

Capture of the Pediatric Core Measures from Electronic Health Records by Two Category A Grantees

Introduction:

Pennsylvania's Category A portion of the CHIPRA Demonstration Grant includes two of the State's largest acute care facilities that not only are recognized for excellence in pediatrics, but whose electronic health records have been operational for several years. One of the facilities was adopted as the Category A lead. As the lead, this facility drafted the EHR specifications for electronic extraction of the required data elements and presented their findings to the team. Collaboratively, the specifications for each measure were reviewed and updated, and a measure specific flat file format was finalized from a draft prepared by the State's data analyst. Of the 24 measures selected and defined by CMS, DPW and the grantees determined that only 18 of the measures were deemed reportable at the health system level.

Methodology:

The *CHIPRA Initial Core Set Technical Specifications Manual 2011*, released February 2011 by the Center for Medicare and Medicaid Services CMS served as the guidelines for 2010 reporting. The *Initial Core Set of Children's Health Care Quality Measures: Technical Specifications and Resource Manual for Federal Fiscal Year 2011 Reporting, Updated December 2011*, released by Center for Medicaid and CHIP Services – Centers for Medicare and Medicaid Services, was employed as the reporting guidelines for 2011 reporting. The December 2011 Technical Specifications Manual can be found at <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/CHIPRA-Initial-Core-Set-of-Childrens-Health-Care-Quality-Measures.html>

While each facility was responsible for extracting their own data, rate calculations were made by the CHIPRA data analyst in DPW's Office of Clinical Quality Improvement. The team took this approach primarily because of eligibility data and the calculation of continuous enrollment. Eligibility data are not readily available to the facilities. It would not have been cost efficient for the State to continually supply eligibility data to the grantees as this would have necessitated: 1) each grantee to dedicate disk space to house several years of MA eligibility data, 2) the development of an automated process to upload data to the facilities, 3) a large learning curve for the Grantees to learn how to handle add, delete, and change records, and 4) a standardized transaction record (834 or proprietary), and 5) the facility to calculate continuous enrollment. The continuous enrollment criteria used in the Pediatric Core Measures employs nearly every permutation of continuous enrollment found in the HEDIS® Technical Specifications: 1) reporting year with anchorage, 2) reporting year with anchorage and year prior to the reporting year, 3) event/diagnosis based and 4) birthday based.

In the Demonstration Grant, Pennsylvania is looking at selected practice sites from each of the grantees. Therefore, the broad-net approach associated with programmatic reporting is far from ideal, as the denominators would be very exaggerated. Instead, the grantees are including in the measure flat files all children seen in any of the specified clinics for any reason during the reporting year. We recognize that this limits the denominator to those recipients who sought medical attention, and excludes those that did not. This approach was determined to be far more reliable than attempting to get monthly practice

specific panel rosters from the managed care plans throughout the life of the grant. There remain, however, a few measures that require the use of panel roster information such as the dental and access to care measures.

Results:

The Medical Assistance aggregate rates for the baseline and subsequent reporting year, 2010 and 2011, respectively, are presented. Whenever applicable a brief narrative of challenges, resolutions, and modifications applied by the Pennsylvania team are presented on a measure specific basis. Measures are reported on one of three reporting periods: calendar year (CY), federal fiscal year (FFY), or measure specific year.

Rates, in terms of looking for improvement, from 2010 to 2011 can best be characterized as flat-line. We attribute this to the time of the year in which the 2010 Specifications were finalized. Once rates were calculated for the baseline year (2010) there was not a substantial or significant amount of time for the facilities to design and operationalize quality improvement initiatives. We anticipate improved rates for reporting year 2012.

While Pennsylvania often reports quality measures in groupings (i.e., Preventive Care, Perinatal Care, Care of the Chronically Ill), the measures are presented here in the order as listed in the Core Measures Technical Specifications Manuals. **Please note these results should not be compared to HEDIS Medicaid MCO results since the specifications reported here are health system results not health plan results.**

Measure 1: Timeliness of Prenatal Care – Medical Assistance

Reporting Year	Numerator	Denominator	Rate
2010/2011	936	1,092	85.71%
2011/2012	*	*	*

Notes:

1. Only one of the two Category A Grantees performs deliveries. Therefore, this is not an aggregate rate.
2. * This reporting period ends November 5, 2012. The baseline rate for this measure is one year later than the other measures due to the implementation date of “Stork”, the Obstetrics module of this electronic health record.
3. Denominator based on live births during the reporting period.

Measure 2: Frequency of Prenatal Care – Medical Assistance

Reporting Year	Numerator	Denominator	Rate
2010/2011	800	1,092	73.26%
2011/2012	*	*	*

Notes:

1. Only one of the two Category A Grantees performs deliveries. Therefore, this is not an aggregate rate.
2. Rate reported is for required number of prenatal care visits derived from time of start of coverage to birth.
3. * This reporting period ends November 5, 2012. The baseline rate for this measure is one year later than the other measures due to the implementation date of “Stork”, the Obstetrics module of this electronic health record.
4. Denominator based on live births during the reporting period.

Measure 3: Percentage of Live Births Weighing Less than 2,500 Grams – Medical Assistance

FFY	Numerator	Denominator	Rate
2010/2011	53	430	12.33%
2011/2012	*	*	*

Notes:

1. Only one of the two Category A Grantees performs deliveries. Therefore, this is not an aggregate rate.
2. * This reporting period ends 09/30/12 (FFY). The baseline rate for this measure is one year later than the other measures due to the implementation date of “Stork”, the Obstetrics module of this electronic health record.
3. Denominator based on live births to mothers who received at least one prenatal care visit at the facility.

Measure 4: Cesarean Rate for Nulliparous Singleton Vertex – Medical Assistance

FFY	Numerator	Denominator	Rate
2010/2011	27	150	18.00%
2011/2012	*	*	*

Notes:

1. Only one of the two Category A Grantees performs deliveries. Therefore, this is not an aggregate rate.
2. * This reporting period ends 09/30/12 (FFY). The baseline rate for this measure is one year later than the other measures due to the implementation date of “Stork”, the Obstetrics module of this electronic health record.
3. Denominator based on live births to previously nulliparous mothers who received at least one prenatal care visit at the facility.

Measure 5: Childhood Immunization Status – Combo Rate 2 – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	3,626	4,203	86.27%
2011	4,291	4,901	87.55%

Notes:

1. No changes made to measure specifications.

Measure 6: Immunizations for Adolescents – Combined Rate – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	1,405	1,689	83.19%
2011	1,769	2,027	87.27%

Notes:

1. No changes made to measure specifications.

Measure 7: Body Mass Index Assessment for Children and Adolescents – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	30,384	37,316	81.42%
2011	34,392	42,021	81.84%

Notes:

1. No changes made to measure specifications.
2. We did build into our flat file format fields for the nutritional and physical activity guidance in the event that the Core Measure would be modified to include these elements.

Measure 8: Developmental Screening in the First Three Years of Life – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010 1 yr old	988	5,755	17.17%
2011 1 yr old	2,047	5,503	37.20%
2010 2 yrs old	982	5,066	19.38%
2011 2 yrs old	2,044	4,703	43.36%
2010 3 yrs old	460	4,752	9.68%
2011 3 yrs old	873	3,264	29.18%
2010 Aggregates	2,430	15,573	15.60%
2011 Aggregates	4,964	18,973	26.16%

Notes:

1. No changes made to measure specifications.
2. The true implementation activities surrounding this measure were started in 2011 with not all practices being implemented by the end of the year.
3. Two key implementation steps must be met for this measure to be reportable: 1) the use of the standardized screening tools must be in place, and 2) discreet fields in the E H R’s database must be present to capture the screening event data.

Measure 9: Chlamydia Screening – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	2,290	4,049	56.56%
2011	2,259	3,948	57.22%

Notes:

1. No changes made to measure specifications.
2. Determination of “sexually active” also determined from EHR data.

Measure 10: Well Child Visits in the First 15 Months of Life – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	2,511	4,769	52.65%
2011	3,377	6,153	54.88%

Notes:

1. Rate is for **6 or more visits**.
2. No changes made to measure specifications.

Measure 11: Well Child Visits in the 3rd, 4th, 5th and 6th Years of Life – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	10,075	11,549	87.24%
2011	13,632	15,567	87.57%

Notes:

1. No changes made to measure specifications.

Measure 12: Adolescent Well Care Visits – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	6,750	8,343	80.91%
2011	8,247	10,177	81.04%

Notes:

1. No changes made to measure specifications.

Measure 13: Percentage of Eligibles That Received Preventive Dental Services – Medical Assistance

FFY	Numerator	Denominator	Aggregate Rates
2010	31,528	71,461	44.12%
2011	34,844	78,332	44.48%

Notes:

1. Panel Rosters from December of the reporting year were used to identify the population from which the continuously enrolled denominator was then derived.
2. As previously cited, these data were derived from DPW claims and not EHR data.

Measure 14: Children’s and Adolescents’ Access to Primary Care – Medical Assistance

Cohort	Reporting Year	Numerator	Denominator	Aggregate Rates
(1) 12-24 mos.	2010	5,187	5,813	89.23%
	2011	5,279	5,828	90.58%
(2) 25 mos. -6 yrs.	2010	13,327	19,631	67.89%
	2011	12,048	18,051	66.75%
(3) 7-11 yrs.	2010	13,913	17,032	81.69%
	2011	19,793	24,212	81.75%
(4) 12-19 yrs.	2010	14,064	17,868	78.71%
	2011	14,245	18,027	79.02%

Notes:

1. Panel Rosters from December of the reporting year were used to identify the population from which the continuously enrolled denominator was then derived.
2. No changes to the measure.

Measure 15: Appropriate Testing for Children with Pharyngitis – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	572	630	90.79%
2011	1,257	1,381	91.02%

Notes:

1. Paid claims data were used to verify the negative medication history and to determine the antibiotic dispense date.
 - a. EHR only able to report date prescribed, not date dispensed.

Measure 16: Otitis Media with Effusion – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	NR	NR	NR
2011	NR	NR	NR

Notes:

1. Not reported; measure on hold by CMS.

Measure 17: Percentage of Eligibles That Received Dental Treatment Services – Medical Assistance

FFY	Numerator	Denominator	Aggregate Rates
2010	13,562	71,729	18.65%
2011	12,515	79,687	15.71%

Notes:

1. Panel Rosters from December of the reporting year were used to identify the population from which the continuously enrolled denominator was then derived.
2. As previously cited, these data were derived from DPW claims and not EHR data.

Measure 18: Ambulatory Care – Emergency Department Visits – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	NR	NR	NR
2011	NR	NR	NR

Notes:

1. NR. We found this measure to be not-reportable through the EHR.
2. From a numerator perspective, children from other health systems would frequent the facility's ED - falsely increasing the rate, conversely, children associated with the Grantee's facility would be seen in Emergency Departments associated with other health systems creating a visit that may go unreported to the Primary Care Physician, and therefore not captured in the EHR. For this measure to work member months data are required. As discussed earlier in this report, making monthly eligibility data available to a practice and to the EHR would require a moderate to large systems enhancement in order to allow per 1000 member month reporting.

Measure 19: Pediatric Central Line Associate Blood Stream Infections (CLABSI) – Medical Assistance

FFY	Numerator	Denominator	Rate
2010	NICU 9	NICU 2250.7	0.0**
	PICU 1	PICU 15.6	0.0**
2011	*	*	*

Notes:

One grantee was able to report this measure so this is not an aggregate rate. The second grantee’s ambulatory and inpatient areas have only been using the same EHR platform since 1/11. As a result, they cannot extract raw inpatient data for CY 2010 for this measure.

1. Using the National Healthcare Safety Network (NHSN) report, pediatric patients with confirmed CLABSI were identified and through the use of additional information from the EMR the payer was identified which enabled the identification of MA patients. The EMR also supplied name, gender, race, birth weight, discharge date, etc.
2. * There is no 2011 data at this time due to this being a Federal Fiscal Year measure.
3. ** The ratios were calculated as directed in the CMS Technical Specifications for the Initial Core Set of Children’s Health Care Quality Measures. They have been rounded to the nearest tenth of a percent.

Measure 20: Annual Percentage of Asthma Patients with 1 or more Asthma ED Visits – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	NR	NR	NR
2011	NR	NR	NR

Notes:

1. NR – Considered not reportable from the EHR.
2. Within the confines of the EHR emergency department documentation, the presence and/or accuracy of diagnosis information was found to be an unreliable and/or incomplete. This was a new discovery for the Grantees and is an area that has been identified to be considered for improvement.
3. Billing data is most accurate and complete for diagnosis information.
4. Visits to all emergency departments can be captured through claims data, and would therefore produce a more accurate rate that would meet the true intent of the measure.

Measure 21: Follow-up Care for Children Prescribed ADHD Medication – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	NR	NR	NR
2011	NR	NR	NR

Notes:

1. NR. We found this measure to be not-reportable through the EHR.

Measure 22: Annual Pediatric Hemoglobin A1C Testing – Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	188	241	78.01%
2011	215	273	78.75%

Notes:

1. Allowed A1C lab results that were within 7 days of the last day of the reporting year to be compliant.

Measure 23: Follow-up after Hospitalization for Mental Illness - Medical Assistance

Reporting Year	Numerator	Denominator	Aggregate Rates
2010	NR	NR	NR
2011	NR	NR	NR

Notes:

1. NR. Not reportable from EHR. This data is rarely entered into the medical record. If a practitioner happens to send documentation of follow-up, then the issue becomes that there are not discrete fields in the EHR indicating that: 1) such an admission has taken place, and 2) that a visit note has been received documenting the 2 follow-up visits.

Measure 24: CAHPS® 4.0 (child version including Medicaid and children with chronic conditions supplemental items)

DPW will not be asking the grantees to report on this measure. This measure is reported through other Medical Assistance avenues (MCOs and FFS) and DPW is considering utilizing the rates associated with those collections.