

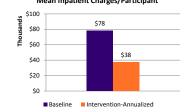
# Health Connections Initiative

Louisville Outcomes Measures

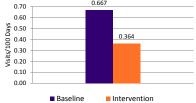
Graduates November 2013 through July 2015

Reporting Period: October 2013 - July 2015. Premier readmission data is through June 2015; LOS data is through July 2015; other encounter data are through July 2015	Baseline Year	Intervention Year	Improvement Direction	Goal
Inpatient Visits Metrics	Baseline	Intervention	Improvement Direction	Goal
Inpatient Visits	392	191		
Total Inpatient Days	2099	913		
Participant Mean Inpatient Visits/100 Days	0.667	0.364	-0.303	The mean inpatient visit rate/100 days per patient were significantly reduced by .303 in the intervention period (t(156)= -7.74, p < .0001). 120 patients reduced their inpatient visit rate vs. 24 with an increased rate; 13 were unchanged.
Inpatient Charges Source: Clinical Analytics Database			¥	Reduce the number of inpatient admissions by enrolled cohort members by 2 percentage points.
Total Inpatient Charges	\$12,768,902	\$5,430,158		
Annualized Inpatient Charges		\$6,136,004		
Inpatient Charges/Visit	\$32,574	\$28,430		
Charges/Inpatient Day	\$6,083	\$5,948		
Participant Mean Inpatient Charges	\$78,337	\$37,644		Participants' inpatient charges in the baseline year were compared to their annualized inpatient charges in the intervention year. Mean charges/patient decreased significantly by \$39,375 (t(156) = -6.58, p < .0001) Charges for 130 patients were reduced; 27 cases saw increased charges.
Length of Stay Source: Premier QualityAdvisor			¥	Reduce the length of stay of inpatient admissions by enrolled participants by 2 percentage points.
Length of Stay Denominator	390	190		
ALOS Observed	5.38	4.79		
GMLOS Observed	4.38	3.93		
GMLOS Expected - CS Std	4.05	4.08		
GMLOS Observed/Expected Ratio - CS Std	1.08	0.96		
GMLOS Variation	0.33	-0.15		
GMLOS Excess Days	127.06	-28.59		
30-Day Readmissions Source: Premier QualityAdvisor			$\mathbf{\Psi}$	Reduce the rate of all cause hospital readmissions within 30 days of discharge for enrolled cohort members by 2 percentage points
30-Day Readmission Denominator	224	341		
30-Day Readmission Numerator - Unplanned	78	70		
30-Day Readmission Numerator - All Cause	85	73		
30-Day Unplanned Readmission Observed Rate	34.8%	20.5%		
30-Day Unplanned Readmission Expected Rate - CS Std	16.8%	18.1%		
30-Day Unplanned Readmission Observed/Expected Ratio - CS Std	2.07	1.13		
30-Day Unplannned Readmission Variation - CS Std	18.0%	2.4%		
Excess Unplanned 30-Day Readmission Cases - CS Std	40	8		
Participant Mean 30-Day Readmission Observed Rate	31.8%	13.4%	-18.4%	Participants with inpatient index visits in both periods were compared (N=96). There is a significant reduction of the observed 30-day unplanned readmission rate by 18.4% in the intervention period ( $t(95)$ = -4.47, p < .0001). The rate was reduced in 40, increased for 15, and unchanged for 41 participants. Sixty-one cases have no baseline inpatient data for comparison.

Mean Inpatient Charges/Participant







# Geometric Mean Length of Stay

4.05

Baseline

GMLOS Observed GMLOS Expected

4.08

3.93

Intervention

4.38

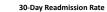
4.50

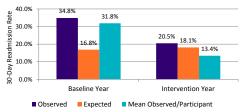
4.30

sh <sup>4.10</sup> D <sub>3.90</sub>

3.70

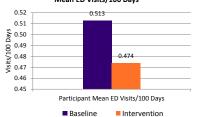
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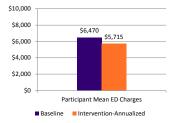


	Baseline Year	Intervention Year	Improvement Direction	Goal
ED Visits			¥	Reduce the number of emergency department visits by enrolled participants by 2 percentage points
ED Visits	300	235		
Participant Mean ED Visits/100 Days	0.513	0.474	-0.039	Mean ED visits/100 days per patient decreased in the intervention period by .039, a non-significant difference (t(156)=6285, p = .531). More patients reduced their visit rate vs. those who increased it (63 vs. 44); 50 were unchanged.
ED Charges				Reduce the amount of emergency department costs by enrolled participants by 2 percentage points
Total ED Charges	\$1,054,674	\$810,115		
Annualized ED Charges		\$931,499		
ED Charges/Visit	\$3,516	\$3,447		
Participant Mean ED Charges	\$6,470	\$5,715	-\$646	ED charges in the baseline year were compared to annualized ED charges in the intervention period for those with at least 100 days in the intervention period. There is a non-signifcant reduction of ED charges per patient of \$646 in the intervention year (t(156)=864, p=.389) More patients reduced their ED charges vs. those who increased them in the intervention period (71 vs. 49); 37 had no change.
7-Day ED Return Post-Inpatient Stay			¥	Reduce the rate of emergency department visits within 7 days of inpatient discharge of enrolled cohort members by 2 percentage points
7-Day Post-Inpatient ED Return Rate	7.4%	5.2%		
7-Day Post-Inpatient ED Return Denominator	392	191		
7-Day Post-Inpatient ED Return Numerator	29	10		
Program Metrics				
Enrollment Rate (% of eligible referrals who are enrolled)		50.3%		Excludes pending participants
Graduation Rate (% of enrolled participants who graduate)		59.1%		

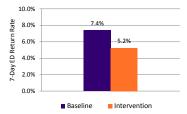
Mean ED Visits/100 Days







#### 7-Day ED Return Post-Inpatient Visit



Notes:

1. The referring visit is counted in the intervention year denominator for readmission measures. For all other measures, the referring visit is included in the baseline period.

2. Data excludes six graduates who were referred following observation visits.

3. Data for five University of Louisville referrals excluded at this time.

4. Premier readmission and length of stay data use CareScience risk-adjustment, standard methodology.

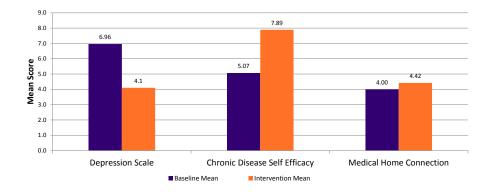
5. Patients with less than 100 days in the intervention year were excluded from patient-level baseline/intervention analyses.

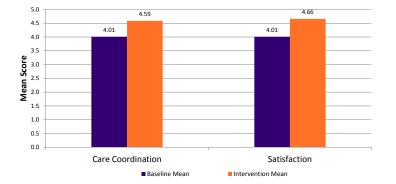
6. Mean charges/participant are annualized for the intervention period.



## Health Connections Initiative Louisville Outcome Measures Graduates November 2013 through July 2015

Triple Aim Category: Better Health	Baseline Mean	Intervention Mean	Patients (N)	Improvement Direction	Goal
Depression Scale	6.96	4.1	147	¥	Reduce participants' mean depression score by 2 percent on the Personal Health Questionnaire Depression Scale (PHQ-9).
Chronic Disease Self Efficacy	5.07	7.89	155	<b>^</b>	Improve participants' confidence in their ability to manage their health by 2 percent as measured by the mean score on the Stanford Chronic Disease Self-Efficacy 6-Item instrument.
Medical Home Connection	4.00	4.42	156	<b>^</b>	Increase the number of participants with a meaningful connection to a primary care provider by 2 percent as measured by the Client Perception of Care (CPCQ) question: "How often did you and your GP agree about your care needs?"
Triple Aim Category: Better Experience					
Care Coordination	4.01	4.59	156	↑	Increase the number of participants who perceive their care is well coordinated by 2 percent as measured by the Client Perception of Care (CPCQ) question: "In the past 3 months, how often did you feel the care you received was well coordinated?"
Satisfaction	4.01	4.66	156	<b>^</b>	Increase the number of participants who are satisfied with their overall health care by 2 percent as measured by the Client Perception of Care (CPCQ) question: "How satisfied are you with the care you have received in the past 3 months?"





### Health Connections Initiative Louisville Demographics Graduates November 2013 through May 2015

Gender	Participants	% Total
Female	104	61%
Male	67	39%
Grand Total	171	100%

Race	Participants	% Total
White	90	53%
Black	79	46%
Other/Unknown	2	1%
Grand Total	171	100%

Marital Status	Participants	% Total
Single	61	36%
Married	49	29%
Widowed	26	15%
Divorced	22	13%
UNKNOWN-ULH	8	5%
Separated	4	2%
Unknown	1	1%
Grand Total	171	100%

# \* Data not available for ULH referrals.

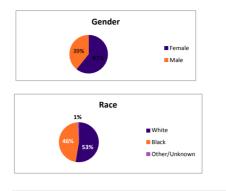
Home Zip Code	Participants	% Total
40216	24	14%
40214	21	12%
40203	19	11%
40211	18	11%
40272	18	11%
40215	18	11%
40210	14	8%
40258	13	8%
40212	12	7%
UNKNOWN-ULH	8	5%
40208	3	2%
40202	2	1%
40071	1	1%
Grand Total	171	100%
* Data not available for ULH referrals.		

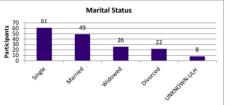
Financial Class	Participants	% Total
MEDICAID MANAGED CARE	58	34%
MEDICARE TRADITIONAL	55	32%
MEDICARE MANAGED CARE	42	25%
SELF PAY/CHARITY PENDING	10	6%
MEDICAID TRADITIONAL	5	3%
MANAGED CARE	1	1%
Grand Total	171	100%

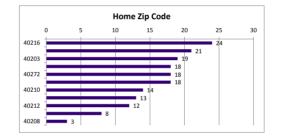
Age	Participants
20-29	3
30-39	10
40-49	19
50-59	46
60-69	50
70-79	23
80-89	18
90-99	2
Grand Total	171

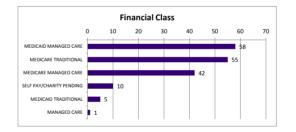
Months in Intervention *	Participants		% Total
1		1	1%
2		3	2%
3		5	3%
4		7	4%
5		12	7%
6		9	5%
7		6	4%
8		11	6%
9		7	4%
10		6	4%
11		12	7%
12		92	54%
Grand Total		171	100%

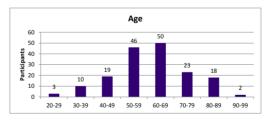
Note: Data excludes four graduates referred following observation visit.

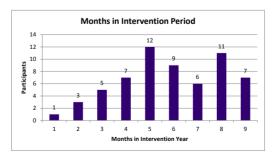












Report Date: 7/16/2015

		Category	,		
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Graduate	171	20.6	20.6	20.6
	Enrolled-Incomplete	127	15.1	15.1	35.8
	Declined-Eligible	337	40.2	40.2	75.9
	Declined-Ineligible	143	17.0	17.0	93.0
	Excluded-Graduate	5	.5	.5	93.4
	Enrolled-Active	38	4.5	4.5	98.0
	Pending	17	2.0	2.0	100.0
	Total	839	100.0	100.0	
	Enrollment Rate (% eligible referrals who are enrolled): Graduation Rate:	50.3%		Excludes pending participants Includes graduates later excluded from other program measures	