November 2, 2010

Patricia Johnson
Director, Quality Assurance/Improvement
Oklahoma Health Care Authority
Shepard Mall
2401 N.W. 23rd Street
Suite 1A
Oklahoma City, OK 73107

Dear Ms. Johnson,

APS Healthcare (APS) submits the following Project Design/Analysis Document to the Oklahoma Health Care Authority pursuant to the establishment of the technical specifications for the deliverable indicated under Attachment E, §2 of the QIO contract for SFY 2011. APS requests that the Oklahoma Health Care Authority review the methodology specified and provide feedback.

Please contact me with any questions.

Regards,

Erin Kren
Health Analytics Manager
APS Healthcare
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Design Document Client Approval			
Project Name:	CHIPRA QAPI Study, SFY 2011		
Project Manager:	Erin Kren		
Name	***Role***	***Signature***	***Date***
Patricia Johnson	Director, Quality Assurance and Improvement and Contract Monitor for QIO Contract		

Introduction

The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) is an extension of the Children's Health Insurance Program (CHIP) and was enacted on February 4, 2009. CHIPRA expands upon the services available to CHIP members and encourages states to monitor several quality measures within the enrolled population. This study will cover two calendar years, 2009 and 2010.

For State Fiscal Year (SFY) 2011 Quality Assessment and Performance Improvement (QAPI), APS Healthcare (APS) proposes an initial study examining four CHIPRA quality measures and a fifth measure based on the intent of another CHIPRA quality measure.

SoonerCare does not have a stand-alone CHIP program, and examining only those claims that were funded by CHIP may distort the CHIPRA measures. Therefore, the study will not be limited to CHIP-funded services.

Objectives

APS proposes to examine the following measures for SoonerCare members enrolled during calendar year 2009 and 2010:

- Chlamydia screening for sexually active females ages 16-18 years (source: HEDIS® 2011 with optional exclusions applied)
- Otitis media with effusion - avoidance of inappropriate use of systemic antibiotics (source: American Medical Association)
- Annual number of asthma patients over the age of 1 with one or more visits to the emergency room (source: State of Alabama Medicaid)
- Follow-up care for children prescribed attention-deficit/hyperactivity disorder (ADHD) medication (Continuation and Maintenance Phase) (source: HEDIS® 2011 with optional exclusions applied)
- Annual HbA1c testing for children diagnosed with diabetes (source: State of Alabama Medicaid)

Methodology

This study will examine paid claims for SoonerCare members with at least 11 of 12 months of eligibility in each year included in the study, with two exceptions:
1. For the asthma measure, children between 1 and 2 years old will be included if they have at least 11 months of eligibility during their lifetime.
2. For the otitis media with effusion measure, no minimum length of eligibility will be required. This measure should be an indicator of quality of care on every occasion, regardless of whether the provider has established a relationship with the member.

Each measure will be stratified based on year and proportions of those that met criteria will be compared by year using Chi-square analysis. Each measure separated by year will be further stratified based on age grouping, race/ethnicity and urban or rural residence as categorized by the U.S. Census Rural-Urban Commuting Area. All measures excluding the Chlamydia screening measure will be broken down by gender. Proportions of the measures stratified by the

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aforementioned categorical variables will be examined using Chi-square tests. If the *p*-value is less than 0.05 this will indicate a significant non-random relationship and further investigation will be done using odds ratios to determine the strength of the relationships between the variables. The category with the highest proportion will be used as a reference category for the odds ratio analyses. Odds ratios will be reported along with 95% confidence intervals. Additionally, Mann-Whitney rank sum tests may be used to examine the difference in distributions of ages when this qualifies as an ordinal variable. Outcomes of Mann-Whitney rank sum tests, when reported, will include means and inter-quartile ranges.

Paid claims will be analyzed for services rendered during calendar year 2009 and 2010 and will allow for a three-month claim lag. The results of this study should provide the OHCA with information about where additional outreach efforts could increase services provided to SoonerCare members and the feasibility of implementing the measures as part of routine quality reports. It should also provide the OHCA with the ability to draw yearly comparisons of the variables over 2009 and 2010.

Because of competing sources of specifications for some measures, the OHCA has drawn up Attachment A, to be used to guide the analyses.

APS will deliver a draft of this report on or before the set due date. The OHCA will have 30 calendar days from the date of delivery to suggest changes to the draft document. APS will deliver the final document no later than the set due date. In the event that the OHCA takes longer than 30 days from the date of the delivery of the draft document to review and suggest changes, the final delivery date will be adjusted by the corresponding number of days.

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Attachment A

Specifications for measures to be analyzed for the CHIPRA SFY 2011 study

Chlamydia Screening for Women (Ages 16-18 years) (CHL)

Source of the measure: HEDIS 2011
Specifications from documents for HEDIS 2011 (for services rendered during SFY 2009 & SFY 2010): Not reproduced here because of copyright. See HEDIS 2011, Effectiveness of Care section, pages 92-95.

APS will use HEDIS methodology in regards to eligibility, allowable gap, anchor date, and the identification of members. APS will also use the medication list and NDC codes posted by NCQA as stated in the HEDIS tables CHL-A and CHL-E. Additionally, APS will follow HEDIS methods for exclusions for the measure.

Any updates AHRQ's incorporates and sends out during the production of the CHIPRA study in regards to updating the HEDIS 2011 Chlamydia Screening in Females measure, APS will incorporate and indicate.

Deviation from the HEDIS measure: The review periods for this measure are SFY 2009 and SFY 2010. APS should account for a paid range that extends beyond the review period to account for claims lag, which should be October 31, 2010 for both review periods. OHCA wants APS to use ages 16-18 years, inclusive, because AHRQ's CHIPRA documents specified this age range. Also, CHIPRA is limited to children 18 years and younger. For this measure, APS will have to modify the HEDIS date of age to calculate and anchor date. Both the client's age and anchor date for SFY 2009 should be as of June 30, 2009. For SFY 2010, both the client's age and anchor date should be as of June 30, 2010.

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Deviation from the HEDIS measure: The review periods for this measure are SFY 2009 and SFY 2010. APS should account for a paid range that extends beyond the review period to account for claims lag, which should be October 31, 2010 for both review periods. The AHRQ documents state an age range of 6-12 years. The HEDIS measure states 5-11 years. OHCA wants APS to follow the CHIPRA guidelines from AHRQ and use 6-12 years for the age range for this measure. Please read for more information about ages.
For SFY 2009: The HEDIS Intake Period should start September 1, 2007 and end August 31, 2008. For the HEDIS Initiation Phase & C&M Phase, client's age must be 6 years as of September 1, 2007 to 12 years as of August 31, 2008.
For SFY 2010: The HEDIS Intake Period should be start September 1, 2008 and end August 31, 2009. For the HEDIS Initiation Phase & C&M Phase, client's age must be 6 years as of September 1, 2008 to 12 years as of August 31, 2009.

Annual HbA1c Testing for Children Diagnosed with Diabetes (Ages 5-18 years) (HbA1C)

Source of the measure: State of Alabama Medicaid Agency

(http://www.medicaid.alabama.gov/Transformation/Transformation_home.aspx?tab=9)

Specifications from documents as provided by State of Alabama Medicaid:

Denominator: Patients diagnosed with diabetes with ICD-9 diagnosis codes 250.00-250.93, 357.2. 362.01, 362.02, or 366.41 **or** on any anti-diabetic medications in the AHFS class 68:20 (68:20.02, 68:20.03, etc).

Numerator: Patients who received at least one HbA1C test, CPT procedure code 83036, during the measurement period. Use table of denominator member IDs to pull all recipients that have received tests as described above.

Further instructions for denominator:
Denominator:
→The review periods for this measure are SFY 2009 and SFY 2010. Members should be aged 5-18 years as of the date of service on the claim. The age of a client at their first occurrence/claim should be used to determine age for that client for the review period. APS should account for a paid range that extends beyond the review period to account for claims lag, which should be October 31, 2010 for both review periods.

→Alabama's specifications are for all members (children and adults), with no age groups defined. Documents from AHRQ specify ages 5-17; however, CHIPRA is for children 18 years and younger, so OHCA would like APS to use the age range of 5-18, inclusive.

→For the diagnoses, Alabama does not include the diagnosis code series 648.0x, which is listed in the HEDIS specifications for diabetes. This code is used to indicate a pregnant female with diabetes that existed before the pregnancy (i.e., not gestational diabetes). OHCA wants to include this diagnosis code series.

→For the diagnoses, Alabama does not include diagnoses codes 362.03-362.06, which are non-proliferative diabetic retinopathy. Since non-proliferative diabetic retinopathy is a precursor to proliferative diabetic retinopathy, OHCA wants to include these diagnoses codes.

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→The diagnosis of diabetes as described with modifications provided can be any on a claim.

→Alabama's specifications state "*any anti-diabetic medications in the AHFS class 68:20 (68:20.02, 68:20.03, etc)*." OHCA does not want to use AHFS class, instead OHCA requests APS use the NCQA's list of anti-diabetic medications by NDC code which are also used for the Comprehensive Diabetes Care (CDC) HEDIS 2011 measure Table CDC-A to identify members who are on an anti-diabetic medication. The NDC codes are posted by the NCQA and found on their website (http://www.ncqa.org).

Otitis Media with Effusion - Avoidance of Inappropriate Use of Systemic Antimicrobials (Ages 2 months-12 years) (OME)

Source of the measure: American Medical Association (AMA) Physician Consortium for Performance Improvement *(Note*: Some of the AHRQ documents state "ages 2-12." This is incorrect. The AMA documents specify the age range begins at 2 months; see http://www.ama-assn.org/ama/pub/physician-resources/clinical-practice-improvement/clinical-quality/physician-consortium-performance-improvement/pcpi-measures.shtml.)

This measure is an "absence of action" measure. The rationale for this measure as stated by the AMA is that "OME usually resolves spontaneously with indications for therapy only if the condition is persistent and clinically significant benefits can be achieved. Antimicrobials have no proven long-term effectiveness and have potential adverse effects."

For this measure, OHCA is looking for children who were diagnosed with OME but did not have a filled prescription for a systemic antimicrobial. Furthermore, OHCA wants APS to evaluate the measure per event because the OHCA supports appropriate treatment of OME on every office visit. This measure will have no requirement of minimum length of eligibility for members for the same reasons as previously stated.

The AMA Physician Consortium for Performance Improvement provides the following specifications:

> Denominator: All patients aged 2 months through 12 years with a diagnosis of OME. CPT and ICD-9 codes for inclusion: CPT procedure codes: 99201-99205, 99212-99215, 99241-99245, 99381-99384, 99391-99394 **and** ICD-9 diagnosis codes: 381.10, 381.19, 381.20, 381.29, 381.3, 381.4.
>
> Numerator: Patients who were not prescribed (filled) a prescription for a systemic antimicrobial, which AMA reports those patients with a CPT Category II code of 4132F (Systemic antimicrobial therapy not prescribed) on the office visit claim.
>
> Denominator Exceptions:
> Documentation of medical reason(s) for prescribing systemic antimicrobials.
> (Append modifier to CPT Category II code: 4131F – 1P (medical reasons))

Further instructions for denominator, numerator, and denominator exclusions:
Denominator:
→APS should analyze any ICD-9 diagnosis of OME on the claim. The review periods for this measure are SFY 2009 and SFY 2010. APS should account for a paid range that extends beyond the review period to account for claims lag, which should be October 31, 2010 for both review periods.

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Numerator:
→The AMA states the measure cannot be computed based solely on claims data if the CPT Category II code 4132F is not being used, which is the case with OHCA claims. Due to the way OHCA claims system is structured, OHCA does not require informational CPT Category II codes to be billed on claims.

Denominator Exclusions:
→Claims that have a diagnosis of OME alongside a diagnosis of an infection on the same claim should be excluded from the study. The OHCA is defining what AMA has noted "denominator exclusions are events where there are medical reason(s) for prescribing systemic antimicrobials" to exclude events where a comorbid infection is alongside OME and thus might be medically necessary to prescribe a systemic antimicrobial.

Definitions for the OME measure include:

Office Visit (Event) – Will be used to encompass the use of the AMA's CPT procedure codes. APS should keep in mind these procedure codes may occur and be billed by a provider, outpatient facility, or another place of service.

Infection - Will be used to indicate an invasion by a parasite species (virus, bacterium, fungus, protozoa) that would deem the need for a systemic antimicrobial to be prescribed to kill or prevent the spread of infection.

Systemic Antimicrobial – Will be used to describe medications that are used to kill or prevent infections from spreading caused by viruses, bacteria, fungi, or protozoans. A list from OHCA Pharmacy Unit to identify systemic antimicrobials has been provided below.

OHCA would like APS to use the following methodology for this measure, which is modified due to the lack of capturing CPT Category II codes. The modified methodology describe below should be used to provide APS with a modified measure used to calculate the denominator and numerator for the OME measure:

1. Use the AMA's list of ICD-9 diagnoses codes for OME and CPT procedure codes for office visits to pull claims for services rendered during SFY 2009 and SFY 2010 for children ages 2 months to 12 years. Age should be computed as of the date of service. Diagnosis codes for OME can appear anywhere on the claim. Pull all diagnoses from those claims.

2. Identify claims that had a diagnosis of an infection that might require a systemic antimicrobial to be prescribed and filled. APS will divide all the non-OME diagnoses into two lists – infections and non-infections. These lists will be submitted to the OHCA to check for medical accuracy before APS completes the analysis. The final lists should be provided to OHCA as a separate attachment upon the completion of the study.

3. Identify claims for which there were diagnoses for both OME and an infection on the same claim. These claims should be excluded from the study, as AMA has noted that denominator exclusions are events where there are medical reason(s) for prescribing systemic antimicrobials. For the purposes of this measure, OHCA is concerned with the number of events that had a diagnosis of OME and no diagnosis of an infection recorded on the claim.

4. Using the list of member IDs and the first date of service (FDOS) on all the claims that had a diagnosis of OME and no diagnosis of infection, APS will need to pull pharmacy claims where the prescribed date (pharmacy claim) = FDOS (office visit claim). The reasoning for this is that OHCA cannot be certain a prescription was not for another office visits or provider for another health concern. To get data as accurate as possible from claims alone, the assumption for the

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OME measure will be if a member had an office visit on the same day as a prescription for a systemic antimicrobial was prescribed (filled) then the two are related.

5. APS will provide OHCA, prior to completion of the OME measure, a data set of the events included in the denominator for which there was a systemic antimicrobial prescribed on the same date of service as the office visit. Also provided in the dataset should include the prescription(s) that would correspond with that event. OHCA wants to analyze and review what other health issues are warranting the need for systemic antimicrobials to be prescribed.

APS should use the "Drug AHFS Clrfctn Thera Cat Code" variable to pull data. The OHCA Pharmacy Unit has provided the following list of codes to identify systemic antimicrobials.

Drug AHFS Clrfctn Thera Cat Code	Drug AHFS Thera Cat Desc
80800	ANTHELMINTICS
81202	AMINOGLYCOSIDES
81204	ANTIFUNGAL (SYSTEMIC)
81206	CEPHALOSPORINS
81207	MISCELLANEOUS B-LACTAM ANTIBIOTICS
81208	CHLORAMPHENICOL
81212	MACROLIDES
81216	PENICILLINS
81218	QUINOLONES
81220	SULFONAMIDES (SYSTEMIC)
81224	TETRACYCLINES
81228	ANTIBACTERIALS, MISCELLANEOUS
81404	ALLYLAMINES
81408	AZOLES
81416	ECHINOCANDINS
81428	POLYENES
81432	PYRIMIDINES
81492	ANTIFUNGALS, MISCELLANEOUS
81600	ANTIMYCOBACTERIALS
81604	ANTITUBERCULOSIS AGENTS
81692	ANTIMYCOBACTERIALS, MISCELLANEOUS
81800	ANTIVIRALS (SYSTEMIC)
81804	ADAMANTANES
81808	ANTIRETROVIRALS
81820	INTERFERONS
81824	MONOCLONAL ANTIBODIES
81828	NEURAMINIDASE INHIBITORS
81832	NUCLEOSIDES AND NUCLEOTIDES
81892	ANTIVIRALS, MISCELLANEOUS
82000	ANTIMALARIAL
82400	INFLAMMATORY BOWEL AGENTS
82600	SULFONES
83004	AMEBICIDES
83008	ANTIMALARIALS
83092	ANTIPROTOZOALS, MISCELLANEOUS
83600	URINARY ANTI-INFECTIVES
84000	LEPROSTATICS
89200	ANTI-INFECTIVES (SYSTEMIC), MISC.
840416	BURN PRODUCTS
840492	LOCAL ANTI-INFECTIVES, MISCELLANEOUS

APS will compute the measure as described which will be used as OHCA's baseline for the OME measure:
Otitis Media with Effusion - Avoidance of Inappropriate Use of Systemic Antimicrobials

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The percentage of office visits with an OME diagnosis without an accompanying diagnosis of an infection, for which there was no paid claim for a filled prescription for a systemic antimicrobial on the same date of service.

In other words:
The denominator will be the total number of office visits in which OME was diagnosed, with no accompanying infection diagnosis on the claim.

The numerator will consist of the number of office visits (events) in which OME was diagnosed and there was no diagnosis of an infection on the claim. Also for the numerator, there were no paid pharmacy claims for a systemic antimicrobial prescribed on the same date of service as the office visit.

APS also may recommend another way of calculating the measure as part of the final report.

Deviation from AMA and limitations of this measure: The modified measure assumes that if there is no paid prescription claim, then no prescription was filled and that the provider did not write a prescription. This assumption cannot be verified without a medical chart review.

APS will include Place of Service in the dataset so that the measure might be computed by the OHCA at a later time according to location where the service was rendered.

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paid range that extends beyond the review period to account for claims lag, which should be October 31, 2010 for both review periods.

→Alabama's specifications may sound like a member must be on two or more different medication; APS however, should interpret the specifications to mean two filled prescriptions for one or more medications (as this follows HEDIS specifications for other such measures). The OHCA Pharmacy Unit reviewed the list of short-acting beta agonists for accuracy and completeness. Listed below are short-acting beta agonists to be used as medications for short acting beta adrenergic agents.

GCN Sequence Number	GCN Description
4963	METAPROTERENOL SULFATE INHALATION 4 MG/ML SOLUTION
4964	METAPROTERENOL SULFATE INHALATION 6MG/ML SOLUTION
4965	METAPROTERENOL SULFATE INHALATION 50 MG/ML SOLUTION*
4966	METAPROTERENOL SULFATE ORAL 10 MG/5 ML SYRUP
4967	METAPROTERENOL SULFATE ORAL 10 MG TABLET
4968	METAPROTERENOL SULFATE ORAL 20 MG TABLET
5022	TERBUTALINE SULFATE INHALATION 0.2 MG AER REFILL*
5023	TERBUTALINE SULFATE INHALATION 0.2 MG AER W/ADAP*
5024	TERBUTALINE SULFATE INJECTION 1 MG/ML AMPUL*
5025	TERBUTALINE SULFATE ORAL 2.5 MG TABLET*
5026	TERBUTALINE SULFATE ORAL 5 MG TABLET*
5032	ALBUTEROL SULFATE ORAL 2 MG/5 ML SYRUP
5033	ALBUTEROL SULFATE ORAL 2 MG TABLET
5034	ALBUTEROL SULFATE ORAL 4 MG TABLET
5035	ALBUTEROL SULFATE ORAL 4 MG TBMP 12HR*
5037	ALBUTEROL INHALATION 90 MCG AEROSOL
5038	ALBUTEROL INHALATION 90 MCG AER REFILL*
5039	ALBUTEROL SULFATE INHALATION 2.5 MG/3ML VIAL-NEB
5040	ALBUTEROL SULFATE INHALATION 5 MG/ML SOLUTION
5043	PIRBUTEROL ACETATE INHALATION 200 MCG AER W/ADAP*
11773	ALBUTEROL SULFATE INHALATION 200 MCG CAPSULE*
15967	ALBUTEROL MISCELL POWDER*
16032	METAPROTERENOL SULFATE INHALATION 650MCG AER REFILL*
16033	METAPROTERENOL SULFATE INHALATION 650MCG AER W/ADAP
16048	METAPROTERENOL SULFATE MISCELL POWDER*
16394	ALBUTEROL SULFATE ORAL 8 MG TAB SR OSM*
16562	ALBUTEROL SULFATE MISCELL POWDER*
22213	ALBUTEROL SULFATE INHALATION 200 MCG CAP W/DEV*
22230	PIRBUTEROL ACETATE INHALATION 200 MCG AER BR.ACT
23712	TERBUTALINE SULFATE MISCELL POWDER*
27388	ALBUTEROL SULFATE ORAL 4 MG TAB SR OSM*
28090	ALBUTEROL SULFATE INHALATION 90 MCG HFA AER AD
41848	LEVALBUTEROL HCL INHALATION 0.63MG/3ML VIAL-NEB
41849	LEVALBUTEROL HCL INHALATION 1.25MG/3ML VIAL-NEB
48698	ALBUTEROL SULFATE INHALATION 0.63MG/3ML VIAL-NEB
48699	ALBUTEROL SULFATE INHALATION 1.25MG/3ML VIAL-NEB
49871	LEVALBUTEROL HCL INHALATION 0.31MG/3ML VIAL-NEB
51197	ALBUTEROL SULFATE ORAL 4 MG TAB.SR 12H
51198	ALBUTEROL SULFATE ORAL 8 MG TAB.SR 12H
54007	TERBUTALINE SULFATE SUB-Q 1 MG/ML VIAL*
54687	ALBUTEROL SULFATE INHALATION 2.5 MG/0.5 VIAL-NEB
57879	LEVALBUTEROL HCL INHALATION 1.25MG/0.5 VIAL-NEB
58890	LEVALBUTEROL TARTRATE INHALATION 45MCG HFA AER AD
59188	TERBUTALINE SULFATE SUB-Q 1 MG/ML AMPUL*
60414	LEVALBUTEROL HCL MISCELL 100 % POWDER*
60750	ALBUTEROL SULFATE ORAL 4 MG TAB OSM 12*

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**These codes were not included in Alabama's list, but will be included for OHCA.*

Numerator:
→Alabama's specifications use only CPT procedure codes, while the OHCA's ER Utilization Program uses the following revenue codes 450, 451, 452, and 459 to identify emergency room claims; APS should do the same. Thus instead of using CPT procedure codes to identify ER visits, which may not always be recorded on a claim due to the way OHCA claims systems is set up, APS should use the revenue codes provided to identify emergency room visits.

→Additionally, APS should limit the data to UB claims only (outpatient claims) as to not to identify physician claims.

→Furthermore for eligibility requirements, members aged 1-2 years old should have had 11 months of eligibility during their lifetime. For members 2 years and older, the eligibility requirement is 11 or more months during the one-year review period.

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