Community-Based Care Transition Program Data Summary Report

May 2013 – April 2015

DENVER REGIONAL COUNCIL OF GOVERNMENTS

We make life better!

Executive Summary

Community-based Care Transitions Program

Section 3026 of the Affordable Care Act created the Community-based Care Transitions Program (CCTP) to test models for improving care transitions from the hospital to other care settings and reduce readmissions for high-risk Medicare beneficiaries. CCTP is also intended to improve the quality of medical care and document measurable savings to Medicare.

Our Region's Collaboration and Resulting CCTP

Beginning in 2012, the Denver Regional Council of Governments (DRCOG), as the region's Area Agency on Aging (AAA), began to rally a coalition of seven local hospitals and more than 50 other community service providers to establish and implement a CCTP for the Denver region. This expansive community partnership worked across the care continuum, leveraging two health systems and multiple downstream providers such as skilled nursing facilities, home health agencies, and various non-profit entities. The outcome of these efforts and partnerships resulted in DRCOG being awarded funding by CMS to implement this innovative program in the eight-county Denver metro area from April 2013 through May 2015.

Our Intervention and Service Package

Our 30-day program was designed to improve the quality of life for Medicare fee-for-service beneficiaries by reducing avoidable hospital readmissions and increasing their knowledge and control of their health care. Eligible patients received a home visit from a care transition coach 72 hours post-discharge that empowered them to take charge of their health care. Additionally, patients had access to non-medical supportive services needed to keep them healthy at home and avoid unnecessary hospital readmission.

We achieved our results through the application of two evidence-based interventions--Dr. Eric Coleman's care Transition Intervention (CTI), supported and measured by the Patient Activation Measure (PAM).

Based on participants' PAM scores their 30-day intervention included:

- CTI coaching,
- Care management services,
- Transportation services,
- Home-delivered meals, and
- Non-medical in-home services.

Project outcomes

We coached more than 900 extremely high-risk patients and maintained a readmission rate that was one of the lowest in the nation. Attached you will find our final data summary with detailed results, along with a complete list of program partners.

DENVER REGIONAL COUNCIL OF GOVERNMENTS
AREA AGENCY ON AGING

COMMUNITY-BASED CARE TRANSITION PROGRAM
DATA SUMMARY REPORT

MAY 2013 – APRIL 2015

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Demographic Information of Coached Patients

Table 1	
Demographic Information for CCTP Coached patients	
Sex	
Male	36.5%
Female	63.5%
Age	
0-29	0.1%
30-59	17.7%
60-79	54.6%
80-99	26.6%
100+	0.0%
Missing Data	0.9%
County	
Adams	7.6%
Arapahoe	34.3%
Broomfield	0.2%
Clear Creek	0.0%
Denver	43.6%
Douglas	6.6%
Jefferson	6.8%
Other	0.6%
Missing Data	0.3%
Language	
English	97.1%
Spanish	2.9%

Table 2	
Healthcare Characteristics of CCTP Coached Patients	
Length of Stay	
1 day	7.7%
2 days	20.5%
3 days	20.2%
4 days	14.0%
5 days	11.4%
6 days	7.1%
7+ days	18.4%
Missing Data	0.6%
Home Health upon DC	
Yes	37.6%
No	53.0%
Missing Data	9.4%
SNF Patients	
Yes	1.5%
No	98.5%
Missing Data	0.0%
Person Coached	
Patient Alone	63.2%
Patient & Caregiver	31.6%
Caregiver Alone	0.8%
Missing Data	4.4%

Enrollment Trends

By Quarter

	2013			2014				2015	
	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2
ST. JOE'S	4	2	5	5	10	12	1	0	0
PSL	4	11	5	16	15	3	13	0	0
RMC	2	10	13	23	25	25	29	33	2
TMCA	0	27	25	15	19	20	78	79	15
SMC	0	7	9	30	32	43	52	62	16
SRMC	0	0	5	10	20	22	24	0	0
NSMC	0	0	0	4	14	15	8	0	0
TOTAL	**10**	**57**	**62**	**103**	**135**	**140**	**205**	**174**	**33**

Q 1 - All Hospitals Launched

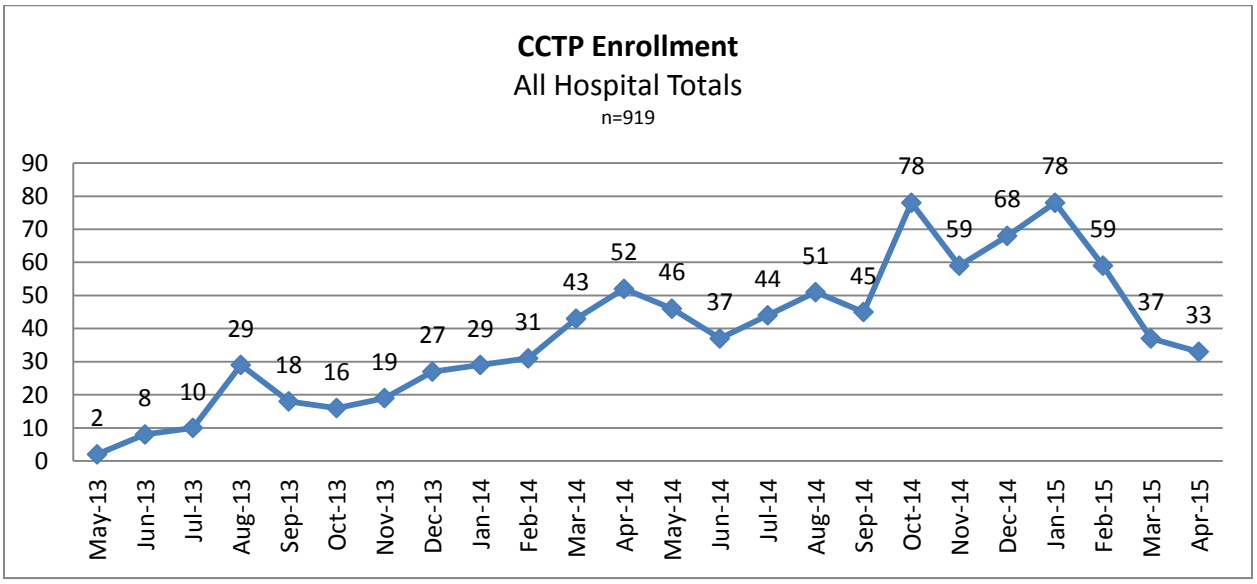
Q 2 – HealthONE Contract Amended: Census and Direct Access to Patients, Universal Badges

Q 3 – SNF and HHC Subcommittees formed, Access to Meditech

Q 4 – Expansion to SNFs, Weekend Coverage Begins

Q 1 – CMS Notification of CCTP Ending, Scaled Back to 3 Hospitals

By Month



Common Diagnoses of Coached Patients

Chronic and Acute Medical Conditions

Diagnosis	Count	Percent of Patients
Hypertension	438	49%
Diabetes	223	25%
Hyperlipidemia	220	25%
Chronic Kidney Disease	206	23%
Congestive Heart Failure	167	19%
Atrial Fibrillation	150	17%
Coronary Artery Disease	143	16%
COPD	142	16%
Orthopedic Procedure	105	12%
Cancer	102	11%
Arthritis	91	10%
Pneumonia	71	8%
Sepsis	60	7%
Asthma	58	7%
Alzheimer's/Dementia	31	3%
Stroke	30	3%
Osteoporosis	29	3%

Coached Patients with Multiple Health Conditions:

0 Conditions:	*10%*
1 Condition:	*19%*
2 Condition:	*23%*
3 Condition:	*21%*
4 Condition:	*14%*
5 Condition:	*9%*
6 Condition:	*3%*
7 Condition:	*1%*

Original Diagnosis Criteria of CCTP Based on Root Cause Analysis:

Congestive Heart Failure
COPD
Sepsis
Pneumonia

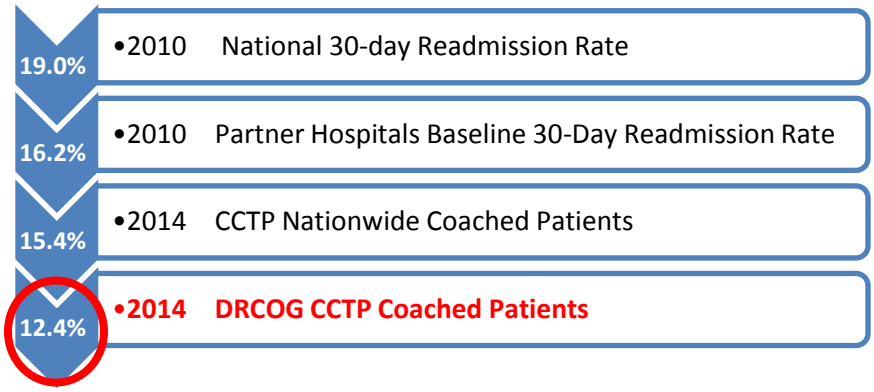
Mental Health and Substance Use

Diagnosis	Count	Percent of Patients
Depression	146	16%
Tobacco use	146	16%
Substance Use	52	6%
Bipolar Disorder	25	3%
Schizophrenia & Other Psychotic Disorders	18	2%

21% of patients were diagnosed with mental health disorders

Readmissions Statistics

Percentage of CCTP Patients Re-hospitalized within 30 days of Hospital DC: 12.4%.



(Based on the most recent QMR data from May 2013 – October 2014)

30-Day Readmission Rate of Coached Patients by Hospital:

Partner Hospital	Previous Quarter (Final) May 2014 - Jul 2014	Current Quarter (Provisional) Aug 2014 - Oct 2014	Program to Date May 2013 - Oct 2014
Presbyterian/St. Lukes Medical Center	7.7	0.0	10.0
Exempla Saint Joseph Hospital	0.0	28.6	16.1
Rose Medical Center	27.3	18.8	14.5
Swedish Medical Center	11.8	15.0	12.6
North Suburban Medical Center	11.1	14.3	13.0
The Medical Center of Aurora	18.2	10.3	9.8
Sky Ridge Medical Center	11.8	5.3	13.0

Sources: The information presented in this table was obtained from CCTP list bills as of 2/5/2015, Medicare claims as of 2/17/2015, and the Medicare enrollment database as of 2/17/2015.

Notes: Results for the current quarter are based on participants who were discharged during the reporting quarter and for whom a list bill was submitted, processed, and determined to be eligible for CCTP-funded services related to a hospital discharge from 8/1/2014 to 10/31/2014. The previous quarter is based on participants for whom a list bill was submitted, processed, and determined to be eligible for CCTP-funded services related to a hospital discharge from 5/1/2014 to 7/31/2014. If a partner hospital did not participate in CCTP or had no Medicare FFS claims, results for that quarter are not reported. In addition, the results in this table are restricted to list bills that could be matched to a hospital discharge claim. Finally, Medicare Cost Plus plan beneficiaries are included in this table.

Because of lags in list bill and Medicare administrative data reporting, results for the current quarter are considered provisional. Updates in information available by the end of the next reporting period will be reflected in the next quarterly monitoring report's previous reporting period (final) and program-to-date columns. List bills submitted this quarter for discharges occurring during the previous quarter are displayed in the previous quarter and program-to-date columns. List bills submitted this quarter for discharges occurring more than two quarters in the past will appear only in the program-to-date column. The program-to-date column is refreshed quarterly and reflects the most up-to-date claims from all quarters as of 2/17/2015.

n.a. = not applicable.

Characteristics of CCTP Patients Who Re-admitted within 30 days of Hospital DC

Average age of readmitted patients: **71.5 years**

Average number of health conditions: **3 Conditions**

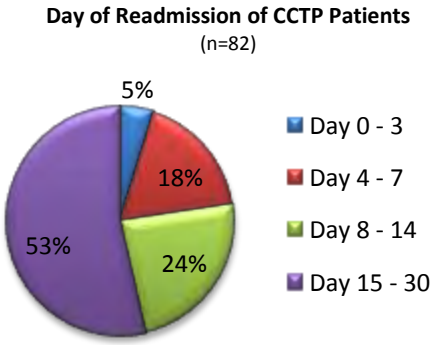
48% of patients did not have home health care ordered upon discharge

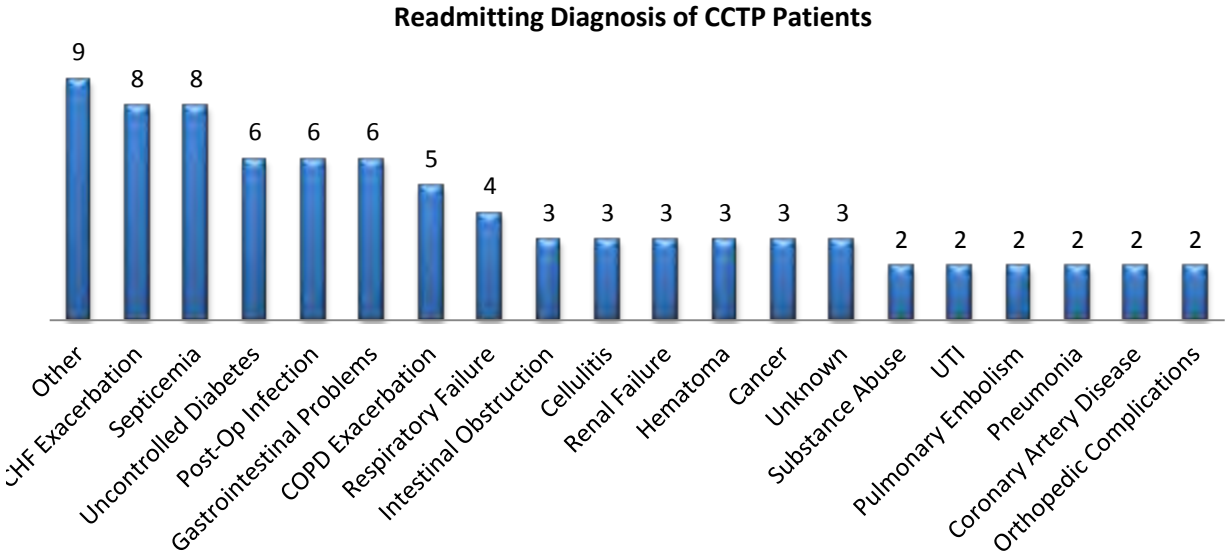
Average LOS of index hospitalization: **3.4 Days**

Average LOS of subsequent hospitalizations: **5.2 Days**

On average, patients re-admitted on day: **16**

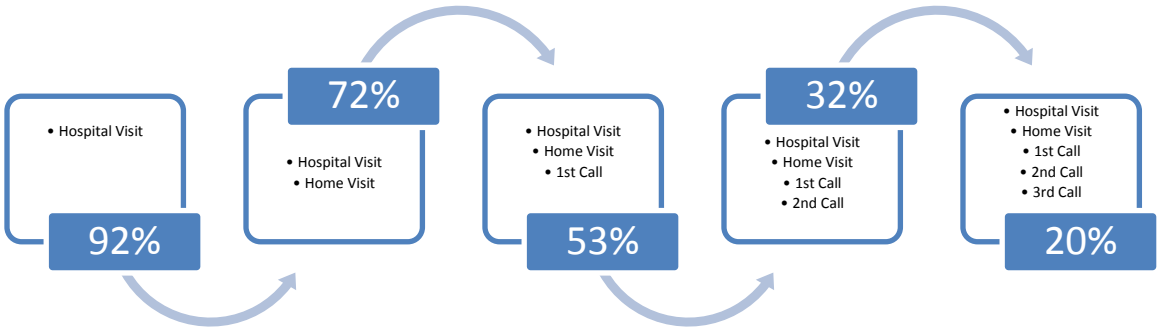
- **87%** Received a home visit
- **58%** … and a 1st follow up call
- **24%** … and a 2nd follow up call
- **16%** … and a 3rd follow up call





Intervention Statistics

Percent of CCTP Patient who Received CTI Encounters



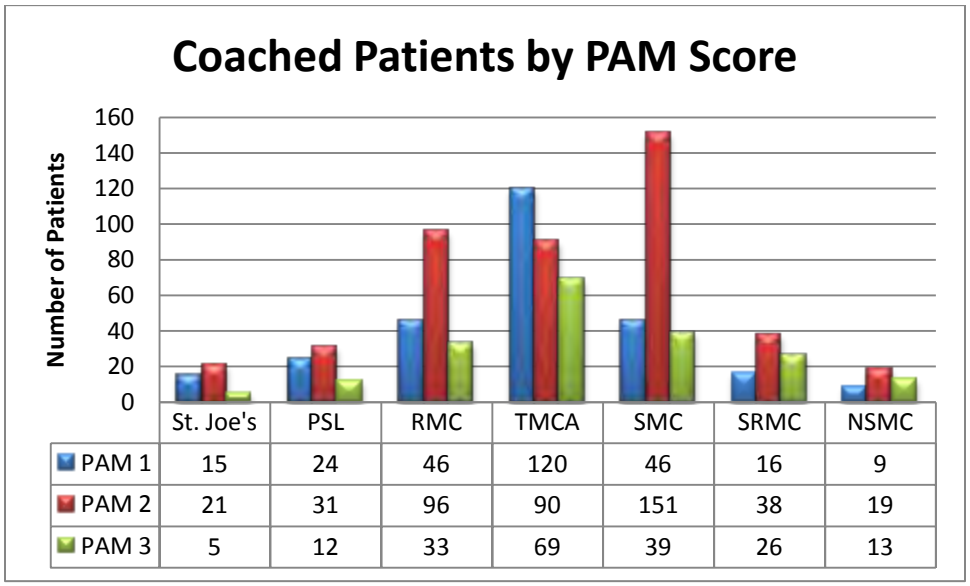
Percent of CCTP Patient who Received Care Transitions Services

Percentage of Patients Who Received ...	Previous Quarter (Final) May 2014 - Jul 2014 (N = 116)	Current Quarter (Provisional) Aug 2014 - Oct 2014 (N = 150)	Program to Date May 2013 - Oct 2014 (N = 510)
Type of Care Transition Service			
Transition planning support	99.1	100.0	99.4
Comprehensive medication review and reconciliation	79.3	86.0	78.8
Counseling or self-management support	100.0	100.0	99.4
Communication with patient's family or informal caregivers	20.7	28.0	29.2
Assistance to ensure productive and timely interactions between providers	100.0	98.7	99.6
Information to help identify other health problems or deteriorating condition	100.0	100.0	100.0
Other care transition service	13.8	9.3	5.9

Source: The information presented in this table was obtained from the CCTP list bills submitted as of 2/5/2015.

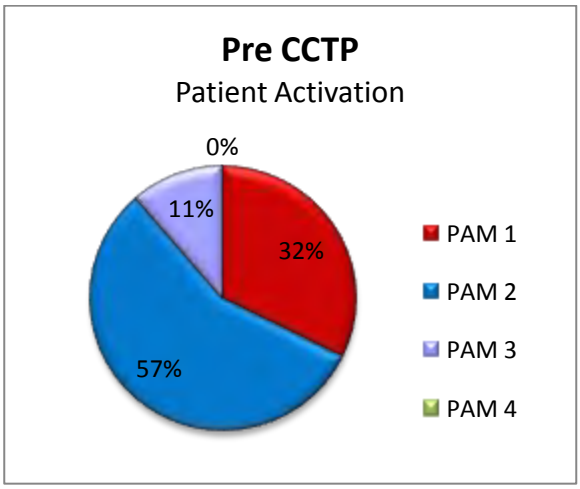
Home Visit Time Frames	
Home Visit within 72 Hours of DC	**40%**
Home Visit after 72 Hours of DC	**60%**

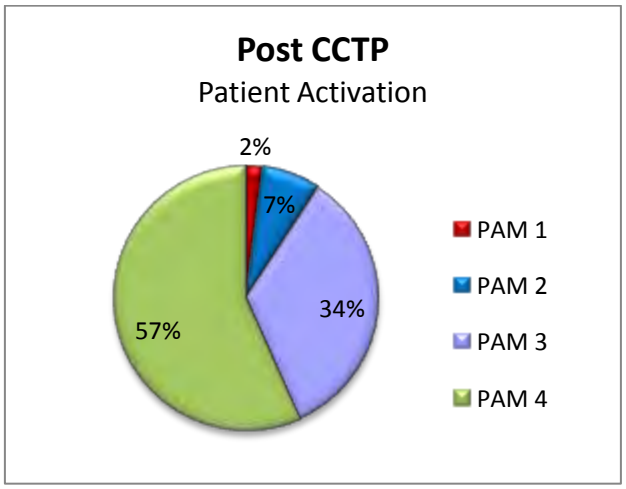
Patient Activation



	St. Joe's	PSL	RMC	TMCA	SMC	SRMC	NSMC
PAM 1	15	24	46	120	46	16	9
PAM 2	21	31	96	90	151	38	19
PAM 3	5	12	33	69	39	26	13

7% of patients did not increase their PAM score
32% of patients increased their PAM score by 1 point
48% of patients increased their PAM score by 2 points
13% of patients increased their PAM score by 3 points





Medication Discrepancies

Medication Discrepancies Found by Coaches

Total Discrepancies Counts – All CCTP Patients									
	0 Errors	1 Error	2 Error	3 Error	4 Error	5 Error	6 Error	7 Error	n/a
Number of Patients	472	101	43	25	12	5	1	2	218
% of Patients	54%	11%	5%	3%	1%	1%	0%	0%	25%

Total Discrepancies Counts – Excluding 0 and n/a							
	1 Error	2 Error	3 Error	4 Error	5 Error	6 Error	7 Error
Number of Patients	101	43	25	12	5	1	2
% of Patients	53%	23%	13%	6%	3%	1%	1%

Causes and Contributing Factors

Patient Level

Adverse Drug Reaction or side effects

Intolerance

Didn't fill prescription

Money/financial barriers

Intentional non-adherence

Non-intentional non-adherence

Performance deficit

System Level

Prescribed with known allergies

Conflicting information from different sources

Confusion between generic and brand names

Discharge instructions incomplete/inaccurate/illegible

Duplication

Incorrect dosage, quantity, or label

Cognitive impairment not recognized

No caregiver/need for assistance not recognized

Sight/dexterity limitations not recognized

Support Services Referrals

	Number of Home Delivered Meals	Number of Transportation Rides	Number of Hours for Homemaker Services	Care Management
ST. JOE'S	95	10	26	1
PSL	25	14	24	4
RMC	160	64	84	6
TMCA	280	74	118	12
SMC	195	54	112	7
SRMC	55	14	34	0
NSMC	90	14	16	4
All Hospital Total	**900**	**244**	**414**	**34**

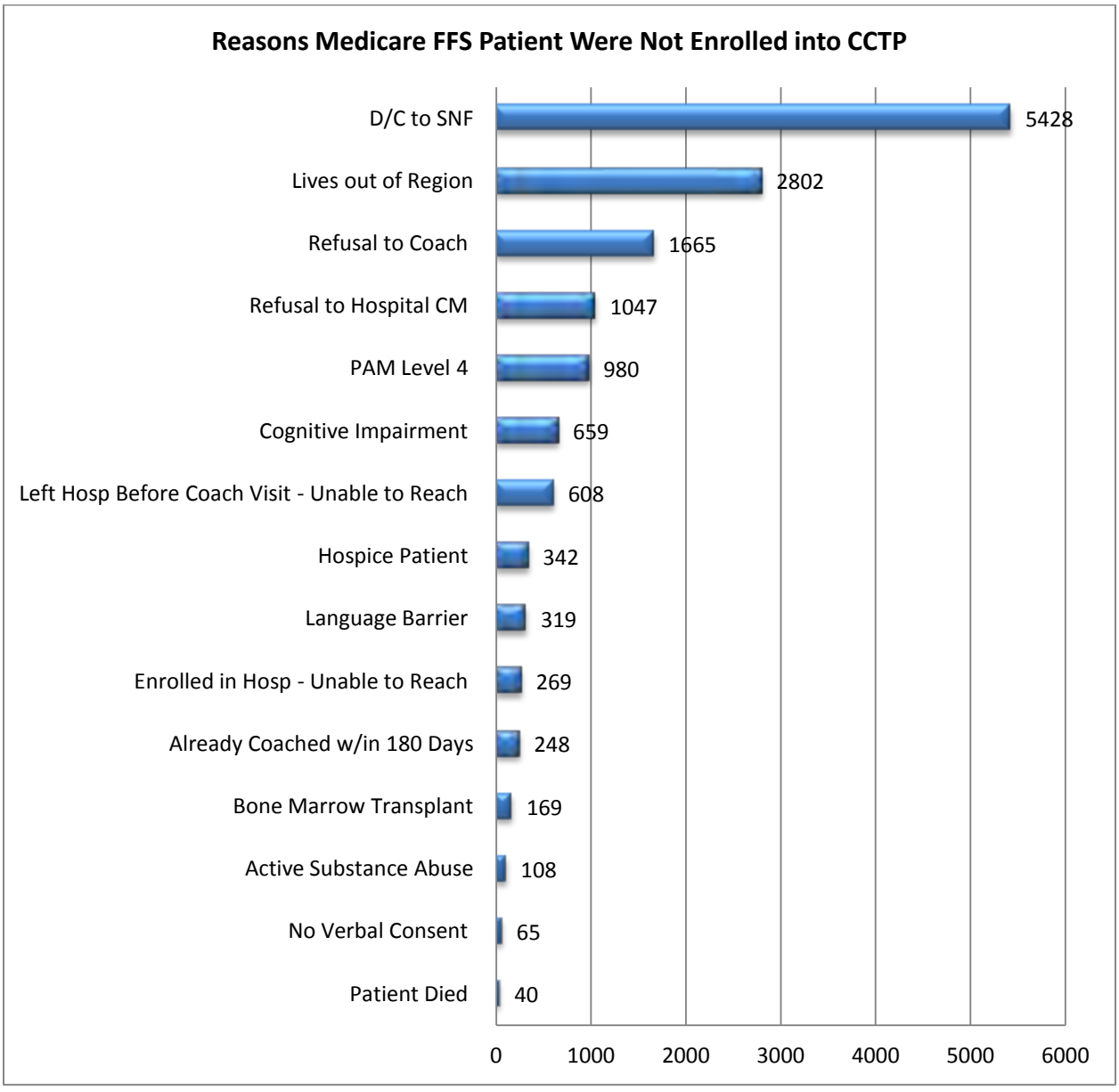
Other Services & Support Referrals

Personal Health Records	**2000**
DRCOG's Information and Assistance Flyer	**1500**
Advanced Directives	**200**
Physician Health Partners Case Management	**50**
NP Intern Visits	**22**
Chronic Disease Self Management Classes	**10**

All referral numbers are estimations based on coach survey and case reviews.

Patient Flow Report

Aggregate Patient Flow Statistics	
60%	Of Medicare FFS admissions met initial eligibility criteria
29%	Of patients (both eligible and ineligibly) were referred to a CCTP Coach
83%	Of patients who were screened into CCTP were approached by a Coach or Case Manager
36%	Of patients approached accepted CCTP services
65%	Of patients who accepted CCTP services started CCTP
89%	Of patients who started CCTP completed services



Post Acute Care

All information in this section was obtained from CMS's CCTP Quarterly Monitoring Report #5 for current reporting period: October 31, 2015. The information presented in these tables was obtained from CCTP list bills as of 2/5/2015. Because of lags in list bill reporting, results for the current quarter are considered provisional. We will update this information as we receive subsequent Quarterly Monitoring Reports.

Performance Measures for CCTP Participants

	Your CCTP Participants			All CCTP Participants
	Previous Quarter (Final) May 2014 - Jul 2014 (N = 96)	Current Quarter (Provisional) Aug 2014 - Oct 2014 (N = 130)	Program to Date May 2013 - Oct 2014 (N = 421)	Program to Date Feb 2012 - Oct 2014 (N = 295,429)
Percentage of Participants Who ...				
Were rehospitalized within 30 days of hospital discharge	14.6	13.1	12.4	15.4
Visited a physician within 7 days of hospital discharge	33.3	30.7	33.9	37.9
Visited a physician within 14 days of hospital discharge	50.5	48.0	52.8	60.4
Had a hospital ED visit within 30 days of hospital discharge	22.1	11.5	14.3	9.7
Had an observation stay within 30 days of hospital discharge	2.1	0.0	1.4	2.2
Died within 30 days of hospital discharge	0.0	0.8	0.2	2.2
Other Monitoring Measures for Your Participants				
Average LOS during hospital stay (days)	4.6	5.0	4.6	5.2
Average CMS-HCC risk score	1.7	1.8	1.8	1.9

Sources: The information presented in this table was obtained from CCTP list bills as of 2/5/2015, Medicare claims as of 2/17/2015, and the Medicare enrollment database as of 2/17/2015.

Notes: Results for the current quarter are based on participants who were discharged during the reporting quarter and for whom a list bill was submitted, processed, and determined to be eligible for CCTP-funded services related to a hospital discharge from 8/1/2014 to 10/31/2014. The previous quarter is based on participants for whom a list bill was submitted, processed, and determined to be eligible for CCTP-funded services related to a hospital discharge from 5/1/2014 to 7/31/2014. The results presented in this table are restricted to list bills that could be matched to a hospital discharge claim. In addition, the physician visit measures in this table are restricted to CCTP participants who were discharged to the community. In September 2014, we began including hospital outpatient visits in the physician follow-up visit measures. This change might have resulted in an increase in the physician follow-up visit measures. Finally, Medicare Cost Plus plan beneficiaries are included in rehospitalization measures only.

Because of lags in list bill and Medicare administrative data reporting, results for the current quarter are considered provisional. Updates in information available by the end of the next reporting period will be reflected in the next quarterly monitoring report's previous reporting period (final) and program-to-date columns. List bills submitted this quarter for discharges occurring during the previous quarter are displayed in the previous quarter and program-to-date columns. List bills submitted this quarter for discharges occurring more than two quarters in the past will appear only in the program-to-date column. The program-to-date column is refreshed quarterly and reflects the most up-to-date claims from all quarters as of 2/17/2015. Program-to-date results for all CCTP participants are based on an unweighted average of each CBO's results.

CMS-HCC risk scores measure the expected costliness of a Medicare patient based on his or her previous year's claims relative to the national average of all Medicare FFS beneficiaries. Patients with a CMS-HCC risk score greater than 1.00 are expected to be more costly than the average FFS beneficiary, whereas those with a risk score less than 1.00 are expected to be less costly than the national average.

CMS-HCC = CMS-hierarchical condition category; ED = emergency department; FFS = fee-for-service; LOS = length of stay. n.a. = not applicable.

7-Day Post-Discharge Physician Follow-Up Visit Rates

Partner Hospital	Baseline Jan 2010 - Dec 2010	Previous Quarter (Final) May 2014 - Jul 2014	Current Quarter (Provisional) Aug 2014 - Oct 2014	Program to Date May 2013 - Oct 2014
Presbyterian/St. Lukes Medical Center	37.7	35.0	32.6	33.8
Exempla Saint Joseph Hospital	33.7	32.4	22.2	27.1
Rose Medical Center	28.3	30.9	26.5	28.7
Swedish Medical Center	41.0	37.6	32.4	34.9
North Suburban Medical Center	34.3	31.8	32.5	32.2
The Medical Center of Aurora	41.8	34.7	35.6	35.2
Sky Ridge Medical Center	38.2	35.2	36.6	36.0
Weighted Average for Your CBO	37.4	34.6	32.1	33.3
Weighted Average for All CBOs	33.4	34.2	33.8	β4.0

Source: The information presented in this table was obtained from Medicare claims submitted as of 2/17/2015.

14-Day Post-Discharge Physician Follow-Up Visit Rates

Partner Hospital	Baseline Jan 2010 - Dec 2010	Previous Quarter (Final) May 2014 - Jul 2014	Current Quarter (Provisional) Aug 2014 - Oct 2014	Program to Date May 2013 - Oct 2014
Presbyterian/St. Lukes Medical Center	54.7	52.1	49.4	50.7
Exempla Saint Joseph Hospital	47.7	51.6	37.4	44.2
Rose Medical Center	44.2	43.5	41.6	42.5
Swedish Medical Center	57.6	55.3	51.9	53.5
North Suburban Medical Center	52.9	49.3	51.7	50.5
The Medical Center of Aurora	61.3	51.5	54.9	53.3
Sky Ridge Medical Center	56.3	53.8	50.9	52.3
Weighted Average for Your CBO	54.7	51.4	49.4	50.4
Weighted Average for All CBOs	53.4	53.6	53.3	53.4

Source: The information presented in this table was obtained from Medicare claims submitted as of 2/17/2015.

30-Day Post-Discharge Hospital Emergency Dept Visit Rates

Partner Hospital	Baseline Jan 2010 - Dec 2010	Previous Quarter (Final) May 2014 - Jul 2014	Current Quarter (Provisional) Aug 2014 - Oct 2014	Program to Date May 2013 - Oct 2014
Presbyterian/St. Lukes Medical Center	11.9	14.6	13.3	13.9
Exempla Saint Joseph Hospital	15.1	21.4	13.5	17.3
Rose Medical Center	14.5	16.1	11.7	13.9
Swedish Medical Center	12.5	13.7	16.1	14.9
North Suburban Medical Center	22.1	25.0	19.2	21.9
The Medical Center of Aurora	12.6	13.5	17.0	15.2
Sky Ridge Medical Center	8.8	15.2	14.3	14.8
Weighted Average for Your CBO	12.9	15.5	15.1	15.3
Weighted Average for All CBOs	11.8	13.8	13.2	13.5

Source: The information presented in this table was obtained from Medicare claims submitted as of 2/17/2015.

30-Day Post-Discharge Hospital Observation Stay Rates

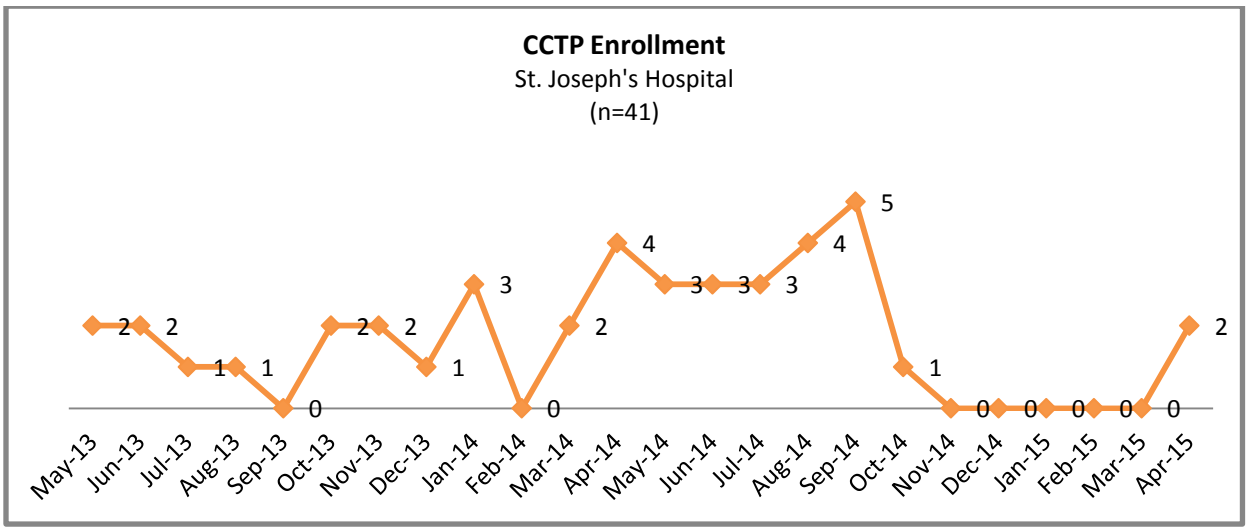
Partner Hospital	Baseline Jan 2010 - Dec 2010	Previous Quarter (Final) May 2014 - Jul 2014	Current Quarter (Provisional) Aug 2014 - Oct 2014	Program to Date May 2013 - Oct 2014
Presbyterian/St. Lukes Medical Center	2.4	1.6	1.8	1.7
Exempla Saint Joseph Hospital	3.0	6.1	2.4	4.2
Rose Medical Center	2.3	1.3	1.4	1.3
Swedish Medical Center	1.4	1.1	0.8	0.9
North Suburban Medical Center	4.7	2.2	2.4	2.3
The Medical Center of Aurora	1.5	2.8	0.8	1.8
Sky Ridge Medical Center	2.0	0.3	0.7	0.5
Weighted Average for Your CBO	2.0	1.7	1.2	1.5
Weighted Average for All CBOs	1.4	2.4	2.3	2.3

Source: The information presented in this table was obtained from Medicare claims submitted as of 2/17/2015.

Hospital Specific Data

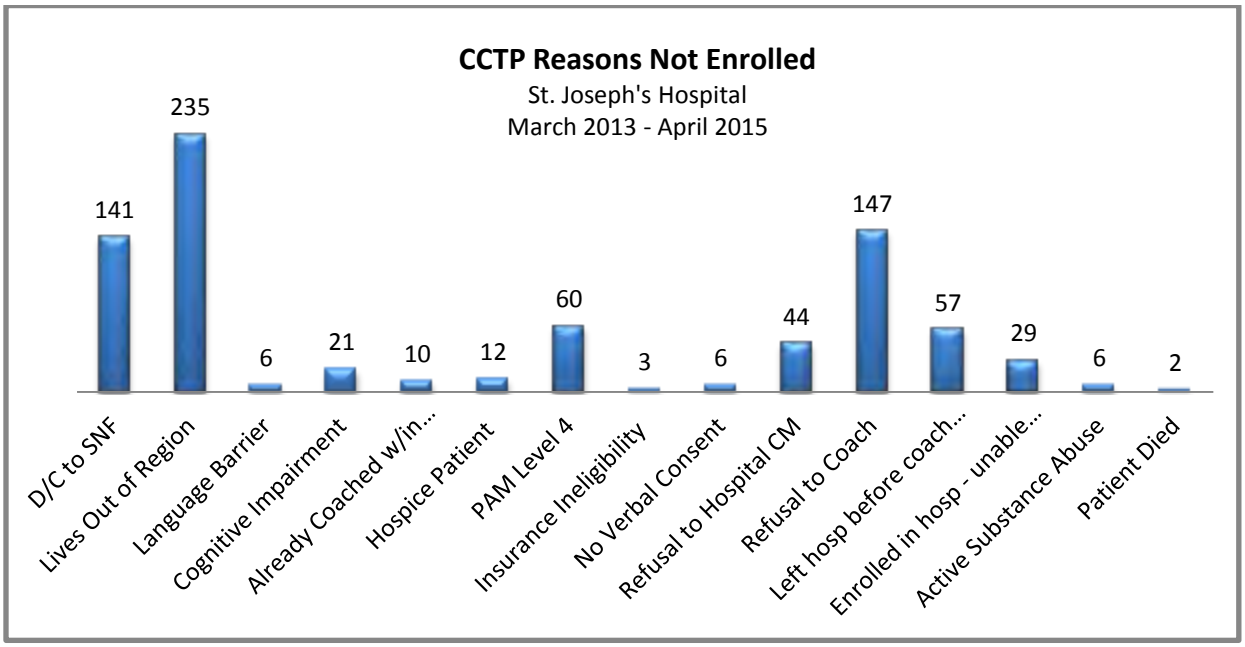
30-Day Readmission Rate among CCTP Patients at St. Joseph's Hospital: **16.1%**
(Based on the most recent QMR data from May 2013 – October 2014)

CCTP Coaches enrolled a total of **41** patients admitted to St. Joseph's Hospital.



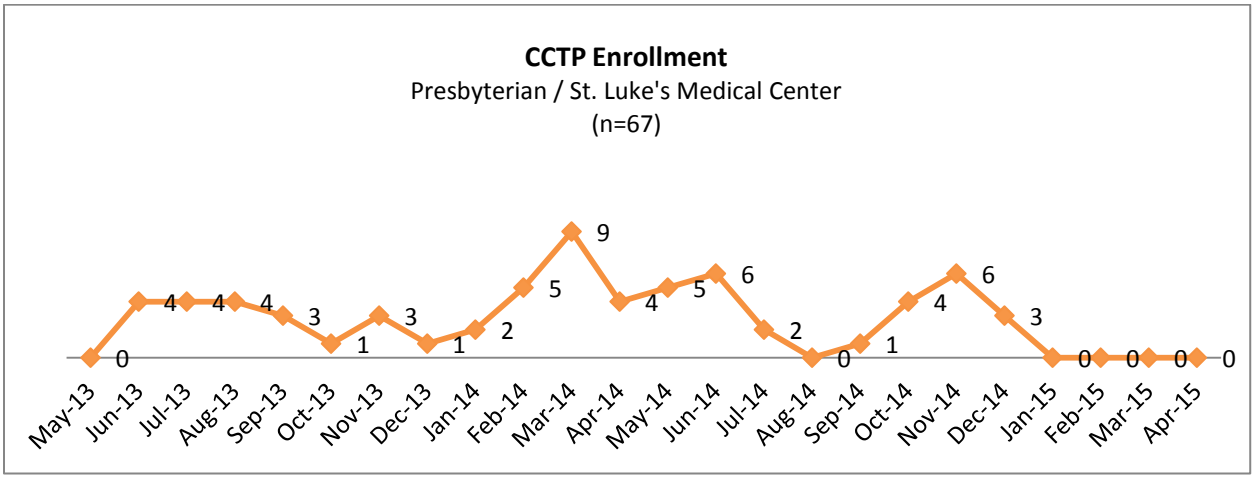
Among coached patients, CCTP coaches were able to identify **14 medication discrepancies.**

A patient with low activation has a significant risk of readmission. The average Patient Activation Measure© Score increased by **1.4 points,** significantly decreasing the likelihood of a 30-day readmission.



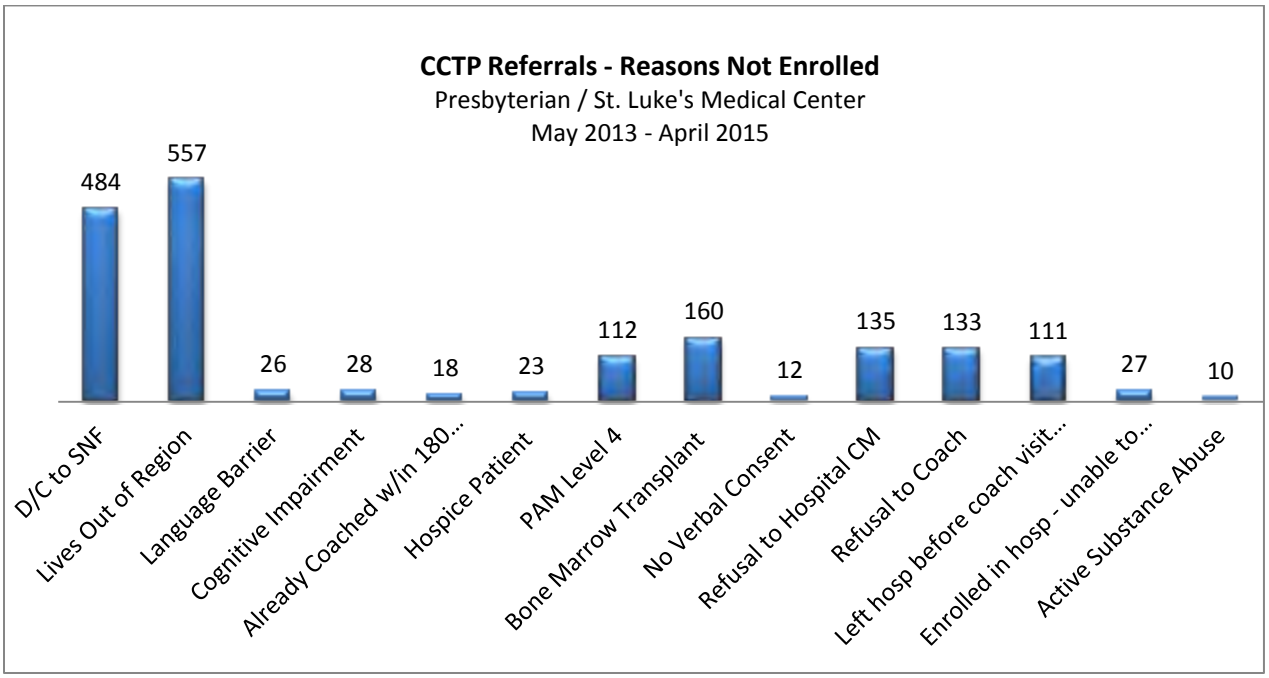
30-Day Readmission Rate among CCTP Patients at Presbyterian/St. Luke's Medical Center: **10.0%.**
(Based on the most recent QMR data from May 2013 – October 2014)

CCTP Coaches enrolled a total of **67** patients admitted to PSL.



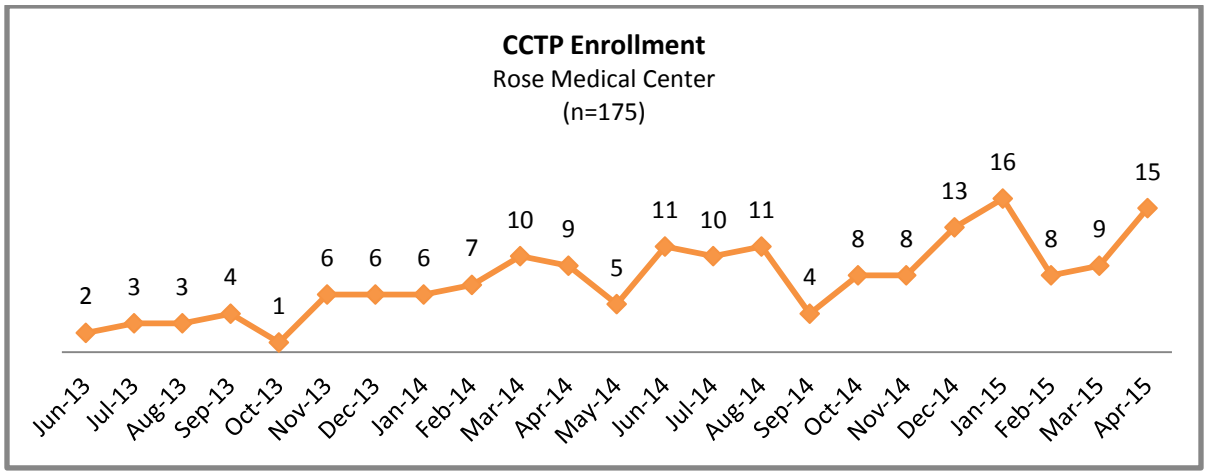
Among coached patients, CCTP coaches were able to identify **33 medication discrepancies.**

A patient with low activation has a significant risk of readmission. The average Patient Activation Measure© Score increased by **1.5 points** decreasing the likelihood of a 30-day readmission!



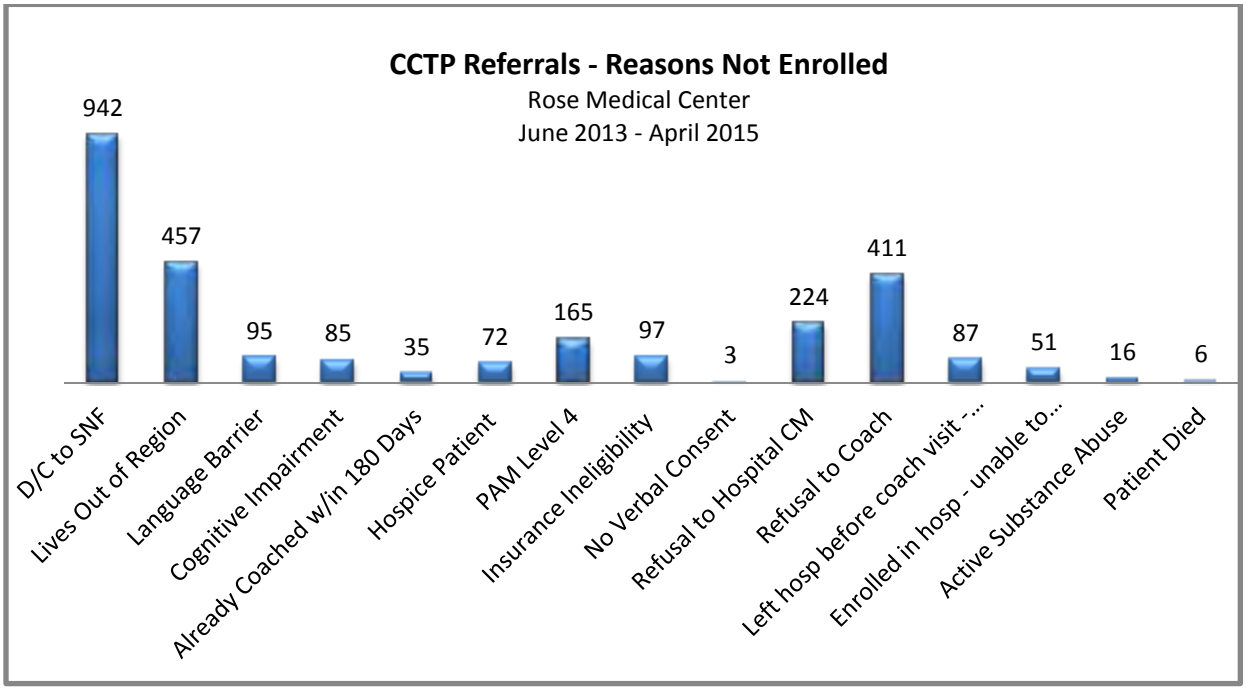
30-Day Readmission Rate among CCTP Patients at Rose Medical Center: **14.5%**
(Based on the most recent QMR data from May 2013 – October 2014)

CCTP Coaches enrolled a total of **175** patients admitted to Rose.



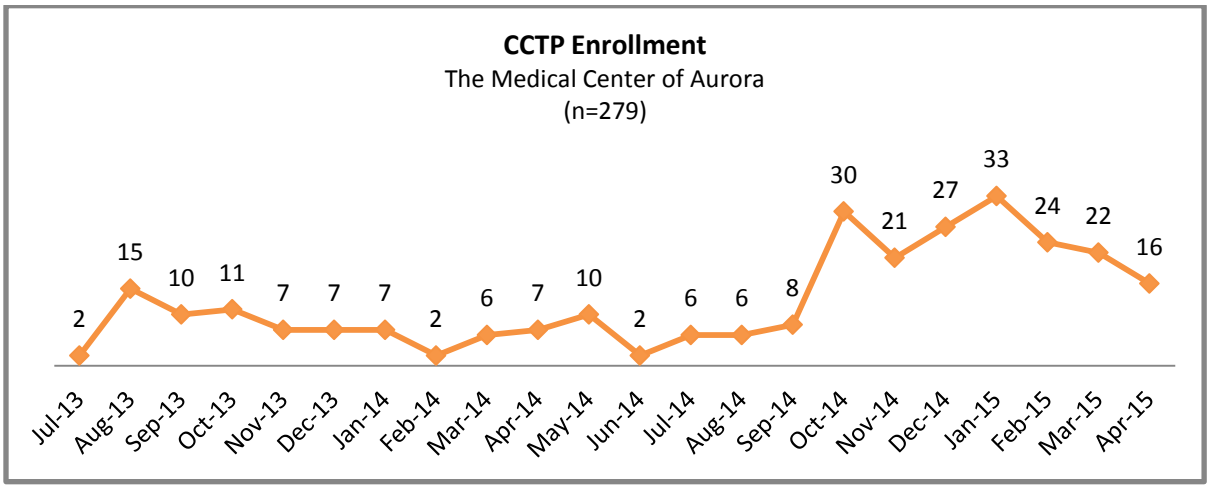
Among coached patients, CCTP coaches were able to identify **69 medication discrepancies.**

A patient with low activation has a significant risk of readmission. The average Patient Activation Measure© Score increased by **1.7 points** significantly decreasing the likelihood of a 30-day readmission!



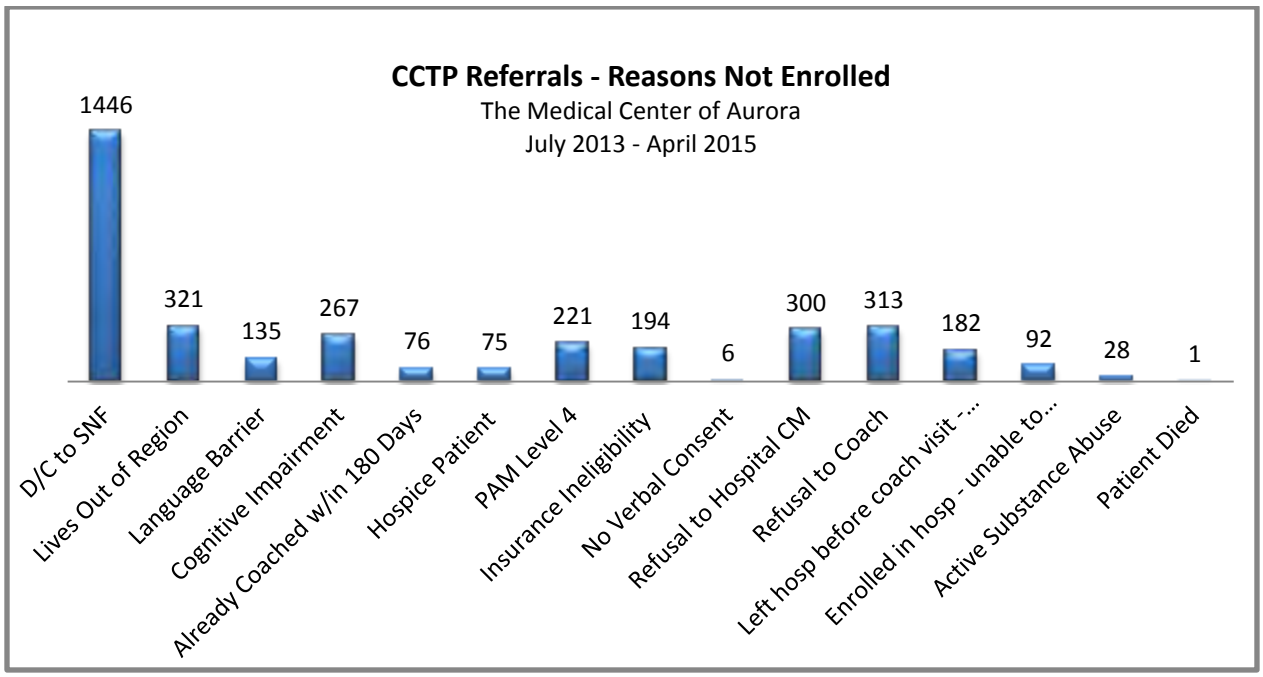
30-Day Readmission Rate among CCTP Patients at The Medical Center of Aurora: **9.8%**
(Based on the most recent QMR data from May 2013 – October 2014)

CCTP Coaches enrolled a total of **279** patients admitted to TMCA.



Among coached patients, CCTP coaches were able to identify **93 medication discrepancies.**

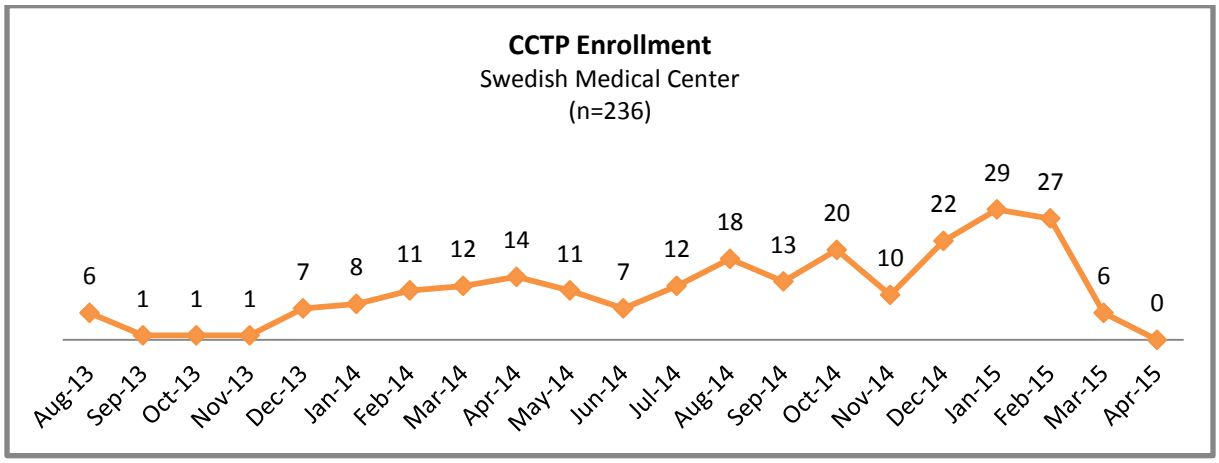
A patient with low activation has a significant risk of readmission. The average Patient Activation Measure© Score increased by **1.5 point** significantly decreasing the likelihood of a 30-day readmission!



30-Day Readmission Rate among CCTP Patients at Swedish Medical Center: **12.6%**

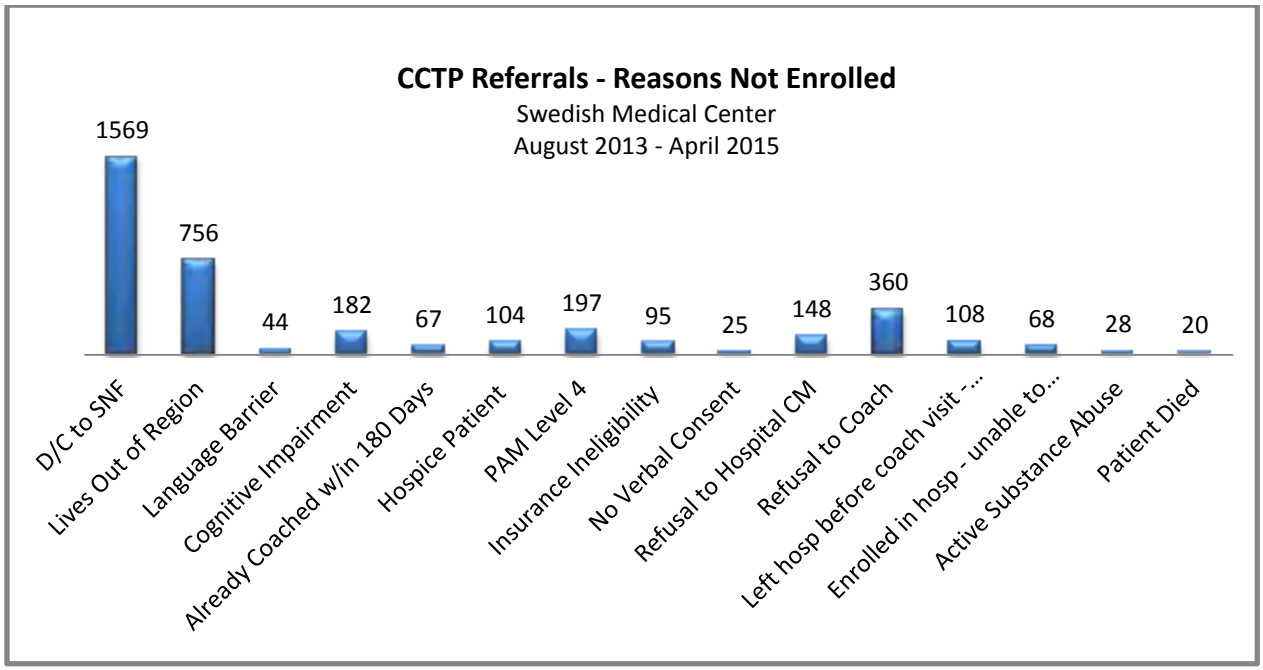
(Based on the most recent QMR data from May 2013 – October 2014)

CCTP Coaches enrolled a total of **236** patients admitted to Swedish.



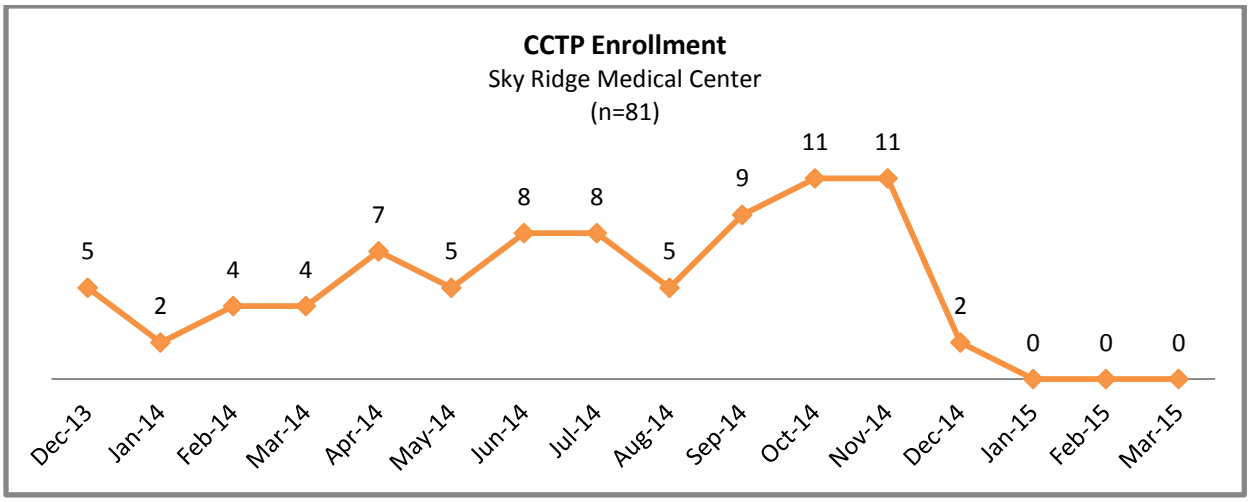
Among coached patients, CCTP coaches were able to identify **65 medication discrepancies.**

A patient with low activation has a significant risk of readmission. The average Patient Activation Measure© Score increased by **1.7 points**, significantly decreasing the likelihood of a readmission!



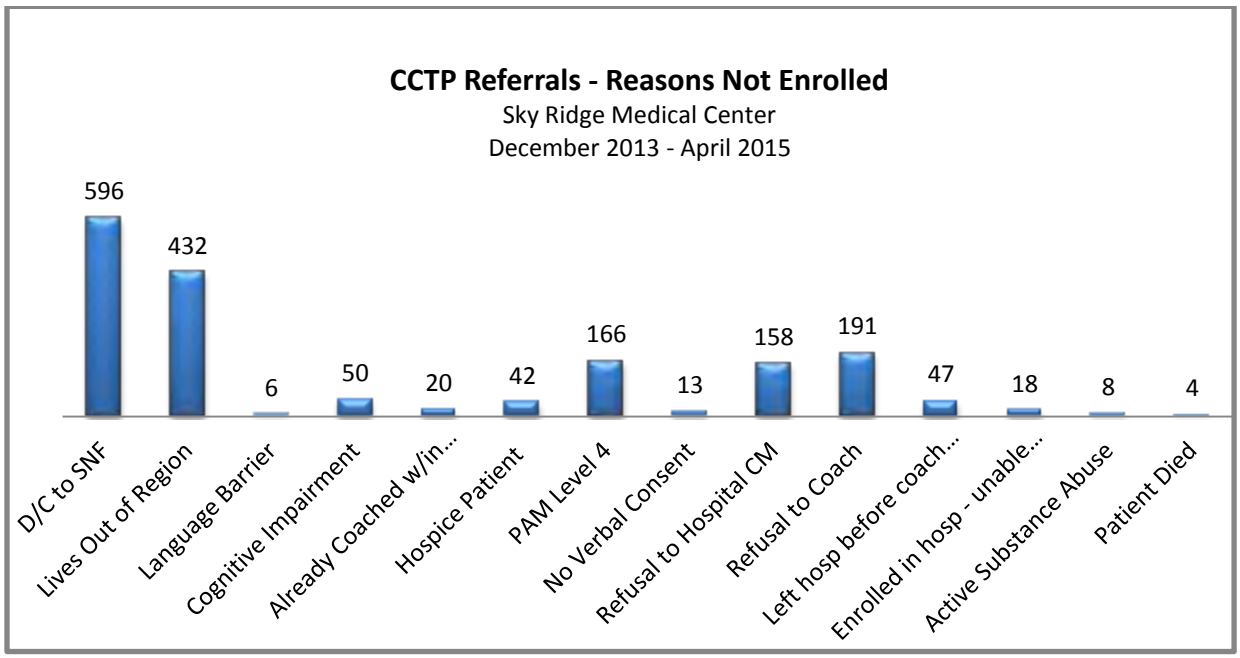
30-Day Readmission Rate among CCTP Patients at Sky Ridge Medical Center: **13.0%**
(Based on the most recent QMR data from May 2013 – October 2014)

CCTP Coaches enrolled a total of **80** patients admitted to Sky Ridge.



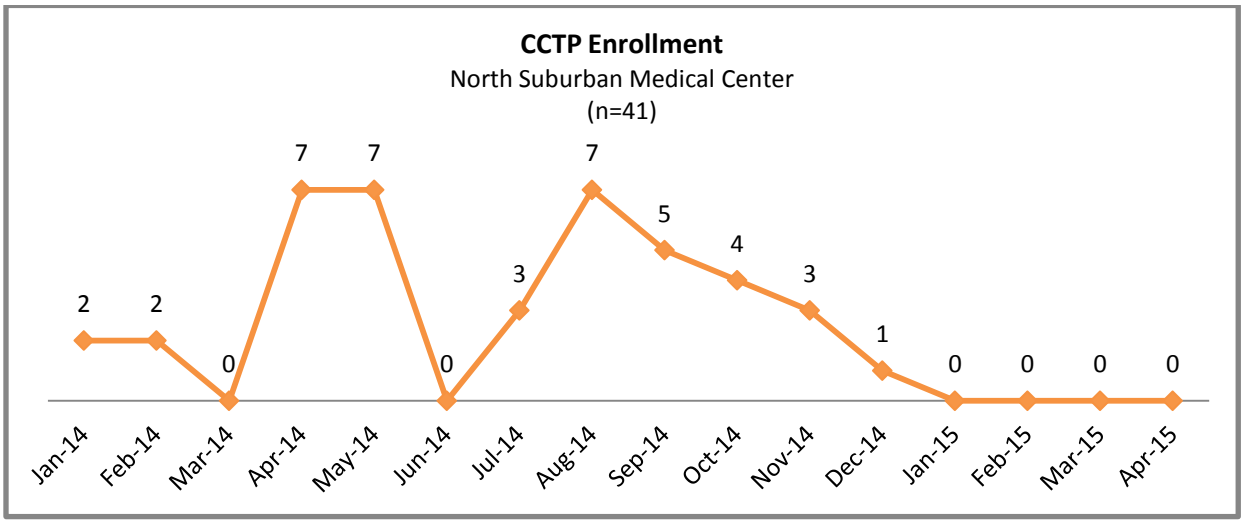
Among coached patients, CCTP coaches were able to identify **13 medication discrepancies.**

A patient with low activation has a significant risk of readmission. The average Patient Activation Measure© Score increased by **1.5 point** significantly decreasing the likelihood of a readmission!



30-Day Readmission Rate among Patients at North Suburban: **13%.**
(Based on the most recent QMR data from May 2013 – October 2014)

CCTP Coaches enrolled a total of **41** patients admitted to North Suburban.



Among coached patients, CCTP coaches were able to identify **26 medication discrepancies.**

A patient with low activation has a significant risk of readmission. The average Patient Activation Measure© Score increased by **1 point** significantly decreasing the likelihood of a 30-day readmission!