by coverage brand are as follows:

- This year's goal for percentage of HIP members who had an adult preventive care visit was 75.0% which was the target imposed by the OMPP for MCEs to receive 75% of the P4O dollars associated with this measure. The target was not met among any of the HIP populations.
    - For HIP Plus, the result from measurement year 2016 was 39.5% compared to 33.0% in the prior year.
    - For HIP Basic, the result from measurement year 2016 was 10.8% compared to 10.0% in the prior year.
    - For HIP State Plan, the result from measurement year 2016 was 36.1% compared to 26.9% in the prior year.

MHS did not provide numerators and denominators related to these measures. Therefore, B&A could not assess if the improvement from the prior year was considered real improvement or not.

Lessons Learned / Next Steps

MHS reported that the rapid expansion of the HIP enrollment in CY 2016 posed challenges to outreach efforts related to member education about preventive care. Further, the engagement among provider offices was less than expected. Provider feedback cited to MHS was competing priorities among multiple payers/programs made focus on this program challenging.

MHS has opted not to continue this QIP in CY 2017 and to redirect efforts to other QIPs instead.

<u>Emergency Department Utilization</u>

Is the QIP related to an OMPP P4O initiative?	Yes
QIP in place in the following Program(s)	HHW, HCC, HIP
Year in which the QIP began	2014 for HHW, HIP and 2016 for HCC
Will the QIP continue in the coming year?	Yes

MHS utilizes a claims-based ED utilization per 1,000 member month metric that is discrete for each program to assess the impact of this QIP.

Interventions

MHS defined three interventions as part of this QIP that are all related to member outreach and education:

- Targeted outreach calls to members who presented with a non-emergent ED visit
- Outreach emails/texts to the membership age 20-44 who presented with a non-emergent ED visit
- A staged educational campaign to members/parents regarding treatment of upper respiratory infections (URIs)

Impact of the QIP

There was improvement in the measure in CY 2016 for all three programs; however, neither MHS nor the EQR review team could pinpoint if the improvement was tied to a specific intervention. The measure results by program are as follows:

- For HHW, the result from measurement year 2016 was 50 ED visits per 1,000 member months compared to 53.5 in 2015.

- For HCC, the result from measurement year 2016 was 107 ED visits per 1,000 member months compared to 112.5 in 2015.
- For HIP, the result from measurement year 2016 was 97 ED visits per 1,000 member months compared to 110 in 2015.

Despite statistically significant improvement for all three programs, MHS acknowledges that there is still work to be done since the goal that was set for HHW and HCC in CY 2016 was 53 ED visits per 1,000 member months and for HIP it was less than 85 visits.

Lessons Learned / Next Steps

MHS acknowledged that the URI educational campaign is more of an ongoing activity rather than an intervention since there is no way to easily measure the campaign's effectiveness since it is sent to the entire population.

MHS changed its interventions during the middle of CY 2016. By using information from the Michiana Health Information Network (MHIN) on admission/discharge/transfer (ADT) information, MHS now makes a phone call to all members with an ED visit that are identified through the ADT information. MHS sends out a list of urgent care centers in or near the member's zip code along with information about the services available at the urgent care clinics. This is being used as a way to divert members from the hospital ED.

MDwise QIP Findings

Follow-up After Hospitalization for a Psychiatric Stay

Is the QIP related to an OMPP P4O initiative?	Yes
QIP in place in the following Program(s)	HHW, HCC, HIP
Year in which the QIP began	2015
Will the QIP continue in the coming year?	Yes, but for HIP only

MDwise utilizes two measures to assess the impact of this QIP:

- Follow-up visit within seven days after inpatient discharge (FUH, as defined by HEDIS) conducted on a quarterly basis
- Follow-up visit within seven days after inpatient discharge but on an annual basis

Interventions

MDwise defined two interventions as part of this QIP. One intervention is the release of report cards to inpatient hospital providers that shows their 7-day follow-up rate compared to the HEDIS 75th and 90th percentile rates. Member detail is also included so that the provider can address process issues at their facility. The second intervention relates to case managers outreaching to members upon immediate notification to MDwise of the member's admission (as opposed to discharge) to the hospital.

Impact of the QIP

The impacts of the 2016 interventions on this QIP are not known. MDwise did see improvement, however, in the annual results on the 7-day follow-up measure for the HCC and HIP programs. For

HHW, the results were down a bit from CY 2015 but MDwise still exceeded the HEDIS 90th percentile rate in the HHW program. The measure results by program are as follows:

- For HHW, this year's goal for 7-day follow-up after hospitalization was 64.2% (HEDIS 90th percentile). For measurement year 2016, MDwise had a rate of 64.6% which was lower than the 2015 rate of 67.8%.
- For both HCC and HIP, this year's goal for 7-day follow-up after hospitalization was 55.2% (HEDIS 75th percentile).
    - In HCC, the result from measurement year 2016 was 46.8%. The goal was not achieved, but MDwise did see statistically significant improvement from the prior measurement year's result of 36.8%.
    - For HIP, the result from measurement year 2016 was 41.8%. The goal was not achieved but MDwise saw improvement from the prior measurement year's result of 38.9%.

Lessons Learned / Next Steps

MDwise determined that the interventions defined in CY 2016 could not be assessed for their effectiveness. As a result, the interventions have been changed in CY 2017 and MDwise is beginning to report on these new interventions in the QIP quarterly updates. The first new intervention focuses on the five inpatient facilities with the lowest follow-up rates statewide. MDwise is conducting monthly meetings with each provider in an effort to find ways to improve its follow-up rate. The second new initiative is to conduct outreach calls to members during their hospital stay or immediately after discharge on the importance of follow-up visits. MDwise is tracking the follow-up rates for those successfully outreached versus those who could not be reached. A third intervention offers an incentive payment to members who comply with follow-up visits. In order to receive the incentive, members must have had visits with two community providers and one of these visits had to be a therapy session. MDwise is tracking the readmission rate for members who received the incentive payment. To date in 2017, no members have readmitted for inpatient psychiatric services.

Adult Access to Preventive Care

Is the QIP related to an OMPP P4O initiative?	Yes
QIP in place in the following Program(s)	HCC, HIP
Year in which the QIP began	2016
Will the QIP continue in the coming year?	No

MDwise utilizes the HEDIS measure for Adult Ambulatory and Preventive Care (AAP) to assess the impact of this QIP.

Interventions

MDwise defined two interventions as part of this QIP, namely, offering a member incentive for those who had a preventive visit and face-to-face visits with high-volume primary care offices to educate them about their performance on this measure, best practices to close care gaps, and training as necessary.

MDwise did track the rate of redemption of member rewards but it continues to be very low. MDwise provided the percentage of targeted provider offices that were visited but did not tie this to the members in these providers' panels to assess the effectiveness of the intervention.

Impact of the QIP

The effects of the interventions on this QIP are not known. The results for the measure are as follows:

- This year's goal for percentage of HIP members who had an adult preventive care visit was 82.2% (HEDIS 50th percentile). The result from measurement year 2016 was 79.3%. The goal was not achieved and MDwise saw a decline from the prior measurement year's result of 81.7%.
- This year's goal for HCC was the same as for HIP. This year was a baseline year for measurement. The result from measurement year 2016 was 85.8%.

Lessons Learned / Next Steps

MDwise reported that it is not continuing this QIP in CY 2017. MDwise has exited the HCC program but continues to serve HIP members. MDwise split their rate out between HIP Basic and HIP Plus members. They found that HIP Plus utilized preventive care at a higher rate than HIP Basic members. As a means to better understand what might be driving HIP members' attitudes toward preventive care, MDwise conducted a survey with approximately 100 members (most by phone, a few face-to-face). MDwise learned from the feedback from this survey that many HIP members did not fully understand how the program worked or the fact that services are free. Others did not understand the concept of a primary medical provider (health literacy education). Others did not see the utility of having a preventive care visit ("I'm healthy."). MDwise is taking this feedback to assess ways to improve its education and outreach to HIP members about accessing their healthcare and receiving preventive care services.

The AAP measure continues to be a component of MDwise's P4O program with its primary care providers.

<u>New Member Health Needs Screening</u>

Is the QIP related to an OMPP P4O initiative?	Yes
QIP in place in the following Program(s)	HIP
Year in which the QIP began	2015 for HIP (2017 for HHW)
Will the QIP continue in the coming year?	Yes

MDwise utilizes the same measure for each program distinctly to assess the impact of this QIP, that is, the percentage of new members (not with the MCE in the last 12 months) who have completed a health needs screening (HNS) tool within 90 days of MDwise's notification of their new member. The numerator is the number of HNS completed within 90 days of notification to the MCE of a new member (or the member's eligibility date, whichever is greater). The denominator is all new members to the MCE needing an HNS less any members that terminated prior to 90 full days of enrollment.

Interventions

MDwise had two interventions as part of this QIP in CY 2016. One intervention was to make reminder calls to members about completing the HNS. The second was to offer an incentive reward for members who completed an HNS timely. MDwise reported numerous issues with the intervention for outbound calls. First, there were issues reported with the enrollment file received from OMPP's vendor about new MDwise members. Second, there were internal issues found in the tracking of new members who had an HNS completed and those who had not. MDwise discovered that, at times, it was "working the wrong list".

Impact of the QIP

The effects of the interventions on this QIP could not be assessed. The results of the measure, tracked quarterly by MDwise, improved from CY 2015 to CY 2016 and appear to have stabilized. MDwise's goal for HNS completion rate is 74 percent. The measure results are as follows:

- For HIP, the results were 71.3% in Q1, 73.8% in Q2, 70.4% in Q3 and 72.0% in Q4 of CY 2016.
- For HIP, MDwise is seeing some improvement in these results in the first half of CY 2017 (72.9% in Q1 and 77.3% in Q2).
- For HHW, the results so far in CY 2017 are slightly lower than HIP (71.1% in Q1 and 71.3% in Q2).

Lessons Learned / Next Steps

MDwise introduced three new interventions at the start of CY 2017. The first is to send email blasts to all new members about completing the HNS. An email is sent out every other week to new members. MDwise will track the number of members who opened the email to measure the effectiveness of this intervention. The second intervention is to initiate a second phone number in MDwise's auto-dialer. MDwise will assess the HNS completion rate for those with a second number available against those with no second number. The third intervention is the introduction of a web portal for members to complete the HNS online. MDwise reports low take up on this option so far in 2017.

Recommendations to the OMPP and the MCEs Related to Validation of Quality Improvement Projects

Based on our review of the QIPs, B&A has developed specific recommendations to the OMPP and to the MCEs.

Recommendation to the OMPP

The OMPP accepted two out of the three B&A recommendations from last year's EQR. These recommendations pertained to updating the reporting tool and soliciting feedback on updates to the tool from the MCEs. Due to the timing in which these activities occurred, the third recommendation could not be completed because of the due date in which quality work plans for CY 2017 were due to the OMPP from each MCE.

After completing this year's review of QIPs, B&A offers this same recommendation again as a potential useful tool to ensure that all parties understand the essence of what the QIPs are trying to achieve. A new recommendation is also being made specific to QIPs that addresses the HNS.

1. B&A suggests that the OMPP convene the MCEs in a QIP "pre-meeting" prior to the start of CY 2018 where each MCE gives a brief presentation of their QIPs for the year. This meeting serves not only as a learning collaborative but also as a way for the OMPP to gain a better understanding of why the QIPs will be put in place, why specific interventions are being proposed, and specific methods that will be used to assess the effectiveness of interventions. Some examples include assessing year-over-year improvement, establishing a baseline period and then assessing improvement from the baseline, or creating a control group that did not receive the intervention to compare to the group that did receive the intervention.

2. The MCEs have worked in coordination with the OMPP contractor, Optum, to provide information on HNS completions. Optum then calculates the percentage of each MCE's HCC or HIP members who have completed an HNS. The OMPP has a P4O incentive to the MCEs for meeting HNS completion targets. Right now, Optum is only computing each MCE's completion rate annually. The MCEs would prefer a quarterly measure on this statistic in order to synchronize with its own findings on the measure as it tracks within its QIP. B&A concurs with the MCE's request for this information and recommends that OMPP have Optum submit quarterly HNS completion results to each MCE along with a list of members so that the MCEs can validate the totals against their internal records.

Recommendations to the MCEs

1. Anthem illustrated evidence in all three of its QIPs how it responded in short order to making data-driven decisions to adapt, where necessary, to make changes to its interventions. Anthem has also built an impressive suite of drilldown reports for all three of its QIPs. B&A's only recommendation to Anthem is to continue to build on its QIP reporting to better inform where the greatest opportunities occur within its membership (e.g. by age group, geography, provider affiliation).

2. B&A recommends that MHS spend more time defining its interventions and how they will be evaluated and measured. For example,
    a. For the AOD Dependence QIP, MHS cited new interventions coming on board in CY 2017. Some of these are listed in the CY 2017 reporting template. However, the information being captured does not directly tie to the effectiveness of the intervention.
    b. Other interventions cited that are being utilized in the AOD Dependence QIP are not reported at all in the reporting tool. Some of these interventions have cohort populations that can be easily identified to measure the intervention's effectiveness (e.g., members enrolled in the Clean Slate program).
    c. For the Adult Access to Preventive Care QIP, it would appear that the provider offices that were outreached to were identified as locations where there was greater opportunity to close gaps in care. Yet the counting of members associated with these provider offices to asses if the rate of care gap closure was not considered.
    d. For the ED Utilization QIP, although the interventions cited could be tested for effectiveness, they were not tested. For example, with respect to outreach/educational calls to members who had an ED visit, MHS could assess the rate of repeat ED visits among this cohort versus members who had an ED visit who were not outreached.

3. B&A recommends that MHS customize the annual goals for measures in a QIP specifically to each program. In some instances, when the measure (e.g., HEDIS IET) was cited, the goal was set at the HEDIS 75th percentile for all three programs, but some programs had already met that threshold prior to the start of the year. Even when the same measure is used for multiple OMPP programs, the QIP reporting tool enables the MCE to report program-specific annual goals and ultimate goals for the measure.

4. MHS needs to ensure that numerators and denominators are always reported in the QIP reporting tool for those measures that utilize numerators and denominators.

5. MDwise took action on changing some of the interventions in its QIPs that were deemed to be ineffective or unable to effectively assess. This was true for its QIPs related to inpatient psychiatric follow-up and HNS screenings. As it continues these QIPs and creates new ones,

B&A suggests that MDwise be thoughtful at the outset about defining and measuring the interventions selected. Further, there appear to be opportunities to conduct drilldown analyses on some interventions such as what MDwise has started with its lowest performing hospitals for FUH 7-day follow-up. There may be opportunities to conduct real-time analytics on this QIP as well as the HNS completion QIP, for example, by MDwise delivery system or by region.

6. As part of the updated QIP reporting template, the MCEs are now required to provide a quarterly update on the activities and, if available, results related to each QIP. To the extent that data supports changing interventions mid-year for course corrections, B&A supports these changes provided that the change can be easily explained in the annual QIP report submission.

SECTION V: FOCUS STUDY ON LEAD TESTING AND RELATED OUTREACH EFFORTS

Introduction

In May 2016, the Environmental Protection Agency (EPA) notified the mayor of East Chicago, Indiana that lead was identified in the soil of the West Calumet Housing Project. Previously, the EPA had designated a portion of East Chicago a Superfund site. This notification created a flurry of action at the local, state and federal levels. In the summer of 2016, signs went up in the complex warning children not to play outside and to wash all outdoor toys and the nearby school was closed. At the end of July, the local housing authority notified residents that it would be demolishing the 346-unit complex leaving 1000 people with no home. Despite receiving housing vouchers and rent payments being waived, there were few options for the families to relocate to homes that were safe and affordable. The low-income families also struggled to find the resources to cover the costs of moving, including deposits and utilities.

Many of the affected residents in the West Calumet Housing Project were enrolled either in Hoosier Healthwise (HHW), Hoosier Care Connect (HCC) or the Healthy Indiana Plan (HIP). As a result, the Office of Medicaid Policy and Planning (OMPP) reached out to Anthem, MHS and MDwise (the managed care entities, or MCEs) to activate enhanced efforts in this area of the state to educate and assist their members on the importance of lead testing and to provide additional assistance to members as they navigated through the various outreach efforts. At a meeting held in early September, the Indiana State Department of Health (ISDH), the OMPP and the MCEs convened to discuss ways that the MCEs could assist the ISDH. A list of individuals who lived in zip code 46312 (where the housing project is located) was distributed. The MCEs were instructed by the OMPP to outreach to any of its affected members on this list. All three MCEs took action in this regard.

MCE Actions in East Chicago

Anthem identified its members living in zip code 46312 and called 400 members. The team made as many as ten calls to members to try to reach them. Member liaisons went door to door to reach members that staff could not reach by phone, often in conjunction with the East Chicago Health Department (ECHD) mobile testing van. By doing this, the members could be tested immediately rather than traveling to a facility for the lead test. Anthem members were educated on lead testing, where to go to get tested, and how to reach Anthem. The education extended to non-Anthem members in the household and all individuals were encouraged to be tested. If the families were not home, Anthem left flyers and business cards.

The Anthem provider relations team contacted all of the primary medical providers (PMPs) assigned to the local members to educate them about the lead issues. The Anthem marketing and outreach team met with the ECHD and the ISDH to offer support and provided $5000 to the ECHD to hire temporary staff to do lead tests. Anthem distributed Lead Health Tip flyers to community-based organizations, faith-based organizations and schools. This outreach was not just in East Chicago but extended to partners in nearby Gary and Hammond. In February 2017, Anthem supported an East Chicago community workshop on lead. They also worked through the schools to share lead information with older children.

MHS sent an e-mail to all members in East Chicago including adults. They added the adult membership to the e-mail distribution since these parents, grandparents, aunts, and uncles may have contact with children in need of testing or services. MHS published a social media notice specific to Lake County for its Facebook, Twitter and Blog to warn members and providers of the situation and the risk at hand.

MHS offered to donate free MedTox lead testing kits to all schools in Lake County who were interested in testing students and also delivered these kits directly to members door to door.

MHS sent to their contracted PMPs in Lake County the listings of members who live near the impacted areas. In addition, MHS sent providers information on the importance of testing their patients for lead.

MDwise called its list of members at least three times and then sent a postcard to members unable to be reached with contact information for a MDwise case manager. When MDwise reached a member, they ensured that the member had received testing or were made aware of testing sites. Case managers educated members' guardians about the risk factors of lead poisoning and the symptoms of lead poisoning. MDwise also provided tips on how to reduce lead from blood. In addition to caring for the member's health needs, MDwise verified that the family had either a housing voucher and/or had an appointment to meet with a housing counselor. MDwise also educated its members about other resources offered through the ECHD and the EPA.

The Senior Representative of MDwise Provider Relations contacted MDwise PMP offices personally. The MDwise Medical Director organized the push to encourage providers in zip codes 46312 and 46218 to increase lead testing. Additionally, the provider relations staff attended a lead symposium which took place on February 2017 in Munster. The symposium targeted providers assisting individuals with lead poisoning as a result of contaminated water.

As a result of the situation in East Chicago, the OMPP asked Burns and Associates (B&A) to conduct a focus study as a part of this year's External Quality Review on lead testing rates and related outreach efforts by the MCEs statewide for members in Indiana's managed care programs. The elements of this focus study included:

1. An examination of trends in lead testing in Indiana's Medicaid program
2. A review of MCE efforts to educate and encourage lead testing
3. A review of each MCE's approach to assist children with elevated lead levels
4. Successes and challenges cited by the MCEs related to lead testing
5. Recommendations to the OMPP and the MCEs for continued improvement in lead testing

History of Lead Testing and Education Efforts in Indiana

Notwithstanding the situation in East Chicago, lead testing and educational efforts have a long history in Indiana's Medicaid program and in the ISDH. The MCEs have been responsible for lead screening, testing and treatment since the inception of HHW in 1996. A brief outline of this history is shown in Exhibit V.1 on the next page.

B&A team members interviewed the Director of the Immunizations and Lead and Healthy Homes Division (the Division) at the ISDH for this study. The Director at the Division was the Lead Director from 2007-2012 then left the ISDH before returning in January 2017. Upon his return to the Division, the Division has implemented more active engagement with the MCEs on lead testing and immunizations more broadly. Collectively, the parties have identified additional ways to proactively address lead testing since the East Chicago incident. Since the beginning of 2017, the Division Director has met on a quarterly basis with the MCEs to discuss data findings from both the ISDH database and the MCEs' own data warehouse of claims. Another interest of the ISDH is to coordinate case management between the MCEs and county health departments for children with elevated lead levels since state law requires that the ISDH initiate case management and there is concern that there could be duplication of case management services between the ISDH and the MCEs.

Exhibit V.1
History of Lead Testing and Education Efforts in Indiana in the Past Fifteen Years

2003	Providers are mandated to report lead testing results to the ISDH STELLAR (Systematic Tracking of Elevated Lead Levels and Remediation) database.
2004	The ISDH prepared Indiana's Childhood Lead Poisoning Elimination Plan for the Centers for Disease Control (CDC). This was the result of collaboration between the ISDH, state and federal legislators (including HUD and the EPA), five state agencies including the OMPP, local health departments and housing agencies, Head Start, real estate representatives, and Community Action Programs. The State Health Commissioner invited these agencies to serve on an Elimination Plan Advisory Committee. The Committee developed measureable goals and activities in 14 topic areas.
2005	The Indiana General Assembly passed legislation requiring the OMPP to evaluate the Medicaid MCEs' screening of children for lead. It also required a system to maintain the results of the evaluation and a performance incentive program. To meet the requirement of this legislation, the OMPP designed a metric for evaluation.
2005-06	The MCEs pilot lead filter paper testing in Women, Infants and Children (WIC) clinics.
2008	The MCEs worked on a project with five Indiana counties granted CDC funding to improve lead testing in these counties. This included making filter paper testing more available, building relationships between MCEs and health department case managers for children with positive lead test results, and establishing common measures for performance targets.
2008	The National Committee for Quality Assurance (NCQA) adds lead screening as a HEDIS measure. The OMPP requires the MCEs to add this measure as part of the suite of HEDIS measures tracked annually.
2012	Federal legislation combines the CDC programs for asthma and lead. The lead program is cut $33 million from the prior year's budget to just $2 million for asthma and lead combined. As a result, Indiana's state staff for lead testing was reduced from 15 to 4.
2013	The MCE Medical Directors and the State Health Commissioner send a joint letter to the provider community describing the MedTox lead filter paper testing method.
2015	The OMPP emphasizes lead exposure in provider bulletin guidance related to ICD-10 coding.

Measuring Lead Testing Today

Currently, lead testing is being primarily measured in two ways. The primary method is through the ISDH's STELLAR database. The laboratories that conduct the lead testing submit data to STELLAR as is required by state law (IC 16-41-39.4-3). The physician authorizing the test is captured when the tests are submitted to STELLAR. The database tracks, among other items, the date of the test, the testing method (capillary or venous), the test result and demographic information about the child. The STELLAR database tracks lead tests for all children in Indiana, regardless of payer.

On a monthly basis, the ISDH exchanges a file of recent tests it has received with DXC, the OMPP's fiscal agent. DXC identifies from this ISDH file the children enrolled in Medicaid and the program that they are enrolled in (HHW, HCC, or a few that may be in the fee-for-service program). DXC sends this enrollment information back to the ISDH along with the member's name, Medicaid ID, date of birth, gender, ethnicity and address. The ISDH then remits back to the OMPP a consolidated file with test information and demographic information about each Medicaid member who was tested.

The OMPP then analyzes the ISDH file and creates a series of reports for distribution to each MCE. The reports include information such as:

- Total number of tests received by age of child (up to and including age 6);
- Total number of unique members tested by age of child;
- Total enrolled members by age;
- Percentage of members tested by age;
- Total members with a test level greater than or equal to 5 µg/dL (micrograms per decileter)

OMPP uploads reports specific to each MCE to a secure site along with the detailed data file containing information about the children who were tested.

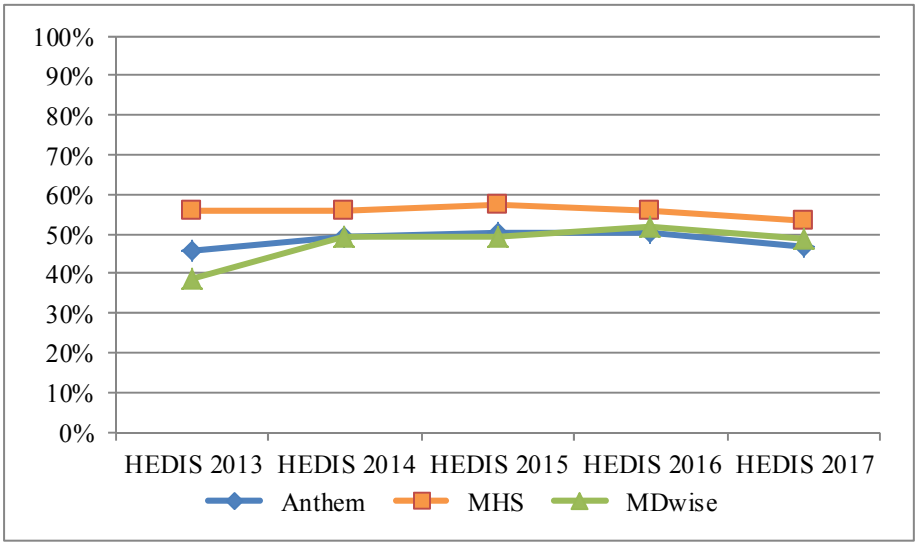
Another method that lead tests are tracked is through claims submitted by laboratories to the MCEs. Claims paid for lead testing are identified by the presence of CPT code 83655. The drawback to the claims repository is that although the number of tests can be tracked, the result of the lead test (elevated level or not) cannot be determined. Claims data is what is used to track results for the HEDIS measure related to lead testing.

Recent Trends in Lead Testing in Indiana's Medicaid Program

As stated previously, the OMPP requires each MCE to track lead testing using the HEDIS definition (measure LSC). All of the MCEs report on this measure using the administrative (claims-based) method and, on occasion, use the hybrid (medical abstraction method) as well.

Exhibit V.2 tracks the rate of lead testing among the population defined in HEDIS (12 months continuous enrollment for children who turn age two during the measurement year) for the last five reporting years. The results are for children in HHW only. There are children enrolled in HCC as well, but only a small sample of these are age two or younger. The rate of screening has been between 47 and 57 percent in each of the last four years for all three MCEs. In the most recent years, the rates reported for each MCE are within six percentage points of their peers.

Exhibit V.2
Summary of Results from HEDIS Lead Screening in Children



For this focus study, B&A independently tracked the rate of lead testing among children in the OMPP's programs. Due to the low volume in the HCC program, all results tabulated by B&A include children in the HHW and HCC programs combined. Instead of limiting to the HEDIS definition, B&A examined lead testing rates in a variety of ways:

- Percentage tested at a point-in-time age (up to age six)
- Percentage tested if ever tested at any age (up to age six)
- Percentage tested by county
- Ratio of all tests with elevated lead levels to non-elevated levels
- Percentage of elevated lead level tests by county
- Counts of elevated lead levels by zip code

The OMPP provided B&A with a dataset of records from the ISDH database which was limited to Medicaid enrollees only. This is the same data that are provided to the MCEs on a monthly basis. In addition to assessing the percentage of members with a lead test by age, B&A cross-referenced the Medicaid children who were born in CYs 2011 through 2013 to determine if each child had ever received a lead screening, not just by age two. These children were further segmented between those that were ever enrolled in Medicaid through the end of CY 2016 and those who were continuously enrolled in Medicaid through the end of CY 2016.

B&A conducted further analysis on Medicaid children with a lead screening that resulted in a rate greater than 5µg/dL to assess if re-screenings occurred. For children with a test result greater than 5µg/dL in CY 2016, B&A analyzed the incident rate at the county level. For members in CY 2016 with a test result greater than 10 µg/dL, B&A further identified these children by MCE, by county and by zip code. Since the MCEs provided their complex case and care management rosters for this EQR (refer to Section III, Validation of Performance Measures), B&A also checked to see if members in CY 2016 with a lead test greater than 10µg/dL were enrolled in case management with the MCE.

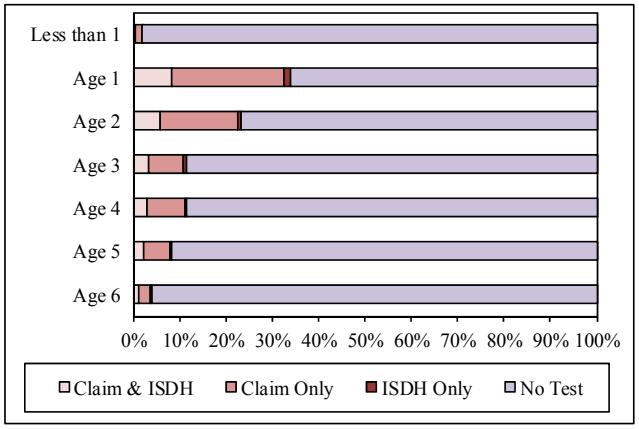
Findings from EQRO Analysis

Exhibit V.3 which appears on the next page shows the percentage of Medicaid children tested for lead or not tested in each of the years CY 2013-2016. The data are displayed to show the test rate by age group. Within each age group, the count of members tested by source is shown, that is, whether there was the presence of both an MCE claim and a test reported in the ISDH database, only a claim reported, or only a test reported in the ISDH database. The trends across the four-year study period were consistent.

- Although the ISDH database is helpful to capture the actual lead levels from screenings conducted, it was found that, for Medicaid children, the ISDH database is an incomplete source for information.
- In the years CY 2013-2016, there was no proof of lead testing either through ISDH or MCE claims for 66 percent of 1-year-olds and 77 percent of 2-year-olds. There was slight improvement in the testing rates for both age groups in CY 2016 (63% and 74% not screened).
- These rates of testing for children under age two are lower than Exhibit V.2 because HEDIS requires continuous enrollment all year and B&A's analysis in Exhibit V.3 did not require this.
- Among the children with evidence of a lead test, only 20 to 30 percent of these tests were found in the ISDH database in the years 2013-2015. This rate improved to 55 percent in 2016.

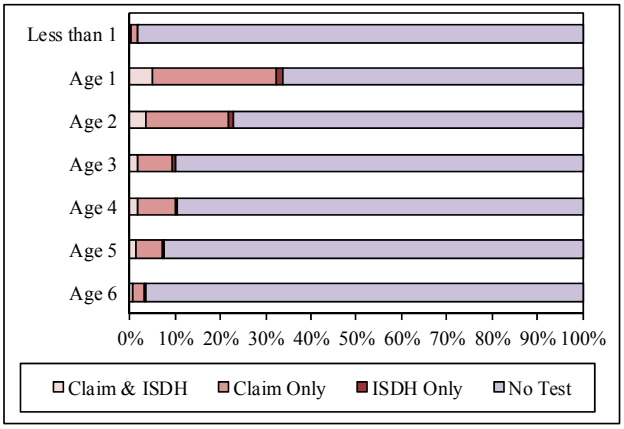
Exhibit V.3
Percent of Medicaid Children Tested By Data Source Used to Track Tests

Percent of Members Tested in CY 2013 by Age



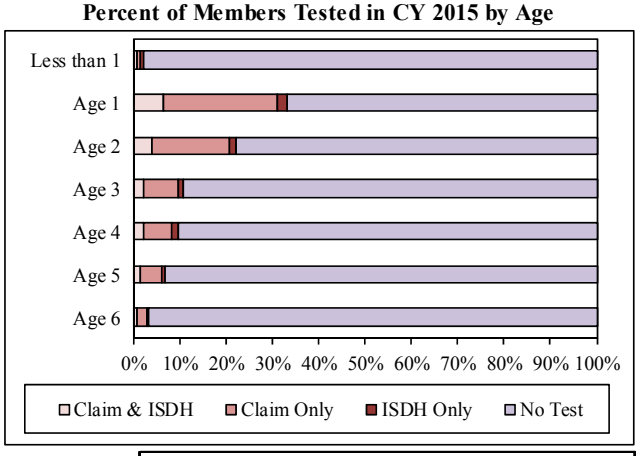
	Data Source to Find Test (# Members)			
	Claim & ISDH	Claim Only	ISDH Only	No Test
Less than 1	115	722	59	48,180
Age 1	4,261	12,751	783	34,651
Age 2	2,537	7,568	374	34,412
Age 3	1,442	3,300	237	38,704
Age 4	1,363	3,574	215	39,472
Age 5	998	2,597	148	41,223
Age 6	464	1,189	63	42,709

Percent of Members Tested in CY 2014 by Age



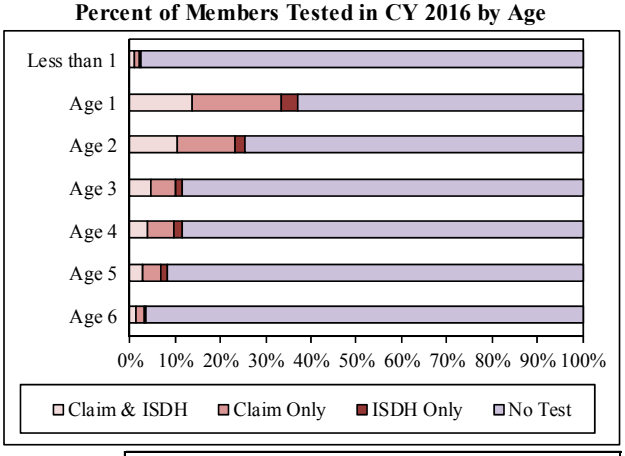
	Data Source to Find Test (# Members)			
	Claim & ISDH	Claim Only	ISDH Only	No Test
Less than 1	61	744	36	49,110
Age 1	2,673	14,245	810	34,682
Age 2	1,609	8,345	433	35,023
Age 3	788	3,392	230	39,356
Age 4	760	3,526	212	38,638
Age 5	520	2,675	140	41,240
Age 6	276	1,197	72	43,183

Percent of Members Tested in CY 2015 by Age



	Data Source to Find Test (# Members)			
	Claim & ISDH	Claim Only	ISDH Only	No Test
Less than 1	337	472	221	49,631
Age 1	3,312	13,008	1,133	35,270
Age 2	1,906	7,576	682	35,909
Age 3	971	3,350	431	39,949
Age 4	904	2,745	604	39,329
Age 5	584	2,100	294	40,144
Age 6	289	1,011	76	43,079

Percent of Members Tested in CY 2016 by Age



	Data Source to Find Test (# Members)			
	Claim & ISDH	Claim Only	ISDH Only	No Test
Less than 1	421	523	175	47,534
Age 1	7,395	10,562	1,964	33,722
Age 2	4,891	6,030	1,167	35,205
Age 3	2,035	2,585	645	39,947
Age 4	1,801	2,551	702	39,175
Age 5	1,278	1,707	527	39,831
Age 6	637	723	230	41,480

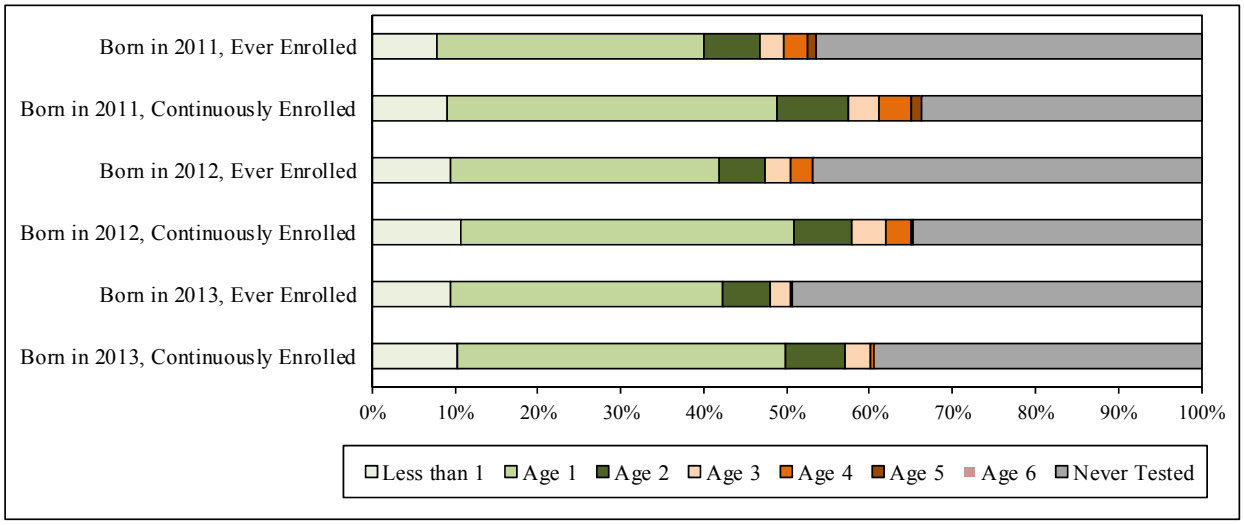
Despite the lack of completeness in the IDSH database to capture lead tests, there has been noticeable improvement just in the first half of CY 2017 as was conveyed to the EQR Review Team by the ISDH lead. On an annualized basis, B&A projects that the number of tests for Medicaid children in the ISDH database will increase by as much as 33 percent over the CY 2016 total.

Exhibit V.4
Trends in Results Reported for Medicaid Children in the ISDH Database
(values shown are number of children tested, not number of tests)

	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017 Jan-Jun	CY 2017 Annualized	Pct Change 2016 to 2017
Age 1	5,044	3,483	4,445	9,359	5,701	11,402	22%
Age 2	2,911	2,042	2,588	6,058	4,649	9,298	53%
Age 3	1,679	1,018	1,402	2,680	2,153	4,306	61%
Age 4	1,578	972	1,508	2,503	1,539	3,078	23%
Age 5	1,146	660	878	1,805	1,228	2,456	36%
Age 6	527	348	365	867	657	1,314	52%
TOTAL	**13,059**	**8,620**	**11,744**	**23,868**	**15,927**	**31,854**	**33%**

Although the rate of testing appeared low in recent years at the single age of one or two, the data show that there are more Medicaid children getting tested but they are not all getting tested by the age of two. Exhibit V.5 displays data for Medicaid children born in CYs 2011, 2012 and 2013. B&A identified the age at which their lead test occurred. For those continuously enrolled since birth, 66 percent of children born in CY 2011, 65 percent of children born in CY 2012 and 61 percent of children born in CY 2013 ultimately had a lead test reported.

Exhibit V.5
For Medicaid Children who were Tested for Lead, Age of First Test



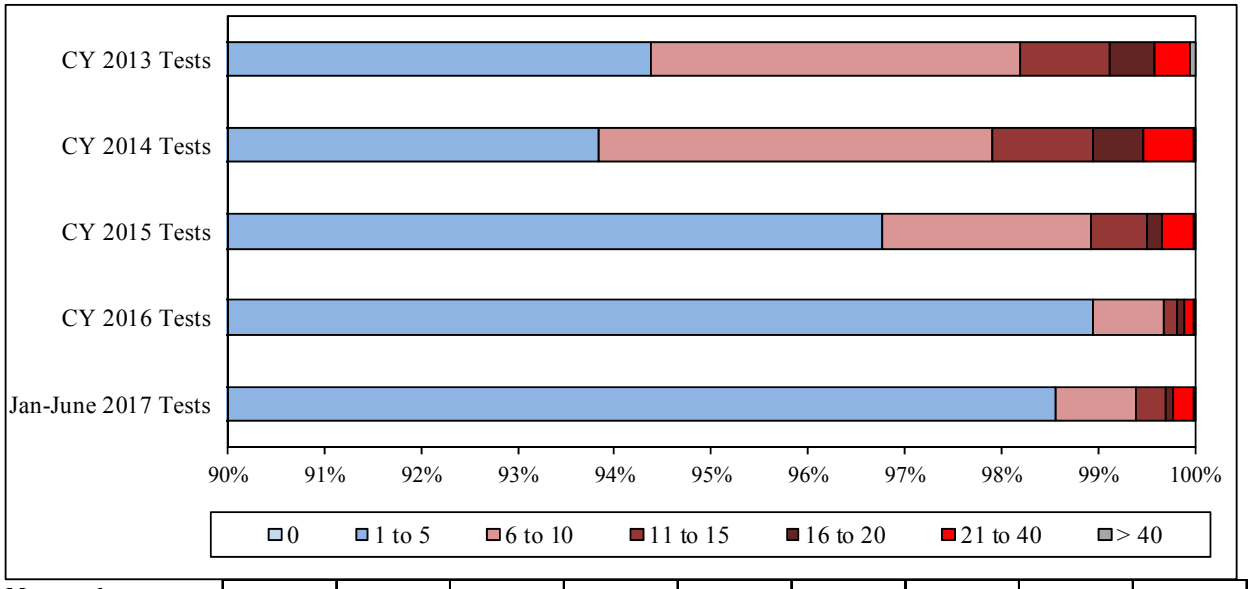
Medicaid Children, Birth Year	Less than 1	Age 1	Age 2	Age 3	Age 4	Age 5	Age 6	Never Tested	Total
Born in 2011, Ever Enrolled	3,936	16,345	3,343	1,479	1,512	499	20	23,462	**50,596**
Born in 2011, Continuously Enrolled	1,692	7,518	1,609	696	755	213	7	6,365	**18,855**
Born in 2012, Ever Enrolled	4,631	15,765	2,654	1,535	1,224	55	n/a	22,775	**48,639**
Born in 2012, Continuously Enrolled	2,330	8,648	1,531	902	665	28	n/a	7,508	**21,612**
Born in 2013, Ever Enrolled	4,510	15,742	2,737	1,224	145	n/a	n/a	23,620	**47,978**
Born in 2013, Continuously Enrolled	2,633	10,122	1,795	801	107	n/a	n/a	10,084	**25,542**

Exhibit V.6 shows the results of the lead tests reported in the ISDH for Medicaid children for CY 2013-2016 and the first half of CY 2017. In CY 2013 and CY 2014, among the tests submitted to the ISDH, more than five percent of children had a reading greater than 5 µg/dL. This reduced sharply in CY 2016 to only 1.1 percent of the total. When this was discussed with the ISDH Director, he indicated that some lab companies were only submitting venous tests and not capillary tests in the earlier years. The venous tests are often a retest if the capillary test provisionally indicated a high lead level to check for false positives.

The rate of one percent of all tests showing a result greater than 5 µg/dL more closely mirrors what is seen nationally.

The ISDH Division Director stated that reporting improved in mid-2016, partly due to the issue in East Chicago. Submissions continue to improve in CY 2017 as evidenced by the number of tests received to date in CY 2017. The ISDH is working to collect the backlog of capillary tests from earlier years. As stated previously, state law has mandated that lead tests be submitted to the ISDH since 2003. The ISDH has the authority to fine those entities that do not comply with this requirement but the ISDH has not exercised this authority in recent years. The Division is working with entities that have traditionally been non-compliant and are using the fine to incentivize compliance. He reports that compliance continues to improve in light of these reminders to lab companies.

Exhibit V.6
Lead Levels Reported Among Medicaid Children in ISDH Database



Measured as micrograms/decileter	0	1 to 5	6 to 10	11 to 15	16 to 20	21 to 40	> 40	**Total**	> 5ug/dL
CY 2013 Tests	3,472	11,335	599	147	72	58	7	**15,690**	5.6%
CY 2014 Tests	3,590	6,288	427	111	54	54	2	**10,526**	6.2%
CY 2015 Tests	4,057	8,929	291	76	21	45	1	**13,420**	3.2%
CY 2016 Tests	5,113	22,086	200	40	22	24	3	**27,488**	1.1%
Jan-June 2017 Tests	4,167	12,496	141	51	13	37	2	**16,907**	1.4%

B&A reviewed the Medicaid children reported in the ISDH database that had a test reading greater than 5 µg/dL (in any year) to review if a follow-up test was administered. The results of this review are shown in Exhibit V.7. Historically, almost half of the children had a follow-up test found after the initial test showed a result greater than 5 µg/dL. Among these children, just over half had a result under 5 µg/dL upon retest. Among the other half, 15 percent of all children had a retest which was found as an encounter submitted to an MCE. Since the test results do not appear on the claim, it is unknown if the lead level was higher once again or not. Just over one-third of children with a lead test showing a result greater than 5 µg/dL had no follow-up shown in either the ISDH database or the database of encounters submitted by the MCEs to the OMPP. The results for tests in CY 2016 alone generally resemble the results found over the five-plus year period.

Exhibit V.7
Follow-up Test Status for Medicaid Children in ISDH Database
with Lead Level > 5 ug/dL

	CY 2012 - CY 2017		CY 2016 only	
	Number of Children	**Percent of Total**	**Number of Children**	**Percent of Total**
Follow-up in ISDH with a result < 5.0	807	26%	65	21%
Follow-up in ISDH with a result >= 5.0	685	22%	65	21%
No Follow-up in ISDH but Follow-up in Medicaid MCE Encounter	452	15%	40	13%
No Follow-up in ISDH database or in MCE Encounter	1164	37%	135	44%
TOTAL	**3108**	**100%**	**305**	**100%**

The maps shown on the next three pages highlight the lead testing rates at the county level in CY 2016 among Medicaid children who turned age one or two in 2016.

- Exhibit V.8 shows that for 42 of Indiana's 92 counties, more than 30 percent of their Medicaid members age one or two had been tested. For three counties, less than 10 percent of the members had been tested (Daviess, Dubois and LaGrange).

- Exhibit V.9 on page V-11 compares this same statistic by MCE. The total number of counties where more than 30 percent of the members ages one or two had been tested was 47 for Anthem, 43 for MHS and 37 for MDwise. On the other extreme, the number of counties where less than 10 percent of members were tested was six for Anthem, seven for MHS and eight for MDwise. All MCEs had Dubois County in this category. At least two of the MCEs also had Daviess, Fulton, Gibson, Knox and Pike in this category.

- Exhibit V.10 on page V-12 contrasts the variation in reporting between the ISDH and MCE encounter sources combined versus just the ISDH database. This can be used as a proxy for incomplete submissions to the ISDH. As shown in Exhibit V.8, the map on the left shows the test rates by county, all data sources. The map on the right shows the ISDH source only. Whereas the left map shows 42 counties had more than 30 percent of Medicaid members ages one or two had been tested, the right map shows only five counties where this is true. Further, there are only 19 counties showing that at least 20 percent of members had been tested.

Exhibit V.8
Percent of Medicaid Children Age 1 or 2 who had a Lead Test in CY 2016, by County

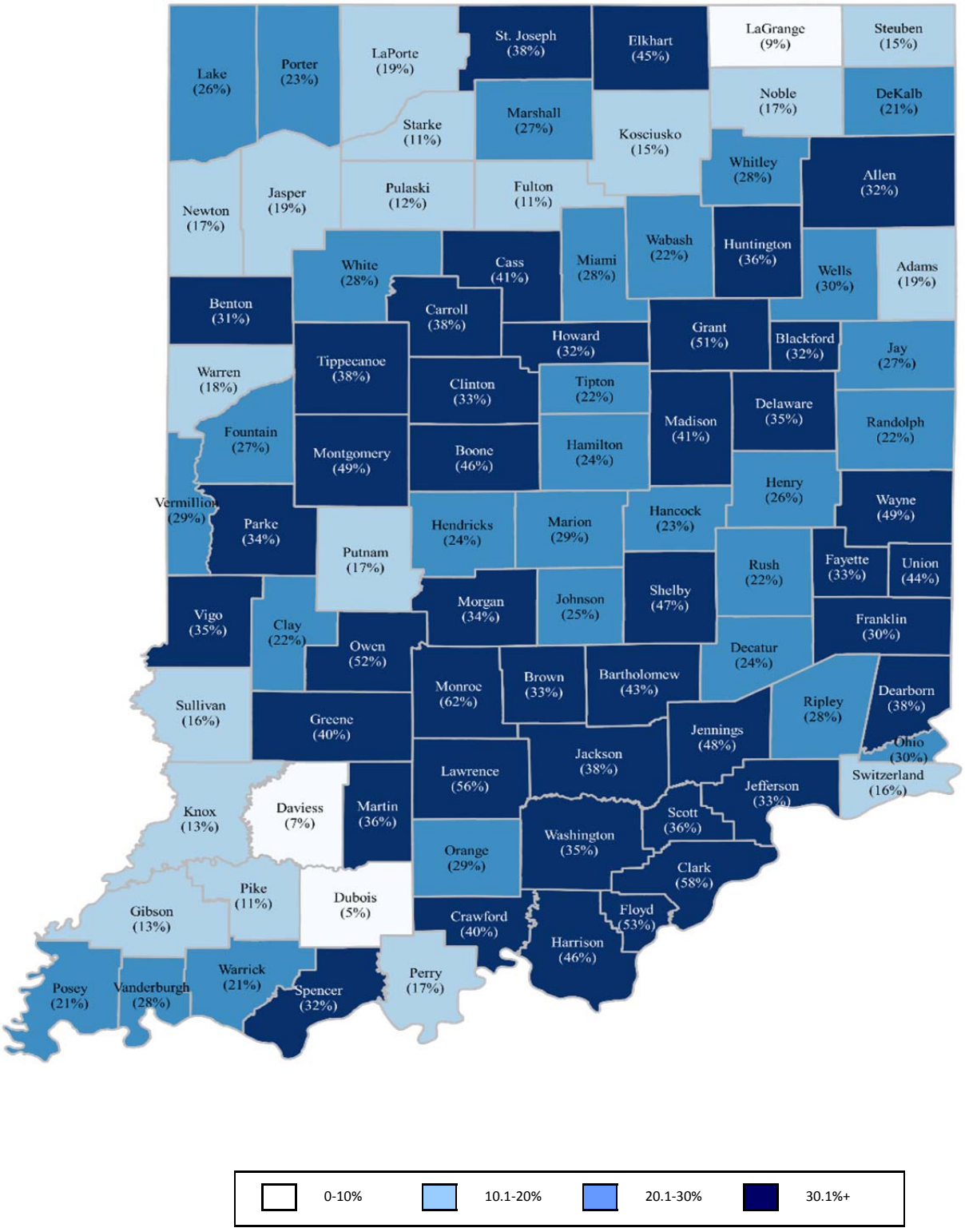


Exhibit V.9
Percent of Medicaid Children Age 1 or 2 who had a Lead Test in CY 2016, by MCE/County

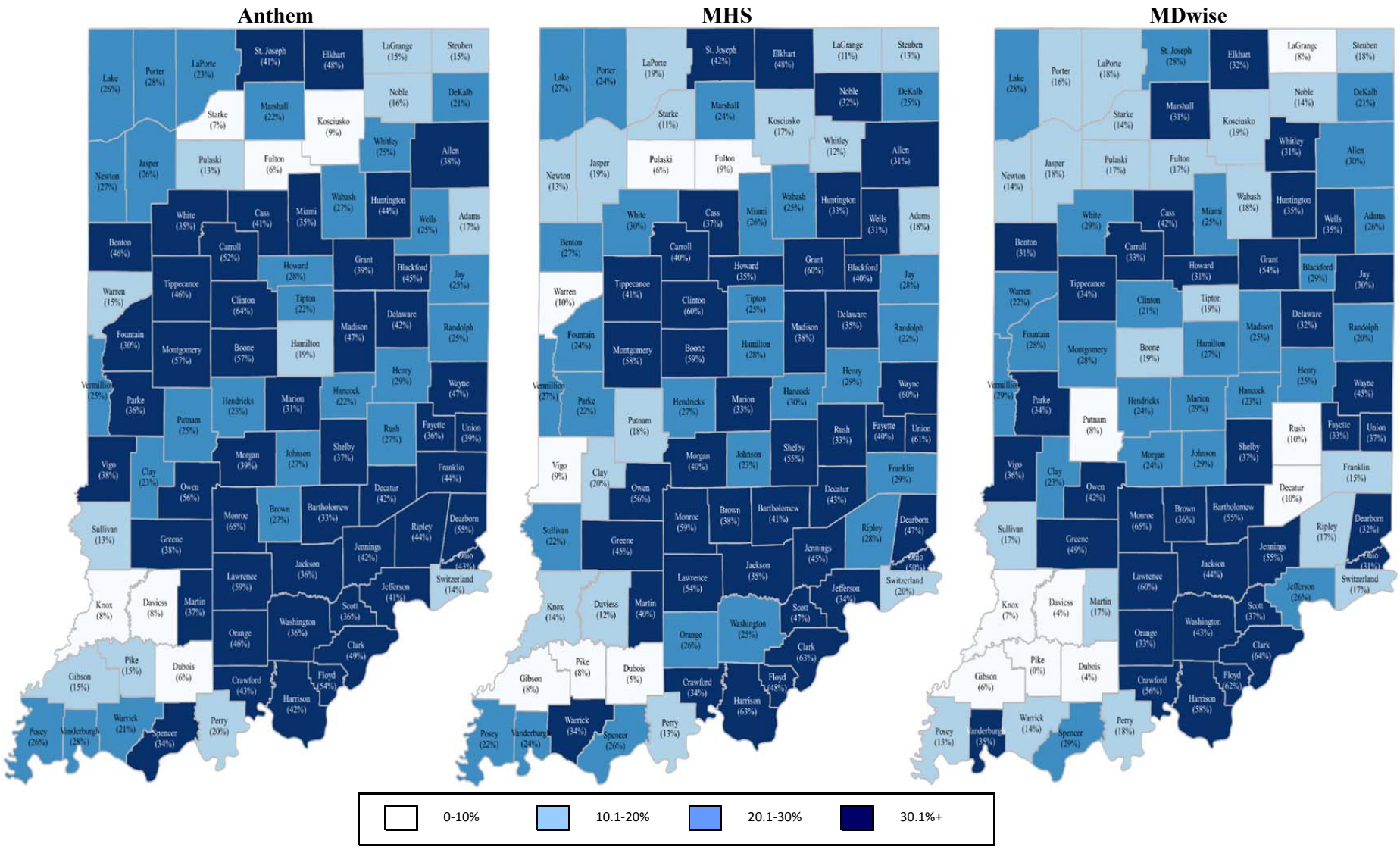
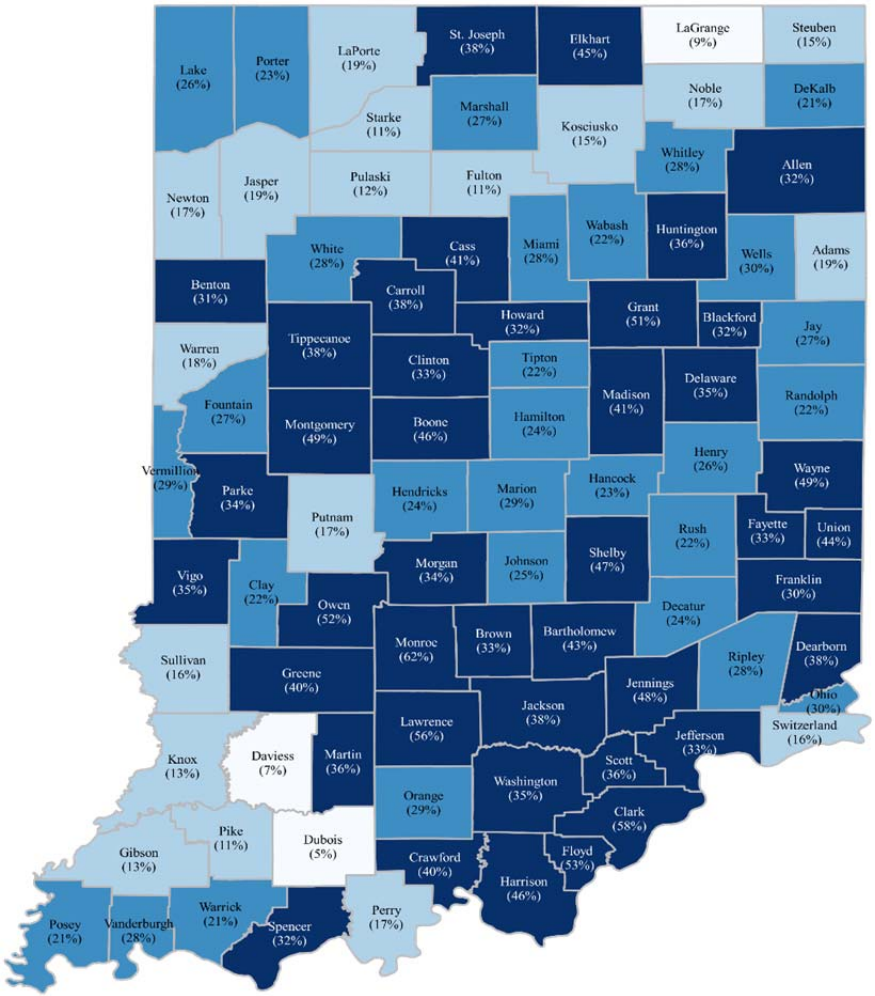
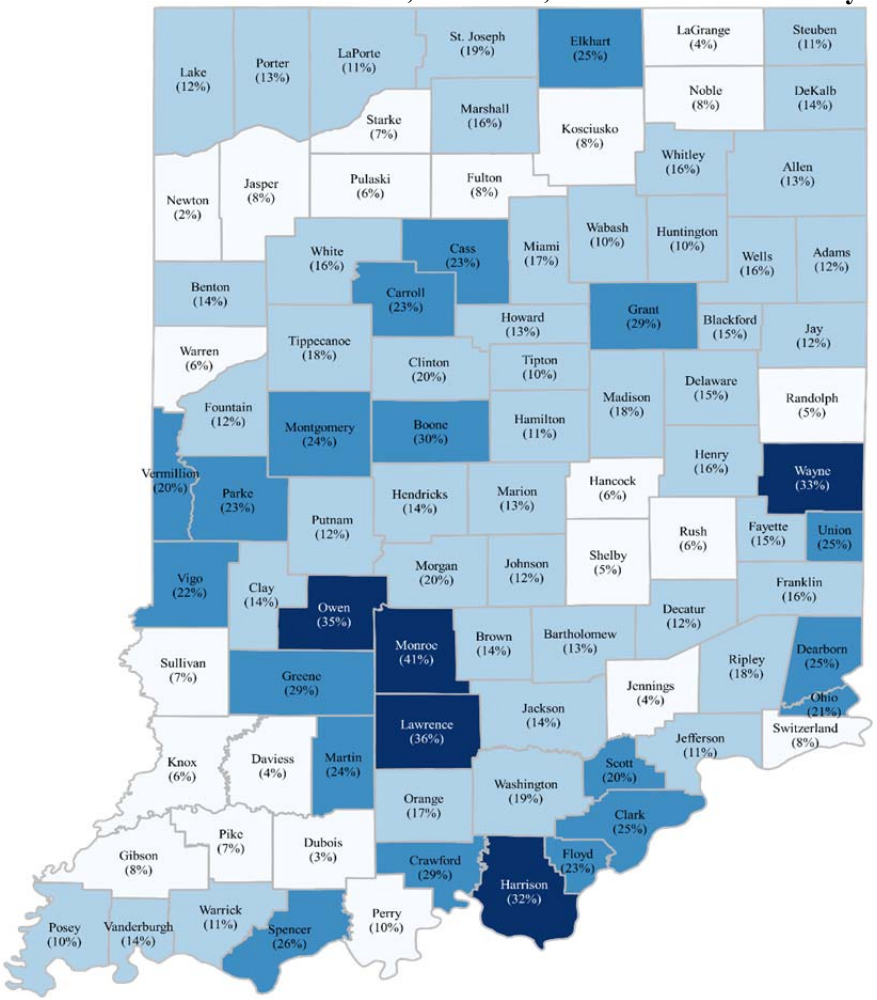


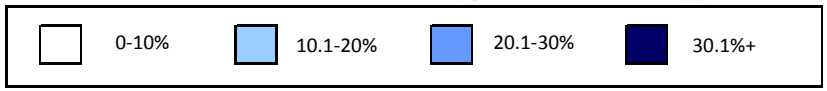
Exhibit V.10
Percent of Medicaid Children Age 1 or 2 in CY 2016 who had a Lead Test, by County

Tests in 2016, Statewide, All Data Sources



Tests in 2016, Statewide, ISDH Data Source Only





Exhibits V.11 and V.12 on pages V-14 and V-15 consider just the lead tests that were reported in the ISDH database since these are the tests for which results are available.

In Exhibit V.11, B&A focused on tests that were given in CY 2016 to Medicaid children (any age) where the result showed a blood lead level greater than 5 μg/dL. These children were analyzed to determine their home county.

Recognizing that the overall average in CY 2016 among Medicaid children was 1.1 percent (refer back to Exhibit V.6), the map in Exhibit V.11 highlights the counties where it was found that lead levels deviated much from this statewide average. It should be noted that the total tests examined in ISDH for CY 2016 was only 27,488. As a result, 19 of the 92 counties are shown in gray because B&A did not believe it was appropriate to include the results from these counties in our totals since the sample size in each county was less than 50 Medicaid members.

The counties with a higher-than-average percentage of children with elevated lead level tests are:

- Three counties where more than 5 percent of the children had an elevated lead level reported (Adams, Allen and Huntington).

- Eight counties where 3.1 – 5.0 percent of the children had an elevated lead level reported (Blackford, Miami, Franklin, Noble, Posey, Vanderburgh, Wells and Whitley)

Exhibit V.12, which appears on page V-15, further segments the children with the highest elevated lead levels reported by county and zip code. This exhibit was created to determine if there are concentrations within the State where elevated lead levels are prevalent. The data for CY 2016 among Medicaid children showed:

- There were 132 children in the ISDH database with a lead level reported greater than 10 μg/dL.

- Of these, 81 children were in seven counties, each of which had at least five Medicaid children: Scott County- 5, Vigo County- 6, Lake County- 8, Wayne County- 9, Vanderburgh County- 14, Allen County- 17 and Marion County- 22. Another 51 children lived in 36 other counties.

- The highest concentration of children appeared in Wayne County's zip code 47374 with seven children total (highlighted in red in the exhibit). Marion County zip code 46227 had five children.

- Among the 132 children with levels reported greater than 10 μg/dL,
    - 44 children were enrolled with Anthem, of which 20 (45%) were enrolled in case or care management
    - 37 children were enrolled with MHS, of which 7 (19%) were enrolled in case or care management
    - 40 children were enrolled with MDwise, none of which were enrolled in case or care management.

Exhibit V.11
Percent of Medicaid Children in ISDH Database Having a Lead Test in CY 2016
with Blood Lead Level Greater than 5µg/dL

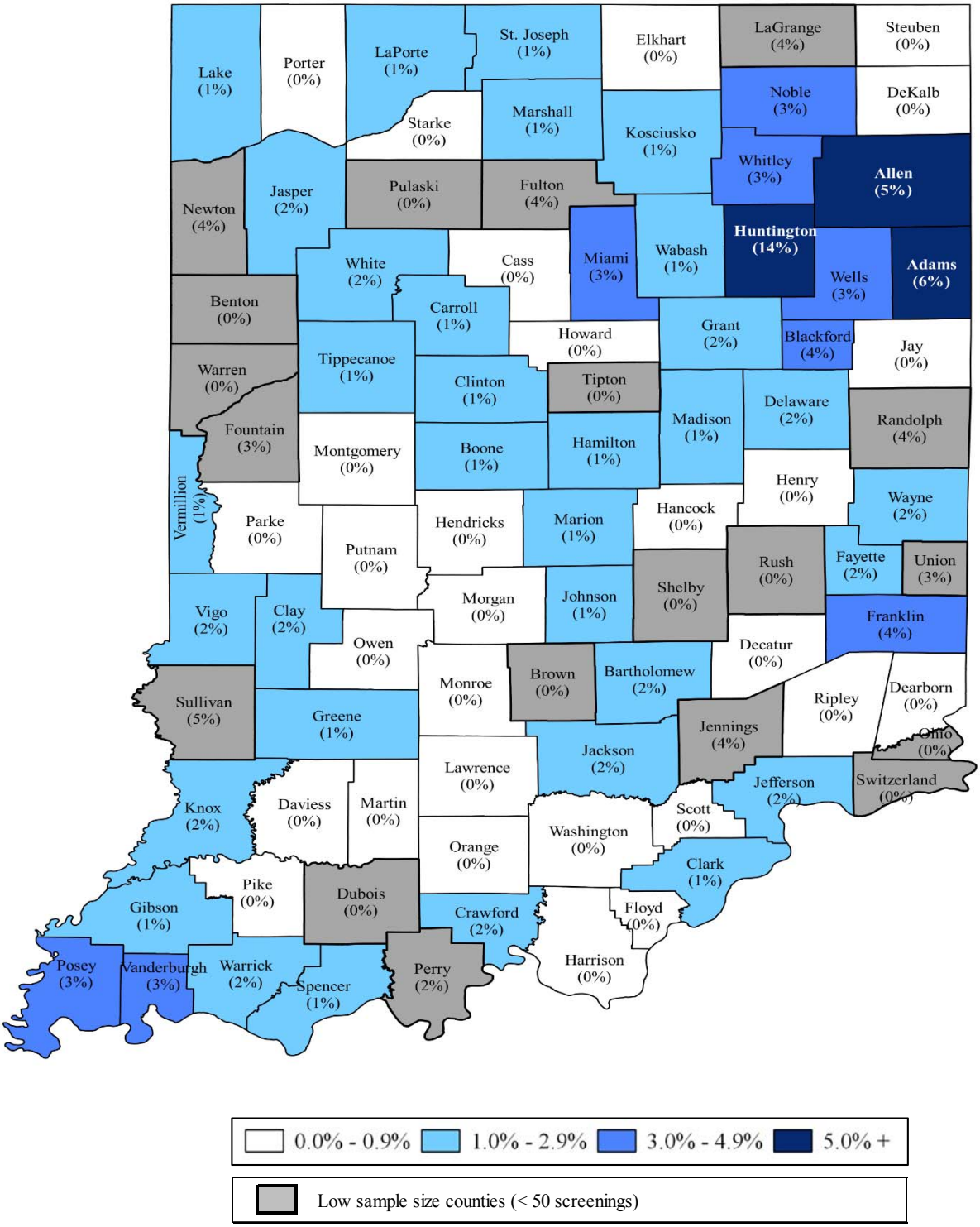


Exhibit V.12
Distribution of Medicaid Children with a Lead Test in CY 2016 Measured 10 or greater ug/dL

County	Zip Code	Total Children	Anthem Members	in Case Mgmt	MHS Members	in Case Mgmt	MDwise Members	in Case Mgmt	Other
Total		**132**	**44**	**20**	**37**	**7**	**40**	**0**	**11**
Counties with > 5 children									
7 counties	35 zip codes	81	29	14	13	3	29	0	10
Counties with < 5 children									
36 counties	46 zip codes	51	15	6	24	4	11	0	1
Allen		**17**	**10**	**7**	**1**	**1**	**4**	**0**	**0**
Allen	46802	4	2	2	0	0	2	0	
Allen	46803	1	0	0	0	0	0	0	
Allen	46804	1	0	0	0	0	0	0	
Allen	46805	1	1	0	0	0	0	0	
Allen	46806	2	1	1	1	1	0	0	
Allen	46807	4	3	2	0	0	1	0	
Allen	46808	1	0	0	0	0	1	0	
Allen	46816	3	3	2	0	0	0	0	
Lake		**8**	**1**	**0**	**4**	**0**	**2**	**0**	**0**
Lake	46312	1	0	0	1	0	0	0	
Lake	46402	1	1	0	0	0	0	0	
Lake	46403	1	0	0	0	0	1	0	
Lake	46404	3	0	0	2	0	1	0	
Lake	46407	1	0	0	1	0	0	0	
Lake	46408	1	0	0	0	0	0	0	
Marion		**22**	**7**	**1**	**3**	**0**	**10**	**0**	**0**
Marion	46201	3	1	0	0	0	2	0	
Marion	46205	1	0	0	1	0	0	0	
Marion	46208	1	1	0	0	0	0	0	
Marion	46218	1	0	0	0	0	1	0	
Marion	46222	3	0	0	1	0	2	0	
Marion	46224	1	1	0	0	0	0	0	
Marion	46225	1	0	0	0	0	1	0	
Marion	46227	5	3	0	0	0	1	0	
Marion	46229	2	0	0	0	0	2	0	
Marion	46237	1	1	1	0	0	0	0	
Marion	46254	2	0	0	1	0	0	0	
Marion	Unknown	1	0	0	0	0	1	0	
Scott		**5**	**1**	**0**	**1**	**1**	**0**	**0**	**0**
Scott	46613	3	1	0	0	0	0	0	
Scott	46619	1	0	0	0	0	0	0	
Scott	46628	1	0	0	1	1	0	0	
Vanderburgh		**14**	**8**	**5**	**1**	**0**	**3**	**0**	**0**
Vanderburgh	23662	1	1	1	0	0	0	0	
Vanderburgh	47710	4	2	1	0	0	2	0	
Vanderburgh	47711	1	0	0	0	0	0	0	
Vanderburgh	47712	3	3	1	0	0	0	0	
Vanderburgh	47713	3	1	1	0	0	1	0	
Vanderburgh	47714	1	1	1	0	0	0	0	
Vanderburgh	50310	1	0	0	1	0	0	0	
Vigo		**6**	**1**	**1**	**1**	**0**	**4**	**0**	**0**
Vigo	47804	1	0	0	0	0	1	0	
Vigo	47805	2	0	0	1	0	1	0	
Vigo	47807	3	1	1	0	0	2	0	
Wayne		**9**	**1**	**0**	**2**	**1**	**6**	**0**	**0**
Wayne	47325	1	1	0	0	0	0	0	
Wayne	47374	7	0	0	1	0	6	0	
Wayne	47393	1	0	0	1	1	0	0	

MCE Efforts to Educate and Encourage Lead Testing

Education and Outreach to Members

Two of the MCEs have more generic outreach to all members to educate them about lead exposure and lead testing as discussed below. All of the MCEs have more targeted outreach to children identified with elevated lead levels (to be discussed on page V-18).

MHS used the East Chicago situation as an opportunity to expand member education statewide. They sent an e-mail to members enrolled in all of their Medicaid and HIP products providing lead education and resources. MHS did a direct mailing campaign to the 59,000 members throughout the State that did not have a current lead screening on file. The letter explained the need for testing, the dangers of lead and the fact that MHS could provide transportation and scheduling assistance. The mailing also included the MHS lead brochure and health sheets about foods that fight lead. MHS evaluated this as a success when they started getting a high volume of phone calls with lead questions. MHS recorded 204 new lead tests after this initiative.

On an ongoing basis, MHS has several educational methods to teach members about the dangers of lead. They send a Lead Screening-prevention educational brochure that includes testing protocols as well as the Lead Program contact information. Their member library has resources that staff can use to mail to members or that the members can access online. MHS makes lead information available in the member handbook, on the website and in quick reference guides. Quarterly, they post a state-approved lead education item via social media such as Facebook, Twitter and their blog and send out a similar e-mail. MHS distributes materials at outreach events and to members enrolled in case management programs. MHS also has a Disease Management program centered around lead testing. These programs also include telephonic outreach.

MDwise uses several different outreach documents to communicate the dangers of lead with its membership. MDwise also uses its website, member manual, mailings and member newsletters to teach members about lead. They created a lead testing poster that is used by their Network Improvement Program (NIP) team in their work with providers and is available on MDwise's website for providers to print. MDwise has integrated their lead testing efforts into their EPSDT and well child promotional initiatives.

Education and Outreach to Providers

Anthem actively reaches out to providers to ask if members were tested as well as the results of tests and any retests. They offer their providers a toolkit containing a link to EPSDT guidelines and walk through the toolkit at the provider's request. Anthem also gives its providers documents titled "Quality Tool Pediatric" and "HEDIS Benchmarks and Coding Guidelines for Quality Care" which include education about lead screening and care as well as guidelines for coding for lead testing. Provider representatives also deliver MedTox filter paper testing kits to providers. These kits make testing easier for providers to render in-office tests as opposed to sending the member out for the test.

Anthem monitors provider lead screenings via its EPSDT reporting. Anthem reported that lead screening is no longer an item on scorecards that are released to providers at the recommendation of the Anthem Medical Advisory Committee. The practicing physicians on the committee felt that the scorecard needed to be streamlined.

MHS works with providers on an ongoing basis to stress the importance of lead exposure and screenings. Some of the ways that MHS communicates about required lead screening and testing are a provider blog, clinical practice guidelines, provider watch articles in the quarterly Provider Newsletter, emails sent by MHS Medical Director, and onsite provider education through the EPSDT Audit Score Sheet. Like Anthem, MHS provider relations representatives also provide MedTox lead screening kits to physician offices and offer onsite education about the importance of lead screening as well as a demonstration of the kits.

MHS provides a quarterly report to its providers for all members who are in need of lead testing or services. Additionally, providers see 'care gap alerts' in the MHS provider portal for all members on their panels. These are updated daily with new testing data.

For members MHS believes require case management, MHS sends its providers a letter about individual members' test results and recommendations on retesting the member at appropriate intervals. These letters offer the case manager's name and contact information and an offer to assist the provider in helping the member.

MDwise focuses it provider education around EPSDT using the HealthWatch EPSDT Manual and Bright Futures materials which includes the recommended ages for lead testing. MDwise makes practice guidelines available to all providers on its website. These include guidelines for lead testing with links to ISDH guidance. Lead screening is also a part of the MDwise pregnancy clinical practice guidelines. MDwise also has a Lead Testing Poster that is distributed and is available on the website.

Currently, MDwise does not produce member level reports on lead testing for its provider offices. The internal MDwise Quality workgroup has made a recommendation to add both lead and immunization status to member detail reports available to providers in its provider portal.

<u>Outreach to Other Stakeholders</u>

The Division of the ISDH has identified that one of the biggest opportunities for MCE collaboration is with the county health departments. The health departments are mandated to provide case management services to members with elevated blood lead levels as per state law, whereas the MCEs are encouraged to do so as per their contracts with the OMPP. In CY 2017, one of the projects identified in the ISDH meetings with the MCEs is to develop a communication system whereby the MCEs will do the case management and report back information to the health departments. This will free the health department case managers to work with non-Medicaid eligible children.

In addition to contracted providers, the MCEs work with other community groups and health departments to identify and remediate lead issues. Anthem is partnering with the Marion County Health Department to do outreach. Anthem staff met the Health Department's staff to create five events organized as neighborhood block parties with lead testing and education taking place onsite. Anthem partnered directly with East Chicago Department of Health regarding the lead issue in Northwest Indiana in 2016. They jointly distributed flyers on lead screening and educated members. Anthem also held an event at Iglesia de Dios Pentecostal Emmanuel Church in Lake County to reach minority populations.

MHS works closely with Improving Kids' Environment (IKE), an organization that aims to protect children from environmental health hazards such as lead. MHS has sponsored their educational seminars and sent staff to the conferences for training. They have donated money to match IKE grants for abatement. The MHS Medical Director is the President of the IKE board.

MDwise focuses on connecting with the health departments where affected members reside. They have worked closely for many years with local health department case managers who were at one point HUD grant-funded and did home assessments and remediation. While many health departments are no longer funded for this work, MDwise continues to work with them since they are the local authority. Another innovation that MDwise has done is to use nursing students in Marion County to make home visits to lead poisoned children.

MCE Approach to Assist Children with Elevated Lead Levels

Overall Approach to Identify Children with Elevated Lead Levels

Both Anthem and MDwise have been using the ISDH-based data that is assembled and distributed to the MCEs by the OMPP on a monthly basis. Anthem enters data on the children with levels of 5 µg/dL or greater into an internal database which is used by case management to assist the members. The MDwise IT department takes the ISDH data and combines them with its own claims data. It produces lists of members within each of its delivery systems who have elevated blood levels as well as lists of children under two years of age who have never been tested. The IT department sends these lists of members to the delivery systems for member and provider outreach.

MHS monitors lead screening rates among two-year-olds annually through its HEDIS audit and performs monthly claims run analysis. MDwise also uses its HEDIS reports to track testing of two-year-olds by delivery system. MDwise reported that while HEDIS rates for well care have increased dramatically, the lead testing rates have remained essentially the same. They found the same to be true with immunizations. MDwise created a workgroup to focus on interventions for lead and immunizations.

B&A asked the MCEs if they have identified other areas that have issues with lead outside of Indiana's East Chicago area. Anthem has focused on Lake County (the location of East Chicago) and Marion County (Indianapolis) solely. A specific neighborhood on the north side of downtown Indianapolis was specifically identified. There were about 700 members identified on a list to contact. Anthem called the members and made door-to-door visits. Anthem has also done lead outreach in St. Joseph County (city of South Bend).

MHS has not targeted specific areas outside of Lake County but, as discussed earlier, they sent mailings statewide during their East Chicago effort.

MDwise has used geoaccess reporting to identify areas of concern outside of Lake County. They found that rates for elevated lead levels were actually higher in the cities of Fort Wayne, Indianapolis, Richmond, and Terre Haute than they were in East Chicago.

The MDwise Select Health delivery system has also done lead programming in South Bend's Census Tract 6, a neighborhood affected by lead paint in the century-old homes. Select Health obtained a list of members then contacted the parents of children age seven and younger. Their team followed the same workflow as with East Chicago assisting families with testing locations, housing resources and education about lead exposure. A separate neighborhood association in South Bend that found high levels of lead in their water supply also contacted Select Health. The delivery system provided them with educational materials and resources.

Assisting Individual Children with Elevated Lead Levels

Anthem

Anthem members identified with a blood lead level of 10 µg/dL or greater are referred to its Complex Case Management program. The member is assigned to a complex case manager who then performs outreach to the member. If the case manager cannot reach the member after two attempts, he/she mails a "trying to reach you" letter and a Lead Health Tip. If there is still no response from the family, the case manager reaches out to the member's primary medical provider (PMP) to see if the provider has had contact with the member. Case Management will also inquire with the member's PMP and the county's health department to obtain results of a recent test if those results are available. If the member still cannot be reached after two to three weeks, the case manager will refer the member to the "locate and engage team". These individuals will try to go to the member's place of residence to make contact.

When the case manager does reach the member or the member's parent, he/she will complete the Health Needs Screening, the Initial Pediatric Comprehensive Assessment, and the Lead Toxicity assessment. The assessment captures the member's current lead level, a date for a retest, and the updated blood lead level. The complex case manager develops a plan of care to address the member's elevated blood level and other needs identified through the completed screening/assessment.

Anthem case managers continue to follow the member until his or her blood lead level is less than 5 µg/dl. All Anthem members with blood lead levels between 5 µg/dL and 10 µg/dL are enrolled in care management with non-clinical associates. These associates complete the same process completed by the Complex Case Manager with the exception of the case management goal planning.

MHS

MHS also stratifies members into case management based on their blood lead results. MHS places members in Low to Moderate Level Engagement who have lead levels less than 45 µg/dL. These members are referred to a Program Specialist, typically a social worker, for outreach and assessment. Members with a lead level greater than 45 µg/dL are stratified into High Level Engagement and are referred to a Complex Case Manager, typically a registered nurse, for outreach and engagement.

The MHS Care Management team provides outreach, completes a Lead assessment and develops a member-centered plan of care with the input of the member and the provider. The care managers provide telephonic education and written materials and serve as a resource for questions or concerns from the member and/or the provider. The MHS care managers monitor members' progress at defined intervals, provide reassessment and modify the care plan as needed. The care managers release the members when the goals have been met and no other service needs are identified.

In the event that MHS is unable to contact the member after three attempts, the care manager contacts the member's PMP in writing. The letter states that MHS was unable to reach the member and provides the member's blood lead level and a copy of the ISDH Lead Guidelines. The care manager also sends a letter to the member about the benefits of care management and copies of educational materials, which summarize the dangers of lead poisoning, abatement resources, financial resources that may be available through state and federal funding, and reminders for lab draw follow-up appointments.

MHS expressed concern with the options available to them to help the member's family to remove lead hazards from the environment since there is limited funding for abatement. For members who have levels less than 20 µg/dL, MHS encourages them to check the environment and to get the member retested.

MDwise

The MDwise case management process uses the data report developed by its IT department that identifies members who have tested over 5 µg/dL. The case managers outreach immediately to the member or his/her guardian and to the member's PMP office to develop and discuss a plan of care. The case manager helps locate local resources for housing and educates the family on how lead exposure can happen and ways to reduce it. MDwise follows up with the PMP and updates them on care plan activities, verifies follow-up appointments, and ascertains the member's compliance to treatment and most recent lead level. The case manager continues to monitor the member until the lead level is below 5 µg/dL and their other care plan needs are met.

In East Chicago, MDwise also found members with high arsenic levels. When they found these members, they followed the same case management processes as for lead. They contacted parents and guardians by phone and educated them on the impact of high arsenic levels. MDwise encouraged treatment and follow-up testing with the member's PMP or the local health department.

Successes and Challenges Cited by the MCEs

Due to the East Chicago incident, all of the MCEs have learned more about knowledge gaps among both members and providers with respect to lead testing. B&A asked the MCEs about successes and challenges they experienced in East Chicago as well as in their efforts statewide.

<u>Experience in East Chicago</u>

Anthem believes that the outreach that its associates made door-to-door were most successful in reaching members in East Chicago. They also credit the interagency collaboration efforts such as the ECHD community forums as well as joint efforts with local state representatives, the ISDH, the EPA and faith-based organizations. The members also found the "one stop shop" which consisted of lead education, lead testing, vital records and immunizations useful.

Anthem noted that several educational efforts prior to MCE involvement were not successful. The education that the members already had on this issue did not cover the importance of testing and did not provide information about the additional arsenic risks. There seemed to be a knowledge deficit. Members were upset that they were not told of the risk sooner.

MHS found that its strongly-worded direct mail efforts were successful based on the number of inbound calls it received. The message motivated parents to inquire about their child's screening status. They also found communicating in various ways including the use of social media were effective.

MHS has not had high engagement from the information derived from the ISDH database. They struggle with reaching the members. Then, when they do reach members, they find that the data that they have is old and the member is already in treatment. School-based testing efforts have also not been successful.

In East Chicago, MDwise also found that members were not aware of the effects of lead poisoning until MDwise reached out and explained why high levels of lead in their blood can be harmful. MDwise successfully contacted almost one half of the members on its list. The challenge with the outreach was that most members had already been tested or had already started the process of relocation. MDwise served as an additional resource to the members and a source of answers to questions.

On the positive side, even though most members did not need assistance, the housing assistance in addition to the medical screening gave them a reason to trust their insurance provider and know that MDwise cared about more than just their medical or behavioral health needs.

Experience Statewide

B&A appreciated that the MCEs were forthcoming with clear issues identified with respect to improving lead testing statewide and educating its members. Each MCE put forth concrete recommendations. Since the MCEs are working with the Division at the ISDH, B&A asked the Division Director for his assessment of the current situation as well. The feedback received is summarized below.

1. Anthem suggested that provider participation is the biggest challenge in lead screening. Their HEDIS rate has remained steady at the 25th percentile. They believe that two factors may contribute: 1. Different screening requirements for Anthem's Medicaid and Commercial products. Anthem stated that provider office education is needed to differentiate between the two. 2. The reimbursement is such that the provider does not see the cost benefit to filing a claim.

   To remedy this, Anthem suggests working directly with schools, Head Start and child care providers; participating in health fairs; and partnering with public health/health departments. Lead screening also needs to be part of Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) training. Both providers and other groups need to understand that there are two lead screenings required by age two.

2. MHS suspects that lead testing rates may be under-reported despite the State law. They base this on information from ISDH that not all immunizations are being required as required by state law. Providers who are not reporting all immunizations are likely not reporting all lead screening results.

   MHS agrees that education is key to improving rates. MHS does this through member education, Pay for Performance (P4P) provider incentives and promotion of the MedTox in-office screening system.

3. MDwise has statistical proof that the ISDH data are incomplete. Similar to B&A's findings, MDwise stated in a recent study that its testing rate using ISDH data as the source was at 27 percent; however, when MDwise added in its claim data, the rate was 39 percent. There were 10,758 MDwise members identified as tested via claims that were not in the ISDH database. MDwise has identified the non-reporting labs to the ISDH in the past and has re-started this process in 2016-2017.

   On the physician side, MDwise found that most testing is being billed. They have found very little evidence of testing in medical records where there was no corresponding claim. MDwise suggested four strategies that could improve the lead testing rate.

   1. *Standardize expectations for providers so that the standards are the same for those on commercial insurance as on Medicaid*. This was the same comment made by Anthem. Providers should not treat or test their patients differently based on payer.
   2. *Standardize the language used around screening and testing*. MDwise explains that providers often think of lead screening as assessing the lead risk of a child's home and childcare situation. They reserve testing for situations deemed high risk. In their minds, they are compliant with screening and testing expectations.

3. *Give providers feedback on their performance.* The State could make provider-specific feedback available to all providers in Indiana so that they can compare their lead testing rates to their peers. MDwise did point out, however, that providers have many priorities to manage in their practices and lead may not be high on the list.
4. *Incentivize members*. MDwise offers rewards points for children who get lead testing.

4. The ISDH Director identified that some large labs had stopped reporting and, through outreach by ISDH, they are now back in compliance. The threat of the fine that the ISDH could impose on the labs has precipitated in higher compliance of late. Under-reporting continues, however, to be one of the greatest challenges for assessing lead exposure in the State.

   Additionally, it is the Director's opinion that providers are not prioritizing lead testing. "When 94 percent of babies get their 12-month MMR (measles, mumps, and rubella) vaccination, but only 11 percent of babies are tested for lead poisoning, there are clearly missed opportunities."

Recommendations for Continued Improvement

Although the promotion of lead testing has always been an important aspect of OMPP's health coverage programs, the situation in East Chicago brought an even more heightened awareness. The ISDH, the OMPP and the MCEs should be commended for pursuing innovative ways to outreach and educate both members and providers participating in the OMPP health coverage programs.

- Effective March 1, 2017, the OMPP has started to cover and reimburse HCPCS T1029, Comprehensive Environmental Lead Investigation, to Public Health Agencies and County Health Departments who are Medicaid providers.

- The OMPP continues to make available to the MCEs pre-set, filtered monthly reports of data from the ISDH database of their own members.

- The ISDH has exerted additional scrutiny since the start of 2017 on providers who had not been submitting lead tests to the ISDH database.

- The MCEs and the ISDH have re-engaged a continual dialog on strategies to improve lead testing and immunization rates.

With the knowledge that all of the efforts mentioned above are already underway, based on the data analyzed in this focus study and interviews with stakeholders, B&A offers the following recommendations for continuous improvement.

<u>Recommendations to the MCEs</u>

1. In an effort to support the ISDH in obtaining better compliance with high-volume test sites to submit lead tests, the MCEs are encouraged to cross-walk the tests that they are receiving from claims against the tests reported in the ISDH database. This can serve as a feedback loop both to the provider community and to the ISDH. The data shown in Exhibit V.10 can start as a starting point as to the areas within the state where reporting to the ISDH appears to be lacking the most.

2. In conjunction with the recommendation above, the MCEs should consider building a provider report card. Anthem indicated that its Medical Advisory Committee chose to exclude lead testing from the primary medical provider office report cards. B&A's recommendation is directed not

necessarily to the physician offices but rather to the lab companies. The scorecard can show the gaps between the claim submissions and the ISDH submissions.

3. For MDwise specifically, B&A suggests loading the lead testing data in its provider portal in a manner to what is offered by Anthem and MHS.

4. For MHS specifically, it is unclear at what lead level engagement is occurring with members when the test is below 45 μg/dL. As per the MCE's procedure IN.CM.03, engagement is only required for children with a level reaching 45. Anthem and MDwise identify all children with a level of 5 μg/dL or greater for, at minimum, monitoring until they see that a retest with a level below 5 has been achieved. It is recognized that lower levels (e.g. 5-9 μg/dL) may not require as much intervention but more of a "watch item" compared to members with a level of 10 μg/dL or greater. It is recommended that MHS strengthen its policy for children identified with lead levels between 5 and 45 μg/dL.

5. Similar to information from the ISDH related to lead tests, the MCEs are also provided information from the ISDH from its immunization registry (CHIRP). B&A supports the ISDH Director's recommendation that the MCEs should interrogate the CHIRP database (and its own claims repository) for its members who received an immunization for MMR at 12 months of age against the lead database to identify missed opportunities.

<u>Recommendation to the OMPP</u>

1. In light of the opportunity for improvement in the rate of lead tests that are being captured and the requirements as per IC 12-15-12-20 for OMPP to make lead testing a focus, B&A recommends that the OMPP should consider making lead test reporting and tracking a Pay for Outcomes measure in future contracts with its MCEs and report findings related to this measure in its annual Quality Strategy document.

2. In conjunction with Recommendation #5 to the MCEs, B&A recommends that the OMPP support and facilitate the filtering of data from ISDH's CHIRP database similar to what the OMPP does with the STELLAR lead testing database to assist the MCEs in identifying missed opportunities for lead testing at the time that immunizations (like MMR) are occurring.

3. B&A supports the ISDH Director's goal of exchanging information for HHW and HCC children who are enrolled in case or care management due to elevated lead levels with the ISDH who have a mandated responsibility for this function as well. In an effort to avoid duplication of services, it is recommended that the OMPP provide guidance to facilitate a unified approach across all MCEs in how this information is communicated to the ISDH. For example, a common data exchange file could be developed (assuming all PHI protections have been accounted for) between each MCE and the ISDH or a file from each MCE to the OMPP which is then shared with ISDH under an inter-agency agreement.

4. B&A recommends further discussion between the OMPP, the ISDH, the Medicaid MCEs and commercial MCEs related to creating common standards related to lead testing and the requested (or required) actions to be taken by physicians when threshold levels are known. Physicians are currently being given conflicting guidance from commercial health plans and the MCEs/OMPP related to the number of tests, the age at which tests should be administered and the actions to take based on lead tests at different levels.

SECTION VI: FOCUS STUDY ON MEDICATION ADHERENCE

Introduction

A technique that is becoming more common in utilization management and care management programs is the examination of the rate at which patients are adhering to their medication regimen. One of the focus studies conducted in this year's External Quality Review (EQR) was an examination of the medication adherence rates of selected members within the Hoosier Healthwise (HHW), Hoosier Care Connect (HCC) and Healthy Indiana Plan 2.0 (HIP) populations with identified chronic conditions. Burns & Associates, Inc. (B&A) interviewed each of the managed care entities (MCEs) reviewed in this EQR to learn more about their approach to examining medication adherence as well as their findings for the populations that they analyze in HHW, HCC and HIP. Desk review materials were also provided to the EQR team to provide more detailed information that was discussed in the onsite interviews.

Separately, B&A conducted its own study of medication adherence for the members in the HHW, HCC and HIP programs for five conditions of interest. The preliminary findings were shared with the Office of Medicaid Policy and Planning's (OMPP's) Pharmacy Director to obtain initial feedback on ways to refine the methodology. The B&A team accepted these recommendations and updated the study results. These updated results were then shared in an onsite meeting with the pharmacy team at each MCE to compare the methodologies used between the MCE and B&A. Although the intent of B&A's study was not to exactly replicate each MCE's unique methodology, we did make slight adjustments to our methodology based upon the consensus feedback from the three MCEs in an effort to more closely align our methodologies.

The elements of this focus study included:

1. An overview of the medication adherence programs and methods of measurement at the MCEs
2. A review of each MCE's efforts to engage with members on medication adherence
3. A review of each MCE's efforts to engage with providers on their patients' medication adherence
4. Challenges and opportunities cited by the MCEs related to medication adherence
5. B&A's independent evaluation of medication adherence within OMPP's managed care programs
6. Recommendations for continued improvement

Overview of Medication Adherence Programs at the MCEs

A review of the literature and confirmation with the MCEs revealed that although medication adherence can be measured in a variety of ways, two methods are most commonly used:

- The *Medication Possession Ratio (MPR)* is the number of dispensed medication doses divided by the number of days in a unit of time (typically a year). The MPR can be used to estimate the degree to which patients with chronic medical conditions comply with prescribed drug therapies.

- The *Percent of Days Covered (PDC)* is the proportion of days in the measurement period covered by prescription claims for the same or another in its therapeutic category. Studies show that if the PDC is greater than 80 percent, then medication adherence is generally being met.

Although other metrics may also be used, when meeting with the MCEs Anthem reported that they used both MPR and PDC and which one is used varied by the condition of interest. Both MDwise and MHS reported that they primarily use PDC as their study measure.

Anthem

Anthem utilizes the resources available from its Pharmacy Benefit Manager (PBM) in coordination with Anthem's own Pharmacy team, Quality team and Case/Care Management team to administer its medication adherence program.

Anthem implemented a Medication Therapy Management (MTM) program in October 2015. In Indiana, this program is focused on the HCC and HIP populations and is managed by Anthem's vendor Symphony. There are at least ten conditions included in the program at any given time and many of these are chronic conditions. Anthem also has medication adherence programs managed in-house that came online in Calendar Year (CY) 2016/early 2017 for asthma, diabetes, schizophrenia and ADHD.

The criteria to identify members for MTM within HCC are three chronic disease states or prescriptions for eight or more medications which is defined by the State. For HIP, the criteria follow the guidance from Medicare which is three chronic disease states or prescriptions for seven or more medications. Anthem reports that 30 percent of HCC members and three percent of HIP members meet the criteria for MTM within their program. In both programs, Anthem reported that 14 to 16 percent of members meeting the criteria for MTM call back and complete the medication consultation.

Anthem tracks medication adherence rates by overall program and by gender and age within each program. Adherence rates are also tracked within each condition of interest. Anthem provided the following adherence rates to the reviewers for Indiana's Medicaid programs:

- HHW: 85% overall and rates by gender were the same (note that this is year-to-date CY 2017 since the program was initiated at the start of 2017)

- HCC: 75% overall with rates by gender within one percentage point; the rates for the younger population (up to age 29) were 68% and adherence rate improved up the age scale to 79% for seniors (the results shared were for CY 2016)

- HIP: 71% overall and rates by gender were the same; like HCC, the rates for the younger population in HIP were lower (60%-63% for ages 20-39) than the older population (71%-78% for age 40 and up)

MHS

Similar to Anthem, MHS utilizes the resources available from its PBM as well as data analytics from its internal systems to measure medication adherence metrics. The internal Pharmacy team at MHS reviews medication adherence data and coordinates the dissemination of this information to the Case/Care Management team.

MHS utilizes claims surveillance among other methods to identify individuals for its MTM program which began in the latter half of CY 2015. The MTM program is in place for the HHW, HCC and HIP programs. The criteria for enrollment in MTM are the same across programs which are three chronic disease states or prescriptions for eight or more medications (the State definition). MHS reports a 30 percent engagement rate which the MCE considers higher than expected. MHS uses the vendor OutcomesMTM to manage its MTM program.

MHS runs monthly Drug Utilization Review (DUR) reports to monitor utilization and identify members for non-adherence to medications. The conditions of interest that MHS focuses on include COPD, diabetes, cardiovascular disease, Hepatitis C, HIV, ADHD and depression. The ways in which the medication adherence data are used within each of these programs varies. Examples cited included case managers accessing pharmacy data as part of a protocol for case management of COPD, assessing the use of statins for members with cardiovascular disease and reviewing a weekly claim report for members with Hepatitis C and HIV.

MHS measures medication adherence for its Indiana Medicaid programs population at the drug class and across member populations for respiratory, cardiovascular and behavioral health medications. The adherence data is measured month over month to capture trends. MHS has the ability to measure at a more granular level within each drug class to determine if there are key drivers of non-adherence based on changes to the preferred drug list (PDL) or other clinical policy changes. Medication adherence is measured pre- and post-intervention to assess effectiveness. If members are adherent for 90 days, then this is considered a success. Overall, 15 to 20 percent of cases are closed.

Some of the results that MHS shared with the review team related to medication adherence within Indiana's programs are as follows (information shown represents the first quarter of CY 2017):

Antidiabetics: 72%	Antihyperintensives: 71%
Antiepileptics: 70%	Antiretrovirals: 72%
Antihyperlipidemics: 76%	Psychotic agents: 65%
	Respiratory agents: 59%

MDwise

MDwise, like the other two MCEs, utilizes the resources available from its PBM as well as data analytics from its internal systems to measure medication adherence. The internal Pharmacy team at MDwise reviews DUR reports to monitor utilization and identify members for non-adherence to medications. This information is disseminated to the Case/Care Management team. MDwise also has an MTM program, but specific information on this program was not made available to the reviewers.

For its medication adherence program, MDwise focuses on asthma, COPD, diabetes and cardiovascular disease. MDwise starts with review of the DUR reports by drug class and then picks up corresponding diagnoses of members.

MDwise reported to the reviewers some results for the HIP population on medication adherence. Because the HHW medication adherence program just began at the start of CY 2017, no data is available. MDwise did not report information on the HCC program since it terminated its involvement with this program effective March 31, 2017. The results shown for HIP by condition of interest are as follows:

Cardiovascular disease: 87%	Insulin: 74%
Diabetes: 83%	Airway-related: 82%

MDwise does not currently calculate adherence rates by age, gender or other cohort level but may do so in the future. However, it does measure medication adherence (using PDC) at the individual drug class level. MDwise provided the reviewers with examples of these reports with comparative information between CY 2015 and 2016.

MCE Efforts to Engage with Members on Medication Adherence

In addition to the MTM program, Anthem uses a variety of methods to engage with members on medication adherence. From a global perspective, these include engagement through case management, mailings related to specific conditions, and pre-set text messages related to specific conditions.

For individuals in the MTM program, the member's information is entered into Anthem's case management system. Goals are established for each member enrolled in MTM. Anthem utilizes a report to track members with multiple scripts who are currently not enrolled in case management to encourage them to enroll. Starting in June 2017, Anthem has implemented a "locate and engage" program in select locations in the state (Evansville, East Chicago, Fort Wayne and Indianapolis). Anthem staff are on-the-ground in these locations and can meet members where they are to encourage engagement in the healthcare system.

A specific program that Anthem launched in late 2016 is its New Start program. The test area of focus was on ADHD with a target population of children age six to 12. The Vanderbilt ADHD Diagnostic Rating Scale was used to develop materials specific to this program. Anthem sends information to member parents and guardians regarding maintenance medication use, the importance of follow-up with the child's physician, and reminders by text message. If a member is not on medication for more than 120 days, the member will be on a report for follow-up by case management team. Anthem is considering expanding this program for up to 15 other conditions.

MHS has targeted methods to reach members for medication adherence that may vary based on the condition of interest. For example, a specific educational campaign focused on ADHD and postcards were sent to members diagnosed with depression.

More specific outreach is conducted primarily through the case management program. Members of MHS's pharmacy team attend case management "rounds" on select cases. MHS has two coordinators to work with members with Hepatitis C and another coordinator to work with members with HIV. These coordinators work as a team with the case managers. As an example of how this works, MHS described that members with Hepatitis C will receive a phone call from a clinical pharmacist. The member will be educated with information about the disease and the drugs prescribed and perform a risk assessment for non-adherence. The case management team will then discuss the member with the pharmacist and follow up periodically throughout the member's treatment to assess for continued adherence and answer any questions that members may have about the treatment or next steps.

MDwise uses global and member-specific approaches to address medication adherence with members. An example of a global approach is monthly mailings for members on antidepressants informing them of the importance of taking medications regularly and explaining how to cope with potential side effects. MDwise has initiated its "INcontrol" program which is essentially a self-referral program available to members (and providers) on the MDwise website to connect members to case management or disease management to obtain assistance with questions on various diseases.

On a more specific basis, the behavioral health case managers make targeted calls to members particularly for those with new starts on antidepressant prescription medications. Additionally, members with Hepatitis C are actively engaged by the MDwise pharmacist and care manager to assess for the member's understanding of the disease and the importance of medication adherence to achieve desired outcome. Members are called at least monthly while on the drug therapy.

MCE Efforts to Engage with Providers on their Patients' Medication Adherence

Anthem has developed pro forma template letters to send to physicians that identify members in the physician's panel that, through claims surveillance, appear to not be adhering to their medications. The summary letter includes a report that provides highlights of individual patients with potential issues, an action list for follow-up with individual members, and a medication graphic that shows the chronic medications filled by the patient. Patient-specific data in the accompanying report includes patient name, condition, gender and age. Patients are organized on the report by condition, e.g., "atrial fibrillation needs anticoagulant" or "diabetes medication erratic fill pattern". The providers are encouraged to give feedback about the information received for individual patients through a return form that utilizes check boxes.

A separate letter and report similar to the one described above is sent to physicians to address potential issues related to the use of controlled substances. This report provides more details at the individual patient level and gives information about each controlled substance dispensed to a member including date, prescriber, pharmacy, pharmacy phone number, actual drug dispensed and quantity.

An even more detailed report is sent to providers about individual patients who are not adherent to antipsychotic medications.

MHS sends monthly letters to providers that have members not using asthma controlled medication regularly. The MTM provides adherence rates at the member level which can be organized by provider panel. MHS reports that there are some "false positives" for low PDC rates so MHS needs to work with physicians more to collect feedback on closing gaps or removing the false positives. MHS does send out a separate, more detailed, letter to providers about individual patients who are not adherent to antipsychotic medications.

MDwise stated that it utilizes its provider website containing clinical guidelines for providers to access related to medication adherence. Although the MDwise team has run some reports at the provider level, there is no formal feedback of this information to individual providers.

Challenges and Opportunities Cited by the MCEs

The focus on medication adherence, and the introduction of MTM programs, is relatively new at all three MCEs. Therefore, the long-term effectiveness of these programs is yet to be determined.

When asked for the assessment of their own programs thus far, each MCE cited that the greatest impediment to success is the engagement with the member and encouraging the member to want to change his/her adherence pattern. To that end, the MCEs offered ideas about opportunities either to encourage this change by members or to make it more convenient for members to be adherent to their medications. Some of the ideas cited include the following:

- Anthem has supplied members with proactive pill reminders such as diabetic pill boxes. They have also increased the volume of mail order prescriptions to members to cover 90 days. Anthem is exploring a medication synchronization program where the member would go one time to the pharmacy when taking multiple scripts and needed prior authorizations would be synchronized for refill approvals. Anthem has also involved its case management team more recently to educate them about working with the member to verify the member's understandings of their medications, reinforcement of the importance of taking medications and making members understand that they cannot make changes without consulting a physician.

- MHS is aiming to focus materials on specific drugs or drug class levels and to add quality outcome metrics related to emergency department use as it pertains to pharmacy on its provider reports.

- MDwise has begun to send text messages and other secure electronic media to members that are more personalized as a means to build relationships.

B&A's Evaluation of Medication Adherence within OMPP's Managed Care Programs

Methodology to Define the Population within Each Condition of Interest

B&A used the PDC measure as the metric upon which to evaluate medication adherence of members in Indiana's managed care programs. B&A utilized MCE encounters for CMS-1500 (professional) claims with dates of service 1/1/16 – 12/31/16 in this study. Individuals enrolled in HHW, HCC and HIP were included.

Within this set of encounters, individual Medicaid Recipient IDs (RIDs) were found that had diagnoses reported among specific HEDIS Value Sets. Our initial review included the following Value Sets:

- Retained: Asthma Diagnosis, COPD Diagnosis, Diabetes Diagnosis, Psychosis, Schizophrenia
- Considered but Not Retained due to low volume: HIV, Heart Failure Diagnosis, Major Depression, Bipolar Disorder, Psychiatric Disorders, Other Psychiatric Disorders
- Considered but Not Retained because sample was too large: Mental Illness

For the conditions of interest that were retained, all conditions are defined by ICD-10 diagnosis codes only and not procedure codes. Within each condition of interest, the unique count of RIDs that had at least one of the diagnosis codes within the Value Set was identified. From here, the population within each condition of interest was further limited to members who had been continuously enrolled from October 1, 2015 – December 31, 2016 in the same program and the same MCE. This limited the initial population statewide (all MCEs, all programs) within each condition of interest to between 63 percent and 79 percent of the original number of members considered (percentage varied by condition of interest).

It should be noted that the same person could be counted across multiple conditions of interest. However, if a member was assigned to multiple groups, only certain scripts counted towards the member's adherence rate within the condition of interest.

From this subset of RIDs, all of the member's pharmacy scripts were compiled with script dates from January 1, 2016 – December 31, 2016.

Some members were excluded from the cohort population within each condition of interest based on two criteria. First, B&A cross-walked each RID in the study population against the inpatient encounter database received from the OMPP data warehouse. If a member was hospitalized at any time in CY 2016, they were removed from the study. It is recognized that if members were hospitalized as an inpatient during CY 2016, then he/she may have accessed pharmacy but not through a pharmacy script. This would artificially reduce the PDC rate.

Second, even though each member examined was continuously enrolled for the 15-month period, there may be situations where one of the national drug codes (NDCs) was filled for an isolated incident as opposed to a chronic condition. In an effort to limit the study to measure the PDC rate among members

in the cohort with a chronic condition, only members who had at least two scripts filled at some time in CY 2016 within the NDC list for the condition of interest were retained in the study.

Methodology to Define the Relevant Scripts within each Condition of Interest

In the absence of a national standard mapping of NDCs to therapeutic classes, B&A considered NCQA mappings of NDCs that are used in each of its HEDIS definitions as a way to define the appropriate NDCs for use in the calculation of Percent of Days Covered.

B&A canvassed all of the HEDIS 2017 measures to find those measures related to our conditions of interest in this study. Within each HEDIS measure, when drug lists are used in the HEDIS definition, they were tabulated.

B&A mapped the unique NDCs in the NDC Crosswalk tables published by the NCQA back to each condition of interest. We retained the "Description" category that each NDC mapped to. The Description categories were reviewed with the OMPP Pharmacy Team. Based on OMPP input, some descriptions were removed from the study.

Then, as an alternative to the NCQA mappings, B&A also considered mappings of NDCs to sub-classes that are used by the OMPP for other purposes. Both sets of NDC groupings were tested to compute PDC rates. The results for PDC rates by condition of interest were very similar between the NCQA-defined and the OMPP-defined mappings of NDCs. The results under both mappings were also shared with each MCE along with the listings of therapeutic sub-classes. Ultimately, B&A opted to use the OMPP subclass categories to map individual NDCs to a condition of interest for the purposes of calculating a PDC rate. This list of subclasses considered in the PDC analysis is shown in Exhibit VI.1 on the next page.

Once the limited set of NDCs was defined within each condition of interest, B&A pulled out just the scripts with those NDCs for the members defined in the study.

Exhibit VI.1
OMPP Mappings of Therapeutic Subclasses to Conditions of Interest

The therapeutic subclasses below were used in B&A's calculation for Percent of Days Covered.
B&A considered NCQA mappings but, in consultation with OMPP, opted for these mappings.

Subclass Description	# NDCs in Category	Asthma	COPD	Diabetes	Psychosis	Schizo-phrenia
Beta Adrenergics	1502	x	x			
Xanthines	1365	x	x			
Steroid Inhalants	212	x	x			
Leukotriene Receptor Antagonists	361	x				
Anti-IgE Monoclonal Antibodies	1	x				
Mixed Insulin	9			x		
Pork Insulin	15			x		
Human Insulin	218			x		
Antidiabetic - Amylin Analogs	9			x		
Incretin Mimetic Agents (GLP-1 Receptor Agonists)	27			x		
Sulfonylureas	2668			x		
Biguanides	1497			x		
Meglitinide Analogues	83			x		
Diabetic Other	255			x		
Diabetic Other - Combinations	269			x		
Alpha-Glucosidase Inhibitors	88			x		
Dipeptidyl Peptidase-4 (DPP-4) Inhibitors	52			x		
Thiazolidinediones	366			x		
Sodium-Glucose Co-Transporter 2 (SGLT2) Inhibitors	14			x		
Insulin-Incretin Mimetic Combinations	2			x		
Dipeptidyl Peptidase-4 Inhibitor-Biguanide Combinations	51			x		
DPP-4 Inhibitor-HMG CoA Reductase Inhibitor Comb	15			x		
DPP-4 Inhibitor-Thiazolidinedione Combinations	12			x		
Meglitinide-Biguanide Combinations	4			x		
Sodium-Glucose Co-Transporter 2 Inhibitor-Biguanide Co	29			x		
SGLT2 Inhibitor - DPP-4 Inhibitor Combinations	6			x		
Sulfonylurea-Biguanide Combinations	315			x		
Sulfonylurea-Thiazolidinedione Combinations	17			x		
Thiazolidinedione-Biguanide Combinations	76			x		
Biguanide-Diabetic Supplies Combinations	1			x		
Biguanide-Nutritional Supplement Combinations	4			x		
Benzisoxazoles	639				x	x
Butyrophenones	1001				x	x
Dibenzothiazepines	623				x	x
Dibenzoxazepines	175				x	x
Dibenzo-oxepino Pyrroles	17				x	
Thienbenzodiazepines	557				x	x
Dihydroindolones	22				x	
Phenothiazines	3215				x	
Antipsychotics - Misc.	181				x	x

Methodology to Count Scripts and Determine the Number of Days Covered

B&A created person-level records for each member in the study. The relevant scripts within the condition of interest for the member that were found for CY 2016 were strung together in date order from earliest to latest. An *index date* was found for each member within the condition of interest. The index date is the date of the first script within the NDCs considered that was filled by the member in CY 2016. For the purposes of calculating an individual member's PDC rate, the number of days in the denominator represents the number of days in CY 2016 from index date to December 31, 2016.

In Step 1 of our process, B&A computed an initial PDC rate as:

[the sum of the total days supply on all NDCs appropriate to the condition]
divided by
the total days defined by [December 31, 2016 minus index date]

After this step, for many conditions of interest, there were high percentages of members with PDC rates greater than 100 percent. Upon further review, we observed that often on the same day there were many NDCs filled for the member within the same OMPP therapeutic class. In Step 2 of our process, B&A removed duplicate fills on the same day within the same OMPP therapeutic class.

In Step 3, we examined all scripts that were filled on or after October 1, 2016. When reviewing the total days supply value, of the total crossed into dates into CY 2017, we truncated the days to cover only the days through December 31, 2016.

Example: A script was filled 11/25/16 with total days supply was = 90
B&A changed the total days supply to equal 36 for the PDC formula

A final Step 4 was completed to examine overlapping scripts. For example, this is when a member may have filled a script for a 90-day supply, then on day 60 filled another script for another 90-day supply. In this example, the member would have 30 days double counted in the PDC ratio (the last 30 days of the first 90-day script and the first 30 days of the second 90-day script). B&A did allow for the fact that members may be filling scripts in advance to ensure that their medications are up-to-date. Or, there may be situations where the total days supply of the original script was intended to cover 30 days, but the member used it up more quickly (e.g., insulin) and had to fill a script earlier.

Therefore, in Step 4, B&A accounted for these situations by doing the following:

- If a member had scripts that overlapped calendar days and the number of overlap days exceeded 14, then B&A allowed for only 14 overlapping days in the PDC calculation.

- If a member had scripts that overlapped calendar days and the number of overlap days was less than 14, then B&A allowed all of these overlapping days in the PDC calculation.

Findings from B&A Evaluation

Exhibit VI.2 which appears on page VI-11 summarizes the PDC rates for each of the five conditions of interest examined. The PDC rates are shown first by program (HHW, HCC and HIP) and then by MCE within each program. Each of the four boxes represents a condition of interest. The bottom right box labeled Behavioral Cohort Population actually includes two conditions of interest—Psychosis and Schizophrenia. Because the sample size pertaining to these two conditions of interest was smaller than the other conditions (Psychosis n= 1,059; Schizophrenia n= 1,455), it did not seem appropriate to show findings at the individual program level. Therefore, for these two conditions, the results are shown at the MCE level for all three OMPP programs combined.

In summary, the PDC rates varied by condition of interest and there was some variation across the programs. There was little variation seen, however, across the MCEs within a particular condition of interest.

- For asthma (upper left box), the weighted average PDC rates were 41.7 percent for HHW, 50.4 percent for HCC and 49.7 percent for HIP. Within each program, the PDC rate did not vary by more than three percentage points across MCEs.

- For COPD (upper right box), the weighted average PDC rates were 46.8 percent for HCC and 42.8 percent for HIP. Data is not shown for HHW since the total sample was only 56 members (the HHW population is almost exclusively children). Within each program, the PDC rate did not vary by more than three percentage points across MCEs.

- For Diabetes (lower left box), the weighted average PDC rates were 75.4 percent for HHW, 80.5 percent for HCC and 78.6 percent for HIP. Within each program, the PDC rate did not vary by more than two percentage points across MCEs.

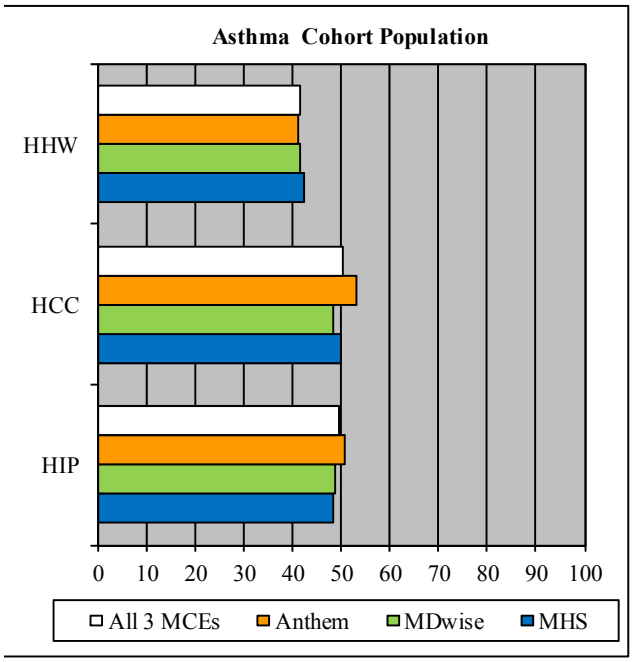
- For the Behavioral Health conditions (lower right box), the weighted average PDC rate for Psychoses all MCEs combined was 68.6 percent with less than a three percent variance across MCEs. The weighted average PDC rate for Schizophrenia all MCEs combined was 78.5 percent with less than a three percent variance across MCEs.

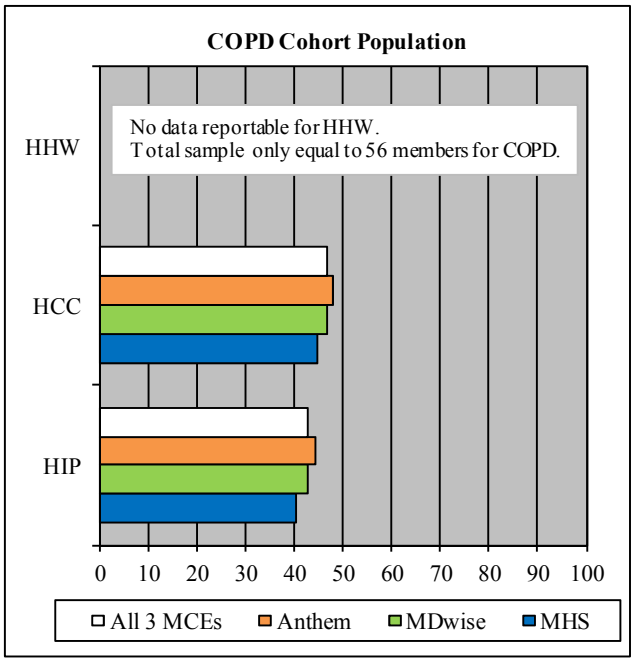
Exhibit VI.3 is shown on page VI-12. This exhibit is organized similar to Exhibit VI.2 with each box representing a condition of interest. Whereas Exhibit VI.2 showed the weighted average PDC rate by program/MCE, Exhibit VI.3 stratifies the members within ranges of PDC rates. The purpose of this exhibit is to determine if a particular MCE has a disproportionate percentage of members with lower PDC rates or higher PDC rates which could influence its weighted average overall PDC rate.

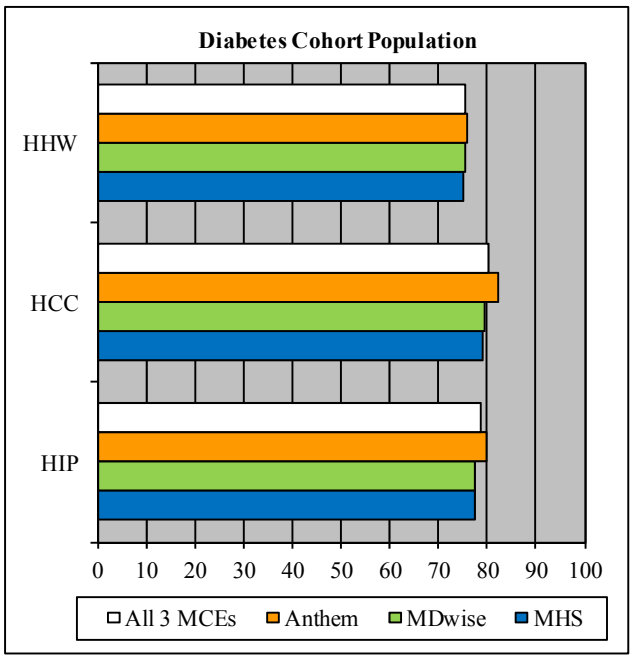
Within each box, the color coding shows the percentage of members that fell into each PDC rate category (< 25%, 26-50%, 51-75%, 76-85%, 86-100%).

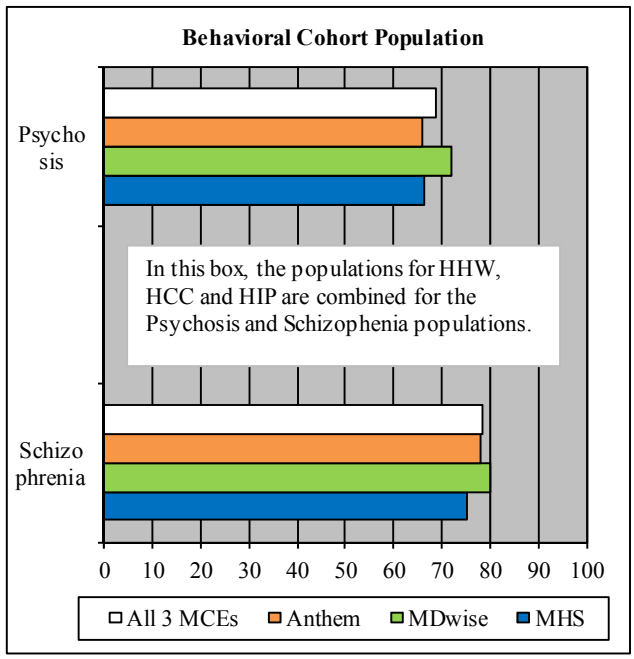
The data shows that there is uniformity in the percentage of members at each PDC level across the MCEs for each condition of interest for asthma, COPD and diabetes. There is some variation in the distribution of members for the behavioral health conditions, but recall that this is most likely due to the smaller study sample sizes, particularly when reviewed at the individual MCE level.

Exhibit VI.2
Percent of Days Covered Rates by Condition / OMPP Program / MCE









Asthma	All 3 MCEs	Anthem	MDwise	MHS
HIP	49.7	50.9	48.8	48.4
HCC	50.4	53.3	48.5	49.9
HHW	41.7	41.3	41.6	42.2

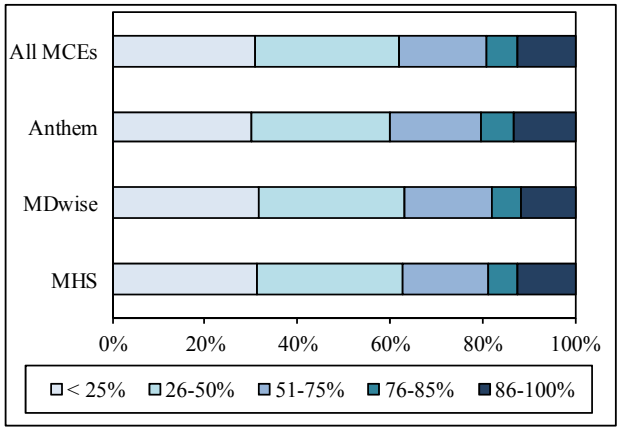
Diabetes	All 3 MCEs	Anthem	MDwise	MHS
HIP	78.6	80.0	77.6	77.3
HCC	80.5	82.4	79.5	78.9
HHW	75.4	75.9	75.3	75.0

COPD	All 3 MCEs	Anthem	MDwise	MHS
HIP	42.8	44.3	42.6	40.3
HCC	46.8	47.9	46.5	44.9
HHW				

Behavioral	All 3 MCEs	Anthem	MDwise	MHS
Schizophrenia	78.5	78.0	80.0	75.3
Psychosis	68.6	66.1	71.8	66.5

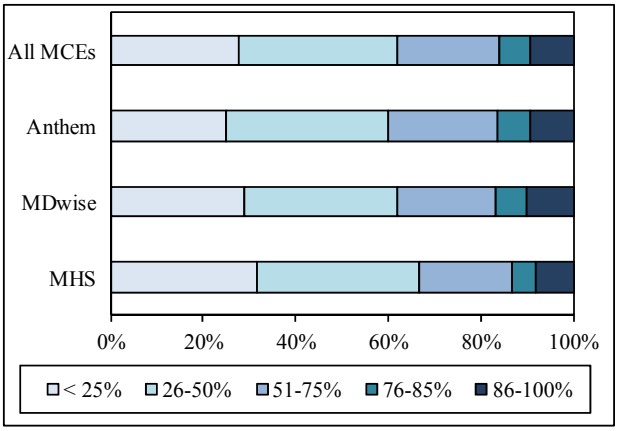
Exhibit VI.3
Stratification of Members within PDC Rate Ranges by Condition / MCE
For HHW, HCC and HIP Program Members Combined in Each Condition

Asthma Cohort Population



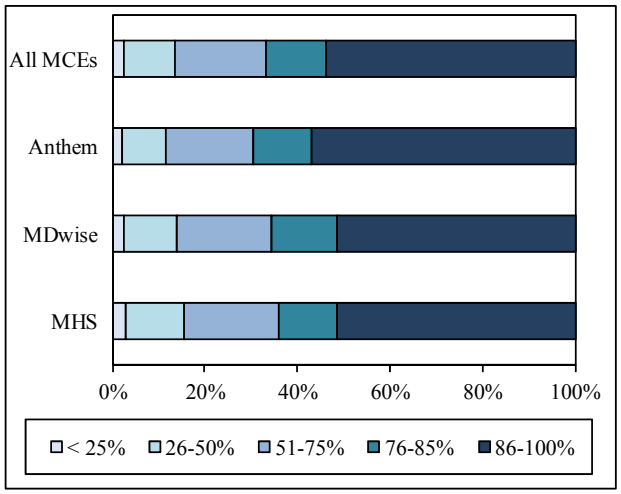
	Number of Members (n=29,259)				
	< 25%	**26-50%**	**51-75%**	**76-85%**	**86-100%**
All MCEs	9,029	9,108	5,553	1,925	3,644
Anthem	3,059	3,080	2,018	718	1,363
MDwise	3,734	3,755	2,200	759	1,381
MHS	2,236	2,273	1,335	448	900

COPD Cohort Population



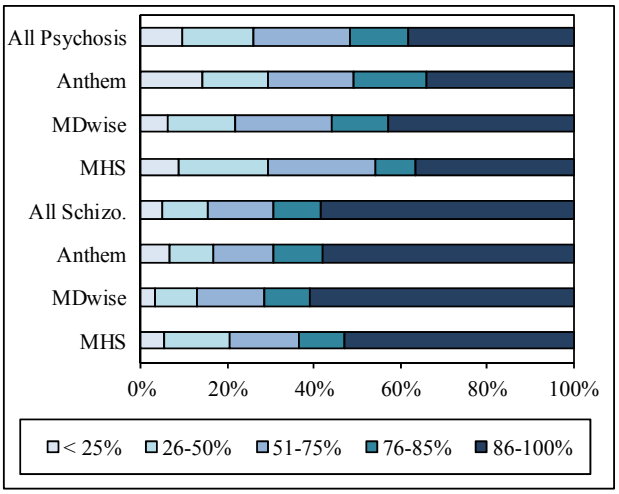
	Number of Members (n=6,833)				
	< 25%	**26-50%**	**51-75%**	**76-85%**	**86-100%**
All MCEs	1,900	2,343	1,505	453	632
Anthem	715	998	681	201	261
MDwise	764	884	556	183	264
MHS	421	461	268	69	107

Diabetes Cohort Population



	Number of Members (n=15,108)				
	< 25%	**26-50%**	**51-75%**	**76-85%**	**86-100%**
All MCEs	374	1,638	2,986	2,007	8,103
Anthem	128	571	1,143	778	3,461
MDwise	147	655	1,176	813	2,962
MHS	99	412	667	416	1,680

Behavioral Cohort Population



	Number of Psychoses Members (n=1,059) Number of Schizophrenia Members (n=1,455)				
	< 25%	**26-50%**	**51-75%**	**76-85%**	**86-100%**
All Psychosis	103	173	234	143	406
Anthem	55	59	77	65	132
MDwise	29	70	103	58	196
MHS	19	44	54	20	78
All Schizo.	69	158	220	158	850
Anthem	32	48	65	54	276
MDwise	23	69	112	75	432
MHS	14	41	43	29	142

Exhibits VI.4 through VI.8 appear on pages VI-14 through VI-18. Each exhibit is one page and profiles more information about the PDC rates for each condition of interest. The PDC rates for each condition of interest are examined more specifically by MCE, by eight regions in the state, by race/ethnicity and by age group. Each of these demographic cohorts is represented in one of the four boxes shown in the exhibit. Within each box, data is displayed as follows:

- The horizontal black line is the overall PDC rate statewide within this study for the condition of interest
- The blue vertical lines show the PDC rate for the specific cohort studied
- The red vertical lines show the percentage of the membership that the specific cohort represents in the study

All data shown on Exhibits VI.4 through VI.8 is for all three OMPP programs combined—HHW, HCC and HIP.

It was already shown in Exhibit VI.2 that the PDC rates across MCEs were consistent within each condition of interest. This is shown again in the upper left box of each Exhibit VI.4 through VI.8. In general, the PDC rates were also consistent across the other demographic cohorts by region, race/ethnicity and age. The exceptions to this consistency in PDC rates are highlighted below.

- In Exhibit VI.4, the weighted average PDC rate for asthma was found to be 44.9 percent. African-American and Hispanic members had lower PDC rates (40.2% and 39.3%, respectively) than Caucasians. Also, the youngest children up to age five had the lowest PDC rate (34.1%) compared to the older age group of 40 and over (53.0%).

- In Exhibit VI.5, the weighted average PDC rate for COPD was found to be 44.7 percent. MHS did have a slightly lower rate of 42.0 percent than its peers. African-American members had a lower rate (39.1%) than other race/ethnicities.

- In Exhibit VI.6, the weighted average PDC rate for diabetes was found to be 79.0 percent. African-American and Hispanic members had lower PDC rates (72.4% and 74.6%, respectively) than Caucasians. Also, members age 19-29 had the lowest rate (70.7%) of all age groups, although they only represented 4.7 percent of all members in the study.

- In Exhibit VI.7, the weighted average PDC rate for psychoses was 68.6 percent. Recognizing that this cohort was smaller than other populations studied, B&A looked for subpopulations that deviated more than five percentage points higher or lower than the overall average. This was true for African-Americans (63.3%) and children age 6-12 (74.5%).

- In Exhibit VI.8, the weighted average PDC rate for schizophrenia was 78.5 percent. Once again focusing on subpopulations that deviated more than five percentage points higher or lower than the overall average, it was found to be true for African-Americans (73.2%), children age 13-18 (69.8%) and younger adults age 19-29 (73.5%).

Exhibit VI.4
Stratification of Asthma Member PDC Rates by Key Demographic Features
For HHW, HCC and HIP Program Members Combined

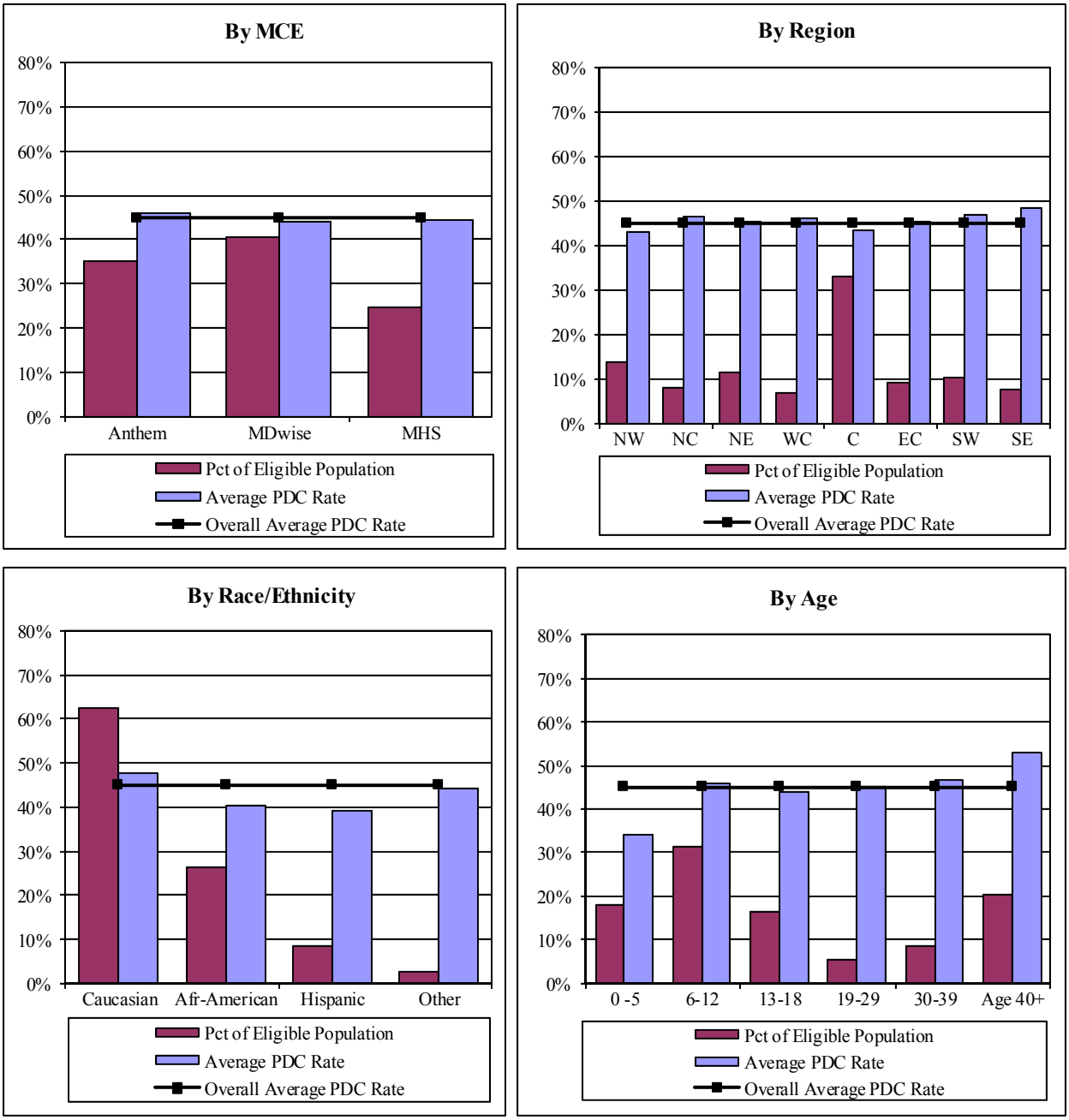


Exhibit VI.5
Stratification of COPD Member PDC Rates by Key Demographic Features
For HHW, HCC and HIP Program Members Combined

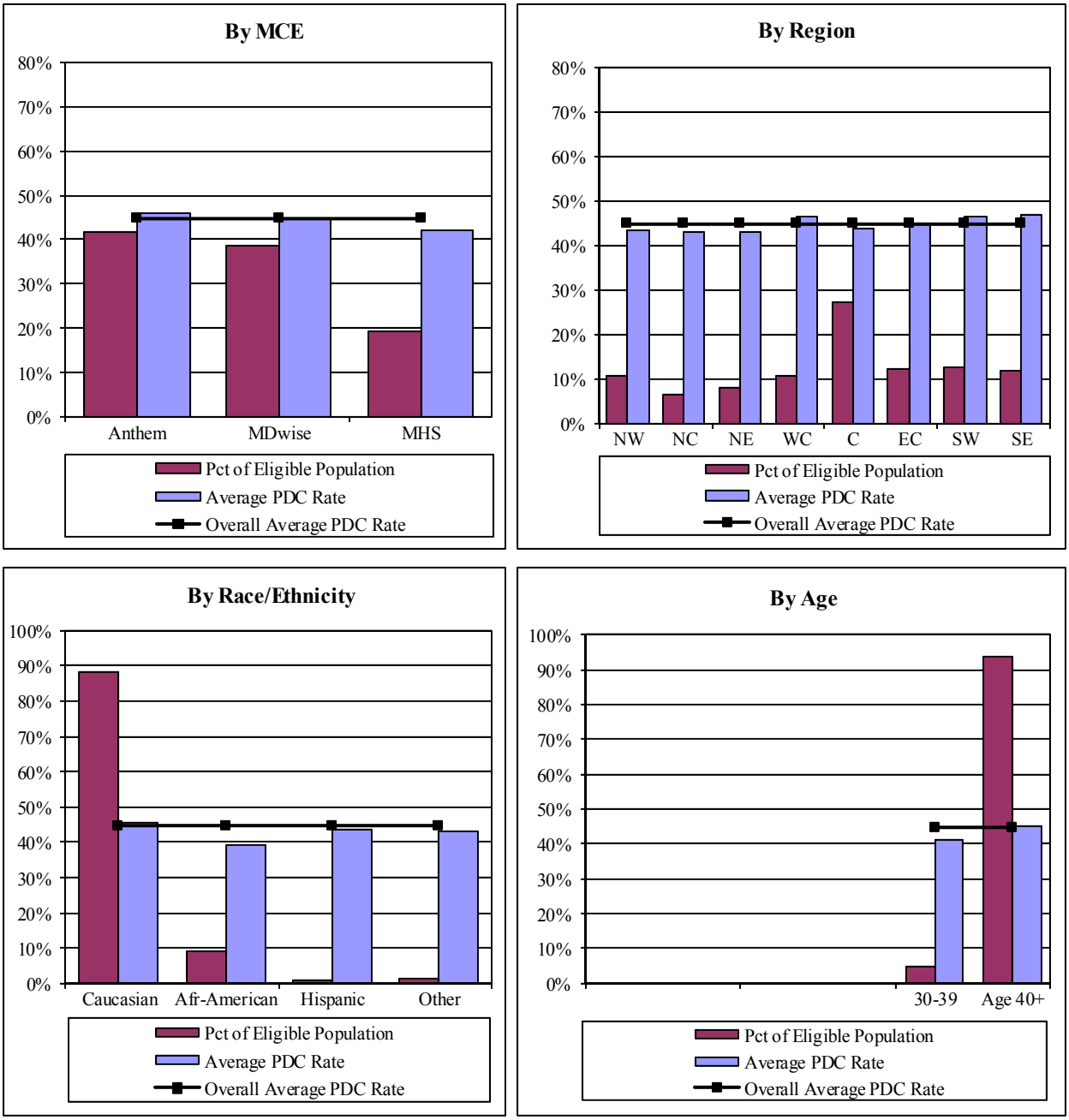


Exhibit VI.6
Stratification of Diabetes Member PDC Rates by Key Demographic Features
For HHW, HCC and HIP Program Members Combined

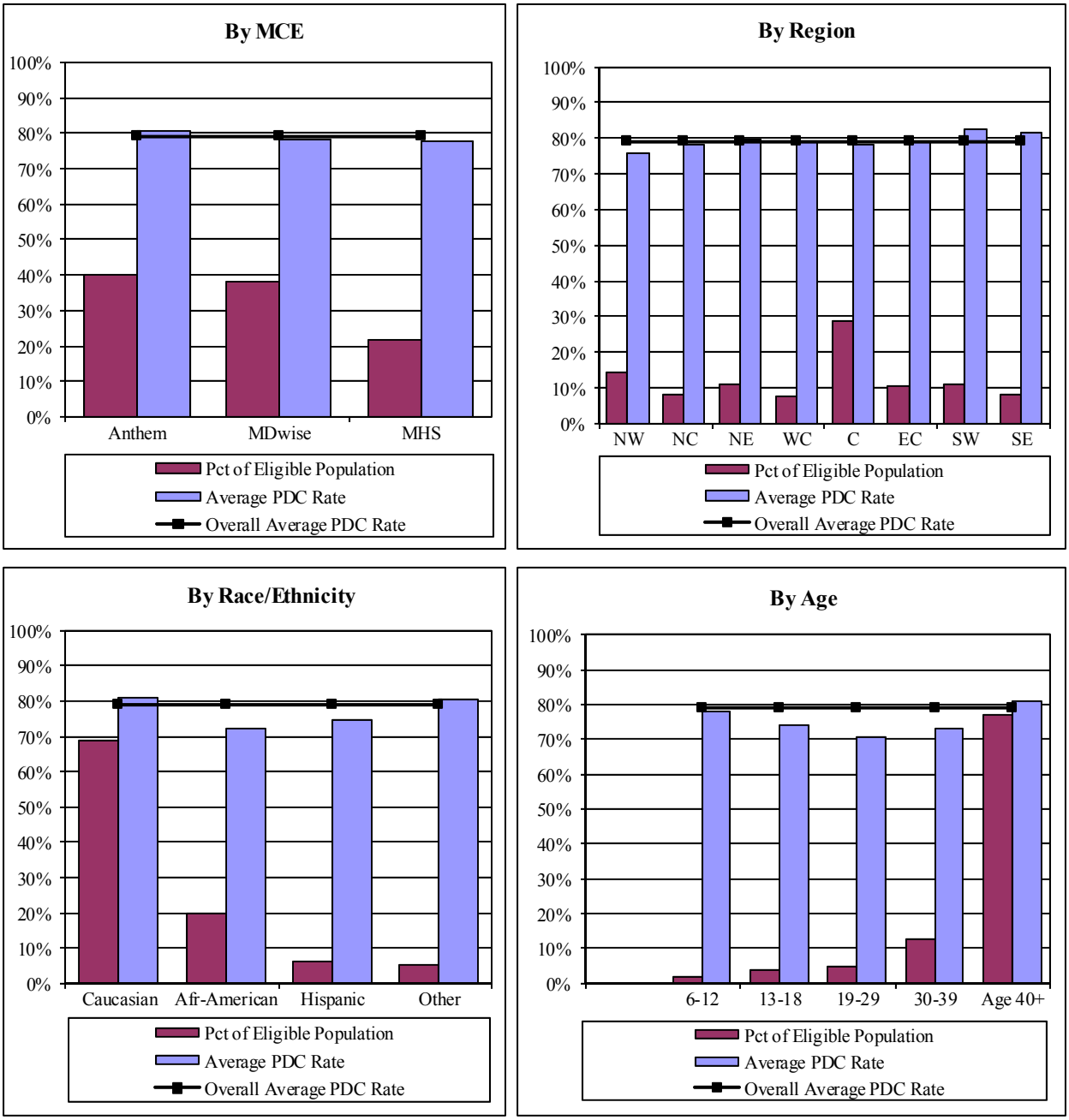


Exhibit VI.7
Stratification of Psychoses Members PDC Rates by Key Demographic Features
For HHW, HCC and HIP Program Members Combined

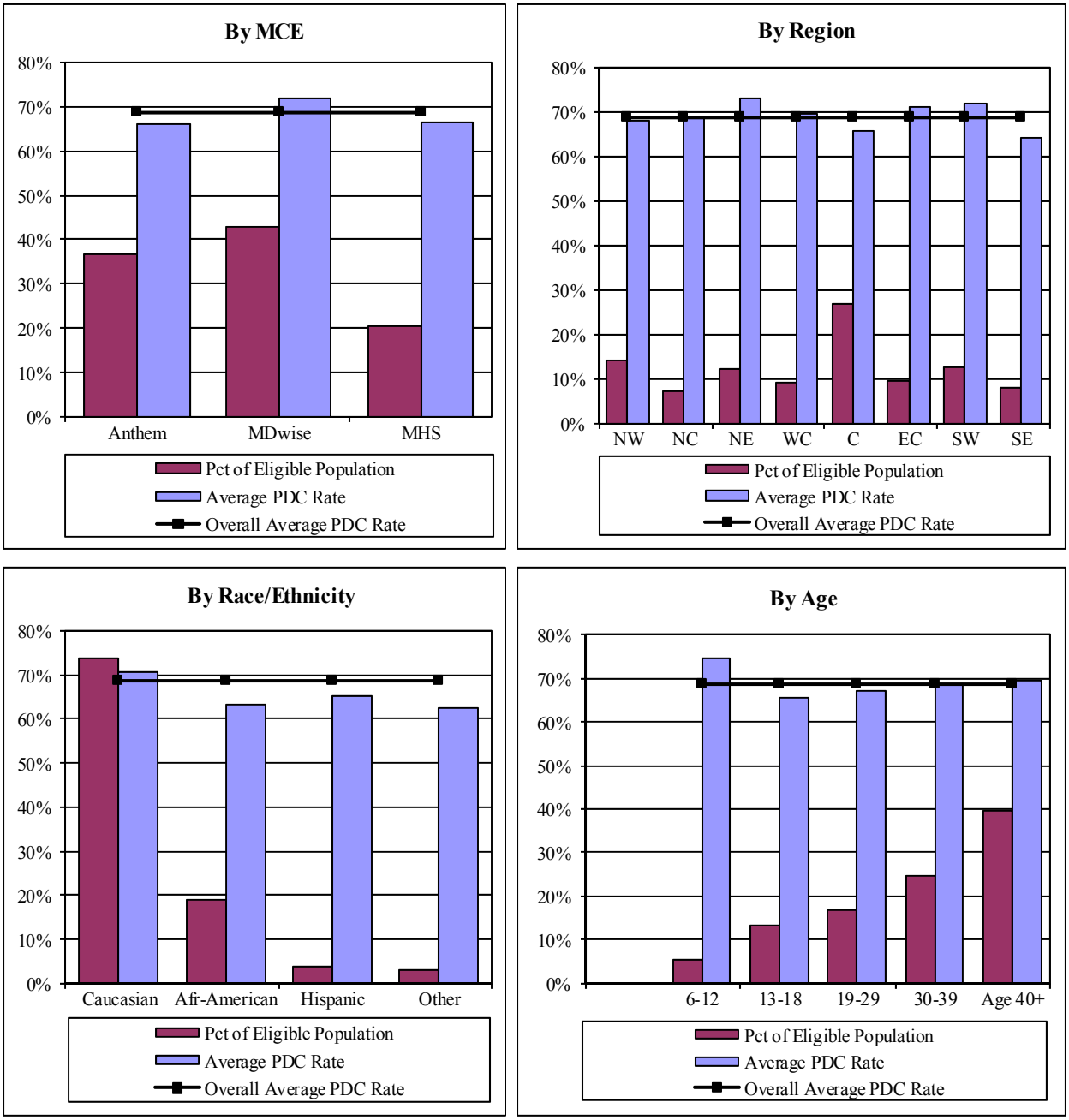
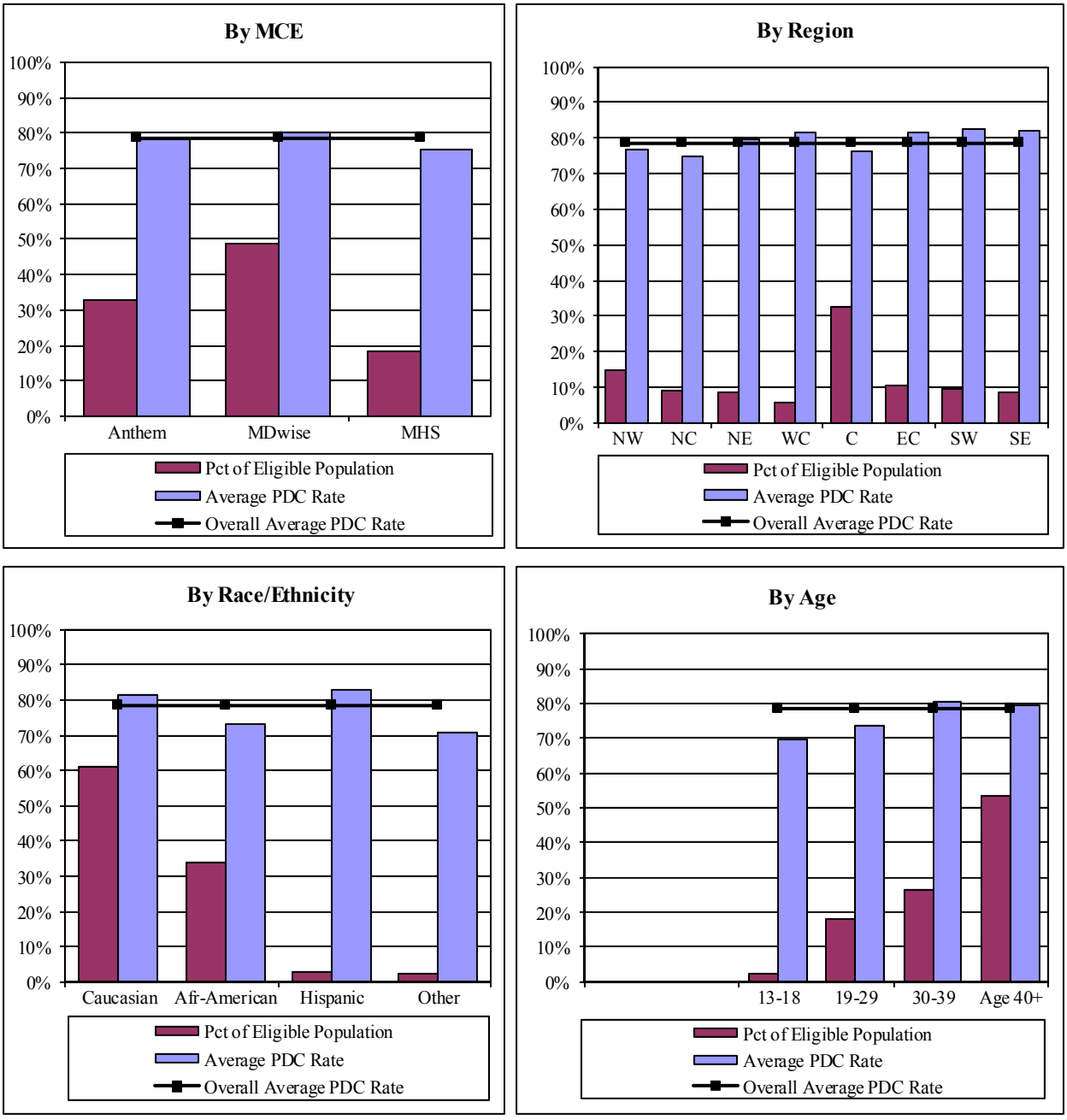


Exhibit VI.8
Stratification of Schizophrenia Member PDC Rates by Key Demographic Features
For HHW, HCC and HIP Program Members Combined



Recommendations for Continued Improvement

Systemic efforts to improve medication adherence are relatively new at all of the MCEs. This focus study showed that each of the MCEs is making inroads into developing more sophisticated programs. The MCEs are commended for examining PDC rates by specific therapeutic classes within condition of interest and, in some cases, at the individual drug level. All of the MCEs are using nationally-recognized metrics such as PDC and MPR to measure medication adherence. The items suggested below are recommendations on how each MCE could strengthen its existing program.

1. Although B&A's method for computing PDC may vary slightly from each MCE's method, the findings did show consistency across MCEs using B&A's method. There were areas within the drilldown reports, however, in which subpopulations differed from the overall average PDC rate. For example, African-American members often had a lower PDC within the condition than others. All MCEs are encouraged to perform drilldowns within the conditions of interest that it focuses on in a similar manner that B&A has done using its own method to compute PDC rates. There was evidence of some of this by Anthem who reviewed PDC rates by gender and age group. MHS reviewed PDC rates for individual members.

2. As the MTM program matures, the MCEs should consider evaluating the program's effectiveness. For example, medication adherence rates could be measured for those enrolled in MTM or not enrolled. Or, among those enrolled in MTM, those that are also actively participating in case management versus those who are not.

3. Anthem appears to have easy-to-understand, succinct reports to send to its providers related to medication adherence for HHW, HCC and HIP members. MHS and MDwise are encouraged to offer similar reports to providers and to solicit feedback on the utility or effectiveness of such reports.

4. Research has shown that medication adherence is a complex issue and that simple interventions are often the most successful.[9] The opportunities cited by each MCE for improving medication adherence among its members sounded viable. Each MCE is encouraged to pilot these initiatives or take them statewide and to measure their effectiveness by measuring PDC rates among those impacted against a control group.

[9] Medication Adherence - Improving Health Outcomes: A Resource from the American College of Preventive Medicine, American College of Preventive Medicine, 2011.

SECTION VII: FOCUS STUDY ON POTENTIALLY PREVENTABLE HOSPITAL READMISSIONS

Introduction

Hospital readmission rates are often used as a measure to assess the quality of care delivered to patients in the inpatient hospital setting and are often publicly reported as a means to encourage hospitals and their community health care partners to work closer together both prior to admission to the hospital and at the time of discharge.

There are a variety of ways in which readmissions are currently being defined and used. The Centers for Medicare and Medicaid (CMS) has defined its own readmission rate measure that is used as part of payment policy in its inpatient prospective payment system (IPPS) in the Medicare program. The National Committee for Quality Assurance (NCQA) also has an All Cause Readmission measure in its portfolio of the Healthcare Effectiveness Data and Information Set (HEDIS) to benchmark health plans against each other and national averages.

Burns & Associates, Inc. (B&A) has been working with 3M in the application of its Core Grouping Software which contains a suite of modules aimed at identifying potentially preventable events (PPEs). Among these modules is an application to identify what 3M defines as potentially preventable readmissions (PPRs). As part of this year's External Quality Review (EQR), Burns & Associates (B&A) utilized this software to assist the Office of Medicaid Policy and Planning (OMPP) and its managed care entities (MCEs) serving Hoosier Healthwise (HHW), Hoosier Care Connect (HCC) and Healthy Indiana Plan (HIP) 2.0 members in measuring the rate of PPRs within these populations for inpatient stays that occurred in Calendar Years (CYs) 2014, 2015 and 2016. Previously, B&A analyzed PPR rates in the EQR conducted in CY 2015. In that review, the data analyzed covered CYs 2013 and 2014. Since the initial study, there has been considerable change in OMPP's managed care programs with the introduction of HCC and the expansion of HIP. The OMPP requested that B&A review PPRs once again in the context of these changes in its managed care programs.

Background on Potentially Preventable Readmissions (PPRs)

It is important to note upfront the distinction between all cause readmission rates and PPR rates. The PPR rate is more nuanced than many all cause readmission rates in the field because the 3M software examines the clinical relationship between the initial hospital stay and the subsequent readmission. For example, a patient may have been hospitalized for knee replacement surgery, was discharged, and then subsequently readmitted three weeks later for a COPD-related condition. The COPD condition was not exacerbated by the knee replacement surgery. If, on the other hand, the initial stay was for pneumonia, then the subsequent stay for COPD may be clinically related to the pneumonia. In the calculation of an all cause readmission rate (for example, examining stays that spanned less than 30 days apart), both of these scenarios would be counted in an all cause readmission rate for a hospital or a health plan. In the calculation of a PPR rate, only the latter scenario would be counted in the PPR rate.

One way to think about PPRs is that they are a subset of all readmissions. Specifically, PPRs as defined by 3M:

- Are unplanned (e.g., a planned angioplasty after an initial admission for angina would not be counted as a PPR);
- Are clinically related to the initial admission (such as the example cited above); and

- Are deemed to be preventable (e.g., an alteration of consciousness after an admission for a brain tumor is not deemed as preventable)

3M's software first assigns each discharge into an APR-DRG (all payer refined diagnostic related grouping). This is 3M's proprietary DRG grouping software. Unlike the Medicare Multiple Severity DRG grouper (MS-DRG), the APR-DRG has many more discrete categories for newborns and maternity cases, so it is well suited for use by a Medicaid program. Indiana's OMPP migrated to using the APR-DRG effective October 1, 2015. In its PPR software, 3M's algorithm assesses whether a readmission(s) subsequent to the original admission for the patient is clinically related to the original admission. If yes, then the software flags the readmission as a PPR.

On an annual basis, 3M's team of clinicians review the association between different APR-DRGs to make a decision if the two APR-DRGs are clinically related and, if a readmission were to occur, then the second stay APR-DRG *could* have been prevented. There are over 100,000 possible combinations of two DRGs to consider. In recent years, the 3M clinicians determined that approximately 23 percent of all potential combinations are both clinically related and potentially preventable. The decision on PPR assignment is made annually and includes the review of the latest literature, feedback from clinical experts, feedback from payers who are using the software, and a two-tier peer review process.

It is also important to note the use of *potentially* preventable. The assignment of a readmission to potentially preventable status is based on the information presented to the PPR software, namely, information that is regularly stored on a claim. Data that are considered on a claim includes the age and gender of the patient, all of the diagnoses codes reported on the claim, the discharge status of the original admission and, if the user specifies it, information recorded in the Present on Admission field on the claim. Medical record information could also inform the status of a PPR, but since the software is limited to use only information presented on a standard claim, 3M cautions that their matching only suggests situations where the two cases are potentially preventable. In the end, the PPR attempts to identify problems in the quality of care in the initial hospitalization and discharge planning or follow-up.

To this end, it is important to remember when reviewing the data that results should be reviewed in higher levels of categorization, for example, the overall PPR rate for a hospital, a PPR rate for a diagnostic category, or a region-wide PPR rate. This is to understand trends in PPR rates over time. An examination of individual patient cases where the readmission was tagged as a PPR may be helpful to use as case studies, but the higher level trends can identify opportunities for improvement in hospital discharge planning or service delivery while the individual is an inpatient.

Within the 3M software, there are other indicators that can assist the end user to better understand the root cause of why a readmission was tagged as a PPR. For example, each PPR is tagged with a clinical reason code which indicates what the clinical reason that the software tagged the case as a PPR. Additionally, since the software is scanning all diagnosis codes on a claim, it also considers comorbidities, particularly mental health conditions that are reported on acute care stays. The 3M PPR software provides a major mental health indicator flag (yes/no) on each case. Not every case that has mental health conditions reported is assigned a yes on this flag. In fact, even some cases mapped to psychiatric DRGs are not given the major mental health indicator flag. Conversely, some acute care cases are given this flag if the diagnoses reported merit the assignment (e.g., a diagnosis of schizophrenia that is also reported on a Crohn's disease case).

Methodology for Defining the Study Sample

An extract of encounters and enrollment information was provided to B&A by OMPP's data warehouse vendor, Optum, in May 2017 for information received from the MCEs through April 2017 to use as the basis for analytics in this study. For this EQR, B&A considered all non-duplicate inpatient stays that were reported by the three MCEs as encounters to OMPP with dates of discharge in CYs 2014, 2015 and 2016 (n= 459,510 cases). The inpatient stays in the fee-for-service program were also included for comparative purposes. Users of the software can limit the dataset for their own needs by deciding what cases are submitted to the software to obtain a PPR assignment. The software also has a preferences screen where users can decide on specific preferences they would like the software to consider as it runs the algorithm. Lastly, there is logic built within the software that runs behind the scenes in order to make the PPR determination.

The methodology described below is the same as that which was used in the CY 2015 EQR study of PPRs and has also been used by B&A to assess PPR rates for two other State Medicaid Agencies. This methodology was constructed in consultation with technical experts at 3M. If the OMPP chose to calculate PPR rates on a regular basis, the State has the option to make adjustments to a number of the steps in this methodology.

Step 1: Assign APR-DRG and pre-screen the data to identify excluded admissions and incomplete data

By design, B&A excluded all newborn and maternity cases as well as all transplant cases. Although many of these cases would be excluded through logic built into the software, as an initial step all cases reported in these DRGs were removed and not submitted to the PPR software. Normal newborns and maternity cases were excluded because of their high volume in any Medicaid dataset and their very low PPR rate. By including these cases, a health plan or hospital overall PPR rate will be weighted down. To control for variances in PPR rates due solely to different mother/baby DRG volume across hospitals/MCEs, all of these cases were removed.

On the other end, all neonatal intensive care (NICU) cases were removed due to the unpredictability to determine whether any readmissions within this set of patients would be preventable or not without having more information on the case (such as the medical record). For the same reason, transplant cases were removed. In total, there were 200,390 cases removed because they were assigned to the DRGs named above.

After this pre-screening of the dataset, B&A checked to ensure that all remaining cases contained valid data in the fields required by the software to run the program, such as missing patient IDs or cases that could not group to an APR-DRG due to invalid diagnosis codes. In all, another 15,131 cases were removed for these reasons.

The result of these steps reduced the original three-year dataset of 459,510 cases down to 243,989 cases.

Step 2: Remove cases determined by the PPR software to be excluded from calculations

A number of other tests are run by the software on the cases submitted to remove some from consideration for the PPR test. Specific criteria checked to remove cases from consideration include:

- Discharges where the patient left against medical advice
- Admission to an acute care hospital for rehabilitation or convalescence
- Same day transfers to an acute care facility for non-acute care (e.g., hospice)

- Selected malignancy cases
- Selected cases with diagnoses with radiotherapy and chemotherapy codes
- Errors in grouping to the 3M software

After this process was completed, the final count of inpatient stays considered for the three-year period was 216,275 claims.

Step 3: Identify readmission chains and reclassify those readmissions and initial readmissions that are not clinically related

In the preferences screen, the user specifies the time period within two inpatient cases to test for readmission. For this study, a 30-day window was selected. Therefore, all cases are placed in date order from earliest to latest by date of discharge. The software computes those cases where the inpatient admission date was 30 days or less from a previous discharge date. When cases are found that meet this criteria, a readmission *chain* is built. Readmission chains continue to be built upon until the date span is "broken".

- *Example*: If there was a third case for the patient that was an admission within 30 days of the second case's discharge date, then this would also be added to the same readmission chain.
- *Example*: If there was a third case for the patient but it occurred 40 days after the second case's discharge date, then the case would not be added to the original chain. It may start a new chain or be considered an Only Admission.

It should be noted that readmission chains are built around the patient, not the hospital. If a patient had an initial admission at Hospital A and then readmitted 20 days after their discharge from Hospital A but was admitted to Hospital B, a readmission chain is still created. The hospital with the initial admission in the chain "owns" the chain and this information is used to calculate its PPR rate.

Provisionally, each case in the dataset is assigned to one of the following categories:

- Initial Admission indicates the case that starts a readmission chain
- Readmission indicates any subsequent case in a readmission chain after the Initial Admission
- Only Admission indicates those cases that stand alone with no readmission within 30 days
- Transfer Admission indicates cases where the hospital received the case from another hospital

The PPR software assesses each case in a readmission chain to determine if the readmission is clinically related to the Initial Admission. Once this is complete, the total readmissions originally identified are subdivided into two groups—Clinically Related Chains and Disregarded Readmission Chains (meaning that they won't count in the PPR calculations).

Therefore, some cases get reassigned from their provision flag as follows:

- Readmissions that are deemed clinically related to the prior admission are renamed Potentially Preventable Readmissions
- Readmissions that are not deemed clinically related to the prior admission are effectively "broken" from the chain. For the purposes of PPR assignment, these are reassigned either as Only Admissions (if there was not a third admission to consider for the patient) or Initial Admission (if there is a third admission and case #2 substitutes as the Initial Admission from case #1).

- When readmission chains are broken up, the case assigned as the Initial Admission is reclassified as an Only Admission.
- Readmissions can also be reassigned as Transfer Admissions in this process.

Step 4: Compute the hospital's or MCE's PPR Rate

The final PPR rate is the formula of: $\frac{\text{Total Number of Clinically Related Chains}}{\text{Sum of (Initial Admissions + Only Admissions)}}$

Step 5: Apply risk adjustment logic to compute an Expected PPR Rate

The value computed in Step 4 above can also be called the Actual PPR Rate for a hospital or an MCE. It is strongly suggested by 3M, however, that each entity's Actual PPR rate be risk adjusted to account for variations in the mix of patients that the hospital or MCE has when compared to a norm (e.g., the statewide average).

B&A computed what is called an Expected PPR Rate for each hospital (which can then be rolled up to the MCE level or a regional level) by using two sets of criteria:

- Whether the patient is pediatric (defined as 18 years of age or younger) or adult; and
- Whether the patient has the 3M major mental health indicator assigned to his/her claims

Therefore, four risk adjustment groups were defined. The PPR rates were first computed for each DRG within the statewide population. Then, a PPR rate for each DRG was computed for each of the four risk groups discretely. The variance of the risk group's Actual PPR Rate compared to the statewide Actual PPR rate is the risk adjustment factor.

When computing risk adjustment factors for each of the four risk groups, B&A chose to include the cases across all three OMPP programs (HHW, HCC and HIP) together. This is because, when segmenting the claims volume down to four risk groups within three programs, the sample sizes became too small. Further, by design, the HIP program only includes adults and the HHW program is now almost exclusively children.

B&A computed all Actual PPR rates first for the cases in each of the years CY 2014, 2015 and 2016 in isolation. This was to measure the change in any hospital's PPR rate from one year to the next. Therefore, there are also different risk adjustment factors for each of the three years. These are shown in Exhibit VII.1 below.

Exhibit VII.1
Risk Adjustment Factors Computed in CYs 2014, 2016 and 2016

	Group 1	Group 2	Group 3	Group 4
	Major Mental Health Indicator Adult	Major Mental Health Indicator Pediatric	No Mental Health Indicator Adult	No Mental Health Indicator Pediatric
CY 2014	1.7431	1.3132	0.9092	0.7853
CY 2015	1.6586	1.5398	0.8756	0.7934
CY 2016	1.5080	1.4609	0.8059	0.8416

For example, this exhibit tells us that in CY 2016, the individuals in Group 1 (adults with the major mental health indicator) were 1.50 more times likely to readmit than all members in the statewide average. This risk factor for Group 1 went down from CY 2014 to CY 2016 mostly because the total volume of claims considered increased substantially from CY 2014 to CY 2016 due to the introduction of HIP 2.0 and HCC. Alternatively, the adults without the major mental health indicator were 0.80 times as likely (or less likely) to readmit than all members in the statewide average in CY 2014. The pediatric groups (Group 2 and 4) have similar risk scores to the comparable adult risk groups in CY 2016.

When computing the risk adjustment factors, low volume DRGs are not factored into the analysis. Under each of the 318 DRGs there are four subgroups based on a severity of illness (SOI) level. Even in the case of the statewide database, some of these DRG/SOI combinations have very low sample size. Although it will not contribute significantly to an overall PPR rate (due to the low volume these DRG/SOIs represent), it is appropriate to exclude low volume DRG/SOIs from the risk adjustment factor calculations. B&A decided to exclude any DRG/SOI where the statewide volume of Initial Admissions in a given DRG/SOI was ten cases or less. These cases stay in for calculation of Actual PPR rates, but not when the Expected (risk adjusted) PPR rate is computed.

B&A excluded 619 DRG/SOI combinations in the CY 2014 dataset, 644 combinations in the CY 2015 dataset and 620 combinations in the CY 2016 dataset. Although this is a large number of DRG/SOI combinations that are excluded from risk adjustment, collectively they represented 2.9 percent, 2.3 percent and 2.3 percent in the CY 2014, 2015 and 2016 datasets, respectively.

The complete risk adjustment process can be summarized in the steps below.

1. Identify the cases that will be considered in the risk adjustment factor calculation by excluding cases in DRG/SOI where there are 10 or less cases statewide.
2. Tag each DRG/SOI as "in" or "out" for risk adjustment purposes.
3. For those DRG/SOIs that are "in", compute the statewide Actual PPR rate for each DRG/SOI.
4. Subdivide the cases in Step 3 into the four risk groups.
5. Multiply the number of At Risk Admissions for a risk group within a DRG/SOI by the statewide PPR rate for the SOI. These are called Expected Values.
6. Sum the Expected Values computed for all DRG/SOIs separately for Risk Groups 1, 2, 3 and 4.
7. Sum the Clinically Related Chains for Risk Groups 1, 2, 3 and 4 separately.
8. For each Risk Group individually, divide the Clinically Related Chains by the sum of the Expected Values. This is the Risk Adjustment Factor for the Risk Group.
9. For a specific hospital, repeat Steps 4, 5 and 6 from above.
10. For a Risk Group within a hospital, multiply the Expected Values (Step 6) by the Risk Adjustment Factor (Step 8). The risk adjustment factors were shown in Exhibit VII.1.
11. Sum the values derived in Step 10 from all four risk groups.
12. The Expected PPR rate for a hospital is the value in Step 11 divided by the Total (Initial Admissions + Only Admissions).

Step 6: Compute Actual-to-Expected Ratios

Because of changes in a hospital's mix of cases, population served and external factors such as changes in statewide rates, B&A recommends that OMPP and the MCEs not focus as much on a hospital's or MCE's Actual PPR rate as much its Actual-to-Expected Ratio. This ratio is simply $\frac{\text{Actual PPR Rate}}{\text{Expected PPR Rate}}$.

An Actual-to-Expected Ratio of 1.0 means that the hospital or MCE had PPRs as expected against the statewide benchmark that year. A ratio that is less than 1.0 means that the hospital/MCE performed better than expected when compared to the statewide average on expected readmissions. A ratio that is greater than 1.0 means that the hospital/MCE performed worse than expected.

It is important to note that the statewide PPR rates and risk adjustment factors were calculated separately for CYs 2014, 2015 and 2016. This means that the Actual-to-Expected Ratios for a hospital or MCE take into account the inpatient utilization experience for each year in isolation.

Findings

The Actual PPR rates computed were 10.2 percent for CY 2014, 9.3 percent for CY 2015 and 8.2 percent for CY 2016 (refer to Column E below). These contrast with the all cause readmission rates of 16.9 percent, 15.7 percent and 14.9 percent in these three years (refer to Column D below). The difference between the all cause readmission rate and the PPR rate was between six and seven percentage points each year. Approximately 17,200 readmission chains were found across the three-year period that appeared to have readmissions that were clinically related to the patient's original discharge (refer to Column C below). This is out of a total of approximately 29,500 total readmission chains (refer to Column B below).

Exhibit VII.2
Comparing All Cause and Potentially Preventable Readmission Rates, CYs 2014, 2015 and 2016

	A	B	C	D	E	F
Calendar Year	Initial Admissions	Total Number of Readmission Chains	Total Number of Clinically Related Chains	All Cause Readmission Rate (Col B / Col A)	Potentially Preventable Readmission Rate (Col C / Col A)	Difference from All Cause Rate to PPR Rate (Col E - Col D)
2014	55,799	9,448	5,670	16.9%	10.2%	-6.8%
2015	65,934	10,321	6,161	15.7%	9.3%	-6.3%
2016	65,844	9,789	5,387	14.9%	8.2%	-6.7%

When examined by program, the all cause and PPR rates vary significantly (refer to Exhibit VII.3 on the next page). For the three-year period of CY 2014-2016 combined, the HHW program had the lowest PPR rate at 4.8 percent. This is because the HHW program is almost solely comprised of children now. The HIP program (which is solely adults) had a PPR rate of 7.2 percent over the three-year period. The HCC program, which is designed mostly for the aged, blind and disabled population, had a PPR rate of 12.8 percent. This is a two-year average since HCC did not begin until April 1, 2015. The HCC PPR rate is, in fact, higher than the PPR rate in the traditional fee-for-service program (12.3%).

When examined by age, the oldest members in the program (age 40+) have the highest PPR rates in each year (refer to Exhibit VII.4 on the next page). The teens/pre-teens age group tends to have a PPR rate at the overall average each year, while other age groups all have PPR rates below the overall average.

Exhibit VII.3
Comparing All Cause and Potentially Preventable Readmission Rates, by OMPP Program

	A	B	C	D	E	F
Program	**Initial Admissions**	**Total Number of Readmission Chains**	**Total Number of Clinically Related Chains**	**All Cause Readmission Rate (Col B / Col A)**	**Potentially Preventable Readmission Rate (Col C / Col A)**	**Difference from All Cause Rate to PPR Rate (Col E - Col D)**
HHW	38,907	3,188	1,874	8.2%	4.8%	-3.4%
HCC	26,080	5,443	3,345	20.9%	12.8%	-8.0%
HIP	60,329	8,386	4,317	13.9%	7.2%	-6.7%
Fee-for-Service	62,261	12,541	7,682	20.1%	12.3%	-7.8%

Exhibit VII.4
Comparing All Cause and Potentially Preventable Readmission Rates, by Age Group

	A	B	C	D	E	F
Age Group	**Initial Admissions**	**Total Number of Readmission Chains**	**Total Number of Clinically Related Chains**	**All Cause Readmission Rate (Col B / Col A)**	**Potentially Preventable Readmission Rate (Col C / Col A)**	**Difference from All Cause Rate to PPR Rate (Col E - Col D)**
CY 2014						
Total	**55,799**	**9,448**	**5,670**	**16.9%**	**10.2%**	**-6.8%**
Age 0	2,364	195	93	8.2%	3.9%	-4.3%
Age 1 - 9	5,049	439	281	8.7%	5.6%	-3.1%
Age 10 - 19	8,118	1,025	776	12.6%	9.6%	-3.1%
Age 20 - 39	14,623	2,264	1,337	15.5%	9.1%	-6.3%
Age 40+	25,645	5,525	3,183	21.5%	12.4%	-9.1%
CY 2015						
Total	**65,934**	**10,321**	**6,161**	**15.7%**	**9.3%**	**-6.3%**
Age 0	2,636	237	109	9.0%	4.1%	-4.9%
Age 1 - 9	4,946	473	288	9.6%	5.8%	-3.7%
Age 10 - 19	8,813	1,088	822	12.3%	9.3%	-3.0%
Age 20 - 39	19,401	2,727	1,626	14.1%	8.4%	-5.7%
Age 40+	30,138	5,796	3,316	19.2%	11.0%	-8.2%
CY 2016						
Total	**65,844**	**9,789**	**5,387**	**14.9%**	**8.2%**	**-6.7%**
Age 0	2,143	173	75	8.1%	3.5%	-4.6%
Age 1 - 9	4,116	405	251	9.8%	6.1%	-3.7%
Age 10 - 19	7,823	895	645	11.4%	8.2%	-3.2%
Age 20 - 39	21,299	2,793	1,554	13.1%	7.3%	-5.8%
Age 40+	30,463	5,523	2,862	18.1%	9.4%	-8.7%

PPR rates do vary by major diagnostic category. Adult Circulatory, Gastroenterology and Respiratory cases as well as Mental Health cases (adult and pediatric combined) had higher PPR rates than the statewide average PPR rates (refer to Exhibit VII.5). From CY 2015 to CY 2016, the PPR rates did go down for all diagnostic groups studied with the exception of Pediatric Respiratory which went up 1.2 percentage points and Gynecology which remained constant.

Exhibit VII.5
Comparing All Cause and Potentially Preventable Readmission Rates, by Major Diagnostic Category

	CY 2014		CY 2015		CY 2016		Change in PPR Rate, 2015 to 2016
	All Cause Readmit Rate	PPR Rate	All Cause Readmit Rate	PPR Rate	All Cause Readmit Rate	PPR Rate	
All	**16.9%**	**10.2%**	**15.7%**	**9.3%**	**14.9%**	**8.2%**	**-1.2%**
Adult Circulatory	20.1%	12.4%	17.8%	11.1%	16.8%	9.5%	-1.6%
Adult Gastroenterology	20.9%	13.0%	18.4%	11.3%	16.4%	9.2%	-2.0%
Adult Respiratory	18.6%	11.7%	16.8%	10.2%	15.6%	9.2%	-1.1%
Gynecology	5.1%	0.8%	5.6%	0.7%	5.3%	0.6%	0.0%
Adult All Other exc MH/Rehab	20.5%	9.7%	18.0%	8.6%	18.1%	7.5%	-1.1%
Pediatric Respiratory	6.5%	3.9%	5.8%	3.3%	6.9%	4.5%	1.2%
Pediatric All Other exc MH/Rehab	11.2%	5.1%	12.4%	5.5%	11.5%	5.1%	-0.4%
Mental Health, All Ages	14.7%	13.1%	14.2%	12.0%	12.7%	10.2%	-1.8%
Rehabiliation, All Ages	71.4%	9.5%	56.5%	4.3%	5.3%	1.3%	-3.0%

Although the PPR rates were found to be very different across the three OMPP programs, the PPR rates for each MCE within a program were similar. In CY 2014 and CY 2015, in particular, it was found that there was less than a one percentage point spread across the MCE-specific rates within HHW, HCC and HIP. In CY 2016, this was also true for the HHW and HCC programs. In HIP, MHS had a lower PPR rate than the overall average, Anthem was at the average, and MDwise had a PPR rate a bit above the overall average.

Exhibit VII.6
PPR Rates by Program / MCE / CY

		HHW	HCC	HIP
CY 2014	**Combined**	**5.2%**	**n/a**	**8.8%**
	Anthem	5.1%	n/a	8.9%
	MDwise	5.5%	n/a	8.8%
	MHS	4.9%	n/a	8.2%
CY 2015	**Combined**	**4.7%**	**14.0%**	**7.5%**
	Anthem	4.7%	13.5%	7.3%
	MDwise	4.8%	14.3%	7.9%
	MHS	4.4%	14.0%	7.1%
CY 2016	**Combined**	**4.3%**	**11.9%**	**6.7%**
	Anthem	4.4%	11.5%	6.6%
	MDwise	4.0%	12.2%	7.2%
	MHS	4.7%	11.7%	5.9%

Using the risk adjustment logic described in the methodology section described above, B&A computed Actual PPR rates and Expected PPR rates for each of the years CY 2014, 2015 and 2016 separately under multiple levels of aggregation:

- Statewide rates (average will be = 1.000)
- MCE rates, using statewide data
- Regional rates, using statewide data
- MCE rates, using regional data
- Rates by hospital, using statewide data
- Rates by hospital, using MCE-specific data

All Actual-to-Expected ratios shown in the section below reflect the combined inpatient claims experience of the HHW, HCC and HIP populations (excluding maternity, newborns, and transplants).

Each MCE has been provided with files specific to their populations to show the impact of PPR rates at the hospital level, region level, and DRG level. Results of the Actual-to-Expected ratios for the other cohorts of populations appear below.

Exhibit VII.7 shows the results at the MCE level for all three programs combined. The MCE Actual-to-Expected ratios reflect the PPR experience of the members that the MCE has enrolled using the data from the hospitals that it contracts with. In other words, if a large hospital in Indiana contracts with all three MCEs, when computing the actual-to-expected ratios for an MCE, B&A is only considering the inpatient stays for the hospital for the particular MCE's members (not all Medicaid members).

The results showed that MHS beat expectations in all three years studied, whereas MDwise performed worse than expected in all three years. Anthem performed as expected in CY 2014 and better than expected in CYs 2015 and 2016. When B&A has analyzed these metrics in the past, we generally define "as expected" as a ratio between 0.980 and 1.020.

Exhibit VII.7
Results of MCE PPR Actual-to-Expected Ratios
All Programs Combined, CYs 2014, 2015, 2016

MCE	CY 2014	CY 2015	CY 2016
Anthem	0.980	0.957	0.959
MDwise	1.056	1.059	1.060
MHS	0.938	0.970	0.948

Red indicates worse than expected
White indicates as expected
Green indicates better than expected

When examining the Actual-to-Expected ratios using statewide data but at the regional level, there was wide variation found across the eight regions. In CY 2016, five regions (Northwest, Northeast, West Central, Southwest and Southeast) were worse than expected after risk adjustment of their PPR rates since all have ratios above 1.0. Conversely, the North Central, Central and East Central Regions exceeded expectations. Notably, the Central Region (which includes Indianapolis) performed much better than expected in CY 2016 with the lowest ratio of 0.881. Alternatively, the Northeast Region performed much worse than expected in CY 2016 with a ratio of 1.151. The West Central Region performed worse than expected in all three years. However, it should be noted that this region had the fewest admissions in the study (7.6% of the total) of any region examined.

Exhibit VII.8
Results of Hospital PPR Actual-to-Expected Ratios
by OMPP Region, CYs 2014, 2015, 2016

Region	CY 2014	CY 2015	CY 2016
Northwest	1.017	1.005	1.095
North Central	0.939	0.990	0.976
Northeast	0.897	1.096	1.151
West Central	1.353	1.068	1.062
Central	1.015	0.922	0.881
East Central	1.080	0.927	0.894
Southwest	0.869	1.044	1.075
Southeast	0.987	1.135	1.058

Red indicates worse than expected
White indicates as expected
Green indicates better than expected

The information shown in Exhibit VII.8 is shown graphically in the map in Exhibit VII.9 on the next page. Then, a map showing regional information but at the MCE level is shown in Exhibit VII.10 on page VII-13. What is notable about the findings in Exhibit VII.10 is that the Actual-to-Expected ratios are not necessarily consistent across the MCEs for a particular region. For example, in the Southwest Region, overall for all three MCEs and all three programs combined, the Actual-to-Expected ratio was 1.075. However, among the cases with MHS, the Southwest Region did much better than expected (map is colored in dark green); with Anthem, the region did a bit worse than expected (map is colored in tan); with MDwise, the region did much worse than expected (map is colored is red).

Exhibit VII.9
Actual-to-Expected Ratios Measuring Potentially Preventable Readmissions, by Calendar Year and Region

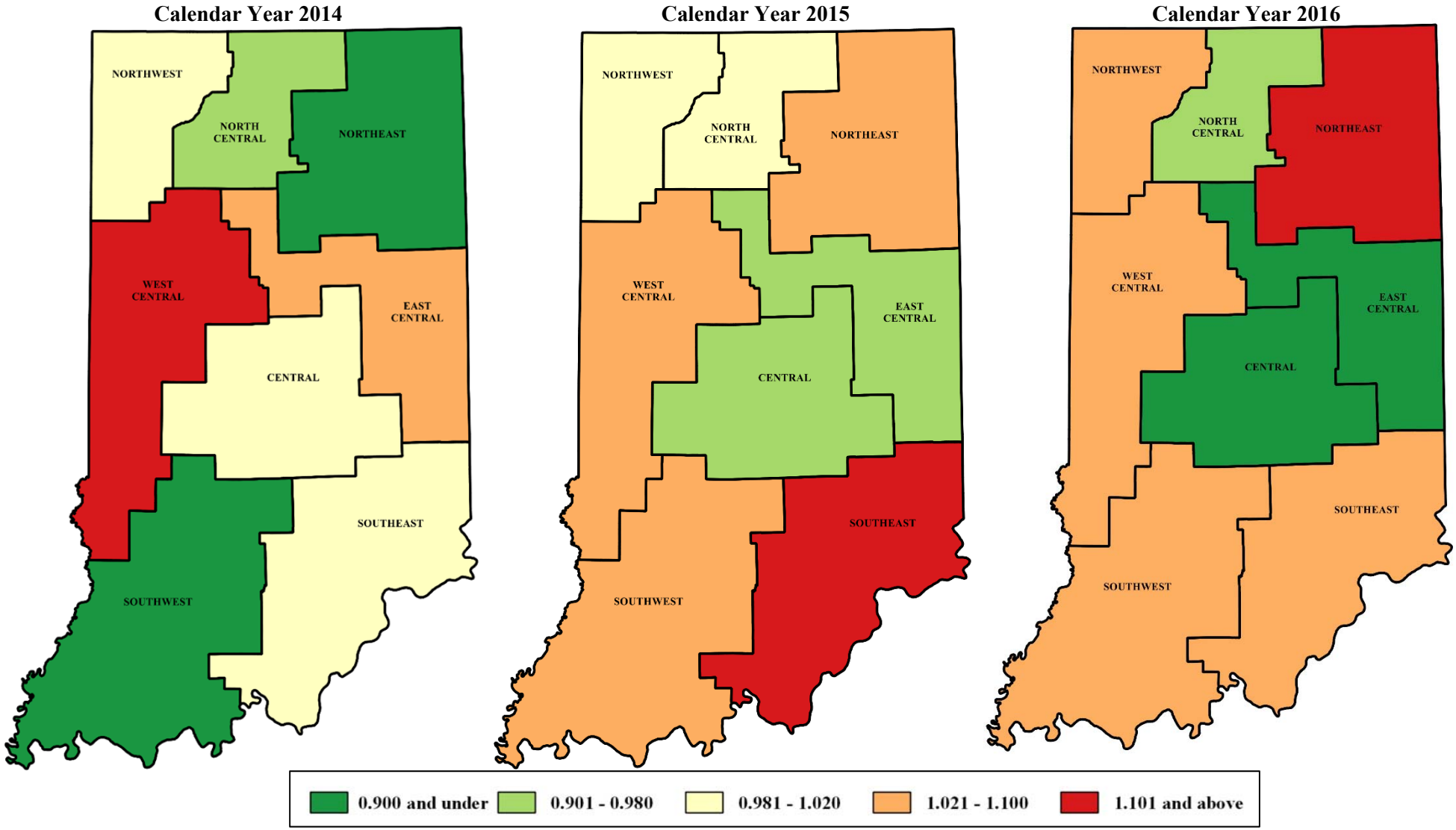
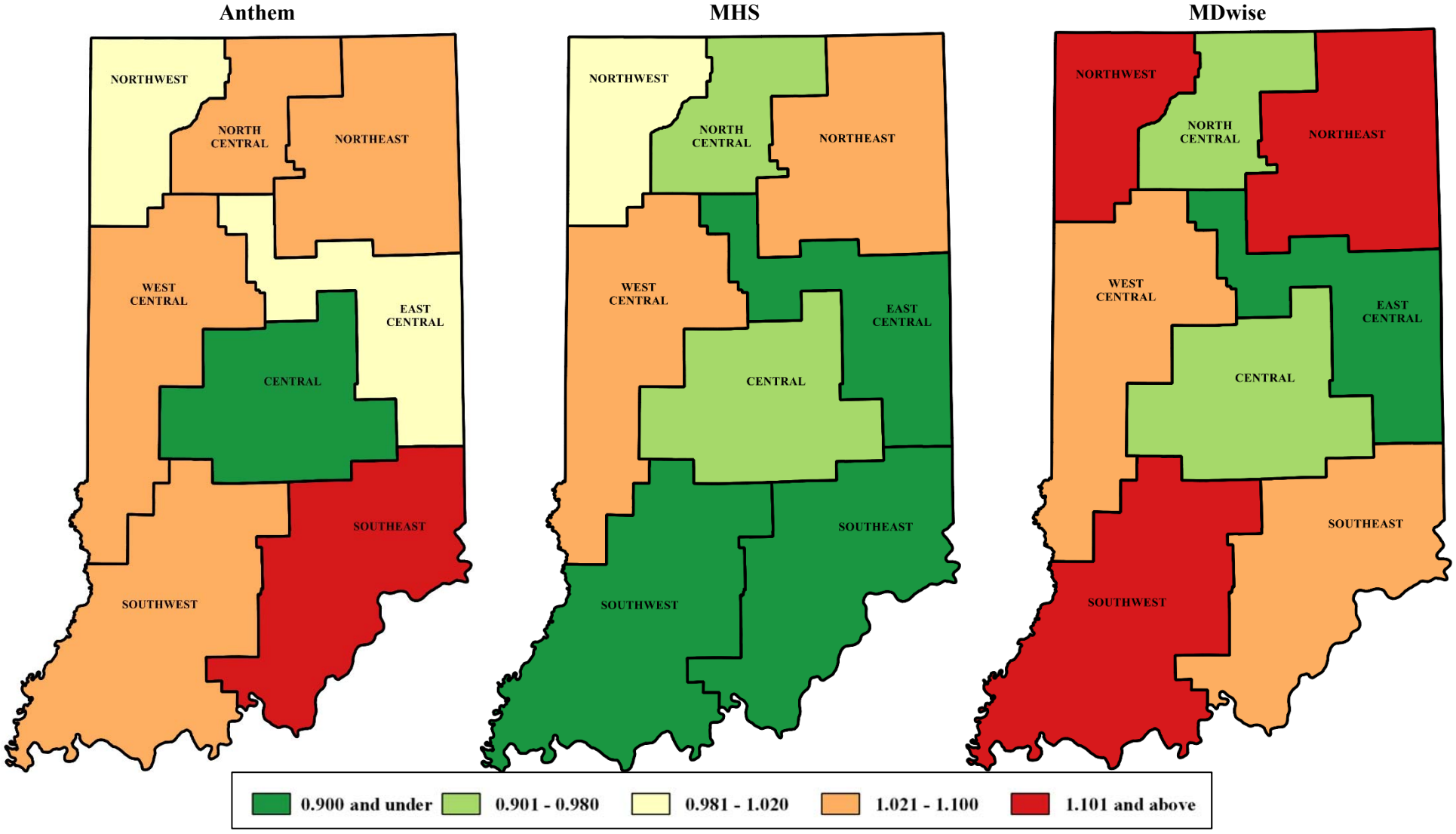


Exhibit VII.10
Calendar Year 2016 Actual-to-Expected Ratios Measuring Potentially Preventable Readmissions, by MCE and Region



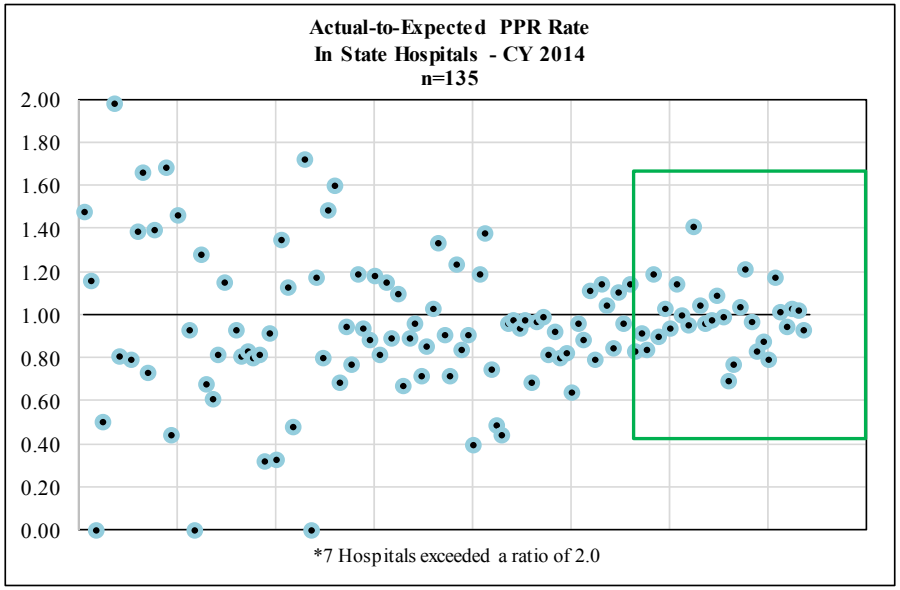
On the next page in Exhibit VII.11, scatter plots are shown where each circle on the scatter plot represents the value of an Actual-to-Expected ratio for a specific hospital. Each box shows the results for a given calendar year. To account for low volume, only those hospitals that had a minimum of 20 initial admissions (the denominator in the PPR calculation) are shown. As a result, although 185 hospitals were considered in each year examined, 50 low-volume hospitals are not shown in the 2014 box, 49 are not shown in the 2015 box, and 55 are not shown in the 2016 box.

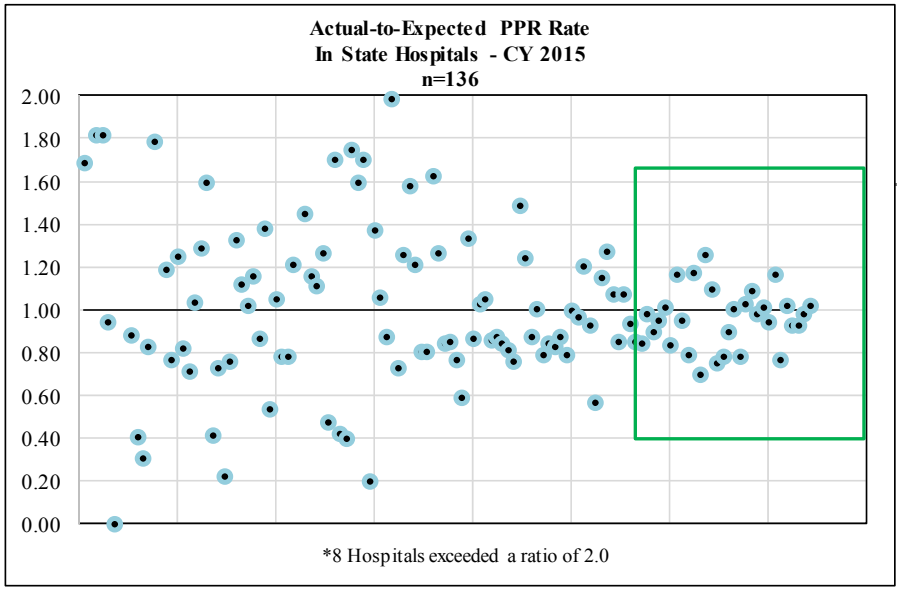
In each box, the plotting of the hospital values is displayed from left to right, with the lowest volume hospitals plotted on the left across to the highest volume hospital to the far right. The data were plotted this way because it is anticipated that the Actual-to-Expected ratios will be more volatile with lower-volume hospitals. Further, the dots shown within the green square represent 80 percent of the total volume in the study within each year.

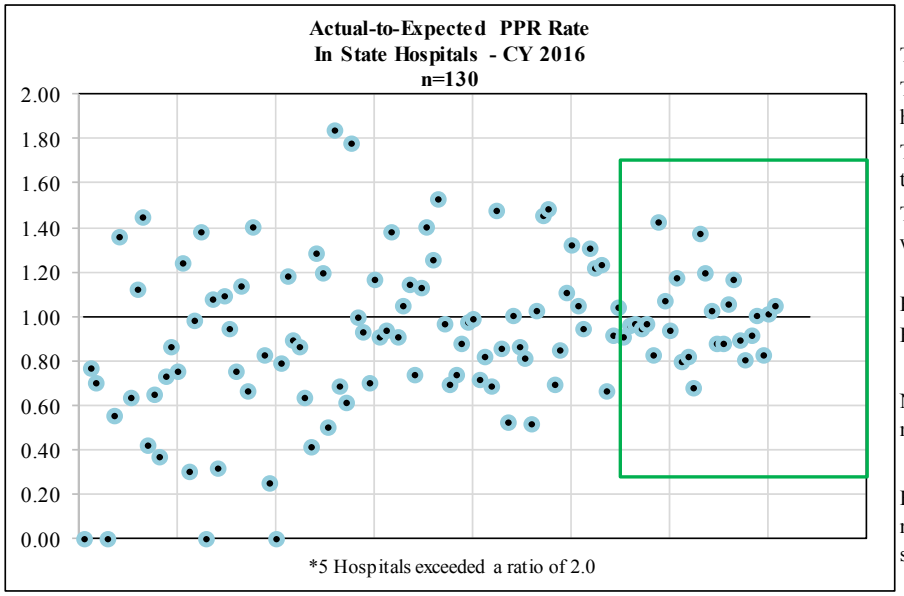
In general, the scatter plots do show that there is wide variation in the Actual-to-Expected ratios at the hospital level. There is some centering around the average ratio of 1.0 with the higher-volume hospitals, but even among these hospitals there is variation with some hospitals that have an Actual-to-Expected ratio above 1.0 while others are below 1.0.

It should be noted that hospitals with no clinically-related readmissions in the study have an Actual-to-Expected ratio of 0.0 and appear at the bottom. A few hospitals each year have an Actual-to-Expected ratio greater than 2.0 and are not plotted but footnoted.

Exhibit VII.11
Actual-to-Expected Values in CYs 2014 - 2016 at the Hospital Level, for High-Volume Hospitals, All OMPP Programs Combined







The Statewide Average Actual-to-Expected Ratio is set at 1.0.

The Actual Ratio is the hospital's actual clinically related readmission chains divided by the hospital's total 'at risk' admissions (excludes some DRGs).

The Expected Ratio risk adjusts the number of clinically related readmission chains (the numerator) to account for how the hospital's profile of cases varies from the statewide average.

The information used to risk adjust a hospital's ratio includes the distribution by Severity of Illness within a DRG, the mix of adult and pediatric cases, and presence of a major MH comorbidity.

Hospitals with an Actual-to-Expected ratio less than 1.0 beat expectations given their case mix. Hospitals with a ratio above 1.0 did worse than expected given their case mix.

Note that hospitals with less than 20 overall Medicaid at risk admissions (both fee-for-service and managed care combined) were excluded from the graph in any given year.

Hospitals are plotted in each box from the lowest number of initial admissions (left) to the highest number of initial admissions (right). The hospitals inside the green box represent 80% of the entire statewide volume in the year.

Exhibit VII.12 shows the trends in the Actual-to-Expected ratios for individual hospitals across the three years studied. Among the 130-135 hospitals retained in the analysis in each year, there are only about five percent of all hospitals that are performing as expected on a risk-adjusted basis. Excluding these, about half of the hospitals are doing better and half are doing worse than expected. This is not to suggest, however, that an individual hospital is consistently better or worse than expected. A given hospital's ratio can change quite a bit from year to year; however, many hospitals do always stay above or below expectations from year to year.

The greatest opportunity appears to be in the 25 to 35 hospitals that have an Actual-to-Expected ratio greater than 1.25.

Exhibit VII.12
Distribution of Hospitals Based on their Overall Actual-to-Expected Ratio

	CY 2014	CY 2015	CY 2016
Number of Hospitals in Study	**185**	**185**	**185**
Excluded - Low Volume	50	49	55
Number of Hospitals in Study	**135**	**136**	**130**
Range of Actual-to-Expected			
These hospitals beat expectations	**79**	**66**	**73**
Percent of all Hospitals in the Study	59%	49%	56%
Below 0.75	26	18	32
Between 0.750 and 0.900	27	37	24
Between 0.901 and 0.980	26	11	17
These hospitals are at expectations			
Between 0.981 and 1.020	**7**	**7**	**6**
Percent of all Hospitals in the Study	5%	5%	5%
These hospitals did worse than expected	**49**	**63**	**51**
Percent of all Hospitals in the Study	36%	46%	39%
Between 1.021 and 1.100	8	14	11
Between 1.101 and 1.250	17	14	15
Above 1.25	24	35	25

Recommendations to the MCEs and the OMPP Related to PPRs

In this second review of analyzing potentially preventable readmissions using the 3M PPR grouper in the OMPP managed care programs, it was found that the trends in the Actual PPR rates at the statewide level and the MCE level gradually improved over the three-year time period. There were differences found, however, in the PPR rates across programs (HHW, HCC and HIP). There were also differences found in the Actual-to-Expected ratios by MCE and by region over the three-year study period. B&A offers the following recommendations to explore where PPR trends differed among more discrete cohorts.

1. The Actual-to-Expected ratios were greater than 1.0 in five regions of the state but less than 1.0 in the other three regions in CY 2016. But in reviewing each region more closely, the findings across all MCE/programs combined within a region were not the same when examined at each

MCE specifically. This was particularly true for the Northwest, Southwest and Southeast Regions. The OMPP and the MCEs may want to explore the root cause for these differences. For example, it may be that the volume is very different across the MCEs or the composition of diagnostic cases varies across the MCEs for the hospitals in these regions.

2. At the major diagnostic level, Adult Circulatory, Adult Gastroenterology, Adult Respiratory and Mental Health diagnoses had Actual PPR rates that were greater than other conditions and higher than the statewide average in each year studied. The MCEs should consider conducting a drill down into these results to assess opportunities for hospital-specific or regional-specific interventions that may curtail potentially preventable readmissions from continuing, particularly in the HCC and HIP programs.

3. The Actual-to-Expected ratios varied significantly at the hospital level. This may partially be driven by volume (i.e., lower volume hospitals can have more volatile ratios year-to-year given the uncertain mix of services). The MCEs are encouraged to work specifically with higher-volume hospitals that have Actual-to-Expected ratios greater than 1.0 in multiple years and, in particular, those hospitals with ratios greater than 1.25. The data files provided by B&A to the MCEs show the results for each hospital and at the DRG level for the hospital. Related to Recommendation #2, the MCEs have an opportunity to pinpoint if there are specific diagnostic conditions at each hospital performing worse than expected that could assist in improvement in the PPR rate for that hospital.

4. Related to Recommendation #3 above, the OMPP may want to encourage the MCEs to develop quality-based initiatives specifically to high-volume hospitals that have Actual-to-Expected ratios that are consistently greater than 1.0 and, in particular, those hospitals with ratios greater than 1.25, across multiple years.

SECTION VIII: FOCUS STUDY ON CLAIMS PROCESSING

Introduction

Each of the managed care entities (MCEs) that served the programs administered by the Indiana Office of Medicaid Policy and Planning (OMPP) in Calendar Year (CY) 2016 were responsible for maintaining a claims processing system that provides intake, adjudication and payment of claims submitted by providers. Further, the MCEs are responsible for submitting both paid and denied claims to the OMPP as encounter submissions after final adjudication. The MCEs must also provide summary reports that track the volume of claims processed by each of the OMPP programs—Hoosier Healthwise (HHW), Hoosier Care Connect (HCC) and Healthy Indiana Plan 2.0 (HIP).

Although each MCE has discretion as to the rate of payment it makes to its providers, like many managed care organizations nationally, the Indiana Medicaid MCEs often default to the OMPP fee-for-service fee schedule for, at minimum, a baseline to pay its contracted providers. In other words, the MCEs may pay its providers the same rate as would be paid in fee-for-service or some percentage of the fee-for-service rate. The fee-for-service fee schedule is the same in both the HHW and HCC programs. For the HIP program, the MCEs are required by state law to pay HIP providers at the prevailing Medicare rate or, if there is no Medicare rate for the service, 130 percent of the Indiana Medicaid fee-for-service rate. As a result, the Indiana MCEs are required to maintain fee schedules and billing guidelines for two distinct systems—one for Indiana Medicaid and the other for Medicare.

The elements of this focus study included:

1. To gain an understanding of the similarities and differences between the three MCEs with respect to the claims adjudication process;
2. To evaluate claims adjudication timeliness across the MCEs within each of OMPP's programs;
3. To validate the results reported by the MCEs on claims processing reports against the encounters submitted by the MCEs to the OMPP; and
4. To report the results of an audit of the pricing of a sample of claims adjudicated by the MCEs within HHW, HCC and HIP.

Review of the Claims Adjudication Process

Process Utilized to Conduct this Review

B&A conducted onsite meetings on May 17 and 18 with each MCE individually to learn more about their claims adjudication processes. The meeting was designed as a semi-structured interview with MCE staff responsible for and knowledgeable about claims adjudication. The major topics covered by Burns & Associates (B&A) among the 49 questions posed including:

- Responsibility for claims processing at each MCE
- An overview of each MCE's claims processing flow
- Application of edits and audits
- Methods in which the MCE conducts internal monitoring of their claims processing systems
- Notifications to providers related to claims adjudication
- The encounter submission process

Claims Processing Responsibilities

Although there were three MCEs contracted with the OMPP in CY 2016, the claims processing function involved six entities at Anthem, five entities at MHS and five entities at MDwise. In the case of Anthem, the MCE itself is one of the claims processing entities. Since MHS is a health plan under the Centene Corporation, B&A has also classified MHS as one of the entities processing its own claims recognizing that this takes place at the Centene claims processing headquarters. MDwise does not process any of its own MCE claims. This function is delegated to its delivery systems (who, in turn, contract the function out to vendors) or to other delegated entities. Exhibit VIII.1 shows at a high level the delineation of responsibility across claim type within each MCE.

Exhibit VIII.1
Vendors Processing Claims in Indiana Medicaid Health Coverage Programs

Service Category	MCE	Vendor	HHW	HCC	HIP
Acute Care and Behavioral Health Care	Anthem	Anthem (for all but St. Francis Delivery System)	X	X	X
	Anthem	CMCS (for St. Francis Delivery System)	X	X	X
	MHS	MHS	X	X	X
	MDwise	CMCS (for some MDwise Delivery Systems, but not Family Planning)	X		
	MDwise	DST (for some MDwise Delivery Systems, and all Family Planning)	X	X	X
Pharmacy	Anthem	Express Scripts	X	X	X
	MHS	Envolve Pharmacy	X	X	X
	MDwise	MedImpact	X	X	X
Vision	Anthem	VSP	X	X	X
	MHS	Envolve Vision	X	X	X
	MDwise	CMCS or DST	X	X	X
Dental	Anthem	DentaQuest	not an MCE service in CY 2016	X	X
	MHS	Envolve Dental		X	X
	MDwise	DentaQuest		X	X
Non-emergency Transportation	Anthem	LCP Transportation	X	X	X
	MHS	LCP Transportation	X	X	X
	MDwise	RideRight	X	X	X

There have been some changes since CY 2016 as well. In April 2017, Anthem has changed to a single claims processing platform within its own system whereas before there had been two different platforms. At the start of 2017, MDwise changed one of its claims processing vendors from DST to Evolent. Additionally, at the start of 2017, the dental benefit was added in HHW so dental vendors are now processing HHW claims as well for all three MCEs.

Overview of Claims Processing Flow

In general, the three MCEs follow a similar approach to receiving and adjudicating claims. Exhibit VIII.2 on the next page illustrates the primary steps that are followed.

The MCEs (and their delegated contractors) do differ in some of the subtasks associated with each step shown in the exhibit. The order and precedence of specific edits also vary to some degree across the claims payers.

Among the areas that are common to all MCE claims processors:

- All MCEs accept both paper and electronic claims from providers. For paper claims, the additional step to scan in or key in the data on the claim is completed upfront. At that time, some visual inspection checks and preliminary edits may occur. After this, if the claim is accepted into the MCE's inventory system, it follows the same process as an electronically-submitted claim.

- All MCEs include a letter with a reason code to the provider if a claim is rejected—that is, not accepted into the claims inventory system.

- If EDI (electronic) claims are rejected, all MCEs generate an electronic error report to submit back to the provider.

- All MCEs have both an auto-adjudication and a manual intervention process. Edits are run through the auto-adjudication process and if a claim fails these edits, it is "pended" (converted to manual processing). Common reasons reported by the MCEs for manual intervention include:

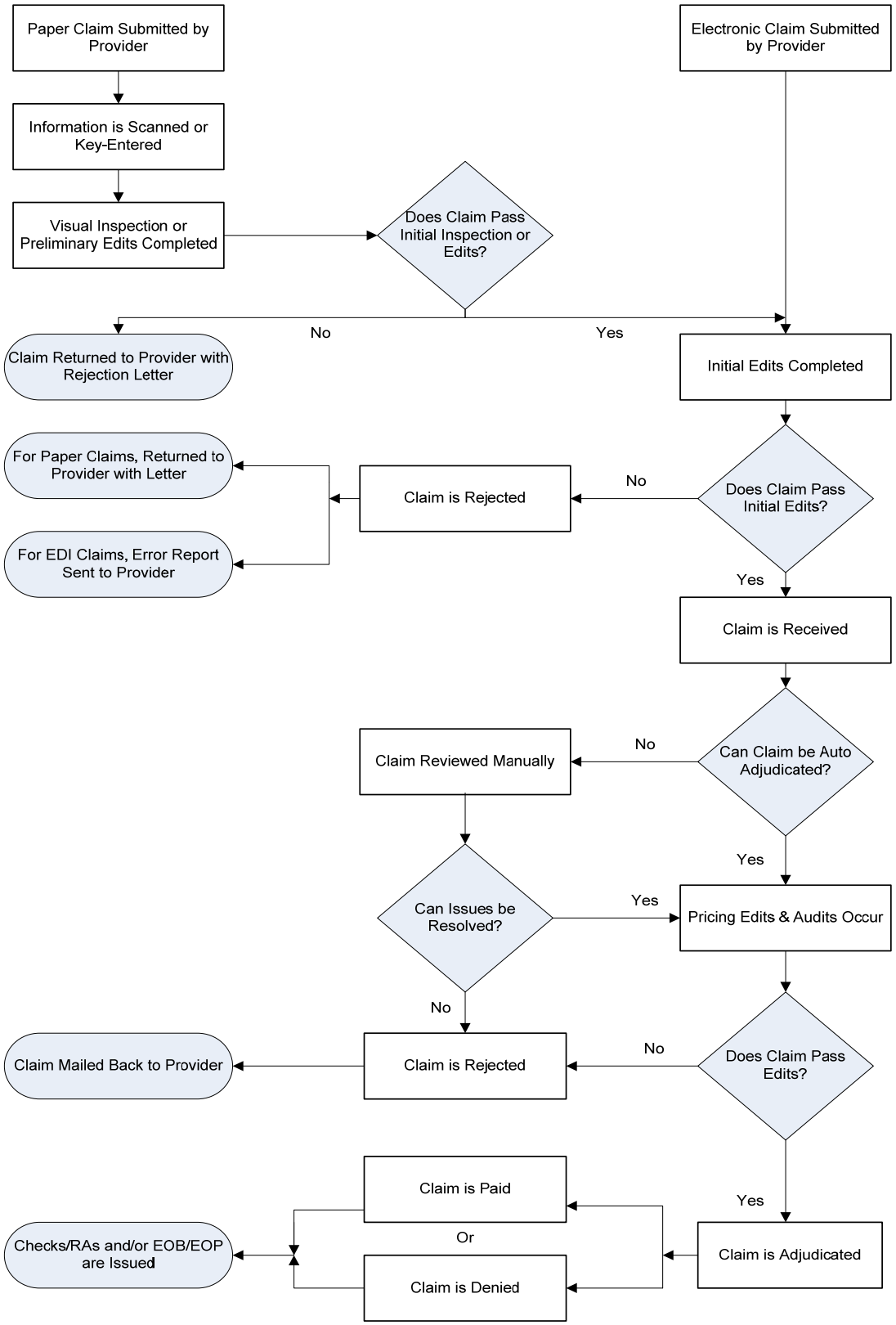
    - Verifying a required authorization was given to the provider
    - Conducting a "prudent layperson" test for emergency room claims
    - Confirming that a claim is not a duplicate of another adjudicated claim
    - Auditing the price computed for a high-dollar paid claim

- The MCEs do not require that the provider include an authorization number on the claim. If the authorization number is not found through automatic systems, then the claim is pended for a claims processor to look for the authorization in the MCE's system in order for the claim to be paid.

- The MCEs differentiate between contracted (PAR) providers and non-contracted (non-PAR) providers for purposes of pricing and reporting to the OMPP.

- All MCEs provide an Explanation of Payment (EOP) to the provider after a claim has been adjudicated. These documents provide further details pertaining to how and why a claim was paid or denied.

Exhibit VIII.2
High Level Claims Processing Flow for MCE Claims Processors



B&A also confirmed the terminology used by each of the MCEs both in their day-to-day processing as well as in how they count claims for OMPP reports. This was addressed because differences were cited by B&A in the EQR conducted in CY 2009 which also focused on claims processing. B&A confirmed that *rejected* claims as shown in Exhibit VIII.2 are claims in which key information is missing or incomplete for the claim to enter the adjudication process. Rejected claims are not counted by any MCE in reports of claims processing volume to the OMPP.

The edits used to accept or reject a claim into inventory are the same across most claims payers:

1. Verification that all fields as designated in Indiana Code (IC 12-15-13-0.6) are complete with valid values.
2. Verification that the member is eligible for Medicaid and assigned to the MCE.
3. Verification that the service being billed is covered by Medicaid.
4. Verification that the provider is a designated Indiana Health Coverage Programs (IHCP) provider.
5. Verification that the provider's National Provider Identifier (NPI) matches the number on file with DXC, the OMPP fiscal agent.
6. Verification that the claim that is submitted is not a duplicate of a claim submitted previously.

MDwise confirmed that the "member not eligible" edit is at the MCE level and not the delivery system level. Each delivery system manages a member eligibility file for all of MDwise. If a provider submits a claim for a member that is enrolled with another delivery system in the MDwise family, the receiving delivery system will forward the claim to the correct delivery system.

The MCOs are interpreting a *clean* claim as one in which all information is available to adjudicate the claims without manual intervention. Indiana Code defines a clean claim as "…a claim submitted by a provider for payment under the Medicaid program that can be processed without obtaining additional information from (1) the provider of the service; or (2) a third party."

Therefore, an *unclean* claim is one in which further research or investigation is required even if the claim passed the initial intake editing process. An unclean claim which, for example, had an invalid National Provider Identifier would be defined as unclean and rejected outright. An unclean claim could, for example, be accepted into the MCE's claims adjudication system because the ICD-10 field was populated, but it was later found to be unclean because the ICD-10 code was invalid and the claim could not be adjudicated. Unclean claims are not counted in claims processing volume reports to the OMPP.

Claims accepted into the MCE's adjudication system are ultimately given a *paid* or *denied* status. A paid claim is defined the same way by all of the MCEs, which is a claim that has an amount paid for an approved covered service to an enrolled member by a contracted provider. A claim could have a paid status but the final payment amount is equal to $0 if the member had third party liability or was responsible for a co-pay that results in a net paid amount of $0.

The MCEs track paper claim submissions compared to electronic submissions. All three MCEs reported that the occurrence of paper claim submissions continues to decline in favor of electronic submissions. The percentage of paper claims submitted is below five percent among all MCEs. For comparison, B&A asked this question in the CY 2009 EQR and the MCEs stated at that time that paper submissions were approximately 12 percent of the total for UB-04 claims and 20 percent of the total for CMS-1500 claims. The providers who most frequently submit on paper as reported by each MCE were:

- For Anthem, ambulance (because an attachment is often required), non-emergency transportation, dental and laboratories

- For MHS, ambulance, non-emergency transportation and family primary care providers
- For MDwise, ambulance, non-emergency transportation, physician and some hospitals

The differences in claims processing between the MCEs or their delegates stem mostly from where and when specific edit logic is invoked and the application of specific policies and procedures. These items will be discussed throughout the remainder of this section of the report.

One noteworthy item is related to when the MCEs receive or do not receive a claim for a covered service. All MCEs report that they receive a UB-04 or CMS-1500 claim (electronically or by paper) for almost every covered service in all three programs. For Anthem and MDwise, however, claims are not received for non-emergency transportation claims, but MHS does receive them. Also for Anthem, one physician group is capitated by Anthem so claims are not received for this provider.

Application of Edits and Audits

All three MCEs mentioned in the onsite meeting conducted by B&A that they use the National Correct Coding Initiative (NCCI) edits in the claims adjudication process. There are two main types of NCCI edits—Procedure-to-Procedure (PTP) and Medically Unlikely Edits (MUE). Within each, edits are created for outpatient hospital, physician and durable medical equipment (DME). NCCI edits are updated quarterly and files containing updates are released by the Centers for Medicare and Medicaid (CMS). Anthem, MHS and MDwise all indicated that they download these files from CMS and the quarterly updates are typically loaded into their systems within two to four weeks of the CMS release.

The MCEs were asked to report on the top edits (based on the number of times the edit was applied) within each category for HHW, HCC and HIP separately. Exhibit VIII.3 summarizes what was provided to B&A related to this request.

Exhibit VIII.3
Data Provided by the MCEs Related to Top NCCI Edits
Calendar Year 2016 Claims, HHW, HCC and HIP Programs Combined

	Anthem	MHS	MDwise
Procedure-to-Procedure			
Outpatient Hospital	Reported	Reported	Reported
Physician	Reported	Reported	Reported
DME	Reported	Reported	Reported
Medically Unlikely Edits			
Outpatient Hospital	Reported	Reported	Reported
Physician	Reported	Reported	Not Reported
DME	Reported	Not Reported	Not Reported

B&A validated the reported edits against the CMS Medicaid NCCI edits (updates as of April 1, 2017), the Medicaid NCCI Manual 2016 (revised November 2015), and the Medicaid NCCI Change Report (effective April 1, 2017) as found at: https://www.medicaid.gov/medicaid/program-integrity/ncci/index.html.

With respect to the NCCI PTP edits:

- PTP edits were reported for all three provider types and programs (HHW, HCC and HIP) by Anthem. In general, the top ten PTP edits differed by program and provider type. The top ten edits across all provider types were found on the Medicaid NCCI national set of PTP edits.
- PTP edits were reported for all three provider types and programs by MHS and in general differed by program and provider type. The PTP edit combinations were found on the Medicaid list of PTP edits with the exception of the top outpatient hospital PTP edit for HIP (CPT 59025).

- PTP edits were reported for all three provider types by one of MDwise's claims processing vendor, CMCS. This is for some portions of the HHW program. It was noted, however, that there were only four DME PTP edits reported for four claims in CY 2016.

- There were no claims reported having outpatient hospital PTP edits applied across all three programs by DST, MDwise's other primary claims processor in CY 2016 serving part of HHW and all of HCC and HIP. DST did report PTP edits for physician and DME. The top PTP edit for physician services differed across all three programs, but the same DME PTP edit was reported as the top edit for all three programs (A7005 and A7003 – Modifier Not Allowed – Mutually exclusive procedures).

With respect to the NCCI MUEs:

- Anthem MUEs were reported for all three provider types and programs and, in general, the top ten differed by program and provider type. All top ten edits were found on the Medicaid NCCI national set of MUE edits.

- MHS MUEs were reported for outpatient hospital and physician services. MUE edits for DME were reported as "n/a" for all three programs. In general, the edits reported differed by program and provider type and were found in the Medicaid NCCI national set of MUE edit.

- There were only outpatient hospital MUEs reported by MDwise's vendor CMCS. There was nothing reported for physician or DME edits. MDwise's other vendor, DST, reported "none found" for the MUEs for all three provider types across all three programs.

Methods in Which the MCEs Conduct Monitoring of their Claims Processing Systems

All of the MCOs engage in monitoring of their claims processing functions, but the level of monitoring varies and the areas that are monitored also differ to some degree. Some items of note related to specific areas of monitoring are listed below.

Monitoring Related to Timeliness in Adjudicating Claims

All three MCEs require the contracted (PAR) providers to submit claims within 90 days of the service date. For non-contracted (non-PAR) providers, the requirement is within 365 days of the service date. None of the MCEs reported that late submissions were an issue for non-PAR providers. Each MCE reported the volume was less than 0.5 percent of the non-PAR total.

The OMPP requires that the MCEs adjudicate clean claims received by providers electronically within 21 days of receipt and within 30 days if received on paper. To meet these requirements, Anthem runs a daily report with prioritization to "work" the claims coming close to the adjudication threshold of 21 or 30

days. Anthem reported that their internal goal is to adjudicate within five days of receipt. Anthem had been meeting that goal at the time of the onsite EQR meeting. Anthem did report that in the first quarter of CY 2016 there was an issue with timeliness related to paper UB-04 claims. The root cause was related to provider education. Anthem created a team to mitigate this particular issue.

MHS also reported utilizing a daily tracking report to identify the high priority claims to meet the OMPP adjudication deadline. MHS indicated that although the deadline for paper submissions is 30 days, they aim to meet the 21 day threshold for paper the same as electronic. MHS also runs for internal purposes an adjudication timeliness tracking report on weekly basis that mirrors what the OMPP requests from each MCE on a quarterly basis.

MDwise stated in its interview that the OMPP adjudication timeliness standards are in the service level agreements that it has with its claims processors. On a weekly basis, a meeting is held to look at claims that are lagging in adjudication timeliness to pinpoint the root cause of the problem such as specific providers or specific types of authorizations. During part of CY 2016, adjudication timeliness was an issue for MDwise's contracted entity DST. The root cause was cited, among other items, as an unusually high volume of suspended claims. Additional staff was brought in to "work" these suspended claims. Also during this time, checks were being processed daily (as opposed to weekly) to help mitigate timeliness issues.

It should also be noted that both Anthem and MHS track the volume of claims submitted that are rejected by their systems. MDwise had not required DST to track this in CY 2016 but it is now tracked by Evolent.

The results of claims adjudication timeliness—by MCE, by program and by claim type—appear later in Section VIII.

Other Internal Reporting and Tracking

For all three MCEs, their authorization systems are not embedded in the claims processing system. However, a data feed occurs nightly to assign authorizations to specific member/provider/service combinations so that the billing provider does not have to record the authorization number when submitting the claim if the service requires prior authorization. The MCEs also conduct a second level review for services in which an authorization was not found in the system.

To track the volume of claims adjudicated, both Anthem and MHS track claims based on the types of edits or audits that are assigned to the claims.

Oversight of Internal Staff

For all manual processing of suspended claims (not just authorizations), both Anthem and MHS track the volume of claims required to be "worked" manually on a daily and a weekly basis. This information is captured overall and at the claims processor level. For MDwise, they reported that CMCS provides to them a monthly report on these statistics.

Anthem does a monthly audit of all claims processors and adjusters, either at a systematic or at a process level. MHS audits its PLP analysis monthly. MHS also has internal auditors independent of the claims department that review its claims processors. MDwise requires that each delivery system conduct monthly audits of its claims processors, but the scope of this audit is left up to each delivery system (e.g. who is audited, the context of the audit).

Oversight of Delegates

Anthem reported multiple levels of oversight of its delegated vendors. Each delegated claims processor is required to track some reporting statistics daily. A monthly report is required from each delegated entity on key metrics. Anthem also conducts an annual review of each delegated entity using a standardized audit tool.

All of the entities other than LCP that MHS works with are part of the Centene Corporation and thus share a common platform. However, the MHS team in Indiana does conduct a weekly meeting with its claims processing contacts in Ferguson, MO where Centene processes claims that are specific to the Indiana programs. MHS also conducts a quarterly meeting with LCP Transportation who processes MHS's transportation claims. MHS has built a dashboard report to monitor LCP. Also, LCP submits encounters to MHS on a weekly basis. A weekly, monthly and quarterly reconciliation process occurs.

MDwise's level of delegated oversight varies across entities. For example, for DST there was a monthly oversight meeting in CY 2016. Now with its new vendor, Evolent, the monthly oversight meeting schedule has continued. With CMCS, the full oversight review is conducted on an annual basis. For MedImpact (pharmacy), the review is conducted semi-annually.

MDwise includes a review of claims processing as part of its annual delegation oversight review of all functional areas. MDwise policies and procedures related to each delivery system's claims processing requirements are fairly broad, however, so the metrics used with the delivery systems tend to be the same that the OMPP uses with MDwise. All delivery systems, however, are instructed to follow the state definition of a clean claim.

Monitoring Fraud and Abuse

All three MCEs cited that they have a few providers that are set for manual review before pricing can move forward. The MCEs have discretion to do this without seeking OMPP approval.

Each of the MCEs also uses software to detect fraud and abuse among the claims it receives. The software is built to detect unusual patterns or to identify providers that deviate from the acceptable range of billing within a provider type. Anthem uses proprietary software created by its organization. MHS uses Fraud Finder Pro. MDwise uses Health Care FraudShield.

In conjunction with the software utilized, the MCEs all have staff members assigned to program integrity in their Special Investigations Unit (SIU) that examine claims as part of their activities to detect fraud and abuse. This includes data mining in the claims warehouse and reviewing more in-depth the billing patterns of specific providers. The SIU team members at each MCE may suggest ways to proactively set edits in the claims processing system to avoid payment that would later need recoupment.

Third Party Liability (TPL)

All of the MCEs reported that they download the information provided to them from DXC, OMPP's fiscal agent, on behalf of the State to assist in identifying potential TPL. All of the MCEs indicated that the source data from DXC is often outdated or incomplete. The OMPP has a contract with HMS, the vendor used to collect TPL information, but each MCE also has its own contract with HMS to enhance the information provided in the state files. As a means to gather more information on TPL, Anthem also collects data from provider offices and from members when they call the Member Services line. MHS looks at data on claims as well for indications of the presence of TPL.

Notifications to Providers Related to Claims Adjudication

B&A reviewed notification to providers under different scenarios related to claims processing and claims adjudication. Upon initially contracting with the MCEs, providers for all three entities receive information as part of their orientation with the program about where and how to submit claims and what defines an accepted claim. Each MCE sends a letter with any claim that has been rejected back to the provider which includes the specific reason for the rejection. For electronic claims, an EDI error report is sent.

B&A requested information from each MCE claims processor that handles acute care claims to learn more about the variety of rejection codes given to providers on rejection notices as well as explanation of payment (EOP) codes given in any correspondence to providers such as a remittance advice. For the rejection codes, the MCEs were requested to provide B&A with an itemized list of each code, the code description, the number of times it was applied in CY 2016 and whether the rejection code was applicable to UB-04/837I transactions, CMS-1500/837P transactions, or both. For the EOP codes, in addition to the information requested on rejection codes, the MCEs were asked if the EOP codes align with a status of paid, denied or pended as well as who "works" the claim when the EOP code posts (such as claims processing staff, prior authorization staff, or other clinical staff unrelated to prior authorization).

With respect to rejection codes:

- Anthem provided what appeared to be reasonable rejection codes (1,118 in all), but no volume was given for the frequency of each code.
- MHS had what appeared to be a reasonable number and variety of rejection codes.
- MDwise had only a few rejection codes (10 from its vendor CMCS, 4 from DST). The descriptions were very brief.

With respect to explanation of payment codes:

- Anthem initially provided a list of EOP codes (70 in all). Among these, 82 percent of claims had EOP codes resulting in a pend status, 17.9 percent of claims resulted in a deny status and 0.1 percent of claims resulted in a pay status. For these 70 EOP codes, there is no human intervention to "work" the claim. When questioned further, Anthem then provided a separate list of EOP codes specific to pend status which contained 44 codes. Among these, four codes are set with a pay status, 39 are set with a pend status, and one with a deny status. The description contains more information about how each code is resolved. The claims processing staff, clinical staff and prior authorization staff are involved in working a claim with this list of EOP codes. Claims volume could not be provided within this second set of EOP codes, however.

- MHS had what appeared to be a reasonable number and variety of EOP codes. A total of 341 were reported. Out of the 341 codes, 74 codes result in a paid status (83% of all claims) and the remaining 267 result in a denied status (17% of all claims). Depending on the code, claims are worked by claims processing, clinical and prior authorization staff.

- Within MDwise's system, CMCS reported 127 EOP codes. Of these, 16 codes result in a paid status (86% of all claims), and 111 result in a denied status (14% of all claims). Depending on the code, claims are worked by claims processing, clinical and prior authorization staff. For MDwise's other vendor in CY 2016 (DST), 194 EOP codes were reported. Of these, 15 codes result in a paid status (74% of all claims), four codes result in pend status (1.4% of all claims) and 175 result in a denied status (24% of all claims). Claims are worked by claims processing staff only.

Encounter Submission Process

Each of the MCEs submits a weekly encounter file to DXC for inclusion in the OMPP Enterprise Data Warehouse (EDW). Although the contract with OMPP states that claims must be submitted as encounters within 30 days of adjudication, both Anthem and MHS stated that they aim for seven to 10 days. MDwise works toward the 30 days target.

Anthem described to the EQR team its front-end process which includes examining claims that may trigger the edits that the MCEs know that DXC will be running against the encounters. This is to avoid returned encounters as much as possible.

Both Anthem and MHS reported that they track all encounter submissions to OMPP, the number that were rejected as "front end edits" and the number that were rejected as "back end edits". Anthem works the "front end edit" rejections upon receipt of an encounter response file from DXC. MHS does this as well through a weekly rejection report. MHS also tracks if the same claim was submitted as an encounter on multiple weekly files to DXC. Although MDwise reported that it is working the "front end edits", it does not have a formal tracking report on the encounter rejection rate.

All of the MCEs indicated that receiving more specific information from DXC as to the reason(s) for an encounter rejection would enable more efficient validations on the encounters and would avoid duplicate submissions of the same encounter. The reason codes for a rejection are often generic language that does not provide to the MCEs a course for determining how to resolve the rejection.

Evaluation of Claims Adjudication Timeliness

The OMPP requires each MCE to provide statistics on a quarterly basis on the number of claims adjudicated within each calendar quarter. Information is submitted in a standardized Excel format. The reports are designed the same for each of the three OMPP programs (HHW, HCC and HIP 2.0) and the MCEs must submit separate reports for each program every quarter.

Information submitted on the claims adjudication reports is divided into the following sub-categories:

- UB-04/837I, CMS-1500/837-P and Dental
- Electronic and paper submission volume
- In-network and out-of-network providers

Results are provided on the following metrics related to the claims adjudication process:

- Number of claims paid on time or late (using the OMPP thresholds of 21 days for electronic and 30 days for paper to define on time)
    - Average number of days to adjudicate claims
    - The volume of claims adjudicated within specific time periods (e.g. 0-10 days, 11-21 days, 22-30 days, 31-60 days, 61-90 days, greater than 90 days)
- Number of claims denied
- Number of claims paid with interest

All of the information is self-reported by the MCEs to the OMPP. B&A tabulated data from the claims adjudication reports to determine if the MCEs are adjudicating claims within the OMPP target for each program and to evaluate the rate of denied claims. If an MCE has an overall denial rate that exceeds 15 percent in any quarter, then the MCE must submit a more detailed report on its denied claims.

Findings from Reports of Claims Paid On Time, Paid Late or Denied

The next five pages present data on the volume and percentage of claims paid on time, claims paid late and claims denied by the MCEs. Within each exhibit, the data is displayed in the same format. The four boxes represent statistics on claims volume for each of the four quarters in CY 2016. Within each box, there are nine rows representing three MCEs and three OMPP programs. On each row, there is a horizontal stacked bar with a maximum of 100 percent. The light blue color represents the percentage of claims paid on time. The middle blue (teal) color represents the percentage of claims paid late. The darkest color on the far right of each row represents the percentage of claims denied in the quarter.

The five exhibits are divided by claim type and contracting arrangement as follows:

- Exhibit VIII.4 shows results for institutional claims for in-network providers
- Exhibit VIII.5 shows results for institutional claims for out-of-network providers
- Exhibit VIII.6 shows results for professional claims for in-network providers
- Exhibit VIII.7 shows results for professional claims for out-of-network providers
- Exhibit VIII.8 shows results for dental claims for in-network providers. There are no out-of-network dental providers. Data is only shown for HCC and HIP on this exhibit because the dental benefit was not managed by the MCEs in CY 2016 for HHW.

A summary of the results from all five exhibits is described below.

- Among the institutional claims for in-network providers (Exhibit VIII.4), there were some issues with timeliness in Quarter 1 for Anthem and MDwise in the HIP program and for MDwise HIP again in Quarter 2. In Quarter 1, Anthem paid 87.3 percent of these claims on time while MDwise paid 88.9 percent on time. In Quarter 2, Anthem's HIP paid on time rate improved to 97.2 percent but MDwise's dropped to 64.8 percent. Other than these specific areas, the paid on time rate was usually above 98 percent for each MCE and program in every quarter. The denied claim rates for Anthem (all three programs) were less than four percent in every quarter. The same was true for MDwise in most quarters but the maximum denial rate was 8.3 percent (HIP Quarter 1). MHS usually had denial rates in the 6.5 to 9.0 percent range in each quarter for all three programs.

- The trends in the paid on time rates for out-of-network providers (Exhibit VIII.5) followed a similar trend to what was found for in-network providers on Exhibit VIII.4. Both Anthem and MDwise had some issues with timely payment for HIP claims in Quarter 1 and MDwise had issues once again in Quarter 2. The difference between the in-network and out-of-network providers for all MCEs, however, is the rate of denied claims. MHS typically had a denial rate of 14 to 16 percent across all programs which was the lowest among the three MCEs. Anthem and MDwise had much higher denial rates among out-of-network providers. It should be noted, however, that the volume of out-of-network providers is low for all three MCEs. For Anthem, out-of-network volume is less than three percent of all institutional claims; for MHS, it is less than five percent in HHW and HIP but near 15 percent in HCC; for MDwise, it is near 10 percent in HHW and HIP but near 20 percent in HCC.

- For professional claims for in-network providers (Exhibit VIII.6), the percentage of claims paid on time was 95 percent or greater in every quarter for every MCE/program combination. In most quarters, the paid on time rate was closer to 99 percent. The denied claim rates for Anthem were less than 1.5 percent in all but one case (HHW Quarter 2, 3.7%). For MHS, the denied claim

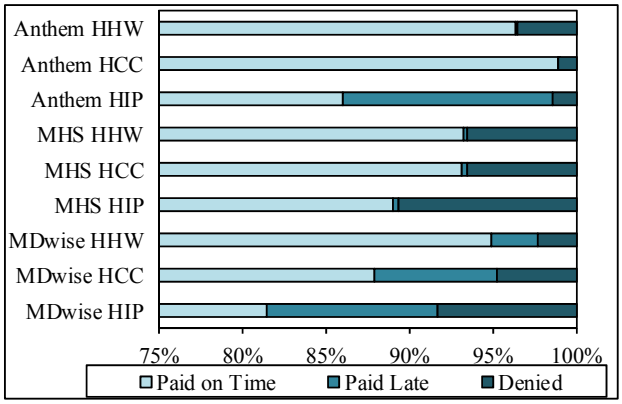
rates were in the 7.0 to 11.0 percent range each quarter across programs. For MDwise, the denied claim rates range was from 1.8 to 7.9 percent.

- The volume of professional claims attributed to out-of-network providers is higher than what was found among out-of-network provider institutional claims. For Anthem, out-of-network providers comprise close to 10 percent of all professional claims across all three programs. For MHS, the rate is 20 to 30 percent and this varies by program. For MDwise, the rate is near 20 percent for HHW and HIP and near 30 percent in HCC. The paid on time rate for out-of-network professional providers (Exhibit VIII.7) was above 95 percent in every quarter except for MDwise HIP Quarter 1. In most quarters, the paid on time rate was closer to 99 percent (same as was found for in-network providers). The denial rates were similar between MHS's in-network and out-of-network professional providers. But as was seen for institutional providers, both Anthem and MDwise had much higher denial rates for out-of-network professional providers than among its in-network providers with some exceptions. For Anthem, the denial rate in the HIP program was very low among out-of-network professional providers (2.1% to 2.4%). For MDwise, the denial rate was low in its HCC program (2.8% to 5.4%).

- There are few concerns related to the adjudication of dental claims in the HCC and HIP programs (Exhibit VIII.8). For every MCE, the paid on time rate was 100 percent in every quarter. The denial rates were in the six to eight percent range every quarter for Anthem and MDwise. MHS had denial rates closer to 15 percent in Quarter 1, but then had rates closer to the other MCEs in the remaining quarters of CY 2016.

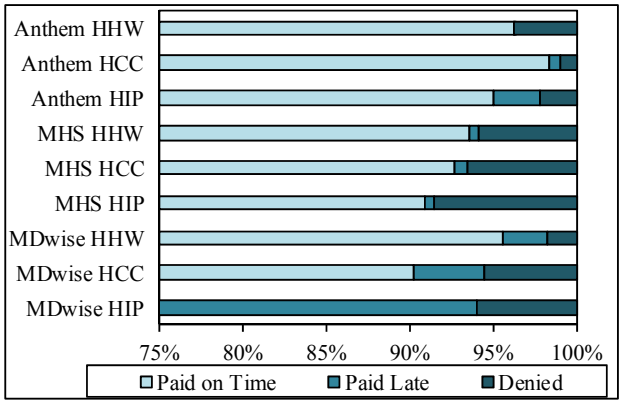
Exhibit VIII.4
Distribution of Adjudicated Claims Paid on Time, Paid Late and Denied in CY16
UB-04 In-Network

Quarter 1



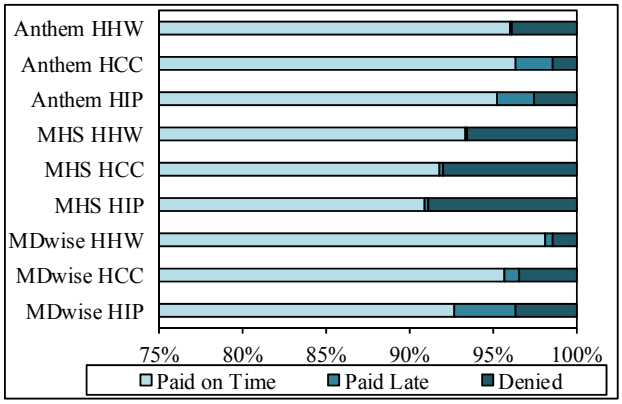
	Total Adjudicated (n=617,483)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	78,281	127	2,838
Anthem HCC	47,579	32	495
Anthem HIP	128,478	18,688	2,083
MHS HHW	63,616	147	4,455
MHS HCC	20,633	72	1,435
MHS HIP	67,623	322	8,028
MDwise HHW	81,697	2,440	1,958
MDwise HCC	33,195	2,792	1,766
MDwise HIP	39,703	4,966	4,034

Quarter 2



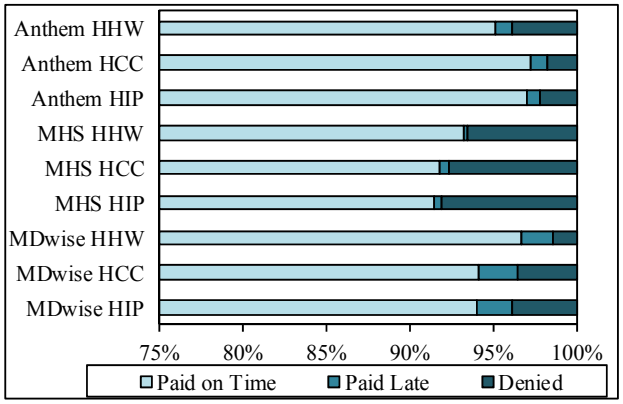
	Total Adjudicated (n=688,693)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	72,149	24	2,762
Anthem HCC	46,592	346	431
Anthem HIP	152,499	4,450	3,468
MHS HHW	61,223	330	3,853
MHS HCC	22,163	184	1,563
MHS HIP	73,012	506	6,792
MDwise HHW	77,060	2,120	1,422
MDwise HCC	38,399	1,758	2,363
MDwise HIP	68,956	37,474	6,794

Quarter 3



	Total Adjudicated (n=695,917)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	72,663	74	2,911
Anthem HCC	48,476	1,076	716
Anthem HIP	164,573	3,938	4,284
MHS HHW	57,624	87	3,991
MHS HCC	21,054	51	1,833
MHS HIP	72,739	125	7,100
MDwise HHW	74,938	279	1,083
MDwise HCC	46,069	401	1,647
MDwise HIP	100,345	3,901	3,939

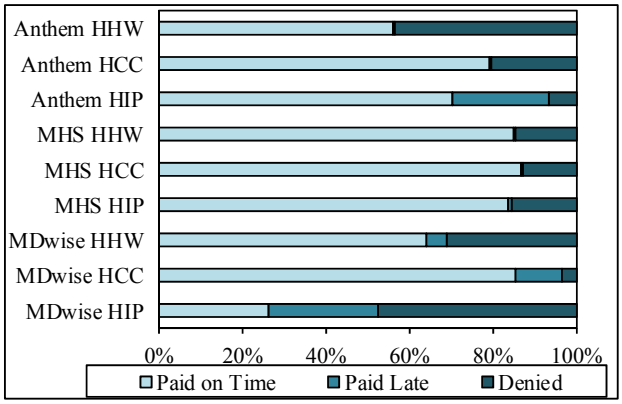
Quarter 4



	Total Adjudicated (n=661,047)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	72,120	715	2,941
Anthem HCC	46,008	461	816
Anthem HIP	154,501	1,202	3,487
MHS HHW	58,068	143	4,016
MHS HCC	20,331	128	1,690
MHS HIP	70,573	316	6,212
MDwise HHW	69,899	1,393	968
MDwise HCC	42,624	1,047	1,588
MDwise HIP	93,811	2,153	3,836

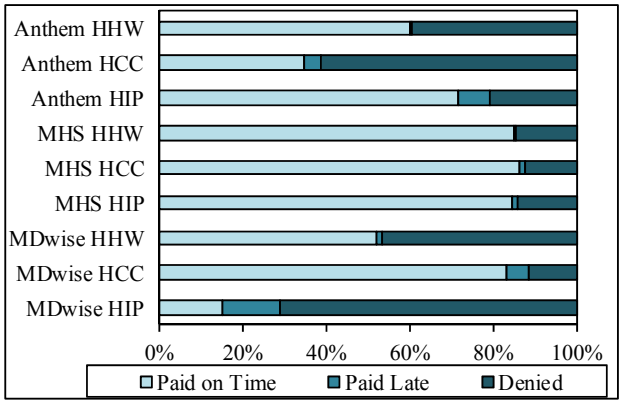
Exhibit VIII.5
Distribution of Adjudicated Claims Paid on Time, Paid Late and Denied in CY16
UB-04 Out-of-Network

Quarter 1



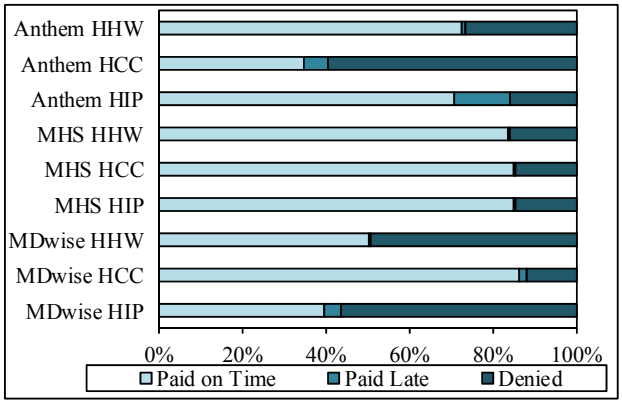
	Total Adjudicated (n=44,182)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	1,677	13	1,292
Anthem HCC	1,551	8	401
Anthem HIP	560	182	51
MHS HHW	2,293	9	392
MHS HCC	5,032	28	726
MHS HIP	3,207	44	580
MDwise HHW	2,916	221	1,399
MDwise HCC	15,835	2,067	595
MDwise HIP	820	809	1,474

Quarter 2



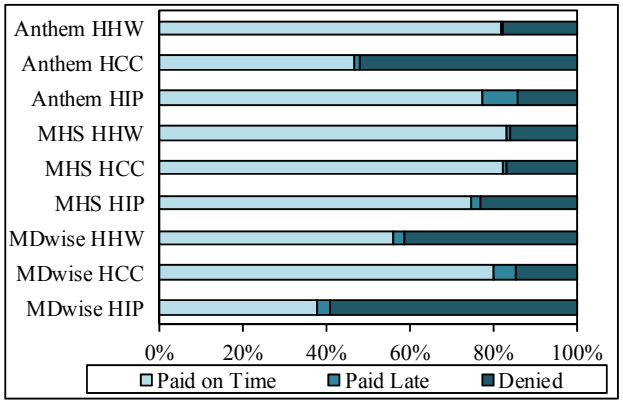
	Total Adjudicated (n=53,718)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	1,118	8	736
Anthem HCC	497	52	869
Anthem HIP	196	20	57
MHS HHW	2,084	12	359
MHS HCC	3,762	41	541
MHS HIP	3,280	45	541
MDwise HHW	3,642	103	3,245
MDwise HCC	14,526	951	1,975
MDwise HIP	2,292	2,074	10,692

Quarter 3



	Total Adjudicated (n=42,622)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	982	14	358
Anthem HCC	291	50	497
Anthem HIP	256	49	57
MHS HHW	2,445	11	468
MHS HCC	3,216	11	553
MHS HIP	3,797	17	644
MDwise HHW	4,304	33	4,179
MDwise HCC	9,556	222	1,282
MDwise HIP	3,695	369	5,266

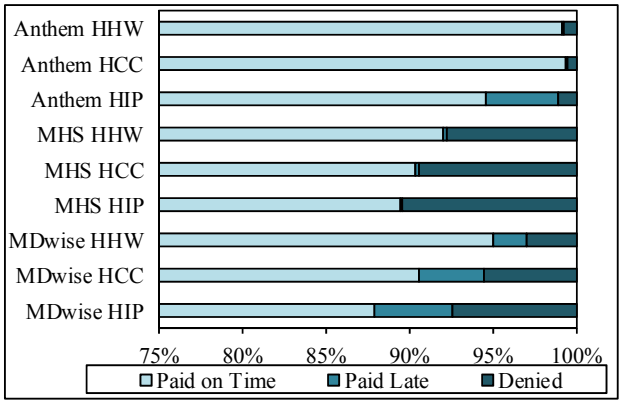
Quarter 4



	Total Adjudicated (n=39,942)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	1,123	3	241
Anthem HCC	282	7	313
Anthem HIP	248	27	45
MHS HHW	2,027	25	379
MHS HCC	3,069	24	622
MHS HIP	2,998	82	914
MDwise HHW	4,770	235	3,474
MDwise HCC	7,657	487	1,379
MDwise HIP	3,592	321	5,598

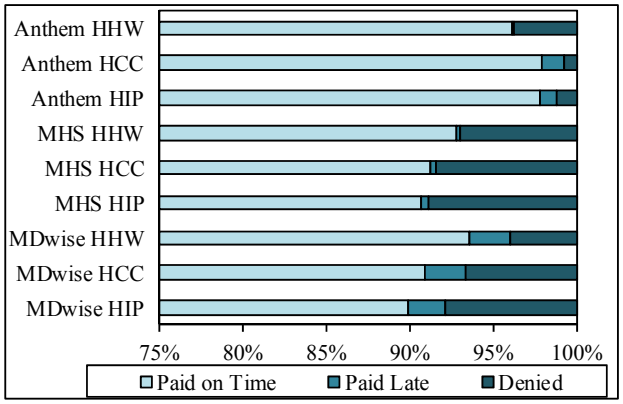
Exhibit VIII.6
Distribution of Adjudicated Claims Paid on Time, Paid Late and Denied in CY16
CMS-1500 In-Network

Quarter 1



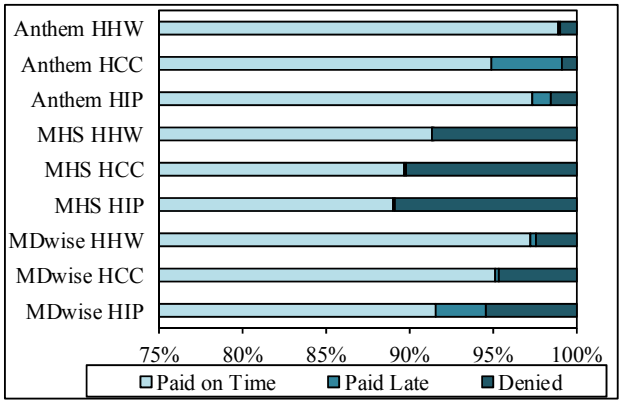
	Visit Utilization (n=2,234,663)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	327,395	238	2,350
Anthem HCC	171,514	245	808
Anthem HIP	455,835	20,646	5,191
MHS HHW	233,095	585	19,434
MHS HCC	61,222	192	6,347
MHS HIP	173,465	260	20,212
MDwise HHW	316,045	6,465	9,967
MDwise HCC	111,756	4,795	6,769
MDwise HIP	246,098	12,909	20,825

Quarter 2



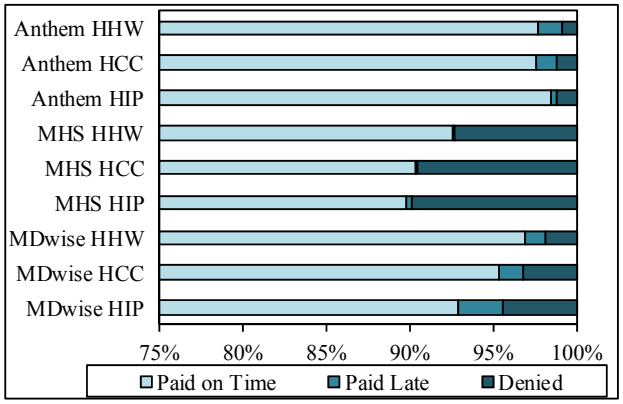
	Visit Utilization (n=2,339,195)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	301,750	327	11,571
Anthem HCC	175,199	2,287	1,361
Anthem HIP	495,317	4,720	6,000
MHS HHW	230,995	557	17,272
MHS HCC	66,568	237	6,139
MHS HIP	182,686	726	17,865
MDwise HHW	323,438	8,662	13,490
MDwise HCC	130,328	3,584	9,419
MDwise HIP	295,498	7,293	25,906

Quarter 3



	Visit Utilization (n=2,412,636)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	310,698	284	2,994
Anthem HCC	178,050	7,845	1,651
Anthem HIP	546,667	6,375	8,327
MHS HHW	216,394	95	20,291
MHS HCC	62,068	75	7,026
MHS HIP	178,764	185	21,795
MDwise HHW	332,725	1,109	8,204
MDwise HCC	148,710	358	7,192
MDwise HIP	315,898	10,072	18,784

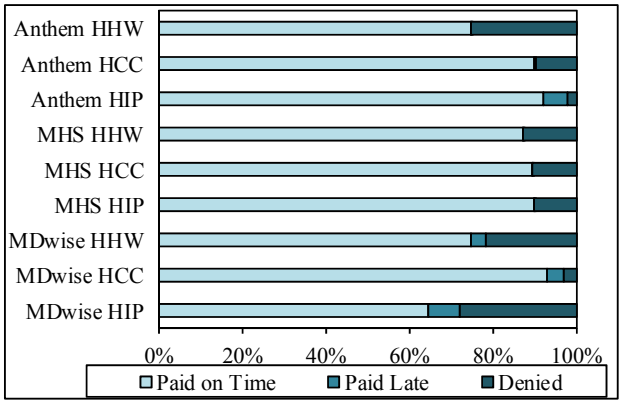
Quarter 4



	Visit Utilization (n=2,433,898)		
	Paid on Time	**Paid Late**	**Denied**
Anthem HHW	322,147	4,869	2,827
Anthem HCC	158,627	1,992	1,937
Anthem HIP	557,958	2,048	6,480
MHS HHW	234,858	328	18,551
MHS HCC	64,960	113	6,831
MHS HIP	186,458	607	20,451
MDwise HHW	344,299	4,561	6,452
MDwise HCC	139,775	2,020	4,692
MDwise HIP	316,209	9,066	14,782

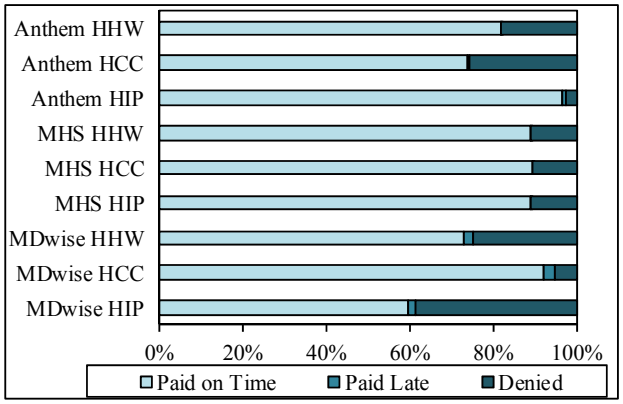
Exhibit VIII.7
Distribution of Adjudicated Claims Paid on Time, Paid Late and Denied in CY16
CMS-1500 Out-of-Network

Quarter 1



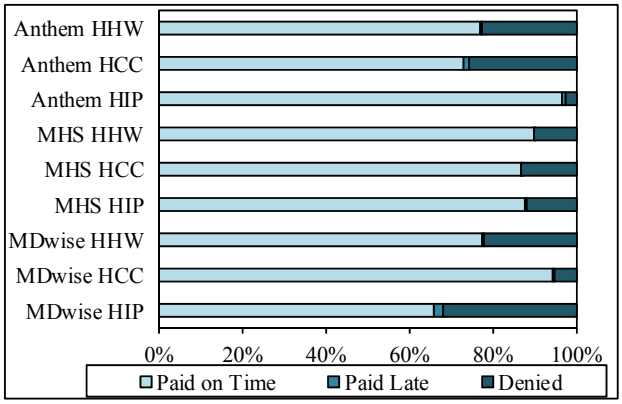
	Total Adjudicated (n=550,948)		
	Paid on Time	Paid Late	Denied
Anthem HHW	24,452	15	8,243
Anthem HCC	18,698	28	2,009
Anthem HIP	42,103	2,577	965
MHS HHW	58,075	44	8,336
MHS HCC	27,802	32	3,174
MHS HIP	76,260	48	8,644
MDwise HHW	63,135	2,982	18,157
MDwise HCC	97,610	4,218	2,948
MDwise HIP	51,912	6,006	22,475

Quarter 2



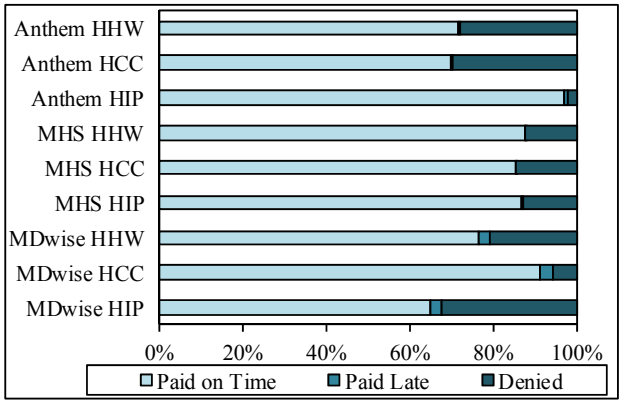
	Total Adjudicated (n=547,640)		
	Paid on Time	Paid Late	Denied
Anthem HHW	24,836	22	5,465
Anthem HCC	15,771	88	5,454
Anthem HIP	42,738	372	1,055
MHS HHW	55,323	92	6,808
MHS HCC	26,141	53	3,053
MHS HIP	75,151	194	9,035
MDwise HHW	61,315	1,740	20,900
MDwise HCC	88,599	2,317	5,036
MDwise HIP	57,531	1,526	37,025

Quarter 3



	Total Adjudicated (n=541,323)		
	Paid on Time	Paid Late	Denied
Anthem HHW	23,432	46	6,831
Anthem HCC	16,326	210	5,747
Anthem HIP	50,966	449	1,194
MHS HHW	87,938	45	9,871
MHS HCC	24,901	29	3,705
MHS HIP	72,776	64	9,872
MDwise HHW	57,849	291	16,278
MDwise HCC	62,703	188	3,514
MDwise HIP	56,852	1,931	27,315

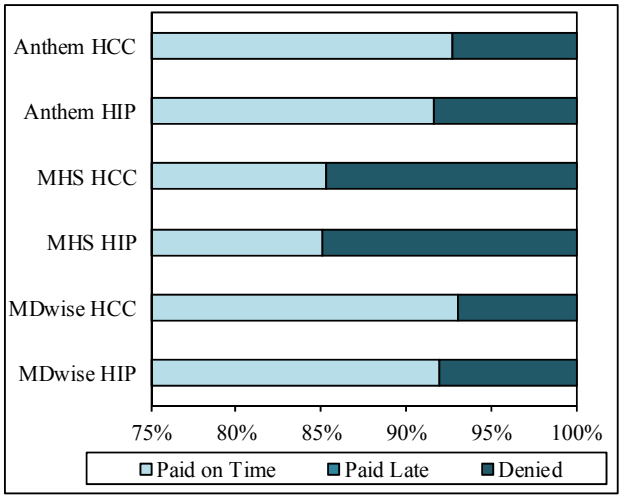
Quarter 4



	Total Adjudicated (n=492,657)		
	Paid on Time	Paid Late	Denied
Anthem HHW	22,562	183	8,706
Anthem HCC	13,674	129	5,741
Anthem HIP	47,253	306	1,052
MHS HHW	53,803	70	7,568
MHS HCC	22,928	35	3,822
MHS HIP	69,751	460	10,037
MDwise HHW	58,997	1,783	16,049
MDwise HCC	58,301	2,017	3,424
MDwise HIP	54,714	2,297	26,995

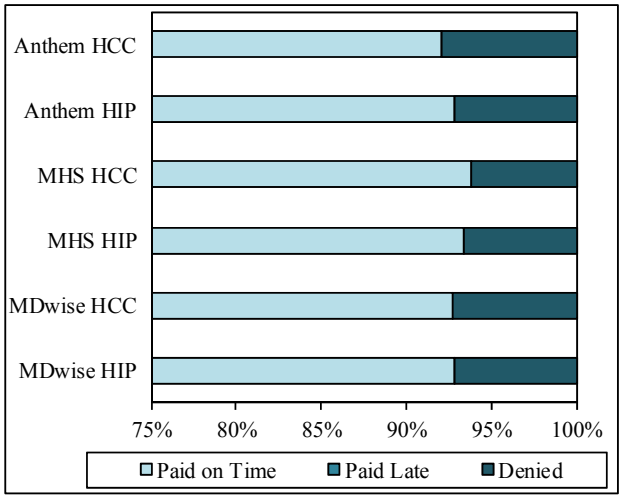
Exhibit VIII.8
Distribution of Adjudicated Claims Paid on Time, Paid Late and Denied in CY16
Dental In-Network

Quarter 1



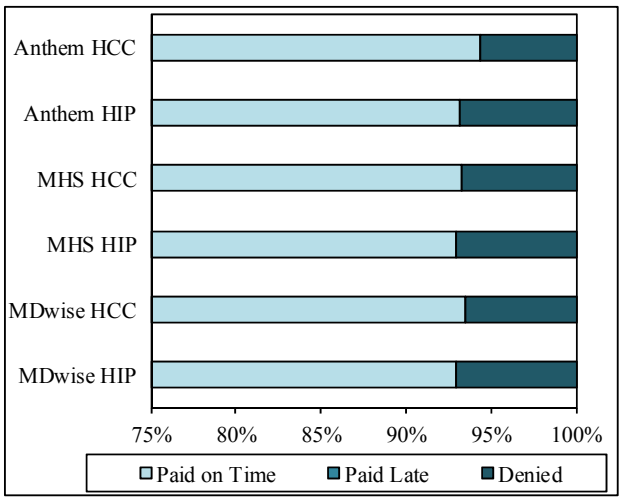
	Total Adjudicated (n=86,199)		
	Paid on Time	Paid Late	Denied
Anthem HCC	6,261	0	489
Anthem HIP	23,814	0	2,162
MHS HCC	4,066	0	699
MHS HIP	14,990	0	2,627
MDwise HCC	7,661	0	569
MDwise HIP	21,031	0	1,830

Quarter 2



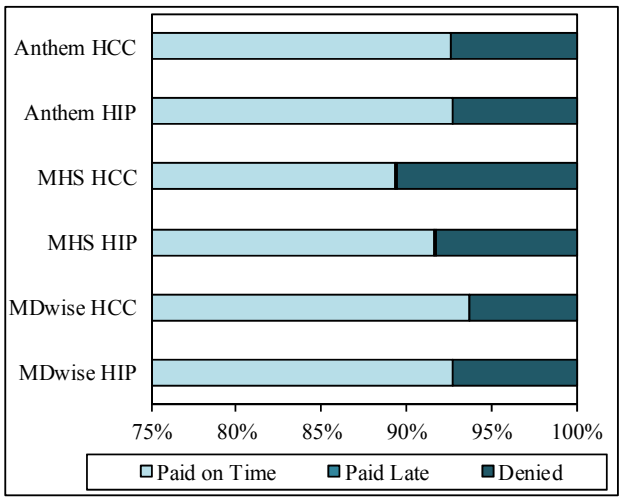
	Total Adjudicated (n=86,895)		
	Paid on Time	Paid Late	Denied
Anthem HCC	6,291	0	544
Anthem HIP	26,586	0	2,048
MHS HCC	3,536	0	234
MHS HIP	13,679	0	961
MDwise HCC	7,734	0	605
MDwise HIP	22,921	0	1,756

Quarter 3



	Total Adjudicated (n=87,329)		
	Paid on Time	Paid Late	Denied
Anthem HCC	6,312	0	376
Anthem HIP	27,145	0	1,974
MHS HCC	3,431	0	248
MHS HIP	13,693	0	1,030
MDwise HCC	7,973	0	557
MDwise HIP	22,848	0	1,742

Quarter 4



	Total Adjudicated (n=79,934)		
	Paid on Time	Paid Late	Denied
Anthem HCC	5,788	0	464
Anthem HIP	26,233	0	2,062
MHS HCC	2,647	2	313
MHS HIP	11,057	9	1,001
MDwise HCC	6,998	0	468
MDwise HIP	21,220	0	1,672

Findings from Reports of Timeliness to Adjudicate

Exhibits VIII.9 through VIII.16 that appear on the pages that follow track the adjudication timeliness at a more precise level for each claim type and provider contracting relationship then what was shown in Exhibits VIII.4 through VIII.8. The format of Exhibits VIII.9 through VIII.16 are designed the same and follow a format similar to what was shown in Exhibits VIII.4 through VIII.8. This time, the horizontal stacked bar is color coded to represent the percentage of claims examined within each exhibit that were adjudicated within ranges based on number of days. The OMPP's requirement is that paper claims are adjudicated within 30 days and electronic claims adjudicated within 21 days. As such, the break point in the date ranges shown reflects these two thresholds. As a way to follow the trends easier, claims adjudicated up to 30 days are represented in shades of pink or salmon. Claims adjudicated in greater than 30 days are shown in shades of purple.

The highlights from each of the exhibits are summarized below. For paper claims, the term "timely" means adjudicated within 30 days; for electronic claims, "timely" means adjudicated within 21 days.

- For institutional claims submitted by in-network providers on paper (Exhibit VIII.9),
  - MHS always had at least 98 percent of their claims adjudicated timely.
  - Anthem usually had at least 95 percent of their claims adjudicated timely. The exceptions were for HIP Quarter 1 and HCC Quarter 3 when at least 92 percent were adjudicated timely.
  - In Quarters 1 and 2, MDwise had as many as 37 percent of claims not adjudicated timely for some programs. This improved in Quarters 3 and 4 when at least 92 of claims were adjudicated timely for every program.

- For institutional claims submitted by in-network providers electronically (Exhibit VIII.10),
  - MHS usually had 99 percent or more of their claims adjudicated timely.
  - Anthem usually had at least 97 percent of their claims adjudicated timely. The exception was for HIP Quarter 1 when at least 87 percent were adjudicated timely.
  - MDwise had at least 96 percent of claims adjudicated timely in all quarters for HHW and Quarters 3 and 4 for HCC and HIP. In Quarters 1 and 2, there were issues with adjudicating claims mostly in HIP (timely adjudication was 89% and 65%, respectively).

- For institutional claims submitted by out-of-network providers (Exhibits VIII.11 and VIII.12),
  - MHS's timeliness rates were similar to those found among its in-network providers for both paper and electronic submissions.
  - Anthem's timeliness rates in HHW were similar to those found for in-network providers. The timeliness was not as high for out-of-network providers, however, in the HCC and HIP programs as was found for in-network providers. In many quarters, as few as 75 percent of claims were adjudicated timely. This was also true for HCC but only for paper claims.
  - MDwise had issues with timely adjudication of HIP claims for both paper and electronic submissions among out-of-network providers for most of CY 2016. For HCC, this was primarily an issue in Quarter 1 only. There were no timeliness issues in the HHW program.

- For professional claims submitted by in-network providers on paper (Exhibit VIII.13),
  - MHS almost always had at least 99 percent of their claims adjudicated timely.
  - Anthem met a 97 percent timeliness threshold except for HCC Quarter 2.

  - MDwise had between 87 and 98 percent of claims adjudicated timely. The results in Quarters 3 and 4 were much improved from the first two quarters.

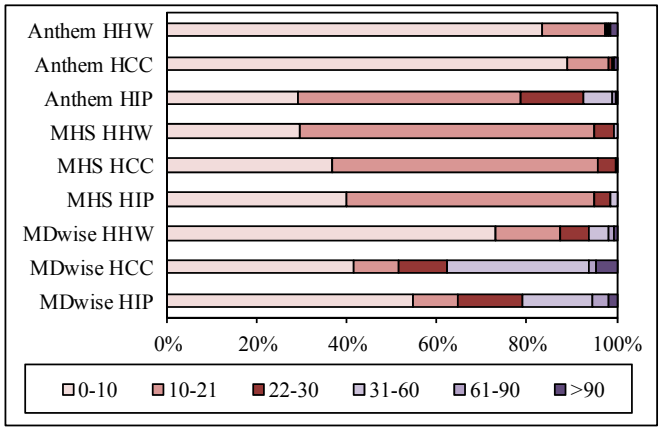
- For professional claims submitted by in-network providers electronically (Exhibit VIII.14),
  - MHS always had at least 99 percent of their claims adjudicated timely.
  - Anthem met a 98 percent timeliness threshold except for HIP Quarter 1.
  - MDwise met a 97 percent timeliness threshold except for HIP Quarter 1.

- For professional claims submitted by out-of-network providers (Exhibits VIII.15 and VIII.16),
  - MHS's timeliness rates were similar to those found among its in-network providers for both paper and electronic submissions.
  - Anthem met a 98 percent timeliness threshold except for HIP Quarter 1 (both paper and electronic claim submissions).
  - MDwise had fewer issues with timely adjudication of out-of-network providers than in-network providers on professional claims. The one exception was for HIP claims in Quarter 1 which was an issue also found among the in-network providers.

Although separate exhibits are not shown for the timely adjudication of dental claims in the HCC and HIP programs, B&A tabulated these results as well. With very few exceptions, every dental claim among all three MCEs was adjudicated in 10 days or less.

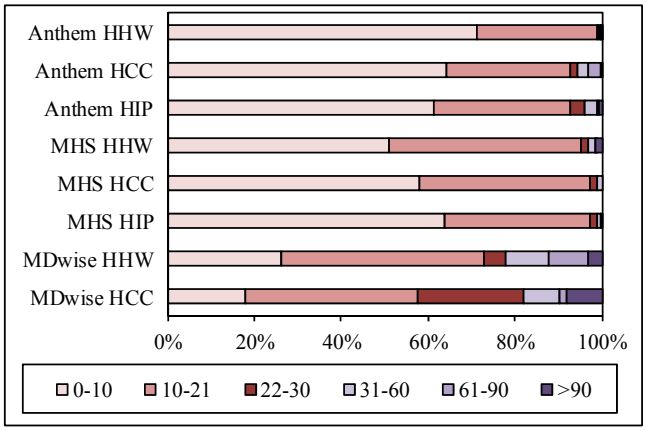
Exhibit VIII.9
Timeliness to Adjudicate Claims, CY16

Q1-UB-04 In-Network, Paper



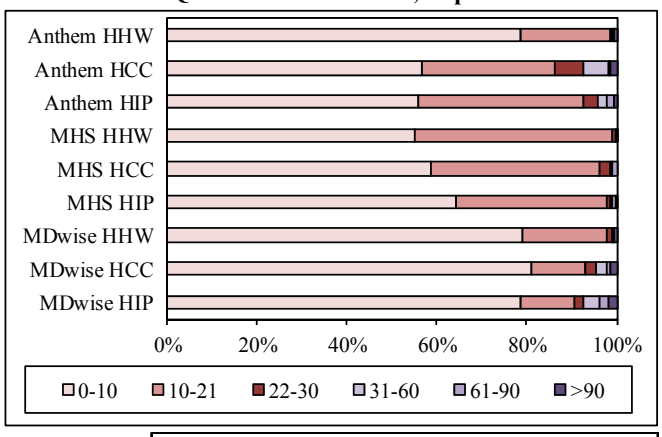
	Q1-UB-04 In Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	3,315	553	24	14	18	55
Anthem HCC	1,499	158	8	7	2	10
Anthem HIP	801	1,366	386	173	17	9
MHS HHW	565	1,242	84	15	0	0
MHS HCC	142	228	15	1	0	0
MHS HIP	626	865	54	24	0	0
MDwise HHW	3,269	642	298	191	49	29
MDwise HCC	556	137	147	426	21	60
MDwise HIP	818	149	209	234	58	24

Q2-UB-04 In-Network, Paper



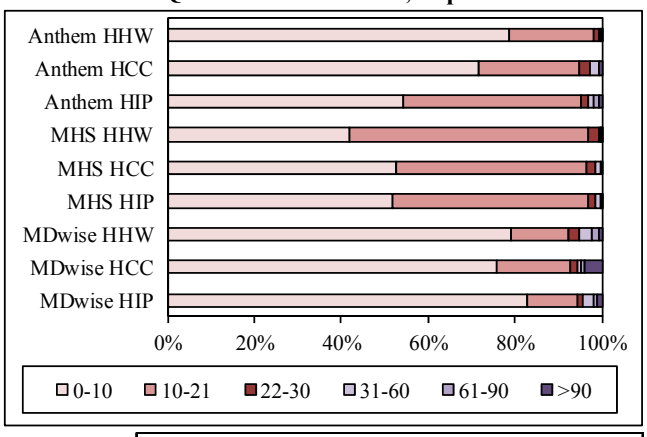
	Q2-UB-04 In Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	2,314	892	16	9	3	7
Anthem HCC	826	364	21	31	37	4
Anthem HIP	1,707	875	87	89	14	12
MHS HHW	1,086	947	42	31	5	28
MHS HCC	272	186	8	4	0	0
MHS HIP	1,310	692	30	22	3	0
MDwise HHW	1,224	2,162	245	444	436	140
MDwise HCC	340	765	474	157	29	157
MDwise HIP	489	679	315	625	186	69

Q3-UB-04 In-Network, Paper



	Q3-UB-04 In Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	2,442	614	22	5	2	19
Anthem HCC	660	344	72	66	4	16
Anthem HIP	1,517	1,000	85	59	45	15
MHS HHW	956	763	11	1	5	0
MHS HCC	222	143	8	2	4	0
MHS HIP	1,031	537	16	4	14	3
MDwise HHW	3,224	753	49	15	9	24
MDwise HCC	1,317	197	38	42	8	25
MDwise HIP	2,140	323	63	98	49	51

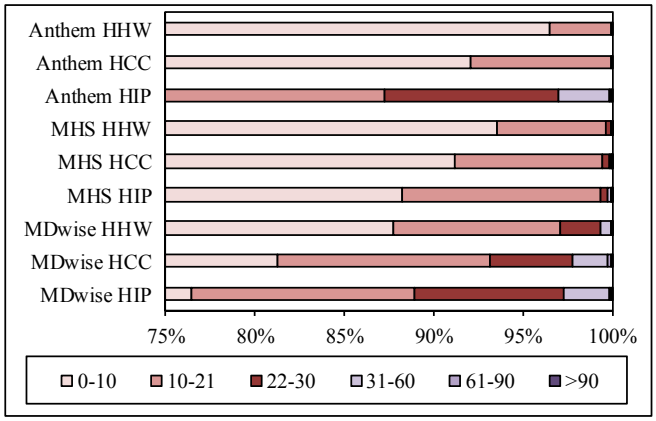
Q4-UB-04 In-Network, Paper



	Q4-UB-04 In Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	2,340	575	35	10	1	6
Anthem HCC	691	223	24	19	0	6
Anthem HIP	1,050	797	36	19	23	16
MHS HHW	651	853	42	6	1	1
MHS HCC	188	155	8	4	0	1
MHS HIP	697	607	26	15	2	1
MDwise HHW	3,127	523	91	115	70	22
MDwise HCC	1,228	272	26	17	9	66
MDwise HIP	2,120	292	32	60	23	29

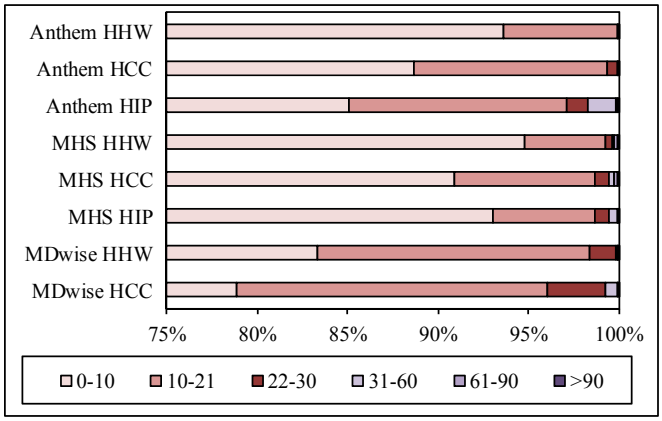
Exhibit VIII.10
Timeliness to Adjudicate Claims, CY16

Q1-UB-04 In-Network, Electronic



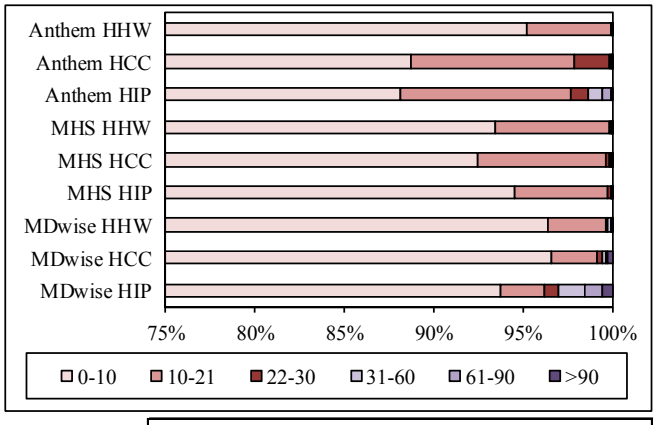
	Q1-UB-04 In Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	74,546	2,676	45	0	0	0
Anthem HCC	42,769	3,640	13	0	0	0
Anthem HIP	54,340	73,498	14,201	4,311	106	41
MHS HHW	63,184	4,119	167	45	4	6
MHS HCC	20,257	1,848	86	23	3	2
MHS HIP	67,777	8,530	330	123	18	19
MDwise HHW	71,661	7,604	1,796	539	13	4
MDwise HCC	29,580	4,328	1,702	716	56	24
MDwise HIP	36,091	5,915	3,919	1,225	19	42

Q2-UB-04 In-Network, Electronic



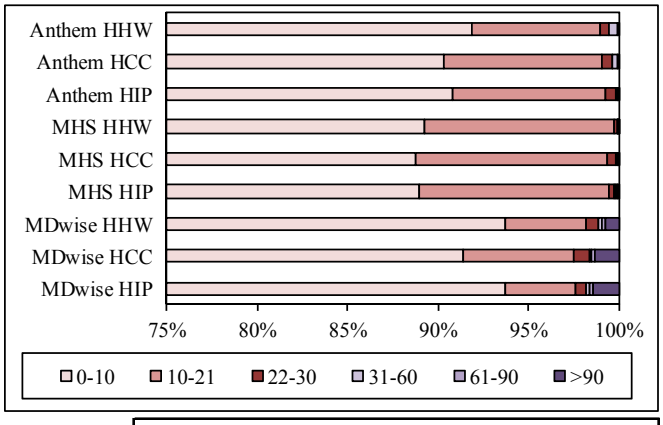
	Q2-UB-04 In Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	67,150	4,527	16	1	0	0
Anthem HCC	40,857	4,953	265	5	0	6
Anthem HIP	134,181	18,894	1,815	2,456	208	79
MHS HHW	60,996	2,837	288	60	97	36
MHS HCC	21,888	1,865	196	68	50	7
MHS HIP	74,487	4,549	646	344	35	20
MDwise HHW	63,287	11,478	1,106	74	5	1
MDwise HCC	32,019	6,977	1,308	269	18	7
MDwise HIP	53,532	18,358	11,509	25,749	1,618	95

Q3-UB-04 In-Network, Electronic



	Q3-UB-04 In Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	69,089	3,397	51	6	1	0
Anthem HCC	43,599	4,466	987	33	11	10
Anthem HIP	149,904	16,182	1,757	1,374	693	164
MHS HHW	57,122	3,875	81	20	2	4
MHS HCC	21,426	1,657	62	18	1	4
MHS HIP	76,029	4,193	160	48	7	7
MDwise HHW	69,623	2,359	94	85	40	25
MDwise HCC	44,917	1,200	112	106	23	132
MDwise HIP	98,909	2,583	834	1,539	982	614

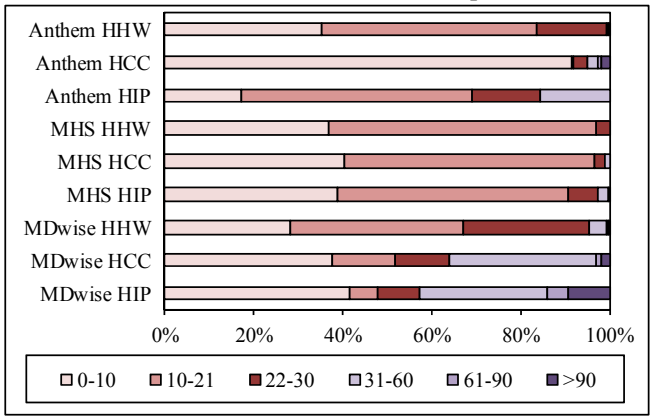
Q4-UB-04 In-Network, Electronic



	Q4-UB-04 In Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	66,880	5,218	319	391	1	0
Anthem HCC	41,836	4,036	279	168	3	0
Anthem HIP	142,762	13,310	893	146	52	86
MHS HHW	54,822	6,407	131	37	3	7
MHS HCC	19,860	2,368	110	18	1	9
MHS HIP	68,919	8,176	198	116	34	54
MDwise HHW	64,056	3,010	460	163	103	520
MDwise HCC	39,869	2,697	390	39	54	592
MDwise HIP	91,193	3,733	608	182	156	1,372

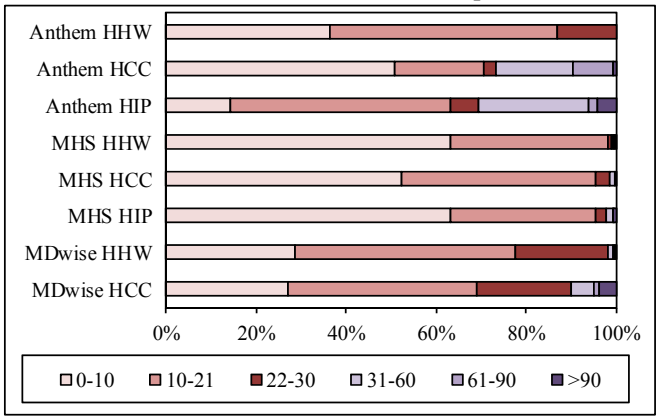
Exhibit VIII.11
Timeliness to Adjudicate Claims, CY16

Q1-UB-04 Out-of-Network, Paper



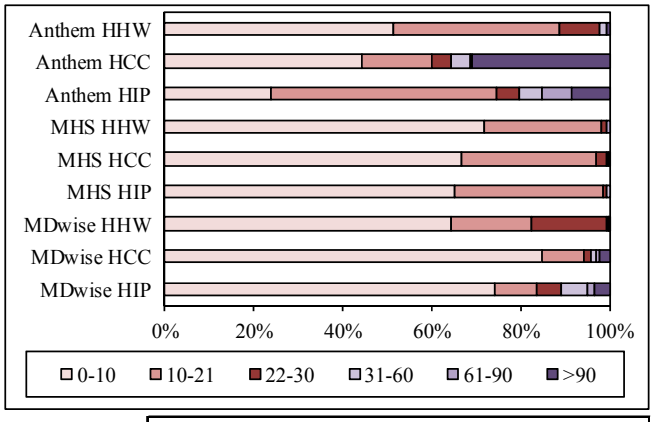
	Q1-UB-04 Out of Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	163	222	74	1	0	1
Anthem HCC	149	1	5	4	1	3
Anthem HIP	9	27	8	8	0	0
MHS HHW	129	210	11	0	0	0
MHS HCC	160	223	10	4	0	0
MHS HIP	173	232	29	11	0	1
MDwise HHW	595	827	598	83	8	7
MDwise HCC	826	317	267	726	23	42
MDwise HIP	266	40	58	184	30	59

Q2-UB-04 Out-of-Network, Paper



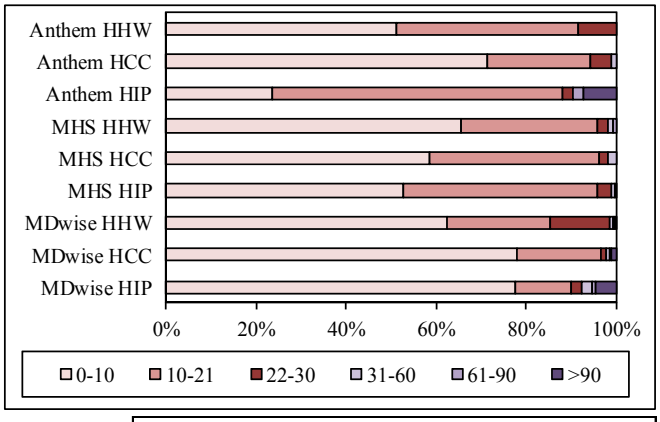
	Q2-UB-04 Out of Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	176	243	63	0	0	0
Anthem HCC	144	57	7	49	25	2
Anthem HIP	7	24	3	12	1	2
MHS HHW	176	97	2	1	1	1
MHS HCC	176	146	11	3	0	1
MHS HIP	264	136	9	6	1	2
MDwise HHW	897	1,536	642	29	16	8
MDwise HCC	779	1,218	607	142	36	103
MDwise HIP	294	533	198	449	133	25

Q3-UB-04 Out-of-Network, Paper



	Q3-UB-04 Out of Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	204	148	35	6	0	3
Anthem HCC	85	30	9	8	1	59
Anthem HIP	14	30	3	3	4	5
MHS HHW	261	96	4	0	2	0
MHS HCC	257	115	10	1	0	1
MHS HIP	416	211	7	3	0	0
MDwise HHW	1,912	542	503	10	2	6
MDwise HCC	2,197	249	37	33	15	60
MDwise HIP	1,178	151	85	92	28	51

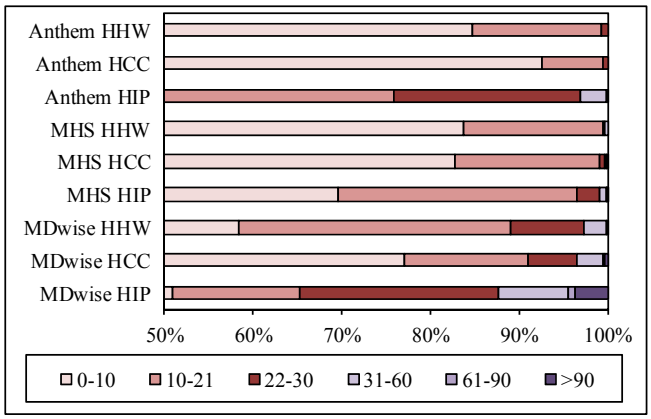
Q4-UB-04 Out-of-Network, Paper



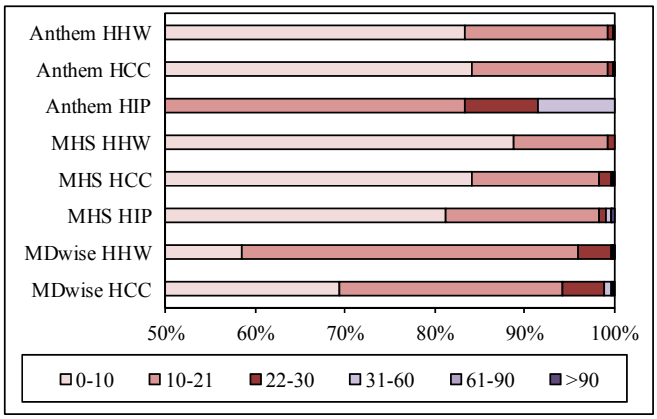
	Q4-UB-04 Out of Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	204	162	33	0	0	0
Anthem HCC	65	21	4	1	0	0
Anthem HIP	10	27	1	0	1	3
MHS HHW	147	68	5	3	1	0
MHS HCC	204	131	7	6	0	0
MHS HIP	293	239	16	4	0	2
MDwise HHW	1,627	597	339	29	5	6
MDwise HCC	1,540	375	23	12	12	16
MDwise HIP	1,251	197	37	43	9	73

Exhibit VIII.12
Timeliness to Adjudicate Claims, CY16

Q1-UB-04 Out-of-Network, Electronic



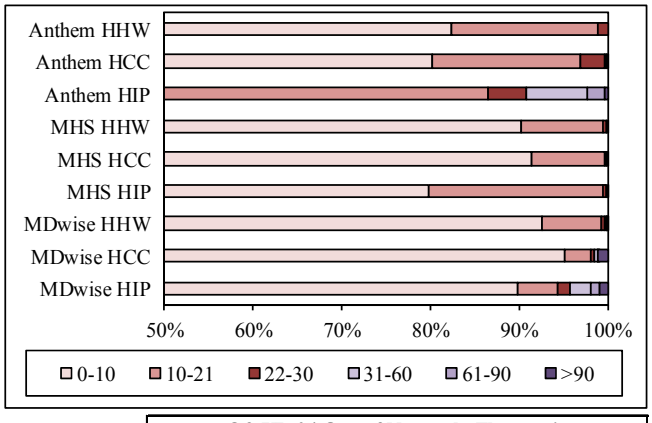
Q2-UB-04 Out-of-Network, Electronic



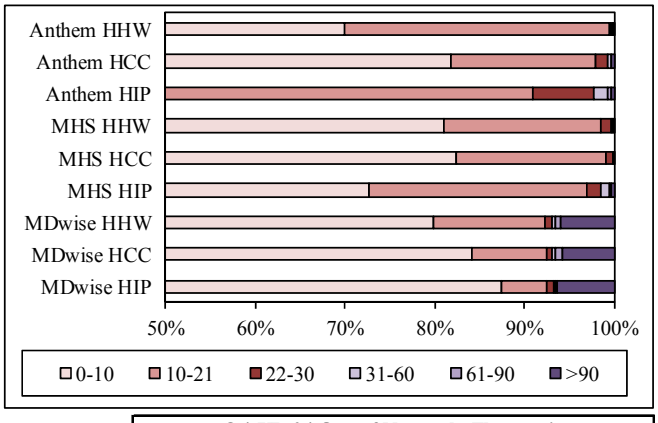
	Q1-UB-04 Out of Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	2,135	369	17	0	0	0
Anthem HCC	1,665	122	10	0	0	0
Anthem HIP	92	470	157	21	1	0
MHS HHW	2,023	379	6	7	0	0
MHS HCC	4,625	907	32	15	0	3
MHS HIP	2,447	950	91	26	3	1
MDwise HHW	1,411	741	203	61	2	0
MDwise HCC	12,557	2,287	881	476	32	63
MDwise HIP	1,254	355	553	194	20	90

	Q2-UB-04 Out of Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	1,152	218	8	2	0	0
Anthem HCC	954	173	5	0	1	1
Anthem HIP	88	99	18	19	0	0
MHS HHW	1,998	236	14	0	0	0
MHS HCC	3,506	588	56	13	0	2
MHS HIP	2,930	616	31	18	3	8
MDwise HHW	2,260	1,450	140	9	2	1
MDwise HCC	10,120	3,625	662	130	14	16
MDwise HIP	3,277	3,989	1,691	4,254	191	24

Q3-UB-04 Out-of-Network, Electronic



Q4-UB-04 Out-of-Network, Electronic

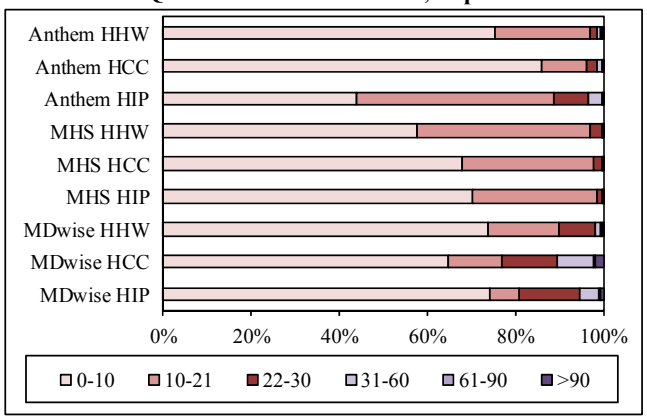


	Q3-UB-04 Out of Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	790	157	11	0	0	0
Anthem HCC	518	108	18	1	1	0
Anthem HIP	113	149	13	21	6	1
MHS HHW	2,352	244	11	0	0	1
MHS HCC	3,172	285	11	2	0	0
MHS HIP	3,132	764	16	6	1	0
MDwise HHW	5,134	374	19	12	1	1
MDwise HCC	8,067	236	33	44	5	84
MDwise HIP	6,966	346	104	190	63	76

	Q4-UB-04 Out of Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	678	285	2	2	0	1
Anthem HCC	418	83	7	2	0	1
Anthem HIP	87	166	19	4	1	1
MHS HHW	1,830	399	24	6	0	1
MHS HCC	2,872	577	28	5	0	0
MHS HIP	2,593	865	54	35	7	10
MDwise HHW	4,691	734	48	22	28	353
MDwise HCC	6,345	636	40	37	51	436
MDwise HIP	6,910	395	66	22	16	492

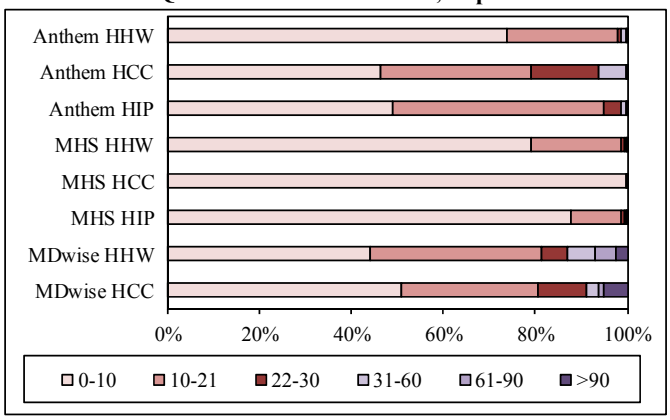
Exhibit VIII.13
Timeliness to Adjudicate Claims, CY16

Q1-CMS-1500 In-Network, Paper



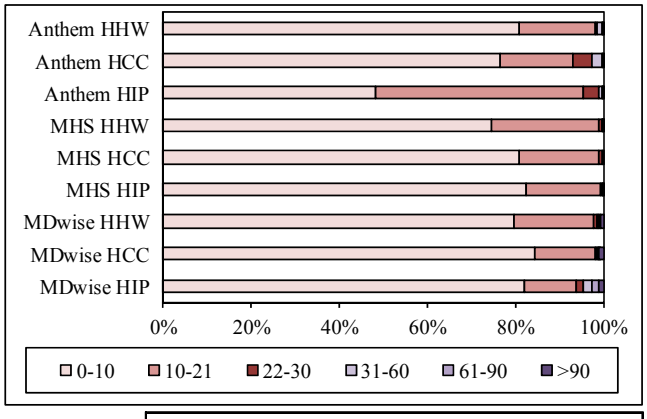
	Q1-CMS-1500 In Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	12,277	3,571	227	113	48	64
Anthem HCC	13,310	1,611	348	217	11	7
Anthem HIP	8,018	8,168	1,425	578	30	32
MHS HHW	6,559	4,498	290	37	1	2
MHS HCC	2,796	1,223	80	8	1	0
MHS HIP	8,889	3,601	155	24	3	0
MDwise HHW	21,067	4,569	2,362	375	55	62
MDwise HCC	7,915	1,484	1,548	1,014	46	213
MDwise HIP	18,381	1,638	3,466	1,039	141	110

Q2-CMS-1500 In-Network, Paper



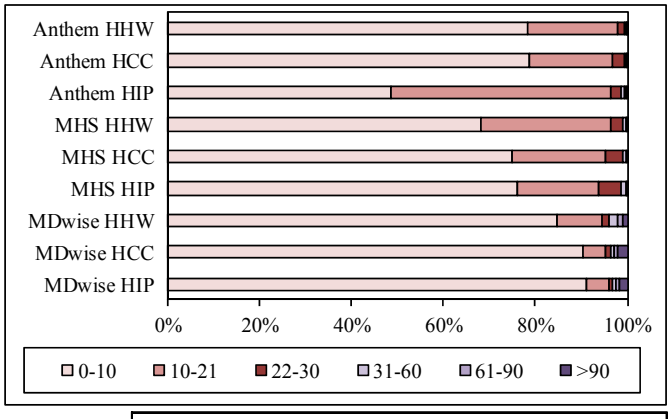
	Q2-CMS-1500 In Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	15,166	5,008	86	272	9	24
Anthem HCC	11,583	8,200	3,644	1,569	1	12
Anthem HIP	11,612	11,010	890	219	35	26
MHS HHW	10,747	2,703	91	52	7	20
MHS HCC	3,938,391	696	61	13	7	1
MHS HIP	12,151	1,514	107	64	1	2
MDwise HHW	14,585	12,389	1,902	1,931	1,472	859
MDwise HCC	7,208	4,238	1,508	350	153	737
MDwise HIP	18,128	7,176	1,456	1,533	692	543

Q3-CMS-1500 In-Network, Paper



	Q3-CMS-1500 In Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	15,041	3,242	93	150	38	34
Anthem HCC	10,979	2,346	609	366	11	13
Anthem HIP	12,933	12,759	967	150	68	23
MHS HHW	9,645	3,185	104	17	4	3
MHS HCC	3,577	808	36	4	0	0
MHS HIP	11,610	2,402	68	10	0	2
MDwise HHW	24,560	5,495	284	142	74	217
MDwise HCC	11,875	1,945	85	26	33	121
MDwise HIP	24,184	3,509	393	579	438	339

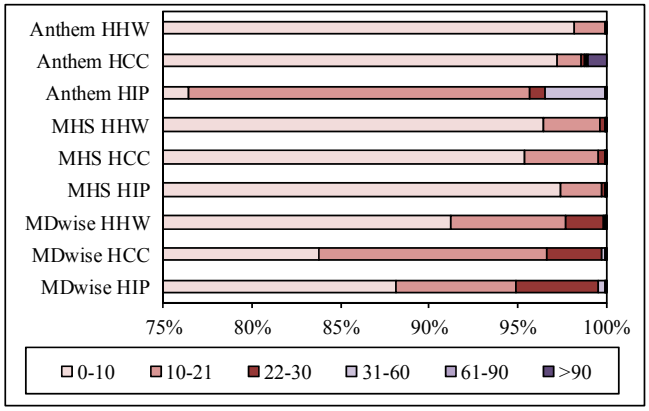
Q4-CMS-1500 In-Network, Paper



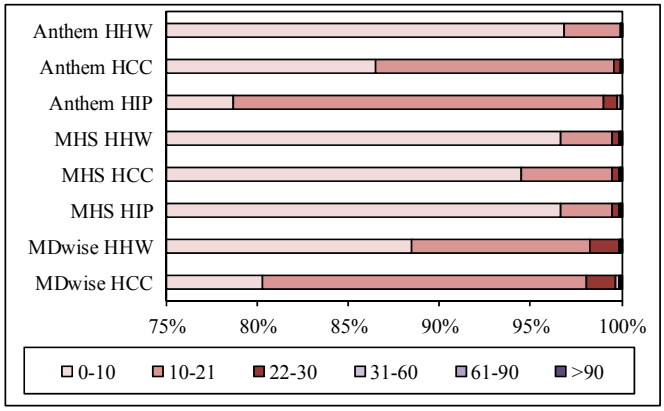
	Q4-CMS-1500 In Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	14,584	3,639	268	59	14	16
Anthem HCC	9,117	2,107	268	63	13	11
Anthem HIP	10,436	10,207	455	195	79	43
MHS HHW	8,118	3,376	296	78	35	3
MHS HCC	3,004	810	150	35	6	0
MHS HIP	10,557	2,418	701	133	45	2
MDwise HHW	24,120	2,858	419	549	312	228
MDwise HCC	10,171	587	93	103	97	217
MDwise HIP	21,667	1,185	213	194	130	426

Exhibit VIII.14
Timeliness to Adjudicate Claims, CY16

Q1-CMS-1500 In-Network, Electronic



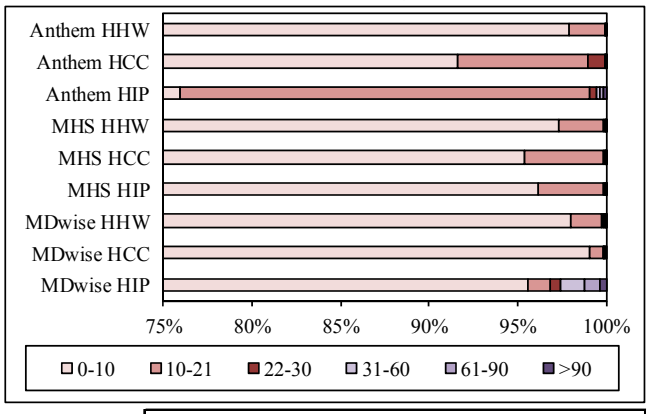
Q2-CMS-1500 In-Network, Electronic



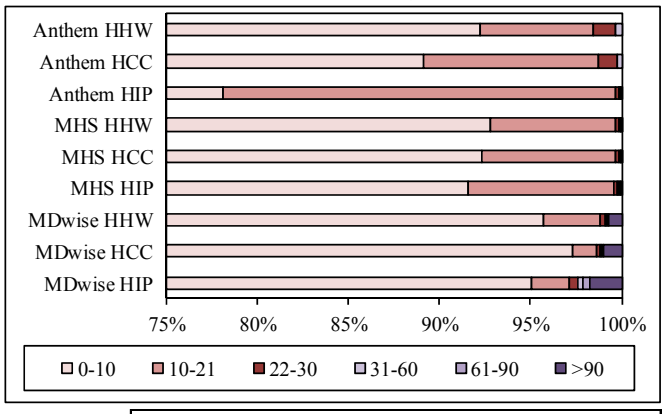
	Q1-CMS-1500 In Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	308,105	5,559	16	3	0	0
Anthem HCC	131,527	1,842	258	99	136	1,357
Anthem HIP	354,029	89,274	4,371	15,515	122	110
MHS HHW	236,983	7,916	593	193	13	3
MHS HCC	61,425	2,699	228	44	4	1
MHS HIP	179,563	4,261	324	133	3	12
MDwise HHW	277,328	19,828	6,367	445	6	13
MDwise HCC	93,075	14,341	3,435	200	22	27
MDwise HIP	224,871	17,188	11,861	911	70	156

	Q2-CMS-1500 In Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	283,765	9,282	28	7	1	0
Anthem HCC	133,071	20,045	695	20	2	5
Anthem HIP	379,289	98,352	3,260	993	214	137
MHS HHW	230,926	6,752	803	243	71	12
MHS HCC	65,218	3,406	251	112	8	6
MHS HIP	184,896	5,324	747	228	28	17
MDwise HHW	276,356	30,676	4,857	503	49	11
MDwise HCC	103,628	23,048	2,026	310	42	83
MDwise HIP	256,940	36,628	2,103	1,921	441	1,136

Q3-CMS-1500 In-Network, Electronic



Q4-CMS-1500 In-Network, Electronic

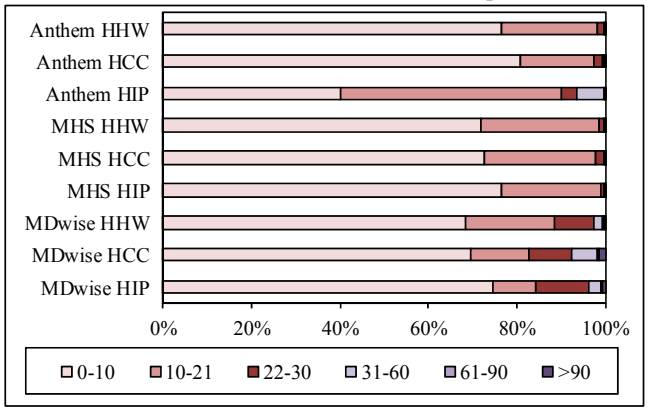


	Q3-CMS-1500 In Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	289,210	6,102	51	12	1	2
Anthem HCC	145,674	11,609	1,522	112	4	1
Anthem HIP	401,694	122,181	2,047	1,025	1,356	627
MHS HHW	219,553	5,800	202	40	2	3
MHS HCC	62,337	2,930	60	21	2	2
MHS HIP	181,098	6,824	273	55	5	6
MDwise HHW	304,986	5,466	385	204	70	155
MDwise HCC	140,818	1,143	36	35	31	112
MDwise HIP	301,310	4,174	1,851	4,207	2,681	1,089

	Q4-CMS-1500 In Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	287,001	19,472	3,904	886	0	0
Anthem HCC	134,525	14,530	1,606	316	0	0
Anthem HIP	425,535	117,702	968	327	367	172
MHS HHW	227,163	16,966	354	329	9	9
MHS HCC	63,549	5,110	106	85	3	6
MHS HIP	179,939	15,587	363	352	77	123
MDwise HHW	312,783	10,256	824	351	353	2,259
MDwise HCC	131,527	1,842	258	99	136	1,357
MDwise HIP	300,540	6,661	1,527	869	1,052	5,593

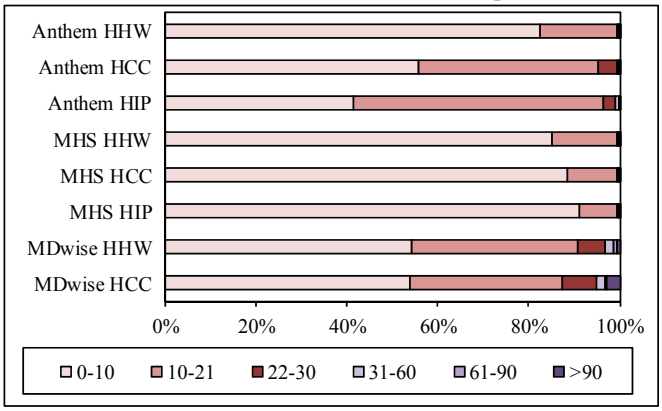
Exhibit VIII.15
Timeliness to Adjudicate Claims, CY16

Q1-CMS-1500 Out-of-Network, Paper



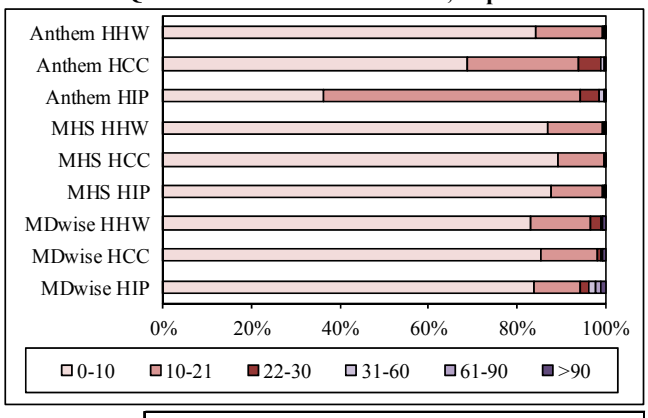
	Q1-CMS-1500 Out of Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	5,931	1,703	101	9	6	5
Anthem HCC	3,643	749	88	13	5	1
Anthem HIP	4,338	5,364	395	660	17	4
MHS HHW	5,236	1,935	96	11	1	0
MHS HCC	2,887	993	77	5	1	0
MHS HIP	7,402	2,174	83	7	0	1
MDwise HHW	15,613	4,583	2,033	430	58	54
MDwise HCC	10,154	1,899	1,409	833	64	194
MDwise HIP	12,835	1,662	2,024	480	73	88

Q2-CMS-1500 Out-of-Network, Paper



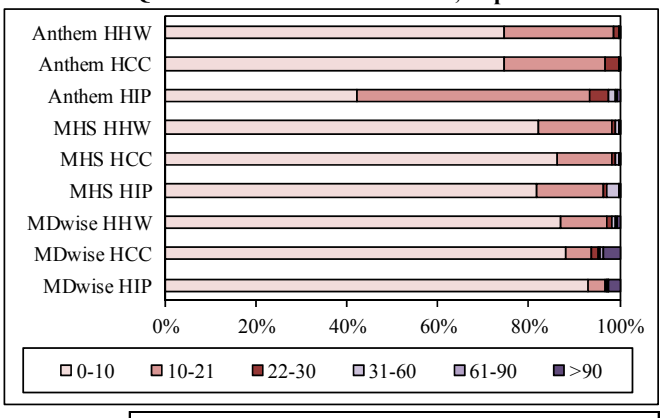
	Q2-CMS-1500 Out of Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	7,815	1,604	29	5	1	7
Anthem HCC	2,696	1,922	206	17	2	5
Anthem HIP	4,627	6,115	308	83	9	6
MHS HHW	6,850	1,142	42	5	2	5
MHS HCC	4,046	497	23	2	0	3
MHS HIP	11,000	1,006	69	10	4	0
MDwise HHW	11,458	7,721	1,354	351	177	112
MDwise HCC	8,265	5,099	1,177	279	80	413
MDwise HIP	10,700	7,439	700	730	213	130

Q3-CMS-1500 Out-of-Network, Paper



	Q3-CMS-1500 Out of Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	4,806	871	16	14	1	1
Anthem HCC	2,850	1,037	205	36	5	0
Anthem HIP	2,600	4,191	301	77	12	12
MHS HHW	6,462	938	38	2	0	1
MHS HCC	5,628	652	22	2	0	0
MHS HIP	10,824	1,460	61	7	2	1
MDwise HHW	15,318	2,513	425	70	16	79
MDwise HCC	9,174	1,397	78	27	5	60
MDwise HIP	15,938	1,976	362	331	219	157

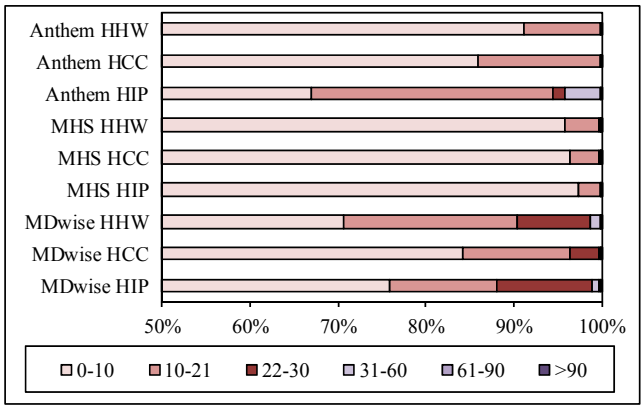
Q4-CMS-1500 Out-of-Network, Paper



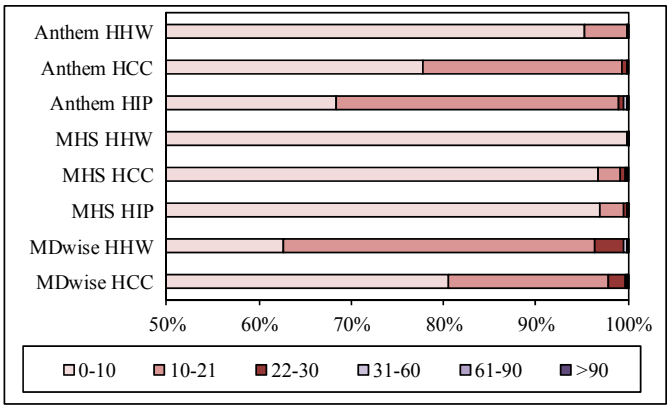
	Q4-CMS-1500 Out of Network, Paper					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	4,678	1,521	65	7	1	0
Anthem HCC	2,313	699	87	6	0	2
Anthem HIP	2,439	2,953	243	90	19	27
MHS HHW	5,019	1,002	53	45	1	1
MHS HCC	4,027	560	25	42	4	2
MHS HIP	8,739	1,562	60	303	2	4
MDwise HHW	16,062	1,866	252	122	75	94
MDwise HCC	7,923	499	132	45	52	335
MDwise HIP	16,448	649	60	58	48	426

Exhibit VIII.16
Timeliness to Adjudicate Claims, CY16

Q1-CMS-1500 Out-of-Network, Electronic



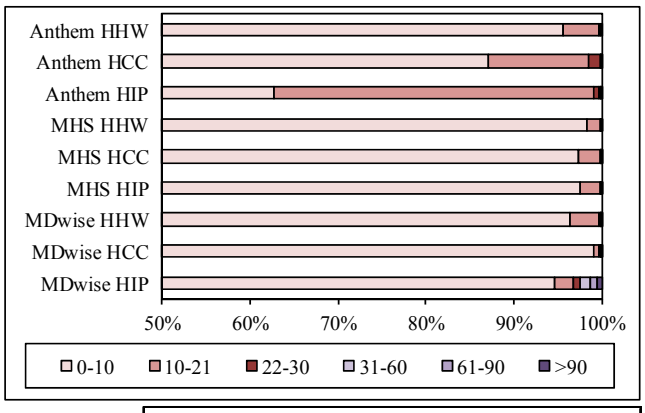
Q2-CMS-1500 Out-of-Network, Electronic



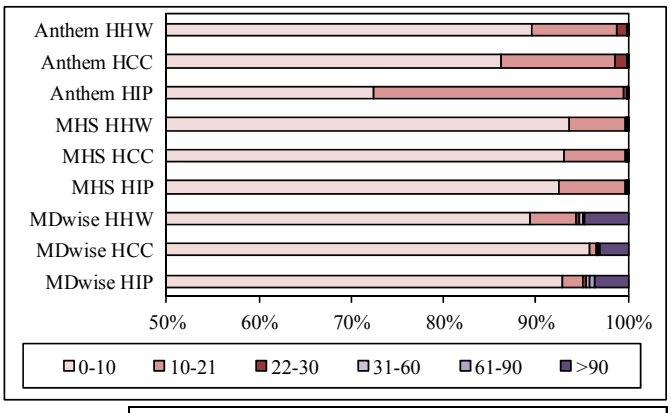
	Q1-CMS-1500 Out of Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	22,748	2,178	28	1	0	0
Anthem HCC	13,956	2,253	19	7	1	0
Anthem HIP	23,387	9,523	511	1,417	13	16
MHS HHW	57,667	2,365	95	47	3	3
MHS HCC	26,322	901	46	22	1	1
MHS HIP	74,212	1,873	73	59	5	0
MDwise HHW	43,485	12,181	5,103	722	7	5
MDwise HCC	76,040	10,888	3,040	211	25	19
MDwise HIP	47,964	7,777	6,792	455	126	117

	Q2-CMS-1500 Out of Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	19,874	953	31	4	0	0
Anthem HCC	12,817	3,541	101	6	0	0
Anthem HIP	22,601	10,061	232	96	14	13
MHS HHW	51,793,792	1,545	480	178	3	3
MHS HCC	24,187	586	114	91	0	1
MHS HIP	71,044	1,839	265	46	11	12
MDwise HHW	39,289	21,269	1,985	206	23	10
MDwise HCC	65,006	13,993	1,425	171	14	30
MDwise HIP	48,910	25,753	665	596	162	84

Q3-CMS-1500 Out-of-Network, Electronic



Q4-CMS-1500 Out-of-Network, Electronic



	Q3-CMS-1500 Out of Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	23,519	1,018	60	3	0	0
Anthem HCC	15,809	2,093	230	17	0	1
Anthem HIP	28,522	16,482	286	89	20	17
MHS HHW	50,172	758	44	10	7	0
MHS HCC	21,958	554	29	7	3	2
MHS HIP	69,147	1,586	82	15	6	11
MDwise HHW	54,018	1,781	92	50	18	38
MDwise HCC	55,150	388	25	27	14	60
MDwise HIP	63,528	1,404	517	871	509	286

	Q4-CMS-1500 Out of Network, Electronic					
	0-10	**10-21**	**22-30**	**31-60**	**61-90**	**>90**
Anthem HHW	22,545	2,335	257	35	4	3
Anthem HCC	14,189	2,011	217	18	1	1
Anthem HIP	31,047	11,586	131	41	26	9
MHS HHW	52,233	3,430	72	43	1	1
MHS HCC	20,866	1,500	29	21	2	3
MHS HIP	63,220	4,903	90	44	13	48
MDwise HHW	52,198	2,916	148	199	161	2,736
MDwise HCC	52,462	404	42	80	108	1,660
MDwise HIP	61,618	1,507	237	235	331	2,389

Validation of Claims Processing Reports

In the previous section, B&A showed the findings of the adjudication timeliness data as self-reported by the MCEs to the OMPP. This pertains to the transmission of information between the MCE and its providers. What is also important to the OMPP is the tabulation of encounters submitted by the MCEs to the OMPP representing the claims paid or denied by the MCE to its providers.

As mentioned previously, the MCEs each submit a weekly encounter file to DXC, the OMPP's fiscal agent. Upon receipt of the MCE encounter file, DXC performs tests on the integrity of the encounters submitted by the MCE. If an individual encounter does not pass all of the DXC validation edits, the encounter is rejected by DXC and sent back to the MCE with codes indicating the reason for the rejection. The MCEs are required to "work" the encounter until it is accepted by DXC.

All encounters that are submitted to DXC are captured in the OMPP EDW which is managed by Optum. In the EDW, there are both paid and denied datasets. The "denied" encounters, as defined in the data warehouse table, actually include two types of encounters—one set is claims denied by the MCEs and the second set is claims paid by the MCE but rejected by DXC because they did not pass all required encounter edits.

B&A received extracts from Optum in June 2017 containing all encounters received to date from the MCEs for services rendered in CY 2016 for HHW, HCC and HIP for three claim types (institutional, professional and dental). This included both paid and denied encounters. B&A distinguished the denied encounter file we received between those encounters denied by the MCE and those paid by the MCE. The reason for this distinction is because the claims adjudication report submitted by the MCEs to the OMPP is counting claims as paid by the MCE, not the count of the paid MCE encounters submitted. The OMPP report also distinguishes counts of claims paid and claims denied by the MCE.

B&A's validation exercise, therefore, was to tabulate the encounters from the data warehouse and compare these to the counts of paid and denied claims reported by each MCE for each program in CY 2016. B&A ran the comparison count of claims for each quarter separately and then rolled up the totals for all of CY 2016. The validation study was limited to institutional and professional claims including claims submitted both by paper and electronically. Dental claims were excluded. Further, the analysis of denied claims was limited to the HHW and HCC programs since denied encounters for HIP were not made available to B&A.

There are three items of note related to this validation. First, B&A observed what appeared to be duplicate encounters in the data warehouse. For example, there were two encounters with different ID numbers (called ICNs) assigned by DXC but both encounters represented the same Medicaid recipient, the same billing provider NPI and the same begin date of service. B&A used logic to take out duplicates.

Second, there were some records observed for encounters that appeared to be an original claim with a second encounter as a reversal of the same claim. The reversals were removed from the validation as well in an effort to best represent the number of claims in the MCE's internal database.

Lastly, the initial findings of the validation were shared with each MCE in an effort to determine ways to improve the match rate between the report totals and the encounters submitted. B&A made adjustments to exclude some transportation encounters from our totals from the data warehouse based on information provided to us by each MCE.

- Anthem includes transportation claims within its report to the OMPP for the CMS-1500 category only. B&A, therefore, excluded from the encounters it had the counts of any transportation encounters submitted on a UB-04.

- MDwise and MHS both exclude all transportation claims on its submissions to the OMPP, so B&A removed these from the counts of encounters it had from the data warehouse as well.

Findings

Exhibit VIII.17 on the next page summarizes the validation between what the MCEs reported for clean claim adjudication volume and the total encounters submitted by the MCEs to the OMPP data warehouse for the same time period. The top portion of the exhibit reports on results within HHW, the middle portion reports on HCC, and the lower portion reports on HIP. The columns going across separately report on Anthem, MDwise and MHS totals. Within each MCE and program, the totals are also broken down between institutional claims and professional claims.

B&A recognizes that there will be some variation in the MCE claim counts and B&A's encounter counts due to the timing of adjudication. That is, the MCE used the date that the claim was adjudicated and B&A used the date that the claim was billed to the MCE in its tabulations. Much of this difference in timing is mitigated by rolling the totals up to the annual level as opposed to the quarterly level.

B&A findings on the validation are summarized below.

- B&A saw significant differences between the totals on the reports submitted by the MCEs and the data received by B&A from the data warehouse files for claims marked as paid and claims marked as denied. If the totals of the two categories are summed, however, B&A closely matches the totals for institutional claims for both Anthem and MHS. There remain significant differences in the total counts between B&A and MDwise.

- The reason for the large differences in denied claims may be due to how the denied claims are stored in the OMPP data warehouse. B&A intentionally reassigned claims paid by the MCE but rejected as encounters by DXC to the Paid Claims category using the claim status field on the encounter. Despite this, there may be some paid claims that are stored as denied encounters in the data warehouse that did not have a claim status of paid and, thus, remained in the Denied Claims category.

- It is interesting to note that even though B&A more closely matches the MCEs when summing the paid and denied claims together, B&A has more encounters than claims from Anthem and MDwise in most instances and fewer encounters than claims from MHS.

- B&A matches to the MCE reporting of paid professional claims within five percent for each MCE/program with the exception of MDwise in HCC. The variation in the counts of denied professional claims between the MCEs and B&A is significant. As a result, if the paid and denied claims are added together for comparison, the differences between the MCEs and B&A are even greater. This is different than what was found for the institutional claims.

Exhibit VIII.17
Validation of Results Reported by MCEs to the OMPP
Quarterly Report QR-S1: Totals for Clean Claims Adjudicated, Sum of All Four Quarters in Calendar Year 2016

		Anthem - HHW				MDwise - HHW				MHS - HHW			
		MCE	B&A	Diff	Pct Diff	MCE	B&A	Diff	Pct Diff	MCE	B&A	Diff	Pct Diff
Paid Claims	Inst	301,091	273,460	27,631	**10.1%**	326,050	404,463	-78,413	**-19.4%**	250,144	254,611	-4,467	**-1.8%**
Denied Claims	Inst	14,079	42,921	-28,842	**-67.2%**	17,728	50,116	-32,388	**-64.6%**	17,913	11,902	6,011	**50.5%**
Paid + Denied	Inst	315,170	316,381	-1,211	**-0.4%**	343,778	454,579	-110,801	**-24.4%**	268,057	266,513	1,544	**0.6%**
Paid Claims	Prof	1,363,256	1,417,771	-54,515	**-3.8%**	1,585,396	1,653,829	-68,433	**-4.1%**	1,172,297	1,142,963	29,334	**2.6%**
Denied Claims	Prof	48,987	197,982	-148,995	**-75.3%**	109,497	214,310	-104,813	**-48.9%**	108,131	67,027	41,104	**61.3%**
Paid + Denied	Prof	1,412,243	1,615,753	-203,510	**-12.6%**	1,694,893	1,868,139	-173,246	**-9.3%**	1,280,428	1,209,990	70,438	**5.8%**

		Anthem - HCC				MDwise - HCC				MHS - HCC			
		MCE	B&A	Diff	Pct Diff	MCE	B&A	Diff	Pct Diff	MCE	B&A	Diff	Pct Diff
Paid Claims	Inst	193,308	174,593	18,715	**10.7%**	217,586	250,404	-32,818	**-13.1%**	99,799	102,858	-3,059	**-3.0%**
Denied Claims	Inst	4,538	24,888	-20,350	**-81.8%**	12,595	13,772	-1,177	**-8.5%**	8,963	6,263	2,700	**43.1%**
Paid + Denied	Inst	197,846	199,481	-1,635	**-0.8%**	230,181	264,176	-33,995	**-12.9%**	108,762	109,121	-359	**-0.3%**
Paid Claims	Prof	760,683	729,183	31,500	**4.3%**	857,279	801,396	55,883	**7.0%**	357,356	340,909	16,447	**4.8%**
Denied Claims	Prof	24,708	108,026	-83,318	**-77.1%**	42,994	52,899	-9,905	**-18.7%**	40,097	26,839	13,258	**49.4%**
Paid + Denied	Prof	785,391	837,209	-51,818	**-6.2%**	900,273	854,295	45,978	**5.4%**	397,453	367,748	29,705	**8.1%**

		Anthem - HIP				MDwise - HIP				MHS - HIP			
		MCE	B&A	Diff	Pct Diff	MCE	B&A	Diff	Pct Diff	MCE	B&A	Diff	Pct Diff
Paid Claims	Inst	629,867	659,942	-30,075	**-4.6%**	365,281	546,350	-181,069	**-33.1%**	298,686	294,626	4,060	**1.4%**
Denied Claims	Inst	13,532	**			41,633	**			30,811	**		
Paid Claims	Prof	2,276,330	2,221,949	54,381	**2.4%**	1,445,812	1,584,884	-139,072	**-8.8%**	1,017,855	969,640	48,215	**5.0%**
Denied Claims	Prof	30,264	**			194,107	**			117,911	**		

** Denied HIP claims were not provided to B&A as part of the EQR, so no validation was completed.

Validation of MCE Claims Pricing

Methodology

B&A created a sample of 840 claims from the data files delivered by Optum for the EQR to test the pricing of each claim by the MCE against what the MCE stated its contracted payment was for the provider. All claims in the sample had a date of service in October 2016. The sample of 840 was divided equally by MCE (280 each for Anthem, MDwise and MHS). Within each of the 280 claims, the sample was further divided into 100 for HHW, 100 for HCC, and 80 for HIP. The HHW and HCC had 20 more claims each because the sample was divided between 80 paid claims and 20 denied claims. Since B&A did not receive denied HIP claims, only 80 paid claims were sampled.

Across each MCE/program/claim status, the claims were further sampled across 11 provider categories. The categories included: clinic, dentist, DME, home health, inpatient hospital, outpatient hospital, laboratory, mental health provider, optometrist, physician, and transportation provider.

Once the sample was drawn, the listing of all claims selected for the study was sent to each MCE. A summary report was provided that showed the unique list of providers represented in the study by program. The MCEs were asked to report the contracted payment rate for each provider in the sample (e.g., 100% of the OMPP fee-for-service rate, the Medicare rate (for HIP), or a unique contracted rate).

B&A received the fee-for-service fee schedules from OMPP for the period in effect in October 2016 to match the time period when the claims were paid by the MCE for HHW and HCC. B&A downloaded from the CMS website the fee schedules in place during October 2016 to match against HIP claims. B&A factored in the appropriate fee schedule depending upon the program that the claim was paid under (Medicaid schedule for HHW and HCC, Medicare schedule for HIP).

B&A considered the information submitted by the MCE for the provider's contracted rate when validating the priced amount.

Example: OMPP Fee Schedule Rate for the CPT = $100.00; MCE Paid Amount = $102.00
MCE indicated that the provider was paid 102% of the FFS rate.
In this case, this is considered a match.

B&A also factored in pricing utilized with the presence of certain modifiers such as a discount off of the published fee schedule rate for mid-level providers. In the case of outpatient hospital claims, B&A considered pricing logic related to the packaging or consolidation of ancillary services within a primary service. In some cases, there was also third party liability (TPL) coverage or a co-payment involved in the MCE's pricing. This information was made available to B&A and it was also considered in the validation process.

All professional service claims and outpatient hospital claims are priced at the detail line level. For inpatient hospital claims, since the OMPP pays for these services using the 3M APR-DRG grouper, the inpatient claims are paid at the header level. The results presented in the findings represent the count of detail lines that were a part of the claims in the sample. The exception to this is for inpatient claims. Each inpatient claim is counted as one detail line in the count of all details examined.

B&A assessed if we could match the MCE priced amount or not for each detail line in the study. When assigning a status of match, B&A allowed for a tolerance level of +/- two percent from the amount paid by the MCE and still considered the comparison as a match.

When detail lines did not match, B&A also assessed how far off the non-match was. This was computed for each provider specialty separately as well as the total across all provider specialties reviewed.

Findings

Exhibit VIII.18, which appears on the next page, summarizes the results of B&A's validation to the MCE's pricing of this sample of claims. B&A excluded some entire claims that were determined to be duplicates and some claims or detail lines in which the rate on file from OMPP or Medicare was equal to $0. After removing these exclusions, the final sample of claims reviewed was 801 (Anthem- 268, MDwise- 267, MHS- 266). This represented 1,422 unique pricing lines reviewed (Anthem- 516, MDwise- 458, MHS- 448).

All of the denied claims in the sample were confirmed to in fact be denied with a paid amount equal to $0. B&A's findings on the validation among the detail lines on paid claims are summarized below.

	HHW	HCC	HIP	All MCE Details
Match MCE Pricing				
Anthem	94%	94%	77%	88%
MDwise	99%	99%	83%	94%
MHS	96%	98%	90%	95%
Not Match MCE Pricing				
Anthem	6%	4%	22%	11%
MDwise	1%	1%	15%	6%
MHS	2%	2%	9%	4%
Unable to Match – Missing Information from MCE (e.g. contracted rate to provider) or Medicare				
Anthem	0%	2%	1%	1%
MDwise	0%	0%	1%	0%
MHS	2%	1%	1%	1%

As can be seen in the table above, the claim details that did not match were concentrated in the HIP program. In particular,

- For Anthem, most of the HIP non-matches were related to optometrist, physician, mental health providers and transportation providers.
- For MDwise, half of the HIP non-matches were related to mental health providers and most others were among the physician provider type.
- For MHS, the HIP non-matches were spread across mental health providers, outpatient hospital and durable medical equipment providers.

There were 99 detail lines that could ultimately not be matched. Among these, 53 percent of the details the MCE paid more than five percent above the computed rate. For 39 percent, the MCE paid five percent below the computed rate or lower. For the remaining eight percent, the MCE was within five percent.

Exhibit VIII.18
Validation of MCE Claims Pricing from Sample Drawn for EQR Study
All Provider Categories Combined

	Anthem				MDwise				MHS				All 3 MCEs Combined			
	HHW	**HCC**	**HIP**	**Total**	**HHW**	**HCC**	**HIP**	**Total**	**HHW**	**HCC**	**HIP**	**Total**	**HHW**	**HCC**	**HIP**	**Total**
Total Claims in Sample	**97**	**101**	**70**	**268**	**97**	**98**	**72**	**267**	**96**	**101**	**69**	**266**	**290**	**300**	**211**	**801**
Percent of Total	36%	38%	26%	100%	36%	37%	27%	100%	36%	38%	26%	100%	36%	37%	26%	100%
Denied Claims Reviewed	25	24	0	49	22	22	0	44	24	24	0	48	71	70	0	141
Confirmed No Payment	25	25	0	50	19	22	0	41	24	24	0	48	68	71	0	139
Paid Claims Reviewed	**72**	**77**	**70**	**219**	**75**	**76**	**72**	**223**	**72**	**77**	**69**	**218**	**219**	**230**	**211**	**660**
Paid as Pct of Total	74%	76%	100%	82%	77%	78%	100%	84%	75%	76%	100%	82%	76%	77%	100%	82%
At the Claim Detail Level:																
Paid Details Reviewed	148	194	174	516	135	173	150	458	130	185	133	448	413	552	457	1422
Full Match	**139**	**182**	**134**	**455**	**133**	**171**	**125**	**429**	**125**	**181**	**120**	**426**	**397**	**534**	**379**	**1310**
Pct of Paid Details Reviewed	94%	94%	77%	88%	99%	99%	83%	94%	96%	98%	90%	95%	96%	97%	83%	92%
No Match	**9**	**8**	**38**	**55**	**2**	**2**	**23**	**27**	**2**	**3**	**12**	**17**	**13**	**13**	**73**	**99**
Pct of Paid Details Reviewed	6%	4%	22%	11%	1%	1%	15%	6%	2%	2%	9%	4%	3%	2%	16%	7%
Unable to Match	**0**	**4**	**2**	**6**	**0**	**0**	**2**	**2**	**3**	**1**	**1**	**5**	**3**	**5**	**5**	**13**
Pct of Paid Details Reviewed	0%	2%	1%	1%	0%	0%	1%	0%	2%	1%	1%	1%	1%	1%	1%	1%
When No Match, Degree to No Match:																
No Match Details Reviewed	**9**	**8**	**38**	**55**	**2**	**2**	**23**	**27**	**2**	**3**	**12**	**17**	**13**	**13**	**73**	**99**
The MCE Paid Amount was:																
Within +/- 5% of Allowed Amt.	1	1	3	5	0	0	1	1	1	0	1	2	2	1	5	8
More than 5% Below Allowed	0	2	17	19	0	2	8	10	0	1	9	10	0	5	34	39
More than 5% Above Allowed	8	5	18	31	2	0	14	16	1	2	2	5	11	7	34	52

Recommendations to the MCEs and to the OMPP

Recommendations Specific to the MCEs

1. MDwise should conduct an audit of both CMCS and Evolent, its two claims processors for acute care claims, to ensure that both vendors have loaded and are correctly applying the NCCI MUEs. It was found that CMCS was applying the NCCI PTP edits, but MDwise should also ensure that Evolent is applying the NCCI PTP edits as well.

2. MDwise reported that it was not tracking the rate of claims rejected from acceptance into DXC's system as encounters whereas both Anthem and MHS do track this. B&A recommends that MDwise start to track this statistic.

3. Anthem and MHS reported, at minimum, a monthly oversight meeting with its claims processing vendors and MDwise indicated this for its vendor Evolent as well. The oversight by MDwise of CMCS, however, was annual. MDwise should consider more frequent oversight meetings of CMCS.

4. MHS should ensure that it has loaded the NCCI MUEs for the category of DME as it has done for outpatient hospital and physician services since the results reported to B&A on the DME edits by MHS was "N/A".

5. Anthem should ensure that it is properly applying the HAF adjustment to hospital claims. The results from the pricing study found these claims to be different from what was expected. It may be that adjustments were made for the HAF payment but these were not reflected in the encounters in the OMPP data warehouse. If so, Anthem should resubmit encounters when adjustments are made.

Recommendations to the OMPP

1. In an effort to assist the MCEs in resolving encounters that are getting rejected by DXC, the OMPP is encouraged to work with DXC and the MCEs to assign more specific rejection reason codes so that the MCEs can resolve encounter rejections the first time received rather than submitting multiple attempts that get rejected.

2. Based on the finding in this study as to the difference between the number of claims adjudicated as reported by the MCEs and the number of encounter records stored in the OMPP data warehouse, B&A suggests modifications to the OMPP Report QR-S1 (Claims Processing Summary). The current version of the report tracks clean claims received and clean claims adjudicated, but it does not close the loop on the number of claims that ultimately reach the OMPP as encounters. B&A recommends adding a section in which the MCE report the number of clean claims adjudicated and submitted as encounters to OMPP. Under this category, the MCEs can report the number that were accepted and the number that were rejected by DXC each quarter.

3. With new information on encounter statistics reported by the MCEs, the OMPP should utilize the QR-S1 (or some other report) to track the rate of encounters submitted as a percent of claims adjudicated for each MCE/program as well as the encounter acceptance rate for each MCE/program.

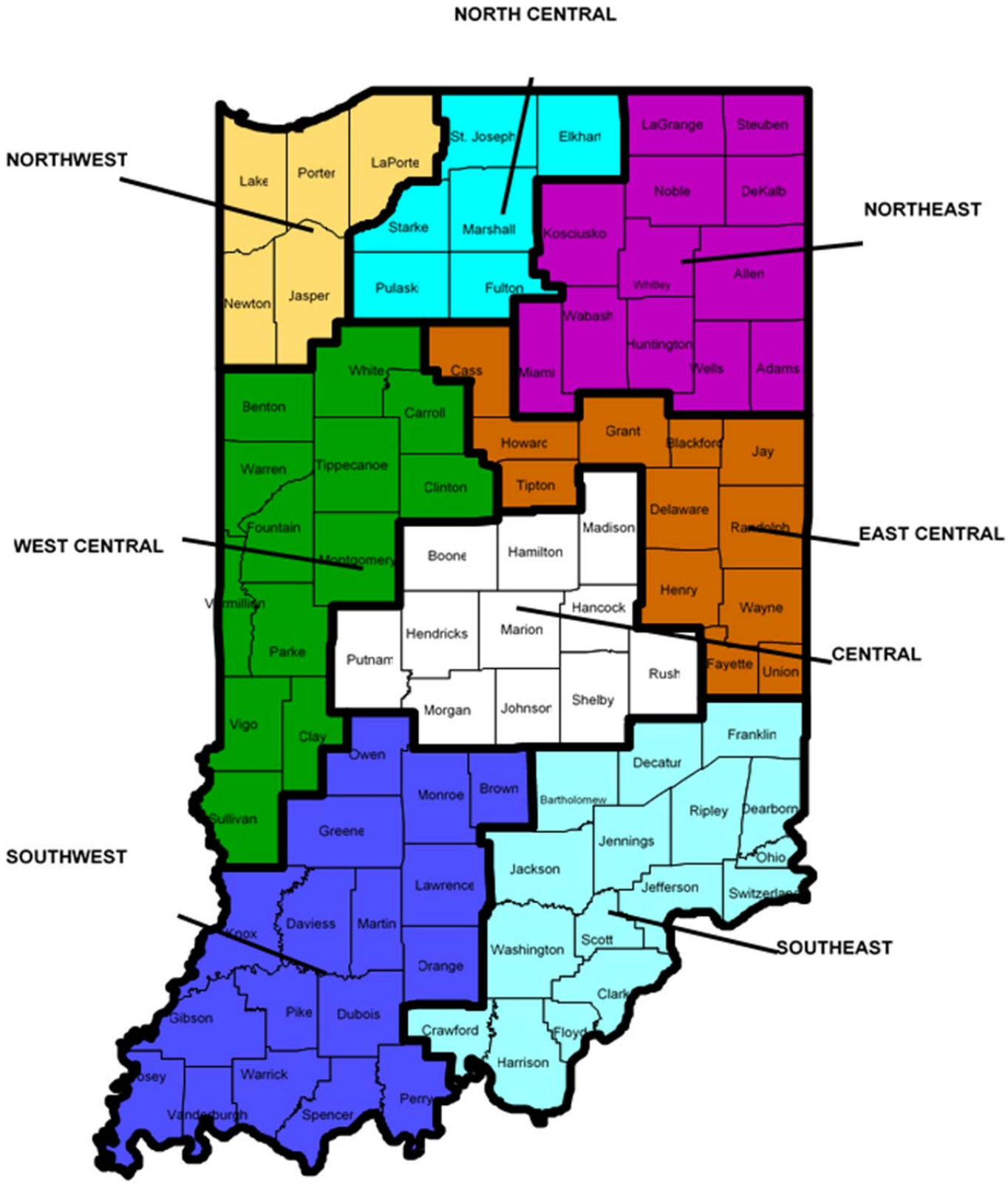
4. The OMPP already requires the MCEs to submit additional information in any quarter when the MCE's denial rate exceeds 15 percent in one of the programs. Similarly, the OMPP may want to consider requiring additional information when an MCE goes below a trigger rate of claims paid on time, for example, 95 percent of electronic claims or 90 percent of paper claims.

5. Related to the specific recommendation to MDwise, the OMPP should require verification from MDwise related to its claims processors' application of NCCI PTP edits and MUEs.

6. With respect to Explanation of Payment (EOP) edits, the OMPP provides the MCEs with flexibility to have multiple claims processors adjudicate claims. This fact, however, should be irrelevant to the MCE's providers to the greatest extent possible. In an effort to reduce the administrative burden of providers maintaining and tracking multiple edit lists from within the same MCE, the OMPP may want to consider requiring all claims processors within an MCE to maintain the same EOP code list. Further, since the number and type of EOP edits varies across MCEs, the OMPP may want to consider requiring some or all EOP codes to be consistent across MCEs as well.

7. The OMPP is encouraged to conduct ongoing targeted sample studies similar to the study performed by B&A in this EQR related to testing the MCE's claims pricing. This is most important for the HIP program since DXC is not conducting shadow pricing for HIP as they do for HHW and HCC.

Appendix A
Map of Indiana's 92 Counties to Eight Regions



APPENDIX B

2017 EXTERNAL QUALITY REVIEW GUIDE FOR INDIANA's MEDICAID MANAGED CARE PROGRAMS (Review of Calendar Year 2016 Activities)

TABLE OF CONTENTS

Please note that our opening meetings for this year's EQR will be held on **May 16 through May 18**. Please refer to page 9 for the full schedule.

Also, there are specific items that we are requesting from the MCEs to be delivered by **Friday, May 26**. Please refer to page 10 for a detailed listing of this document request.

A. Summary of This Year's Topics, Timeline and Review Team

Overview

Burns & Associates, Inc. (B&A) was hired by Indiana's Office of Medicaid Policy and Planning (OMPP) to conduct an External Quality Review (EQR) for all three of Indiana's Medicaid managed care programs:

- Hoosier Healthwise (HHW)
- Healthy Indiana Plan (HIP)
- Hoosier Care Connect (HCC)

This review will encompass activities in Calendar Year (CY) 2016. The 2017 EQR will encompass both mandatory activities required by the Centers for Medicare and Medicaid (CMS) as well as optional activities, in particular, focus studies.

The table below summarizes the activities that will be a part of this year's EQR and the programs that will be included in the activity:

Activity	HHW	HIP	HCC
Validation of Performance Measures	X	X	X
Validation of Quality Improvement Projects (QIPs)	X	X	X
Focus Study #1: Analysis of Potentially Preventable Hospital Readmissions	X	X	X
Focus Study #2: Review of MCE Claims Processing	X	X	X
Focus Study #3: Study on the Prevalence of Lead Exposure, Lead Screening and Related Outreach Efforts	X		X
Focus Study #4: Study of Medication Adherence	X	X	X

Timeline

The OMPP is requesting that B&A deliver the draft report for this EQR by September 30. The final report is due October 31. The schedule effectively begins with the release of this EQR Guide. The items that are being requested from the MCEs are due June 16. Onsite meetings with the managed care entities (MCEs) are scheduled during the weeks of May 15, July 10 (if needed), July 24, August 21, and September 4, 2017. The full schedule may be found in Section C of this Guide.

There will be an opportunity for the MCEs to provide accessory information if B&A needs further clarification on a specific review item after each of the onsite meetings has concluded.

The OMPP has customarily asked B&A to offer a debriefing session with each MCE. The dates for these sessions are tentatively scheduled for October 25 and 26.

The B&A Review Team

This year's EQR Review Team consists of the following members:

- Mark Podrazik, Project Director, B&A: Mark has previously conducted 11 EQRs of the HHW program, eight EQRs of the HIP and last year's EQR of HCC as well as a review of its predecessor, Care Select. He will oversee the entire project, participate in activities related to each focus area, and will serve as primary author of the final report.

- Dr. Linda Gunn, PhD, Subcontractor: Linda has assisted B&A on eight previous HHW EQRs, seven HIP EQRs and the HCC and Care Select reviews. She will primarily work on activities related to Focus Studies #2 and #3.

- Kristy Lawrance, Subcontractor: Kristy assisted on four previous HHW and HIP EQRs and last year's HCC review. She has also been working as a contractor to the OMPP on recent information systems changes and had worked as a staff member at the OMPP years ago. She will primarily work on activities related to Focus Studies #2 and #3 and the Validation of QIPs.

- Debbie Saxe, Subcontractor: Debbie brings more than 26 years of experience in Medicaid policy development with extensive experience in developing Medicaid coverage and reimbursement policies. She is experienced with using Medicaid claims, health outcome metrics and population data to develop, implement and evaluate policies and to set rates. Debbie joined the EQR team last year in the reviews of HHW, HIP and HCC. This year, she will primarily work on activities related to Focus Studies #2 and #4.

- Ryan Sandhaus, SAS Programmer, B&A: Ryan joined B&A in 2016 after more than five years of experience working for a commercial health plan in their informatics unit. He will primarily work on activities related to Focus Studies #2 and #3 and the Validation of Performance Measures.

- Jesse Eng, SAS Programmer, B&A: Jesse has conducted programming and analytic support on B&A's engagements with OMPP since 2009, in particular, B&A's Independent Evaluation of Indiana's CHIP and the annual EQRs. He will primarily work on activities related to the Validation of Performance Measures.

- James Maedke, SAS Programmer, B&A: James served as the lead programmer on the EQR conducted in 2014 and has since supported programming and analytic efforts on B&A's other deliverables for OMPP. He will primarily work on activities related to Focus Study #1.

- Akhilesh Pasupulati, SAS Programmer, B&A: Akhilesh recently joined B&A having most recently worked for a national pharmacy and health delivery company. He has already worked on three state Medicaid engagements at B&A. For this year's EQR, Akhilesh will primarily work on activities related to Focus Study #4.

- Barry Smith, Data Analyst, B&A: Barry has over 11 years of experience with data analysis and data mining. He has assisted in analytics for B&A's Independent Evaluation of Indiana's CHIP as well as the External Quality Reviews in Indiana since 2009. He will primarily work on activities related to Focus Studies #1 and #2 as well as the Validation of Performance Measures.

B. Details on Topics in this Year's EQR

Validation of Performance Measures

The purpose for this review is to validate the results of report submissions for the reporting periods in CY 2016 from the MCEs to the OMPP. B&A will use the CMS EQR Protocol 2, Attachment A (updated September 2012)[1] to report our findings related to the validation of these measures. This will be accompanied by a brief writeup in the EQR report.

The measures that are being validated include:

Report Number	Report Name	HHW	HIP	HCC
QR-DMPH1	Disease Management Report – Physical Health	X	X	X
QR-DMBH1	Disease Management Report – Behavioral Health	X	X	X
QR-CRPH1	Care Management Report – Physical Health	X	X	X
QR-CRBH1	Care Management Report – Behavioral Health	X	X	X
QR-CMPH1	Complex Case Management Report – Physical Health	X	X	X
QR-CMBH1	Complex Case Management Report – Behavioral Health	X	X	X

Additionally, other reports are being trended and some will be validated as a part of Focus Study #2.

Report Number	Report Name	HHW	HIP	HCC
QR-S1	Claims Processing Summary	X	X	X
QR-S2	Adjudicated Claims Inventory Summary	X	X	X
QR-S3	Clean Claims Denial Reasons	X	X	X
QR-P2	Provider Claims Disputes	X	X	X

B&A is using the encounters reported to the OMPP and stored in the OMPP data warehouse, FSSA Enterprise Data Warehouse, as of April 30, 2017 as the source data for the validation of the QR-S1 and QR-S2 reports. For the disease/care/complex case management reports, B&A will be requesting source files directly from the MCEs. The format of this data request from the MCEs will be discussed at the onsite meetings being held the week of May 15.

It is B&A's intention to share our results with each MCE individually and compare to what the MCE submitted. If large differences are found, we will work with the MCE to determine the root cause of the differences.

The discussion of preliminary findings is scheduled in one-on-one onsite meetings with each MCE during the week of July 24. These will be in-person meetings at each MCE.

Validation of Quality Improvement Projects

The purpose for this review is to fulfill our requirement to validate the results of selected performance improvement projects, or PIPs, as they are called by CMS in its protocol. For our purposes, PIPs are synonymous with Quality Improvement Projects, or QIPs, as defined by the OMPP. B&A will utilize

[1] http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-External-Quality-Review.html

CMS EQR Protocol 3, Attachment A (updated September 2012) as the basis for reporting our validation of three PIPs (QIPs) at each MCE. This will be accompanied by a brief writeup in the EQR report.

Each MCE may have selected QIPs that differ from one another. Additionally, some QIPs have been retired by MCEs in the last year. In order to get a better understanding of the QIPs in place in CY 2016, B&A is requesting a listing of these as part of our data request at the end of this Guide. Mark Podrazik and Kristy Lawrance will be conducting this part of the review. After we have reviewed the annual QIP reports due to the OMPP by July 31, the reviewers will select three QIPs from each MCE/program to be validated as part of the EQR.

During the week of September 4, Mark Podrazik and Kristy Lawrance will conduct onsite meetings with each MCE to go over the QIPs under review. This will include follow-up questions from our desk review as well as a discussion with the relevant staff who had primary responsibility for the interventions that were put in place for the QIPs that were selected. It is expected that the B&A Review Team will spend a half-day with each MCE.

Focus Study #1— Analysis of Potentially Preventable Hospital Readmissions

This study is a continuation of the study conducted in the CY 2015 EQR in which B&A measured the rate of potentially preventable hospital readmissions (PPRs) and the actual-to-expect ratio of PPRs by MCE, by region, and by hospital. When examining results for each hospital, a tolerance level is factored in for low sample size. B&A utilized 3M's Core Grouping Software in support of studying the impact of PPRs in the previous study and will do so this year as well.

In the previous study, hospital admissions and readmissions that occurred in CY 2013 and 2014 were used in the study for the HHW and HIP. B&A intends to use the methodologies developed in our work in the previous study but now run updated results for CY 2014 as well as for CY 2015 and CY 2016. The data will be stratified between the HHW, HIP and HCC populations.

B&A has made a specific data request of encounters reported to the OMPP and stored in the OMPP data warehouse, FSSA Enterprise Data Warehouse, as of April 30, 2017 as the source data for this analysis. Assuming that there will be no issues with the receipt of this data, B&A does not foresee a separate data request from the MCEs for this focus study.

B&A intends to re-introduce the concepts related to the PPR as well as the findings to each MCE during the one-on-one MCE sessions that are being held the week of August 21.

Focus Study #2— Review of MCE Claims Processing

The OMPP requested that B&A meet with MCE staff to research and report on internal MCE processes related to the receipt, adjudication and pricing of claims submitted by providers. The processes that occur between the MCEs and DXC Technology (formerly HPE) will not be covered in B&A's study, except for a high-level overview of the MCE's encounter submission process (e.g. timing, tracking, etc.). There will be a review, however, of the timeliness, accuracy and completeness of encounter submissions as reported on the QR-S1, QR-S2 and QR-S3 reports to the OMPP in all three programs (HHW, HIP, HCC). The main focus is the EQR study is on internal MCE processes and how MCOs assess timeliness, accuracy and completeness of *claims* submitted to them.

The study will begin with an in-depth discussion with each MCE on May 16 or 17 on their policies and procedures. The MCE should be prepared to have staff who are knowledgeable on the following areas attend some or all this session:

- The entities that adjudicate claims for the MCE in each program, the specific responsibilities of these entities, and any oversight activities that the MCE conducts on these entities;
- A walk through of the process that a provider claim goes through from intake to payment or denial;
- Edits in place to ensure the accuracy and completeness of claims adjudication;
- The interaction of the claims processing system with other MCE systems (e.g. authorizations);
- Education or training materials (at the start of provider enrollment and ongoing) given to providers about the claims submission process;
- Internal management reporting of the claims adjudication process;
- Internal procedures in place when claim submissions must be reviewed manually;
- Internal procedures in place when DXC returns encounters submitted by the MCE; and
- MCE processes that verify pricing

B&A anticipates about 50 questions as part of this interview. The questions will be sent to the MCEs in advance of the meeting and no later than May 5. If the MCE thinks that other information will be helpful to convey during this session, the MCE may present this as well, but it is not required. Please be aware that for this onsite session, there will be five members from the EQR team present.

B&A will also review with each MCE a summary of trends found from the MCE's submissions of its QR-S1, QR-S2, QR-S3 and QR-P2 reports. Whereas the topics mentioned above will be covered with all MCEs, questions related to the claims processing reports submitted to the OMPP may be MCE-specific.

In addition to the topics above, B&A would like to discuss with each MCE the best manner in which to collect information on payment fee schedules and provider contract information on the rates paid to the provider. A study similar to this one was completed in the CY 2009 EQR. At that time, it was determined that the provider contract information was most efficiently verified by having the EQR team go to the MCEs and lookup with an MCE staff member the relevant page of the provider's contract showing the payment rate. This avoided unnecessary file being transferred and ensured more confidentiality of MCE-specific payment rates. If it is decided that this is the best approach for this year's study, the EQR team has set aside dates in the week of July 10 to accomplish this task.

Another aspect of the study is for B&A EQR team members to validate the actual amount paid by the MCE to providers or, of the claim was denied, to validate the reason for the denial. B&A intends to draw the claims sample by the end of May. The sample will be provided to each MCE with sufficient notice in order to prepare for any meetings necessary the week of July 10.

It is anticipated that the total sample will be a minimum of 720 claims (80 per MCE x 3 programs). The sample will be selected to include claims with the following conditions:

- Paid claim to an in-network provider
- Paid claim to an out-of-network provider
- Paid claim with payment made on time by MCE
- Paid claim with payment made with required interest payment for being late
- Paid claim with TPL

Many different provider types/service categories will be selected for the review as well. There will be sample claims from institutional, professional and pharmacy claim types.

B&A will use a standardized review tool to verify the findings from each claim. The draft results of this study will be shared with each MCE at the onsite meeting scheduled the week of August 21.

Focus Study #3— Study on the Prevalence of Lead Exposure, Lead Screening and Related Outreach Efforts

With the recent concern about exposure to lead in the West Calumet Housing Project in East Chicago, the topic of lead exposure, screenings, education and long-term effects with OMPP programs has become an even higher priority than before.

There are multiple objectives of the study:

- What is the prevalence of lead screening across the state for the Medicaid child population?
- How do the MCEs track lead screening and identifying problematic areas?
- How can the rate of screening itself and the reporting of these screenings be improved?
- Given the work that the MCEs have already completed or offered in East Chicago, where are there breakdowns? What is the level of member engagement and is this an issue? How are the MCEs engaging members?
- What is the type of care coordination being done with children with higher lead levels?
- How can the information from the ISDH be improved? What are the specific breakdowns?
- What are the differences in utilization and health outcomes of members with elevated lead levels?

This study will begin with an introductory interview with each MCE to gain their perspective on the East Chicago issue specifically and lead screening and outreach more generally across the state. This onsite interview is scheduled for either May 17 or 18. A set of questions for this interview will be provided to the MCEs no later than May 5. B&A requests that the MCEs have staff members most closely involved with managing the East Chicago crisis involved in these meetings as well as any other appropriate staff members. Questions are expected to cover what each MCE has done so far for its members living at or near West Calumet, any problems encountered, specific issues with CHIRP data or working with the ISDH more generally, and engagement with other stakeholders on lead screening.

After this introductory meeting, B&A will synthesize what has learned and may conduct follow-up conversations by phone, if needed. The other aspect of the study is a desk review whereby B&A will analyze the prevalence of lead screening statewide with using available data sources. It is anticipated that for some regions in the state, this may be analyzed at the zip code or census tract level.

Another aspect of the desk review is to analyze individual HHW or HCC members living at West Calumet and potentially a sample from other regions of the state and conduct a longitudinal study of children who had higher elevations of lead when they were screened as a young child. The cohort within the sample would be among young children who have been continuously enrolled in HHW or HCC (fee-for-service prior to HCC) for a minimum of three years. Areas of interest to explore include:

- What services do they use?
- What are their diagnoses?
- How different are they in utilization from non-elevated members (e.g. ER use)?

The draft results of this study will be shared with each MCE at the onsite meeting scheduled the week of August 21.

Focus Study #4— Study of Medication Adherence

Studies have shown that the rate of patients actually getting prescriptions filled, their adherence to following the script and the timeliness of refills can all be greatly improved. The lack of medication adherence can have adverse health effects, particularly among individuals with chronic conditions such as diabetes or asthma.

There are both qualitative and quantitative objectives to this study. Qualitatively, B&A will examine techniques or approaches that the MCEs use to encourage greater medication adherence by its members (including medication therapy management). This will begin with an introductory interview with each MCE to learn more about their own policies and procedures used to encourage medication adherence. This onsite interview is scheduled for either May 17 or 18. A set of questions for this interview will be provided to the MCEs no later than May 5.

The quantitative objective of the study is to analyze more broadly the rate of medication adherence within HHW, HIP and HCC using measures such as percent of days covered (PDC), gaps in refills, or medication possession ratio (MPR). In addition to a broader population study, a sample of members will also be pulled to review their health outcomes specifically. The more discrete sample will be drawn from individuals enrolled with the MCE in either care management or complex case management. A discussion will take place during the May 17/18 meeting with each MCE about the best way to identify their members enrolled in care management or complex case management. [This is in conjunction with the data request for the validation of performance measures.]

After the sample has been drawn, the MCEs will be asked to provide to B&A more specific information from each member's care plan, particularly around their prescriptions.

C. Detailed Schedule and Document Request

Schedule

The table on the next page presents all meetings scheduled for this year's EQR. All the dates are set, we have flexibility as to which time we visit each MCE. As has been done in prior years, we are happy to accommodate specific MCE staff schedules wherever we can. Therefore, we ask you to indicate your preferences for the onsite meetings in the form that accompanies this EQR Guide. Please provide feedback to us about your preferences no later than **May 2**. We will confirm all onsite meeting appointments by **May 5**.

For the meetings set for May 16-18, B&A will be sending out the questions that will be asked of each MCE in advance so that the appropriate MCE team members can be in attendance. These questions will also be sent out on **May 5** with the confirmation of meeting appointments. The MCEs are not obligated to type out responses to the questions, but please review them in advance of the meeting to have verbal responses prepared.

Unless specifically requested by B&A in advance of the meeting, MCE staff do not need to bring any materials to the interview sessions.

Please refer to the Agenda items below the calendar for the topics to be covered at each meeting. Page 1 of the Guide indicated which programs will be reviewed for each topic. If the staff responsible for participating in an agenda topic differs between HHW, HIP and HCC, we ask that representatives from each program attend the interview.

Week of	Mon	Tues	Wed	Thurs	Fri
	15	*16*	*17*	*18*	*19*
May 15 Agenda #1, #2		MCE #1 8:30-11:30 MCE #2 1:00-4:00	MCE #3 8:30-11:30 MCE #1 1:00-4:00	MCE #2 8:30-11:30 MCE #3 1:00-4:00	
	10	*11*	*12*	*13*	*14*
July 10 Agenda #3			MCE #1 8:30-11:30 MCE #2 1:00-4:00	MCE #3 8:30-11:30	
	24	*25*	*26*	*27*	*28*
July 24 Agenda #4			MCE #1 8:30-11:30 MCE #2 1:00-4:00	MCE #3 8:30-11:30	
	21	*22*	*23*	*24*	*25*
Aug 21 Agenda #5			MCE #1 8:30-11:30 MCE #2 1:00-4:00	MCE #3 8:30-11:30	
	4	*5*	*6*	*7*	*8*
Sept 4 Agenda #6		MCE #1 1:00-4:00	MCE #2 8:30-11:30 MCE #3 1:00-4:00		

Agenda #1	Introductory interview on claims adjudication procedures. Determine and outline source data needed for the study (e.g., fee schedules, provider contract languag
Agenda #2	Introductory interviews on the lead focus study and medication adherence focus study. Determine and outline source data needed for the validation of the Disease, Care, Case mgmt reports.
Agenda #3	These meetings are a placeholder only. They may not be needed. It will be determined after the meetings held the week of May 15 if any will be necessary. The agenda item would be to review provider contracts at the MCE's site for the sample of claims where payments will be validated.
Agenda #4	B&A will review our findings from our initial validation of the following performance measures: QR-DMPH1, QR-DMBH1, QR-CRPH1, QR-CRBH1, QR-CMPH1, QR-CMBH1
Agenda #5	B&A will review our findings from our analysis of the following items: Results of Potentially Preventable Readmissions, analytics/findings related to Focus Studies #2, #3, #4
Agenda #6	B&A will conduct interviews with each MCE related to our desk review of the Validation of QIPs.

Document Request

Please email the completed *EQR Meeting Schedule Preferences.xlsx* file directly to Mark Podrazik at mpodrazik@burnshealthpolicy.com by **Tuesday, May 2**.

All other documents listed below are due back to B&A on **May 26**. B&A requests that all remaining documents requested are transmitted through one of the following methods:

(a) via the MCE's secure email system; or
(b) via the OMPP SharePoint site. If using OMPP's SharePoint, please upload your data under the \2017\EQR directory under your MCE name. ***Please place all information in the same location under the HHW section of SharePoint, not under the HIP or HCC section on Sharepoint.***

Please email Mark Podrazik whenever you have uploaded files to the SharePoint site.

Because the desk review items requested this year may be more MCE-specific, rather than requiring the use of a standardized numbering and naming convention as we have done in prior years, we ask that you follow our numbering convention but the file names can be named at your discretion. Please give each document a number associated with the focus study. For example, for Focus Study #2: Review of MCE Claims Processing, any documents related to this study will be numbered sequentially as follows: FS2-1, FS2-2, FS2-3 etc. After the number, enter the file name you use to reference the contents. When submitting policies or procedures, please retain the name you use internally for the policy or procedure so that if we need to discuss it we are using common nomenclature. For other items submitted, please use file descriptions that clearly indicate what the file contains.

Document Request Items

For the Validation of Performance Measures, we have obtained the report submissions that you uploaded to OMPP on their SharePoint site. B&A is not asking the MCEs for any additional information related to this task, but we do encourage the MCEs to verify that there were not any revisions to the submissions uploaded each quarter for the reports being validated in this year's study. For example, if a specific report submitted on April 30, 2016 for the 1st Quarter was later updated and sent in conjunction with the July 31, 2016 submission for 2nd Quarter, B&A may not be aware of this. If there were updates such as these, please submit the revisions when sending on the other items in this data request.

For the Validation of Quality Improvement Projects, no information is due on May 26 when the other items are due. B&A will review the QIP template reports that you submit to OMPP on July 31, 2017. We kindly request that you copy Mark Podrazik at mpodrazik@burnshealthpolicy.com when you submit the QIP reports to OMPP.

For Focus Study #1: Analysis of Potentially Preventable Hospital Readmissions, no information is being requested from the MCEs.

For Focus Study #2: Review of MCE Claims Processing, please provide:

- A flowchart or other schematic of all entities that perform claims processing functions for the MCE and if/how they interact with each other. Within this schematic, please include your own organization as well. Be sure to include as part of this submission:
    - The program that the entity is adjudicating claims for on your behalf
    - The claim type(s) that the entity is adjudicating claims

- Any policies or procedures related to claims processing, e.g. definitions used in adjudication, how claims processing interacts with authorizations, procedures for PAR and non-PAR providers, electronic validation vs. manual validation ("working") claims, monitoring of the claims adjudication process, factoring in TPL, etc.

- A listing of the edits in place for adjudicating claims. If the MCE uses Medicaid NCCI edits and follows the edits as published on CMS's website https://www.medicaid.gov/medicaid/data-and-systems/ncci/index.html, a specific itemization is not required since B&A has the reference tables from the CMS website.

- Any findings from the review of subdelegated oversight of claims processors conducted in CY 2016.

For Focus Study #3; Study on the Prevalence of Lead, Lead Screening and Related Outreach Efforts, some of the items listed below may not be applicable. But where you have identified items relevant to the topic, please provide:

- Any policies or procedures which you believe are specifically relevant to the engagement of providers and/or members for lead screening.

- Any communication or guidance materials that you may give providers relevant to lead screening. If lead screening is an element of a larger provider report or dashboard that you give to providers, please submit an example of how this is shown on the provider report.

- Any communication or guidance materials that you may give members relevant to lead screening.

- Any specific information that you may have provided to any of your HHW, HCC or HIP members in the West Calumet Housing Project in East Chicago.

For Focus Study #4: Study of Medication Adherence, some of the items listed below may not be applicable. But where you have identified items relevant to the topic, please provide:

- Any policies or procedures which you believe are specifically relevant to the engagement of providers and/or members on medication adherence.

- Any communication or guidance materials that you may give providers relevant to member medication adherence. If medication adherence is an element of a larger provider report or dashboard that you give to providers, please submit an example of how this is shown on the provider report.

- Any communication or guidance materials that you may give members relevant to medication adherence.