

# **Health Plan Performance Improvement Project (PIP)**

## **Passport Health Plan**

### **Focused Sickle Cell Case Management Project**

**Final Report - September 1, 2009**

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**Submission to:  
Kentucky Department for Medicaid Services**

# Table of Contents

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MCO AND PROJECT IDENTIFIERS..... 3  
ABSTRACT ..... 5  
PROJECT TOPIC..... 7  
METHODOLOGY ..... 9  
INTERVENTIONS/CHANGES FOR IMPROVEMENT..... 14  
RESULTS..... 15  
DISCUSSION ..... 19  
NEXT STEPS ..... 21

**MCO AND PROJECT IDENTIFIERS**

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Please complete all fields as accurately and as completely as possible.

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**1. Name of MCO: Passport Health Plan (PHP)**

**2. Select the Report Submission:** [If any change from initial submission, please complete section 7 below.]

PIP Part I: Project Proposal    Date submitted: **12/1/05**

PIP Part II: Interim Report    Date submitted: **9/24/07**  
**9/01/08**

PIP Part III: Final Report    Date submitted: **9/1/09**

**3. Contract Year:    2008-2009**

**4. Principal Contact Person:    Theresa Watson, RN, BSN**

**4a. Title:    AVP, Quality Improvement**

**4b. Phone: 502-585-7315**

**4c. Email Address:    terry.watson@amerihealthmercy.org**

**5. Title of Project: Focused Sickle Cell Case Management Project**

**6. External Collaborators (if any):    none**

**7. For Final Reports Only: If Applicable, Report All Changes from Initial Proposal Submission:** [Examples include: added a new survey, added new interventions, deviated from HEDIS® specifications, reduced sample sizes]

## 8. Attestation

The undersigned approve this PIP Project Proposal and assure their involvement in the PIP throughout the course of the project.

Signature on file

Jacqueline Simmons, MD      Chief Medical Officer

Signature on file

Theresa Watson, RN, BSN      AVP, Quality Improvement

NA

IS Director (when applicable)

Signature on file

Ruth Atkins      Executive Director

# Abstract

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This section should be approximately 1-2 pages in length. The Abstract should be completed only for the Final Report.

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[Provide an abstract of the PIP highlighting the project topic and objectives, briefly describe the methodology and interventions, and summarize results and major conclusions of the project.]

## **1. Project Topic / Rationale / Aims**

[Provide title of the project; State rationale for project, objectives, project questions, baseline and/or benchmark data, and goal for improvement.]

The title of this project is Focused Sickle Cell Case Management. In 2005, the Department for Medicaid Services (DMS) expressed interest in the Plan implementing a program to focus on members with sickle cell disease. 2005 baseline claims data has identified 196 members with sickle cell disease. The project objectives were:

- Facilitate access to necessary care.
- Serve as a resource for sickle cell members and link them with community resources, agencies and/or support groups.
- Improve member's knowledge of sickle cell disease and the appropriate management of symptoms.
- Partner and collaborate with practitioners to improve compliance with standards of care.

The program has three goals:

- Improve the quality of life of members with sickle cell disease (SCD).
- Improve practitioner compliance with standards of care.
- Decrease hospital admissions.

The question this project was designed to answer is, "By implementing a focused program will the Plan positively impact the member's quality of life and improve practitioner compliance with national standards of care?"

## **2. Methodology**

[Describe the population, study indicators, sampling method, baseline and remeasurement periods, and data collection procedures.]

Members were selected based on age greater than one year of age by December 31 of the calendar year for each measurement and a claim submitted with a diagnosis of sickle cell disease. The data collection tool was developed and reviewed by KDMS and IPRO. Annually in the spring, charts were audited at the provider sites by nurse reviewers. IPRO recommended that the eligible population for the inpatient admission indicator include all members with sickle cell disease, and not only those enrolled in the sickle cell care management program. Quality of life surveys were completed on all members admitted to the case management program and again at six months, if the member was still in the program.

### 3. Interventions

[Describe the interventions and target of the interventions. This section may include interim results gleaned from using a PDSA method, if applicable.]

Interventions for this performance improvement project were targeted to providers' lack of awareness of the Sickle Cell Clinical Practice Guideline. Interventions for this performance improvement project were also targeted to members' lack of knowledge about disease process, Plan benefits, treatment options, and community resources. Multiple member, provider and community interventions were implemented to address these measures. These included but were not limited to:

- Provided one-on-one case management services to those members who consented, included information on transportation resources, community resources for food, clothing, etc. and information on how to apply for SSI.
- Sickle Cell Disease Clinical Practice Guidelines developed, approved by the Quality Medical Management Committee and distributed to the PCP and specific specialist seen by this member population.
- Distributed CPG results to providers annually.
- Due to incorrect addresses and phone numbers SCD Case Manager initiated inpatient hospital visits of members hospitalized for Sickle Cell Crisis.
- Contacted members seen in ER and not previously enrolled in program.
- SCD Case Manager begins attending Sickle Cell Support Group Meetings.
- Sickle Cell materials for the Pediatric population were developed and approved by the DMS.
- Pediatric SCD brochure mailed to pediatric SCD members already in case management, all new pediatric SCD referrals.
- Brochures provided to pediatricians, pediatric hematologists, and the Case Management Department at Kosair Children's Hospital.

### 4. Results

[Specify number of cases in the project, remeasurement rates for project indicators, and statistical test results if applicable.]

Initially 196 members were identified with Sickle Cell Disease. For CY 2008 there were 112 identified members with Sickle Cell Disease diagnosis  $\geq$  24 months. The Sickle Cell program has case managed 101 members over the course of this 3 year study. The following results were noted:

- Quality of life survey results indicate that of those completing the survey both initially and at the 6 month interval of case management intervention 88% indicated a same or better quality of life. However, the denominator for this measure was minimal at 40 surveys.
- Of the key indicators of sickle cell management 4 of the 7 demonstrated improvement and 2 of the 7 demonstrated a decline. One indicator remained unchanged.
- Of the key indicators of sickle cell disease pain assessment 7 of the 9 demonstrated improvement and 1 of the 9 demonstrated a decline. One indicator remained unchanged.
- Of the 4 key indicators of sickle cell disease pain management an increase in the percentage of members reporting moderate to severe pain is noted and a decrease in the percentage of members reporting uncomplicated to mild pain is demonstrated.

## 5. Conclusions

[Address whether the project objectives were met, any corresponding explanations, and a synthesis of the major project findings, any major project limitations, barriers, financial impact and next steps.]

Project objectives were met somewhat, % of members responded with improved quality of life on the surveys and improvement was demonstrated for 55% of the key indicators over the course of the three year study. However, on the significant indicators for pain management members reported more moderate to severe pain. Health care providers working to improve the quality of life of members affected with sickle cell disease meet with many obstacles. Members are resistant to case management and distrustful because of the lack of care and understanding they have encountered in the past when seeking treatment for pain associated with sickle cell disease. Lack of compliance with routine office visits result in frequent visits to the emergency room which then take the place of scheduled office visits. Distribution to providers of the sickle cell disease clinical practice guideline and the audit results provided insight into areas of care for providers to focus on for needed improvement. This in turn increased the quality of care each member received for treatment of sickle cell disease.

# Project Topic

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Provide a general description of the project topic that is clearly stated and relevant to the enrolled population.

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## 1. Describe Project Topic

The Plan assesses the impact in quality of care outcomes for members with sickle cell disease when enrolled in a specialized case management program. This program includes enrollment of all plan members with sickle cell disease unless the member refuses participation. The program has three goals:

- Improve the quality of life of members with sickle cell disease (SCD).
- Improve practitioner compliance with standards of care.
- Decrease hospital admissions.

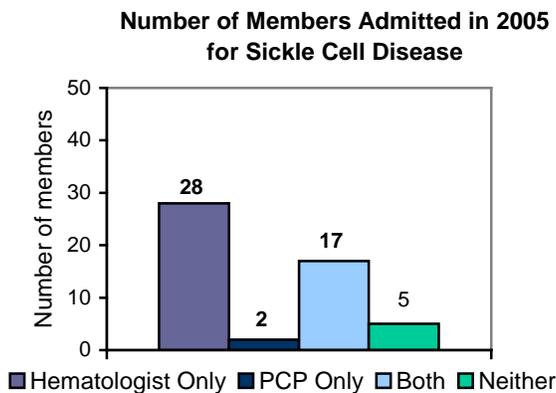
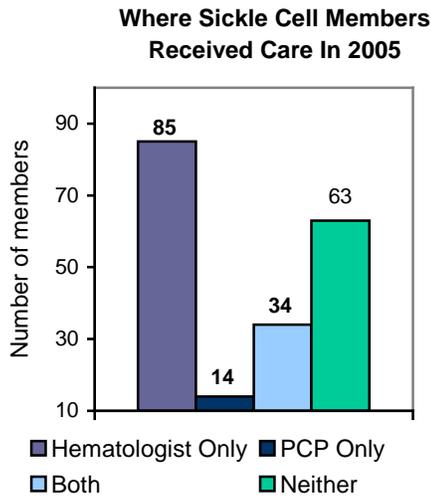
## 2. Rationale for Topic Selection

In 2005, the Department for Medicaid Services (DMS) expressed interest in the Plan implementing a program to focus on members with sickle cell disease. 2005 baseline claims data has identified 196 members with sickle cell disease.

The majority of sickle cell members received care from a hematologist only and had the highest number of admissions. This is as to be expected as we believe that members who receive care from specialists are the most chronically ill. However, the members we are concerned about are those identified as not receiving care from a hematologist

or a PCP for treatment and management of sickle cell disease, who were the second highest number of sickle cell members identified.

It is also important to note that the 28 unique members seeing a hematologist only, had a total of 56 admissions; two members seeing a PCP only had a total of four admissions; seventeen members seeing both providers had a total of 107 admissions; and five members seeing neither provider had a total of eight admissions.



By implementing this program we expect to achieve the following objectives:

- Facilitate access to necessary care.
- Serve as a resource for sickle cell members and link them with community resources, agencies and/or support groups.
- Improve member's knowledge of sickle cell disease and the appropriate management of symptoms.
- Partner and collaborate with practitioners to improve compliance with standards of care.

### 3. Aim Statement

The question this project is designed to answer is, “By implementing a focused program will the Plan positively impact the member’s quality of life and improve practitioner compliance with national standards of care?”

The aim of this project is to improve the quality of life of members with sickle cell disease by implementing targeted provider and member interventions, which supports the Plan’s mission, “to improve the health and quality of life of our members”. The three goals of the program are to:

- 1) Improve the quality of life of members with sickle cell disease.
- 2) Improve practitioner compliance with standards of care.
- 3) Decrease hospital admissions.

This project was developed during 1<sup>st</sup> quarter 2006 with targeted member and practitioner interventions to begin during 3<sup>rd</sup> quarter 2006.

## Methodology

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The methodology section describes how the data for the project are obtained.

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### 1. Performance Indicators

**This project has three performance indicators:**

**1) The percentage of members reporting improved quality of life.**

The study population for this indicator is only those members with whom the sickle cell case manager has established contact. The Plan uses the SF36 survey with scoring program to assess members’ quality of life scores before and after intervention. Only those questions appropriate to the pediatric population are assessed. While the Plan recognizes that the survey tool has been validated in the adult population, the survey results are used for internal purposes only and are not submitted for comparison to other Plans. Improvement is measured as: increase in average QOL score for all members.

**2) The average percentage of practitioners who demonstrate compliance with the Plan’s sickle cell clinical practice guideline.**

The clinical practice guideline was distributed to all participating PCP’s and Hematologist’s. The average compliance with sickle cell practice guidelines is based on:  $(\text{total number of compliant domains}) / (\text{Number of records} \times 8)$ .

**3) The percentage of identified members with inpatient admissions.**

All members identified with sickle cell disease are included in this measure,  $(\text{number of sickle cell members with admissions}) / (\text{number of members identified})$ .

Eligible members are those members identified by claims data with the primary diagnosis of sickle cell disease identified by the following ICD9 codes; 282.60, 282.41, 282.63, 282.69, 282.42, 282.64, 282.68, 282.6, 282.61, 282.62, and V782. Members excluded from the program are those members who decline participation.

## **2. Procedures**

### **1) The percentage of members reporting improved quality of life.**

This measure is an assessment of the member's perception of their quality of life before and after program intervention. Once a member has agreed to participate in the targeted program, the nurse case manager assesses the member's quality of life by asking the member the questions on the quality of life survey that was developed by the program. This assessment can occur over the telephone or in person. The initial assessment serves as the baseline measurement and reassessment occurs at completion of the program.

### **2) The percentage of practitioners demonstrating compliance with the Plan's sickle cell clinical practice guideline.**

This measure is an assessment of practitioner compliance with clinical practice guidelines at the group level. Practitioners identified for this measure are those hematologists and PCP's identified in the baseline data collected in 1<sup>st</sup> quarter 2006. Nurse case managers extract this data from the medical records of the identified practitioners. The data is collected using a data collection tool that is developed by the program.

### **3) The percentage of identified members with an inpatient admission who have a primary diagnosis of sickle cell disease.**

This is an administrative measurement that uses inpatient claims data for those eligible members who have an inpatient admission with a primary diagnosis of sickle cell disease. A member of the Plan's Data Analysis and Reporting department performs the data pull.

## **3. Member Confidentiality**

Members shall be identified using claims encounter data.

Quality of Life Surveys to be performed by Sickle Cell Case Manager only.

Medical record review data is obtained by the Sickle Cell Case Manager and the Quality Improvement Nurse.

All PHP associates sign confidentiality agreements which are an integral part of our HIPAA compliance program. In addition, any member contacted via phone must identify themselves with 2 member identifiers (DOB, address, SS#, etc.). Case Management Policy CM 22.0 Confidentiality and Privacy Guidelines

## **4. Timeline**

The timeline for the project is as follows:

### **1<sup>st</sup> Quarter 2006**

- Identify members eligible for the sickle cell program.
- Identify hematology practitioners and PCP's who manage and treat the disease.
- Develop the targeted case management program.
- Initiate development of a sickle cell clinical practice guideline.
- Collect baseline data for inpatient admissions.

### **2<sup>nd</sup> Quarter 2006**

- Develop a data collection tool for the baseline measurement of practitioner compliance with national standards of care for sickle cell disease.
- Develop quality of life survey tool for members.
- Receive committee input and approval of the program.

### **3<sup>rd</sup> Quarter 2006**

- Initiate targeted interventions with identified sickle cell members.
- Initiate partnerships with identified hematologists and PCP's providing care for sickle cell members.
- Collect baseline data for practitioner compliance with clinical practice guidelines and analyze the data.
- Receive committee approval of and distribute the Plan's sickle cell clinical practice guideline to identified hematologists and PCP's.

### **4<sup>th</sup> Quarter 2006**

- Continue targeted interventions with identified sickle cell members.
- Monitor quarterly program reports.
- Distribute practitioner clinical practice guideline compliance results.

### **1<sup>st</sup> Quarter 2007**

- Continue to identify members for the sickle cell disease management program
- SCD Case Manager attends community based support group meetings
- Pediatric SCD member brochure completed
- Continue to monitor quarterly results

### **2<sup>nd</sup> Quarter 2007**

- Identify members eligible for the sickle cell program through internal and external referrals
- SCD Case Manager attends community based support group meetings
- Awaiting approval from Department for Medicaid Services (DMS) for Pediatric SCD brochure
- Pediatric SCD brochure mailed to pediatric SCD members already in case management, all new pediatric SCD referral
- Brochures provided to pediatricians, pediatric hematologists, and the Case Management Department at Kosair Children's Hospital
- Continue to monitor quarterly results for IP admits and ER visits for SCD
- Providing one on one case management services to those member who consent

- Begin preparation for review of physician compliance with national standards of care for sickle cell members

### **3<sup>rd</sup> Quarter 2007**

- Identify members eligible for the sickle cell program through internal and external referrals
- SCD Case Manager attends community based support group meetings
- Developing Adult Sickle Cell Member brochure
- Continue to monitor quarterly results for IP admits and ER visits for SCD
- Additional outreach to members with IP admits
- Providing one on one case management services to those member who consent
- Preparation for review of physician compliance with national standards of care for sickle cell members continues. Decision to conduct compliance audit using calendar year in the methodology secondary to EQRO recommendation. Initiate compliance audit during 1<sup>st</sup> quarter 2008.

### **4<sup>th</sup> Quarter 2007**

- Identify members eligible for the sickle cell program through internal and external referrals
- SCD Case Manager attends community based support group meetings
- Awaiting approval from DMS for Adult SCD brochure
- Continue to monitor quarterly results for IP admits and ER visits for SCD
- Additional outreach to those members with IP admits
- Providing one on one case management services to those member who consent
- Preparation for review of physician compliance with national standards of care for sickle cell members continues. Data abstraction tool questions reviewed with EQRO, additional pain assessment and pain management questions added. Removed PPD question. Clarified spleen assessment to include abdominal assessment parameters.

### **1<sup>st</sup> Quarter 2008**

- Identify members eligible for the sickle cell program through internal and external referrals
- Attended SC support group meetings and acted as resource person for the group, distributed brochures and contact information.
- Began distribution of Adult Sickle Cell Member brochure to hospitals, PCP offices, and hematologists' offices.
- Adult SCD brochure is mailed to all adult SCD members, newly identified, those already being case managed, and all new referrals
- Continue to monitor quarterly results for IP admits and ER visits for SCD
- Additional outreach to those members with IP admits including hospital visits by the case manager as needed
- Preparation for review of physician compliance with national standards of care for sickle cell members continues. Data abstraction tool updates completed and

reviewed with EQRO. Member data obtained. Data abstraction training conducted with SCD case manager. Data entry data base training conducted with QI staff.

### **2<sup>nd</sup> Quarter 2008**

- Identify members eligible for the sickle cell program through internal and external referrals
- Continue to distribute Adult and Pediatric SCD brochures to all newly identified SCD members and all new referrals
- Continue to monitor quarterly results for IP admits and ER visits for SCD
- Additional outreach to those members with IP admits including hospital visit by the case manager as needed
- Data abstraction of medical records completed, distributed brochures to those offices where medical record review was conducted for SCD care. Data entry completed.

### **3<sup>rd</sup> Quarter 2008**

- Identify members eligible for the sickle cell program through internal and external referrals
- Continue to distribute Adult and Pediatric SCD brochures to all newly identified SCD members and all new referrals
- Continue to monitor quarterly results for IP admits and ER visits for SCD
- Additional outreach to those members with IP admits including hospital visit by the case manager as needed
- Data abstraction of medical records completed, distributed brochures to those offices where medical record review was conducted for SCD care. Data entry completed.
- SCD Case Manager attends community based support group meetings
- Providing one on one case management services to those member who consent.

### **4<sup>th</sup> Quarter 2008**

- Identify members eligible for the sickle cell program through internal and external referrals
- SCD Case Manager attends community based support group meetings
- Continue to monitor quarterly results for IP admits and ER visits for SCD
- Additional outreach to those members with IP admits including hospital visit by the case manager as needed
- Providing one on one case management services to those member who consent.
- Flu vaccine card mailed.
- Quality of Life Survey mailed.

### **1<sup>st</sup> Quarter 2009**

- Identify members eligible for the sickle cell program through internal and external referrals not previously enrolled in program.
- Attended SC support group meetings and acted as resource person for the group, distributed brochures and contact information.
- Began distribution of Adult/Pediatric Sickle Cell Member brochure to hospitals, PCP offices, and hematologists' offices.

- Continue to distribute Adult and Pediatric SCD brochures to all newly identified SCD members and all new referrals
- Continue to monitor quarterly results for IP admits and ER visits for SCD
- Additional outreach to those members with IP admits including hospital visits by the case manager as needed
- Preparation for review of physician compliance with national standards of care for sickle cell members continues. Data abstraction tool updates completed and reviewed with EQRO. Member data obtained. Data entry data base training conducted with QI staff.

## 2<sup>nd</sup> Quarter 2009

- Identify members eligible for the sickle cell program through internal and external referrals not previously enrolled in program.
- Continue to distribute Adult and Pediatric SCD brochures to all newly identified SCD members and all new referrals

# Interventions / Changes for Improvement

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Interventions should be targeted to the study aim and should be reasonable and practical to implement given plan population and resources.

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## 1. Interventions Planned and Implemented

Complete the sections in the table below, and add more rows as needed.

Timeframe	Description of intervention	Barriers addressed
3 <sup>rd</sup> Qtr 2006	Sickle Cell Disease Clinical Practice Guidelines developed, approved by the Quality Medical Management Committee and distributed to the PCP and specific specialist seen by this member population	Lack of knowledge
	Initiate targeted interventions with identified sickle cell members.	Lack of continuity and coordination of care
4 <sup>th</sup> Qtr 2006	Distribute baseline CPG results to providers	Lack of knowledge
	Continue targeted interventions with identified sickle cell members	Lack of continuity and coordination of care
1 <sup>st</sup> Qtr 2007	Due to incorrect addresses and phone numbers SCD Case Manager initiates inpatient hospital visits of members hospitalized for Sickle Cell Crisis	Lack of correct member data
	Sickle Cell members seen in ER not	Lack of adequate pain

	<p>previously enrolled in program contacted.</p> <p>SCD Case Manager begins attending Sickle Cell Support Group Meetings.</p> <p>Sickle Cell materials for the Pediatric population developed and approved by the DMS</p> <p>Continue targeted interventions with identified sickle cell population</p>	<p>management</p> <p>Lack of knowledge</p> <p>Lack of knowledge</p> <p>Lack of continuity and coordination of care</p>
2 <sup>nd</sup> Qtr 2007	<p>Awaiting approval from Department for Medicaid Services (DMS) for Pediatric SCD brochure.</p> <p>Pediatric SCD brochure mailed to pediatric SCD members already in case management, all new pediatric SCD referral.</p> <p>Brochures provided to pediatricians, pediatric hematologists, and the Case Management Department at Kosair Children's Hospital.</p>	<p>Lack of knowledge</p> <p>Lack of knowledge about disease process, benefits, treatments</p>
3 <sup>rd</sup> Qtr 2007	<p>Developing Adult Sickle Cell Member brochure.</p> <p>Continue to monitor quarterly results for IP admits and ER visits for SCD.</p> <p>Additional outreach to members with IP admits.</p> <p>Providing one on one case management services to those members who consent, included information on transportation resources, community resources for food, clothing, etc and information on how to apply for SSI.</p>	<p>Lack of knowledge about disease process, benefits, treatments</p> <p>Financial barriers</p>
4 <sup>th</sup> Qtr 2007	<p>Awaiting approval from DMS for Adult SCD brochure.</p> <p>Continue all previous interventions.</p>	<p>Lack of knowledge about disease process, benefits, treatments</p>
1 <sup>st</sup> Qtr 2008	<p>Attended SC support group meetings and acted as resource person for the group, distributed brochures and contact information.</p> <p>Began distribution of Adult Sickle Cell Member brochure to hospitals, PCP offices, and hematologists' offices.</p>	<p>Lack of knowledge about disease process, benefits, treatments.</p>

	Adult SCD brochure is mailed to all adult SCD members, newly identified, those already being case managed, and all new referrals.	
2 <sup>nd</sup> Qtr 2008	Data abstraction of medical records completed, distributed brochures to those offices where medical record review was conducted for SCD care. Data entry completed.  Continued all previous interventions.	Lack of knowledge about disease process, benefits, treatments.
3 <sup>rd</sup> Qtr 2008	Pediatric/Adult SCD brochure is mailed to all pediatric SCD members, newly identified, those already being case managed, and all new referrals  Distribution of Adult/Pediatric Sickle Cell Member brochure to hospitals, PCP offices, and hematologists' offices.  Sickle cell assessment developed for case management to identify specific needs related to SCD.  Pain assessment developed for case management to identify specific needs related to SCD.  Flu shot brochures distributed.	Lack of knowledge about disease process, benefits, treatments.  Lack of adequate pain management
4 <sup>th</sup> Qtr 2008	Quality of Life Surveys mailed.  Flu vaccine cards mailed.  Meeting with hematology/oncology physician.  Flu shot question included on assessments.  Continued all previous interventions.	Lack of adequate pain management  Lack of continuity and coordination of care  Lack of knowledge about disease process, benefits, treatments.

## 2. Intervention Timeframe

Intervention	Start Date	End Date
Initiate targeted interventions with identified sickle cell members.	3 <sup>rd</sup> Qtr 2006	Ongoing
Sickle Cell CPG developed, approved, distributed, posted and maintained PHP web site.	3 <sup>rd</sup> Qtr 2006	Ongoing
Distribute Baseline CPG results to affected PCP's & specialists	4 <sup>th</sup> Qtr 2006	4 <sup>th</sup> Qtr 2006
SCD Case Manager visits members while hospitalized to enroll them in SCD program	1 <sup>st</sup> Qtr 2007	Ongoing
Sickle Cell members seen in ER for pain management who are not enrolled in program contacted by phone.	1 <sup>st</sup> Qtr 2007	Ongoing
SCD Case Manager begins attending Sickle Cell Support Group Meetings.	1 <sup>st</sup> Qtr 2007	Ongoing
Member educational materials developed	1 <sup>st</sup> Qtr 2007	Ongoing
Pediatric SCD brochure mailed to pediatric SCD members already in case management, all new pediatric SCD referral	2 <sup>nd</sup> Qtr 2007	Ongoing
Brochures provided to pediatricians, pediatric hematologists, and the Case Management Department at Kosair Children's Hospital	2 <sup>nd</sup> Qtr 2007	Ongoing
Develop Adult Sickle Cell Member brochure	3 <sup>rd</sup> Qtr 2007	3 <sup>rd</sup> Qtr 2007
Attended SC support group meetings and acted as resource person for the group, distributed brochures and contact information	1 <sup>st</sup> Qtr 2008	1 <sup>st</sup> Qtr 2008
Began distribution of Adult Sickle Cell Member brochure to hospitals, PCP offices, and hematologists offices	1 <sup>st</sup> Qtr 2008	Ongoing
Adult SCD brochure is mailed to all adult SCD members, newly identified, those already being case managed, and all new referrals	1 <sup>st</sup> Qtr 2008	Ongoing
Data abstraction of medical records completed, distributed brochures to those offices where medical record review was conducted for SCD care	2 <sup>nd</sup> Qtr 2008	2 <sup>nd</sup> Qtr 2008
Initiate case management sickle cell assessment	3 <sup>rd</sup> Qtr 2008	ongoing
Initiate case management pain assessment.	3 <sup>rd</sup> Qtr 2008	ongoing
Quality of life surveys mailed	4 <sup>th</sup> Qtr 2008	4 <sup>th</sup> Qtr 2008
Identifying members from inpatient and emergency room reports not previously enrolled in program.	1 <sup>st</sup> Qtr 2009	ongoing
Data abstraction of medical records completed, distributed brochures to those offices where medical record review was conducted for SCD care	2 <sup>nd</sup> Qtr 2009	2 <sup>nd</sup> Qtr 2009

## 3. Barrier Analyses

Many members have an unwillingness to participate in case management. Anecdotally, members report to the case manager that they have had bad experiences with the healthcare system. Specifically, complaints of pain aren't taken seriously and they have difficulty obtaining pain medication to treat chronic pain and break through pain. A general mistrust is noted.

## 4. PDSA (Plan-Do-Study-Act) Project Phases

[If a PDSA method was performed, provide information regarding the interim phases of the project; i.e., (1) the objective and plan to test for change, (2) the action carried out (including documenting problems or unexpected observations), (3) the results or knowledge gained, and (4) the actions that were taken as a result of the cycle (e.g., modifications made based on what was learned). Discuss any changes or tailoring of interventions and rationale for doing so. Process measures that led to modifications in your interventions should be presented here.]

# Results

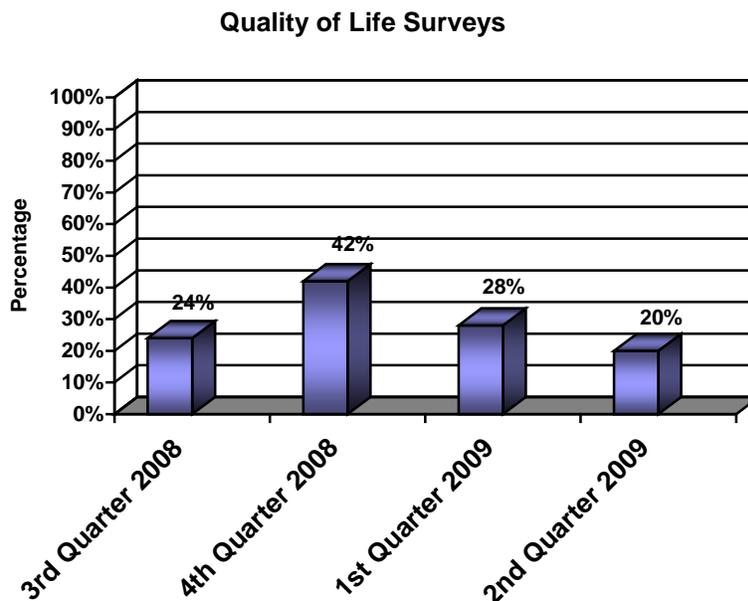
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The results section should quantify project findings related to each study question and project indicators. **Do not** interpret the results in this section.

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### 1. Quality of Life Surveys

A mass mailing of the quality of life survey with the cover letter informing identified members with sickle cell disease was initiated at the beginning of the project. The case management policy requires a quality of life assessment to be completed on admission to case management and repeated if in case management greater than one year. Most of the sickle cell members have been in case management less than 6 months. Poor participation and maintaining case management contact has been a challenge.



Denominator is surveys mailed to all referrals to SCD case management program.  
Numerator is those that returned the completed survey expressed as a percentage.

**Of those members returning surveys 71% reported improvement in their quality of life.**

## 2. The percentage of practitioners who demonstrate compliance with the Plan's sickle cell clinical practice guideline

### **Description**

The clinical practice guideline assessing Sickle Cell Disease measures the following recommended age appropriate indicators: office visits, lab work, prophylactic penicillin (PCN), flu vaccine, pain assessment, pain management, and measurement of spleen size.

### **Sample Selection Criteria**

Charts for review are selected based on claims data that identifies members who were 1 year of age as of December 31 of the calendar year with the diagnosis of Sickle Cell Disease.

Table 1. Key Indicators of Sickle Cell Management: Aggregate Results (CY 2005/CY 2007/CY 2008)

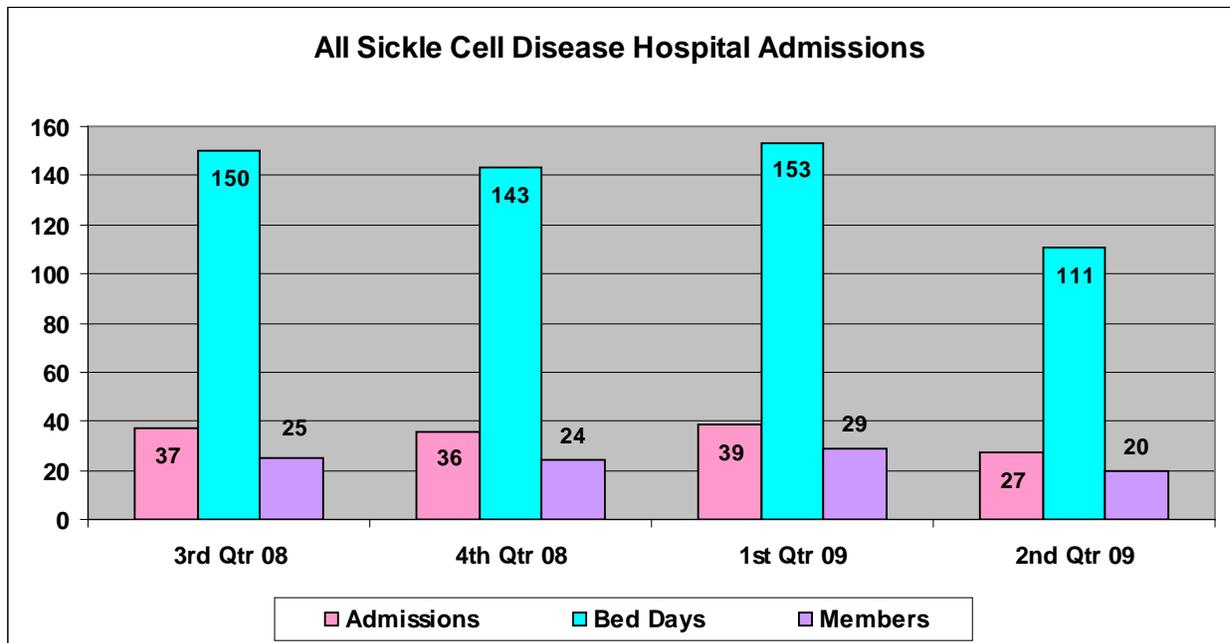
INDICATORS	Baseline Measurement CY 2005		1 <sup>st</sup> Remeasurement CY 2007		2 <sup>nd</sup> Remeasurement CY 2008		% Change from baseline to 2 <sup>nd</sup> Remeasurement
	n	%	n	%	n	%	
Recommended Visits	124	90	111	77	108	76	↓ 14 percentage pts
Recommended Labs	138	100	147	100	143	100	0 Change
Prophylactic Penicillin	32	91	32	97	35	100	↑ 9 percentage pts
Flu Vaccine	32	23	31	21	63	44	↑ 21 percentage pts
Pain Assessment	72	52	89	61	99	69	↑ 17 percentage pts
Pain Management	102	74	87	59	99	69	↓ 5 percentage pts
Spleen Size Measured	10	7	73	50	98	69	↑ 62 percentage pts

Table 2. Key Indicators of Sickle Cell Disease Pain Assessment: Aggregate Results (CY 2007/CY 2008)

Pain Assessment Indicators	baseline Measurement CY 2007		1 <sup>st</sup> Remeasurement CY 2008		% Change from baseline to 1 <sup>st</sup> Remeasurement
	n	%	n	%	
Acute Pain	30	33	46	46	↑ 13 percentage pts
Chronic Pain	14	16	37	37	↑ 21 percentage pts
No Documentation - Pain Type	46	51	17	17	↓ 34 percentage pts
Rapid Assessment	17	19	76	76	↑ 57 percentage pts
Comprehensive Assessment	0	0	2	2	↑ 2 percentage pts
No Documentation - Assessment	73	81	22	22	↓ 59 percentage pts
Duration of Pain	33	38	43	35	↓ 3 percentage pts
Intensity of Pain	22	25	30	25	0 Change
Relief Method	32	37	49	40	↑ 3 percentage pts

Table 3. Key Indicators of Sickle Cell Disease Pain Management: Aggregate Results (CY 2007/CY 2008)

Pain Management Indicators	baseline Measurement CY 2007		1 <sup>st</sup> Remeasurement CY 2008		% Change from baseline to 1 <sup>st</sup> Remeasurement
	n	%	n	%	
Uncomplicated	52	58	54	52	↓ 6 percentage pts
Mild	18	20	19	18	↓ 2 percentage pts
Moderate	17	19	27	26	↑ 7 percentage pts
Severe	2	2	4	4	↑ 2 percentage pts
Bed Rest	1	1	3	3	↑ 2 percentage pts
NSAID's	18	14	16	15	↑ 1 percentage pts
Acetamoniphen	46	35	40	37	↑ 2 percentage pts
Codeine	33	25	20	19	↓ 6 percentage pts
Hydrocodone	13	10	14	13	↑ 3 percentage pts
Oxycodone	17	13	12	11	↓ 2 percentage pts
Morphine	4	3	2	2	↓ 1 percentage pts



# Discussion

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The discussion section is for explanation and interpretation of the results.

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## 1. Discussion of Results

### ***Analysis***

Thirty-five providers were assessed for compliance against the Sickle Cell Disease guideline, representing 143 members. Of the 35 providers, eight are specialists in hematology and the remaining are PCPs. Of these 143 members forty-three were seen by both a plan designated PCP and a hematologist. Sixty-seven percent of the members reviewed were from 1 to 18 years of age.

### ***Pain Assessment Analysis***

The area of pain assessment was expanded in 2008 to include type of pain addressed (acute, chronic), type of assessment (rapid, comprehensive) as well as parameters (duration, intensity, and relief method) addressed during the assessment. Table 2 has the PCP percentages and Table 3 has the specialist percentages for the above mentioned measures.

### ***Pain Management Analysis***

The area of pain management was expanded in 2008 to include type of pain episode addressed. The review was further analyzed to indicate type of pain episode addressed.

### ***Relief Method Analysis***

In the Sickle Cell Disease clinical practice guideline the relief method is dependent on the type of pain described.

### ***Conclusion***

The greatest opportunities for improvement are:

- Age appropriate office visits – Routine office visits are imperative to avoid sickle cell crisis.

And documentation in the medical records of:

- Pain Assessment - Thirty-one percent of reviewed charts had no documentation of pain assessment.
- Pain Management - Thirty-five percent of reviewed charts had no documentation of pain management.
- Flu Vaccine - Eighty-one percent of reviewed charts had no documentation of administration of flu vaccine.

## 2. Limitations

[Address some of the limitations of your project design. Identify factors that may jeopardize the internal or external validity of the findings.]

- Maintaining member participation in the Sickle Cell Disease Case management Program.

- Inadequate return rate of quality of life surveys
- Difficulty recruiting additional pain management specialists
- Some members are able to work and at times this creates a situation where the member is enrolled, then disenrolled, then reenrolled based on eligibility criteria

### **3. Member Participation**

[Detail the extent of member participation in the project. In what aspects of the project did members participate (topic selection, measurement, focus group, interventions etc.)? What methods were utilized to solicit or encourage membership participation?]

Members who accept case management services for the SCD program appreciate the outreach and educational materials provided, as well as the assistance to obtain community resources. The difficulty is contacting the member and members agreeing to participate. The program has a better participation rate with pediatric members than with adults.

### **4. Financial Impact**

[Describe any long or short-term financial impacts of the project including cost/benefit analysis as appropriate. Address the bottom line, project beneficiaries and the extent of cost savings] No cost/benefit analysis was conducted.

## **Next Steps**

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In this final section, discuss ideas for taking your project experience and findings to the next step.

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### **1. Lessons Learned**

[Describe what was learned from the project, what remains to be learned, and whether findings can be extrapolated to other members or systems.]

The lack of pain management providers in this area who treat members with chronic pain has a negative impact on our members.

Due to the chronic progressive nature of the disease these members are at an increased risk of many complications regardless of the quality of care they receive making this a high cost condition even in the best of circumstances. The best we can hope to do is improve the members' quality of life.

### **2. Dissemination of Findings**

[Address how the results and conclusions have been/will be made available to members, providers or other interested individuals. Identify future goals for disseminating the key findings and lessons learned of the project.]

Sickle Cell Audit analysis is presented to the Child and Adolescent Committee, Quality Medical Management Committee and Quality Member Access Committee.

Providers who were audited receive overall aggregate results in conjunction with the Plan's annual distribution of all audits of Clinical Practice Guidelines.

### **3. System-level Changes Made and/or Planned**

[Describe how findings will be used, actions that will be taken to sustain improvement, and plans to spread successful interventions to other applicable processes in your organization.]

Evaluation of the effectiveness including cost effectiveness will continue due to the low volume of member participants in the SCD case management program and the viability of the program as a whole.