



BCBSM Physician Group Incentive Program 2012 Program Year

Emergency Department Utilization Initiative

Initiative Plan



I. Initiative Overview

The Blue Cross Blue Shield of Michigan (BCBSM) Emergency Department Utilization (EDU) Initiative is one of many initiatives of the Physician Group Incentive Program (PGIP). Since its inception in 2005, PGIP has supported and facilitated practice transformation using a wide variety of initiatives to reward Physician Organizations (POs) for improved performance in health care delivery. As of September 2011, PGIP includes 40 POs from across the state of Michigan, representing nearly 15,000 primary care and specialty physicians who are members of the BCBSM TRUST PPO and/or Traditional Networks. These physicians provide care to nearly two million BCBSM members.

PGIP encourages all payer collaboration, catalyzing all payer system development, rather than payer-specific system development. Through PGIP, BCBSM is helping to improve the quality of care for all Michigan residents. Patients throughout the state, regardless of payer, benefit from the improved care processes developed through the PGIP provider community. Developing systems of care which are used for all patients helps assure that providers don't have to alter care processes based on whether patients have insurance, or which insurance they have. This is an important factor in ensuring that the best practices and care processes are reliably provided to all patients, all of the time. This all-payer approach to practice transformation is good for patients with coverage from BCBSM and BCN and helps further BCBSM's social mission of cultivating a healthier future for all Michigan residents.

Goals and Objectives

The EDU Initiative is designed to impact primary care sensitive (PCS) Emergency Department (ED) use rates and cost by providing incentives to PGIP POs commensurate with their performance and improvement efforts in reducing PCS ED use rates in PGIP-attributed pediatric and adult populations. The objectives of the EDU Initiative are:

- To increase participation of PGIP POs in the EDU Initiative
- To reduce PCS ED use rates for PGIP-attributed pediatric and adult members
- To provide data for POs to identify conditions related to PCS ED use and frequent flier visits.

Summary of Results

The EDU Initiative was launched in 2009. Since inception, the Initiative has grown to include 92% of PGIP POs targeting over 5,000 primary care physicians (PCPs) and nearly 1.5million members. Historical PO participation trends are available in the Results section of this paper.

Risk-adjusted PCS ED use rates remained the same for both the PGIP pediatric and adult populations with 121 and 115 per 1,000, respectively, in 2008 and 2009. Data from the EDU Initiative dashboard released in May 2011 shows increases in PCS ED use for the adult population and a decline in pediatric PCS ED use to 40.6% in 2010 from 43% in 2009.

Historical trends for both pediatric and adult populations are also available in the Results section of this paper.

II. Background

Health Problem and Significance

Since 1986, when Congress passed legislation requiring EDs to screen and provide emergency care for all presenting patients, emergency rooms have become the providers of first and last resort for millions of Americans.¹

Between 1993 and 2003, the number of emergency department visits increased by 26%, to 113.9 million visits per year. During this same period, the United States experienced a net loss of 425 hospital EDs.² More recent studies echo similar trends of continued increased ED use. A study conducted by Tang, et.al. in 2010 indicates that there were nearly 117 million ED visits in the U.S. in 2007.³ The issue of excess demands on the emergency department is exacerbated by the continued role of the ED as one of the nation's principal sources of care for patients with limited access to other providers.

According to the Blue Cross and Blue Shield Association, a patient going to the emergency room for non-emergency care was one of the major sources of waste in the health care system identified in a 2006 PricewaterhouseCoopers' Health Research Institute report. According to the report, patients who unnecessarily visited the ER wasted about \$14 billion annually. This analysis considered health care costs "wasteful" when they could have been avoided or reduced without hurting patients' quality of care.⁴

Access to high quality, effective and efficient emergency care for patients is a critical part of health care services. Yet, the emergency department is frequently overburdened with patients seeking care through inappropriate settings. Studies have found that as many as 50% of ED visits are for cases that are either non-emergent or treatable in a primary-care setting.⁵ Value Partnerships contacted other Blue plans to gain information about primary care treatable ED visits and learned that Blue Cross Blue Shield of Massachusetts (BCBSMA) uses the New York University (NYU) algorithm for classifying ED visits. For the second quarter of 2011, BCBSMA reports that a network average of 55% of ED visits was either non-emergent or PCP-treatable.

Tang, et al (2010) also indicates that leading causes for children's ED visits were cough, fever, and vomiting; the leading cause for an ED visit among adults was general pain or abdominal pain, some of which could be considered PCS.⁶ PCS conditions as defined by the NYU algorithm (see full definition below) are those conditions where immediate medical care was not required within 12 hours, or that treatment was required within 12 hours, and care could have been provided effectively and safely in a primary care setting.

According to the literature, there are a variety of reasons patients use the ED for non-emergent care including:

- Lack of access to, or knowledge of, how to access a primary care provider (PCP)
- Dissatisfaction with waiting time for PCP appointment
- Inadequate management of chronic conditions by PCP (e.g., failure to provide self-management training, failure to address gaps in care)
- Financial barriers to adequate self-management (e.g., prescription copays)
- Prescription drug abuse
- Mental health issues
- Familiarity and preference for treatment in ED settings

- Attempt to shorten timeframe for diagnosis and avoid long waits for specialist appointments and testing
- Inability to pay for physician visits (EDs have to take patients regardless of ability to pay)

Haltiwanger, et al (2006) conducted a prospective survey completed by parents (for children aged 17 and younger) and patients (aged 18 -21) presenting to a suburban academic pediatric emergency department to identify reasons for seeking non-urgent care in the ED. Seventy-nine percent of the respondents surveyed had a PCP, 54% of which had contacted their PCP prior to the ED visit; 52% of those who reached their PCP were told to go to the ED.⁷

This study further suggests that most respondents did not express a strong preference for seeing their PCP. Only 24% would rather have seen their PCP than the ED physician; 22% preferred an emergency room doctor.⁸ Other researchers report similar findings. According to Doobinin, et al (2003), 45% of parents call the PCP prior to bringing their children to the ED, and 73% of these parents say they were told to go to the ED.⁹

Patients who rely on or are referred to the ED for primary care generally have poorer health outcomes. A study of low-income patients in New York found that hospitalization rates were 50% higher for preventable and avoidable conditions for patients who received care from an ED compared to those receiving care in a physician office.

BCBSM Experience

Through PGIP, BCBSM has worked to solve the problem of PCS ED use through the EDU Initiative since 2009. In addition to this strategy, BCBSM is currently researching other strategies that can impact cost and use associated with inappropriate ED visits.

In January 2011, BCBSM launched a network of urgent care providers. These urgent care centers offer walk-in care for patients with illnesses or injuries that do not require the intensity of care offered at an emergency room, but typically cannot wait for a scheduled appointment in a physician's office. A listing of participating urgent care centers is accessible through the BCBSM website.

Other strategies in development are to align benefit plans to ensure that patient copays do not encourage inappropriate ED use, and that plans do not limit access to primary care or other outpatient visits. BCBSM is comprehensively working to ensure benefit plans are designed so that primary care is the most affordable option for members, and that the emergency room is used appropriately.

Possible Solutions

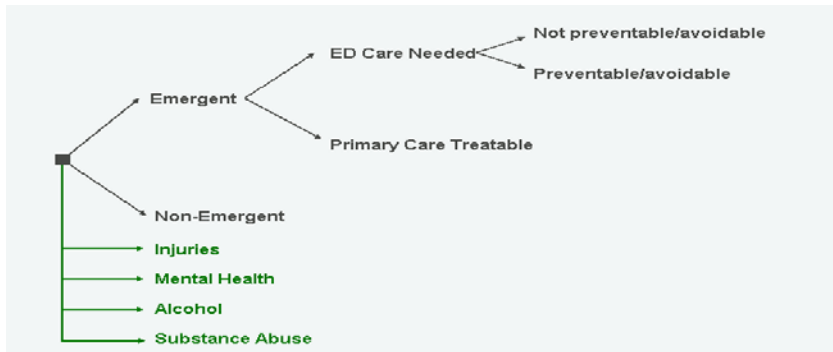
An extensive search for information about solving the problem of high inappropriate ED use rates reveals that payers, providers, and employers have implemented a range of initiatives with varying levels of success to decrease ED overcrowding and cost. Efforts to reduce ED use for PCS conditions can generally be grouped into several categories:

- Improved care coordination for patients with PCS conditions
- Improved patient access to primary care
- Improved patient education
- Access to clinically trained telephonic support

- Access to non-ED urgent care facilities
- Alignment of financial incentives
- Interventions at the ED location

BCBSM Experience

Consistent with national trends, 47% of BCBSM PGIP-attributed adult ED visits and 40% of pediatric ED visits in 2010 were for PCS conditions. BCBSM used an ED visit classification algorithm developed by NYU to determine the PCS category for its members.



The NYU algorithm, which was derived from a sample of about 6,000 full ED records from six Bronx hospitals (1994, 1999), assigns a probability that an ED visit fits into four main emergent / non-emergent categories:¹⁰

- *Non-emergent*: The patient's initial complaint, presenting symptoms, vital signs, medical history, and age indicated that immediate medical care was not required within 12 hours.
- *Emergent – Primary Care Treatable*: Based on information in the record, treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting. The complaint did not require continuous observation, and no procedures were performed or resources used that are not available in a primary care setting (e.g., CAT scan or certain lab tests).
- *Emergent ED Care Needed – Preventable/Avoidable*: ED care was required based on the complaint or procedures performed or resources used, but the emergent nature of the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness (e.g., flare-ups of asthma, diabetes, congestive heart failure, etc.).
- *Emergent ED Care Needed - Not Preventable/Avoidable*: ED care was required and ambulatory care treatment could not have prevented the condition (e.g., trauma, appendicitis, myocardial infarction, etc.)

Of the PGIP-attributed adult PCS ED visits in a calendar year time period released in May 2011, 20.8% of visits were non-emergent, 22% emergent- primary care treatable, 4.4% emergent - ED needed – preventable/avoidable, and 15.3% emergent - ED needed - not preventable/avoidable. For PGIP-attributed pediatric ED visits, 16.6% non-emergent, 18.3% emergent - primary care treatable, 5.7% emergent - ED needed – preventable/avoidable, and 6.3% classified as emergent - ED needed – not preventable/avoidable..

III. Initiative Description

Specific Area of Focus

The EDU Initiative measures the performance of PGIP POs in PCS ED visit rates. ED visit rates are processed through the NYU algorithm and categorized as explained earlier in this document in bi-annual dashboard reports to participating PGIP POs. ED use rates for the POs patient population are reported using the most current physician list and most current assignment of primary care relationships. POs are measured on PCS ED use rates for their attributed patient population ages 0-64. See Appendix I for cause and effect diagrams that describe how this Initiative views the problems that lead to ED misuse.

The EDU Initiative is a pay-for-performance program targeting PCPs. It encourages POs to implement strategies that will interrupt the cascade of events that contribute to the problem of overuse of the ED, specifically those problems related to PCS ED use by providing incentives.

Target Population

The EDU Initiative targets all PGIP-attributed pediatric members between 0 – 17 years of age, and PGIP-attributed adult members between 18 – 64 years of age.

Criteria for Participation

Any non-oncology PGIP-participating PO is eligible for participation in this Initiative. POs are expected to analyze their data and develop strategies and targeted patient interventions to reduce inappropriate ED utilization.

BCBSM Deliverables

BCBSM will provide two types of data reports to POs – an EDU dashboard report and patient level dataset.

The EDU dashboard report is distributed twice a year and includes unadjusted and adjusted rates by PO for all categories of ED use (based on NYU algorithm). Other data include the following:

- Pediatric and adult populations reported separately
- Unadjusted and adjusted cost by PO for all categories of ED use
- Percent of each POs attributed population having an ED visit
- Data on patients in each POs attributed population that are frequent ED users (five or more visits per year)*

The EDU patient level dataset will be disseminated to each PO quarterly. Patient detail information such as, patient name, date of birth, gender, dates of ED visits, discharge diagnosis, NYU algorithm probability of visit being classified into non-emergent, and total standard cost are included in this dataset. The data delivery schedule is available in Appendix II.

BCBSM reserves the right to modify its evaluative and administrative processes related to the Initiative.

PO Expectations/Deliverables

POs will receive biannual dashboard reports from BCBSM outlining the ED utilization for their attributed members. Those POs who have selected this Initiative are expected to review the dashboards and develop process improvements to mitigate inappropriate ED utilization by their attributed members. The reports allow POs to view how the ED is utilized by their members. Specifically, POs may use available data on the number of preventable, primary care treatable ED visits within their group and the PGIP community to provide utilization feedback to outline the effects of the process outcome(s).

POs should utilize dashboard reports and quarterly datasets, also provided by BCBSM, to identify variation in ED utilization and develop and implement strategies and programs to manage the inappropriate use of ED services among sub-POs, practice units, and individual physicians.

POs should nominate an analytic lead for process improvement analysis or establish a central analytic hub for the entire PO group. Analytics could include content that BCBSM cannot provide, such as data collection related to chart. Time studies related to patient flow could also be valuable. Other potential PO led analysis may include outpatient sites where patients have long wait times, or disjointed care coordination which can lead to increased ED utilization. Each of these can be remedied fairly simply.

Participating POs are also required to complete PGIP Progress Reports and related surveys. Progress reports must be completed twice a year by all POs participating in the Initiative. The progress reports are an opportunity to describe barriers to and strategies for success in managing the PO's patients' use of the ED.

POs should designate a representative to attend the monthly PGIP Data Users Workgroup (DUW) meetings offered throughout the year. Meetings are planned and facilitated by PGIP POs for PGIP POs and provide a forum for collaboration among POs, a hallmark of the PGIP program. Attendance at these is strongly encouraged to get acquainted with data content and its practical uses by a PO.

Incentive Model and Payment Methodology

Incentives for the EDU Initiative are based on the PO's performance and improvement in PCS ED utilization rates aligned with the classifications in the NYU algorithm. Incentives are calculated by measuring PO performance on PCS ED use rates for adults and pediatrics, and also for improvement in PCS ED use rates for adults and pediatrics. There is no pay-for-participation incentive in this Initiative. Full incentive payments are given to POs who perform and improve at or better than the benchmark. Performance and improvement carry equal weight in Initiative scoring.

Direct standardization is used to risk-adjust (or standardize) utilization rates and standard costs per member per month (PMPM) by the member's age, gender and symmetry risk score. Risk adjusting provides utilization and standard cost estimates that are comparable across POs and practice units.

In this Initiative, incentive payments are based on PO performance, PO improvement over a prior measurement period, and the number of PO-attributed members. The payment methodology generates a single summary score for each PO that represents the weighted sum of the PO's normalized performance score and normalized improvement score. The normalized performance score is represented along a scale from 0-1, where 1 represents the best performance and 0 represents the worst performance. The normalized improvement score – the ratio of current improvement to the theoretical optimal improvement – is similarly represented along a scale from 0-1, where 1 represents the most improvement over the previous measurement period and 0 represents the least improvement over the previous period.

Each PO with a summary score above a certain percentile will receive an Initiative incentive payment. The PO will receive a percentage of the Initiative-specific incentive pool based on the PO's summary score, weighted by the PO's number of attributed members. POs with summary scores in the lowest percentiles will receive either no incentive payment or a negative incentive payment. The negative payment is based on the PO's summary score and the number of attributed members, factored by a negative 10% payment percentage.

The negative incentive payment is designed to a) encourage POs to become actively engaged in pursuing improvement in those initiatives in which they are enrolled, and b) encourage POs to carefully make their initiative selections and discourage them from enrolling in initiatives without engaging in activities to improve performance. A PO's poor performance on a specific initiative can result in a negative incentive payment that reduces the PO's overall reward payment for the scoring period. However, a PO's overall incentive payment (for all PGIP initiatives) for a scoring period will never be lower than zero.

BCBSM reserves the right to use discretion in making incentive payments based on the data and relative PO performance.

IV. Evaluation

The evaluation of the PGIP EDU Initiative will address the intervention design and delivery, and will focus on the effects theorized to result from the intervention. These effects include short-term measures focused on activities and participation, intermediate measures targeting measurement of behavioral and knowledge-based changes, and long-term effects that include reducing inappropriate ED utilization, which subsequently may reduce cost or slow the cost trend. The evaluation is intended to provide insight into the effectiveness of the designed EDU Initiative.

Progress Reporting

The Value Partnerships' development team monitors the progress of the EDU Initiative on an ongoing basis. Specific data collection tools are distributed biannually to gain specific information about PO strategies and progress in achieving short-term and intermediate measures. The PGIP PO progress report is disseminated twice a year (April and October). This tool collects data about the POs' general work and experience in PGIP and also about their progress in selected PGIP initiatives. The progress reports provide POs the opportunity to update BCBSM on activities, strategies, accomplishments and obstacles during the reporting period. The EDU Initiative progress report includes a number of questions that, when answered by the POs, form the basis for the short- and intermediate-term outcome evaluations.

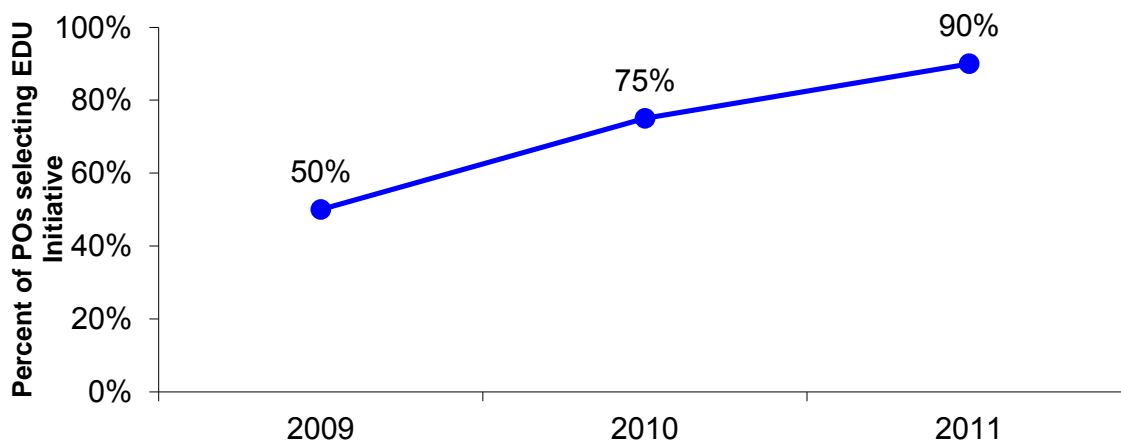
V. Results

- Since the EDU Initiative was launched in 2009 it has grown to include 92% of the PGIP POs, targeting over 5,000 PCPs and nearly 1.5 million members.
- Annual reviews and ongoing communications with PGIP POs show there is still potential to generate cost savings and impact use trends.
- Changes in rates have shown promise in the pediatric population but not among the adult population.
- Value Partnerships will continue to work with the PGIP PO community to share best practices, monitor Initiative progress, and guide POs on helpful analytics.

Historical Participation Trends

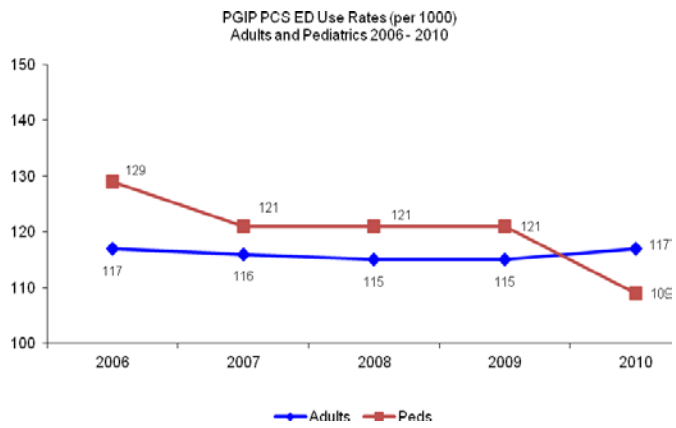
The EDU Initiative was launched in 2009. Since inception, the Initiative has grown to include 92% of PGIP POs, targeting over 5,000 PCPs and nearly 1.5 million members. Historical PO participation trends displayed below.

Figure 1: The EDU Initiative PO Participation 2009-2011

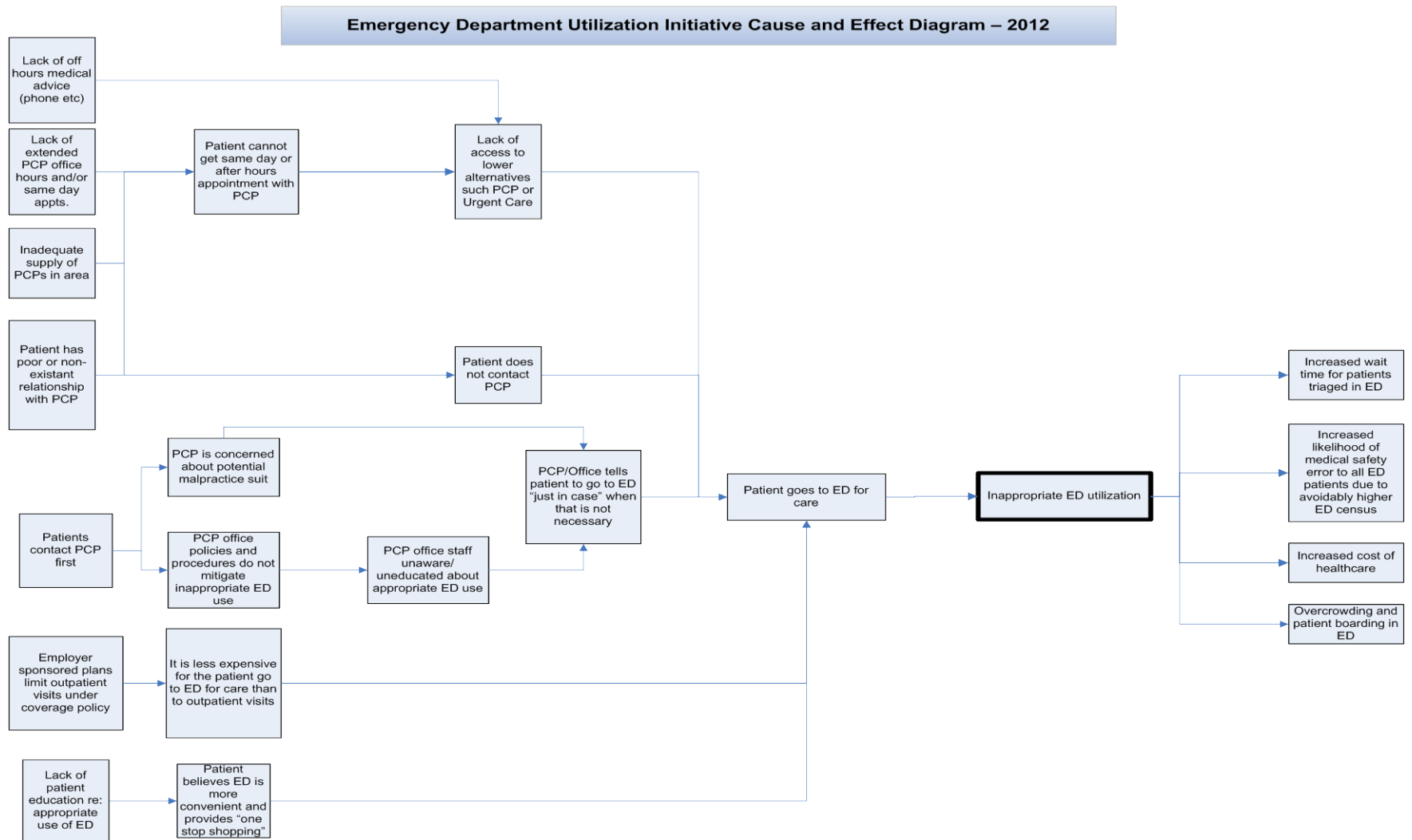


From 2008 to 2009 risk-adjusted PCS ED use rates remained the same for both the PGIP pediatric and adult populations with 121 and 115 per 1000 respectively. Data from the EDU Initiative dashboard released in May 2011 show an increase in PCS ED use for the adult population and a decline in pediatric PCS ED use. Figure 6 below depicts historical trends for both populations from 2006 to 2010.

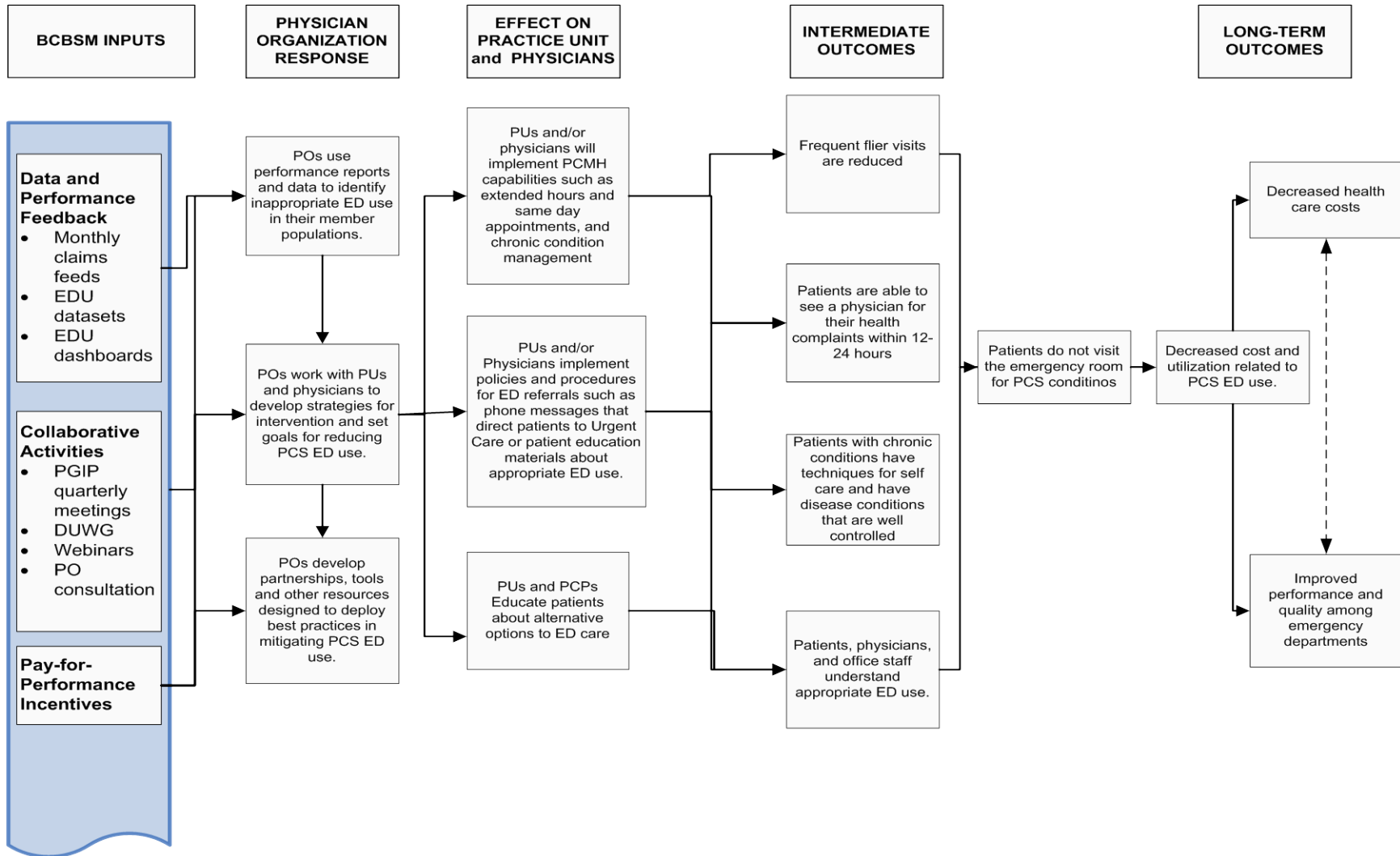
Figure 2: Risk-Adjusted PCS ED Use Rates (per 1000) for PGIP-Attributed Adults and Pediatrics 2006 – 2010.



Appendix I – Cause and Effect Diagrams



Emergency Department Utilization Initiative Intervention - 2012



Appendix II – Data Delivery Schedule

Dashboards		Datasets			
1	2	#1	#2	#3	#4
May 2012	Nov 2012	Feb 2012	May 2012	Aug 2012	Nov 2012

BCBSM reserves the right to modify its evaluative and administrative processes related to the Initiative.

Appendix III – Evaluation Metrics

Short-term Measures

Participation and process measures for the EDU Initiative that will be measured as a part of this Initiative’s evaluation are listed below. The table describes participation and process metrics associated with the resource requirements and processes for assessing the PO’s capacity for activities that may indicated full engagement in and/or implementation the EDU Initiative. The table includes metrics, data collection sources, and indicators.

EDU Initiative Participation and Process Measures

Measurement	Data Source	Indicator
PO Participation	Initiative Selection List	Number and percent of eligible POs that participate in the EDU Initiative
	Webinar attendance list	Number and percent of POs participating in 2012 EDU webinars
Physician Participation	PGIP Physician List	Number and percent of eligible PCPs participating in the EDU Initiative
Member Participation	PGIP Physician List & EDU Dashboard	Number and percent of PGIP members assigned a PCP relationship to a PCP participating in the EDU Initiative
PO Strategy Development and Implementation	Progress Report	Number and percent of participating POs that report
Strategies to implement the Initiative developed – PO level		Number and percent of POs reporting strategies to implement the Initiative developed

Intermediate Measures

Intermediate measures for the EDU Initiative target behavioral and knowledge-based changes that may occur on behalf of primary care physicians and/or practice units. Intermediate measures for this Initiative were developed based on a review of national best practices in reducing PCS ED use. Intermediate metrics for the EDU Initiative that will be measured as a part of this Initiative’s evaluation are listed.

EDU Initiative Intermediate Measures

Measurement	Data Source	Indicator
Same day appointments available	Progress Report	Number and percent of PUs reporting PCMH capabilities 5.0 – 5.9
Extended hours	SRD	Number and percent of practice units offering evening/weekend appointments (overall and by PO) – PCMH 5.7 and 5.8
24/7 telephone access		Number and percent of practice units offering after hours care resources – PCMH 5.1 – 5.6
Written information provided to patients about when inappropriate ED use.		Number and percent of practice units offering 24/7 telephone access (overall and by PO)
Practice units adopting policies on ER care referrals		Number and percent of practice units that have conducted staff training about when to seek ER care (overall and by PO)
Written communication about where to seek urgent care in community		
Identification of patients who are high frequency ED users	Progress Report	Number and percent of POs identifying patients using the ED more than five times annually (overall and by PO)
Implementation of self management plans for patients with chronic conditions	SRD	Number and percent of practice units reporting development of individual care plans and self-management support (overall and by PO) PCMH 11
Systemic approach to coordination-of-care services		Number and percent practice units reporting patient programs for follow-up visits, test result reporting and tracking, specialist referrals, and medication adherence (overall and by PO) PCMH capabilities

Evaluation Design and Schedule

BCBSM's Value Partnerships development team and PGIP administrative team will collect the information from data sources required to evaluate the intermediate measures identified above. Data about intermediate measures are collected biannually through the PGIP PO Progress Report, EDU data dashboards, and PGIP Self-Reported Database (SRD). Data are tracked, compiled and reported to Value Partnerships leadership teams, POs and other stakeholders on an annual basis.

Appendix IV – PGIP Contacts

Kathleen Kobernik, RPCV
Health Care Analyst, Value Partnerships
313-448-6191
kkobernik@bcbsm.com

Amanda Harrier, MPH
Manger, Clinical Epidemiology and Biostatistics
313-448-7589
aharrier@bcbsm.com

Billy Cao, MS
Health Care Analyst, Clinical Epidemiology and Biostatistics
313-448-2232
bcao@bcbsm.com

Beth Goldman, MD, MPH
Clinical Lead
bgoldman@bcbsm.com

Endnotes

¹ Emergency Medical Treatment and Active Labor Act 1986. 42 USC 1395. Retrieved from <http://www.medlaw.com/healthlaw/EMTALA/statute/emergency-medical-treatme.shtml>.

² Institute of Medicine. (2007) *Hospital-Based Emergency Care: At the Breaking Point*. Washington, DC: The National Academies Press. Retrieved from <http://search.nap.edu/nap/cgi/skimchap.cgi?recid=11621&chap=17-36>.

³ Tang N, Stein J, Hsia RY, Maselli JH, & Gonzales R. (2010). Trends and Characteristics of US Emergency Department Visits, 1997-2007. *Journal of the American Medical Association*, 304(6), 664-670. doi:10.1001/jama.2010.1112

⁴ Excellus Blue Cross Blue Shield. *The Facts About: Potentially unnecessary emergency room visits in upstate New York*. Retrieved from <https://www.excellusbcbs.com/wps/wcm/connect/c4f1758042992547b080b2dc5c9c0b98/ER+Visits+FS-EX+FINAL.pdf?MOD=AJPERES>

⁵ McCaig LF, Nawar EN. (2006) *National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary*. Hyattsville, MD: National Center for Health Statistics.

⁶ Tang N, Stein J, Hsia RY, Maselli JH, & Gonzales R. (2010). Trends and Characteristics of US Emergency Department Visits, 1997-2007. *Journal of the American Medical Association*, 304(6), 664-670. doi:10.1001/jama.2010.1112

⁷ Haltiwanger KA, Pines JM, & Martin ML. (2006) The Pediatric Emergency Department: A Substitute for Primary Care? *The California Journal of Emergency Medicine* 2(2), 26-30. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2872515/pdf/cjem7-26.pdf>

⁸ Doobinin KA, Heidt-Davis PE, Gross TK, & Isaacman DJ. (2003) Non-urgent pediatric emergency department visits: Care-seeking behavior and parental knowledge of insurance. *Pediatric Emergency Care* 19(1), 10-14.

⁹ Doobinin KA, Heidt-Davis PE, Gross TK, & Isaacman DJ. (2003) Non-urgent pediatric emergency department visits: Care-seeking behavior and parental knowledge of insurance. *Pediatric Emergency Care* 19(1), 10-14.

¹⁰ *NYU ED Algorithm Background*. Retrieved from the New York University, Center for Health and Public Service Research website: <http://wagner.nyu.edu/chpsr/index.html?p=25>