



38109 – How Did We Get Here?

In 2011, Gary Shorb took a group of Senior leaders at Methodist LeBonheur Healthcare and several CIGNA employees to a meeting in the 38109 Zip code. There we were exposed to the disparities of care between residents of this underserved zip code and other areas of Shelby County. Based on this revelation, 38109 became a system community health priority.

vithout walls



In the Beginning: Participatory Hot Spotting

- The Mid-South has some of the highest prevalence of chronic disease: heart disease, stroke, lung disease, cancer, diabetes, and asthma.
- In an effort to identify ways to improve the health of its community, MLH used geocoding technology to identify hot-spots of healthcare utilization.
- The goal was to identify geographic areas of focus on which to direct hospital resources in a targeted effort to improve the health of the neediest communities.
- The result was the identification of zip code 38109 in South Memphis. Patients from 38109 had the highest utilization of MLH emergency departments (EDs) as well as the highest consumption of hospital charitable care.

: T. Cutts, E. Rafalski, C. Grant and R. Marinescu, "Utilization of Hot Spotting to Identify Commun s in Memphis, TN," Journal of Geographic Information System, Vol. 6 No. 1, 2014, pp. 23-29. doi:



Focus Area – Memphis Model

Spatial analysis was employed to evaluate hospital-based inpatient and outpatient utilization and define costs of charity care for MLH by area of residence.

- The top ten zip codes accounted for 56% of total system charity care costs.
- The "hot spot" of utilization and cost was found to be South Memphis in one zip code, 38109. In 2010, in this zip code, IP volume accounts for 9% of visits, while representing almost 65% of total cost.
- 38109 has a high percentage of under-served persons and has only one FQHC safety net clinic, serving roughly the 49,000 residents in the zip.
- 38109 comprises 14% of the total Memphis population and is 97% African American.

Our assumption was managing patients at the neighborhood level should have the biggest impact on the charity care population.

These findings were combined with grassroots intelligence that enabled a partnership with clergy and community members and Cigna Healthcare to better coordinate care in a place-based population health management strategy.

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38109 MLI	H Paye	er Mix	
TennCare is largest payer from	in MLH pa 38109	atients originating	
Pavor	# of Visits II	Inique Pts (MPN)	
TENNCARE	26.061	10 735	
MEDICARE	14.254	4,936	
PRIVATE PAY	9,477	5,330	
CONTRACT/MANAGED CARE	8,376	4,221	
BLUE CROSS	2,657	1,454	
COMMERCIAL	699	450	
LIABILITY	697	650	
WORKMAN'S COMPENSATION	287	242	
MEDICAID	208	124	
MEDASSIST	128	97	
CHAMPUS	122	71	
SPONSOR AGENCY	113	107	
METHODIST STAFF SERVICES	10	10	
Data Source: Accent, Castlew May 2013 Sap 2013		Be treated well. Set Methodist	
		1	4



- 50% of the encounters had between 1 and 5 comorbid conditions associated with the principal diagnosis with 83% having 2 or more high risk comorbidities
- 2 diagnosis codes associated with Chronic Kidney Disease stood out as the top 2 categories in the "Other" category
- The maximum numbers of high-risk comorbidities were noticed in the case of those who were discharged with a Primary Dx of Chronic Lung Disease (CLD), Heart Failure, Diabetes and Chronic Kidney Disease

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Wellness Without Walls **Riverview Kansas Community Center** Six events in 2014 109 attendees on average at each event Average of 33 patients fully screened Referrals to screenings Referrals To Screenings To PCP appointments To earned benefits screenings To dental and eye appointments Methodist • Flu shots Be treated well.























Familiar Faces 30-Day Readmission Rate (IP)

- FF population has a higher readmit rate than the system population
- The highest readmission rate burden for HF patients
- The 30-day Medicare HF Readmissions Rate is reduced by 3.15% at Methodist South Hospital when the encounters of the 97 FFs were excluded from the entire Methodist Healthcare Memphis Hospitals (MHMH) population
- This clearly shows the disproportional impact of FF readmission rates on the system average

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	Financial Class = All Payer									
opulation has a higher readmit than the system population	Readmission Cause	FFs	EP	EP-FFs	Impact					
highest readmission rate burden is	AMI	66.67%	11.84%	11.76%	0.08%					
Fpatients	HF	57.53%	20.99%	20.16%	0.83%					
30-day Medicare HF	Pneumonia	37.50%	15.21%	15.14%	0.07%					
% at Methodist South Hospital					0.18%					
the encounters of the 97 FFs excluded from the entire	Fi	nancial C	lass = Me	20.16% 0.83% 15.14% 0.07% 15.14% 0.18% Coloration 0.18% Coloration 0.18% 14.69% 0.09% 20.89% 0.71% 15.43% 0.04%						
bitals (MHMH) population	Readmission Cause	FFs	EP	EP-FFs	Impact					
clearly shows the disproportionate	AMI	100.00%	14.78%	14.69%	0.09%					
ct of FF readmission rates on the	HF	19.91%	21.60%	20.89%	0.71%					
em average	Pneumonia	33.33%	15.47%	15.43%	0.04%					
					0.22%					
 Methodist Healthcare Memphis Hospitals or System or 4 adult facilities Entire Methodist Population (4 adult facilities – MUH, MSH, MNH and MG 97 Familiar Faces identified from Zip Code – 38109 Entire Methodist Population minus encounters of the 97 Familiar Faces i ED – (EP-FFs) 	H) dentified from Zip Code 38109 Be tr	eated well.		Metho Le Bonheur He	dist malthcare					
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38109 Familiar Faces Report Card	Baseline	2014 YTD	2015 YTD	JAN 16	FEB 16	MAR 16	APR 16	MAY 16	JUN 16	JUL 16	AUG 16	SEP 16	OCT 16	NOV 16	DEC 16	2016 YTD	Progress
# of Patients in Familiar Faces (first day of month/year)	92	87	87	87	87											87	
# Expired Patients (last day of month/year)	3	2	0	0	0											0	
# of Patients with MLH Encounter	90	80	65	31	27											43	
ENCOUNTER DATA	Monthly Avg	Monthly Avg	YTD Avg														
IP Visits/Month	19.0	10.2	7.2	12	5											8.5	\downarrow
ALOS	4.7	4.5	3.2	4.3	2.6											3.4	\downarrow
OP Visits/Month (non-ED)	7.8	5.9	3.8	5	8											6.5	\downarrow
ED Visits/Month	99.4	73.9	43.4	54	50											52.0	\downarrow
All Visits/Month	126.3	90.0	54.4	71	63											67.0	\downarrow
FINANCIAL DATA			YTD Total														
Total Charges	\$9,868,763	\$5,911,558	\$3,701,063	\$543,686	\$249,331											\$793,017	\downarrow
Total Cost	\$2,619,457	\$1,362,465	\$1,006,465	\$152,201	\$45,642											\$197,842	\downarrow
Cost/Patient (DMAP Metric)	\$2,416	\$1,320	\$964	\$1,749	\$525											\$1,137.03	\downarrow
% Cost Savings/Patient compared to 2013 Baseline		-45%	-60%	-28%	-78%											-53%	\downarrow
*Progress: Calculated based on YTD data; Rer ENCOUNTER DATA - Baseline = May2012-Ap DEPLOYMENT MAP METRIC: Maintain docum	d indicates uninten xil2013 Monthly Av nented per patient	ded direction, gree verage; YTD = 201 MLH costs for Far	n indicates intende 6 Monthly Average niliar Faces in 3811	ed direction e 09 in 2016.		-	-			-	-	-	-				

KOTES: Pediatic patients (5) removed in May and revised in JUNE 2014 per Sandra Bailey and Corey Johnson. Only adult Familiar Faces remain. One pt was miscoded with disp code 20. Familiar Face members adjusted to correct.

Familiar Faces Report Card Cohort 2
YTD February 2016

38109 Cohort2 Report Card	Baseline	JUN 15	JUL 15	AUG 15	SEP 15	OCT 15	NOV 15	DEC 15	JAN 16	FEB 16	MAR 16	APR 16	MAY 16	2015/2016 YTD	Progress
# of Patients in Cohort2 (first day of month/year)	82	81	81	81	79	78	78	78	78	77				77	
# Expired Patients (last day of month/year)	0	0	0	2	0	1	0	0	1	0				4	
# of Patients with MLH Encounter	82	34	34	35	29	34	33	26	28	31				63	
ENCOUNTER DATA	Monthly Avg													YTD Avg	
IP Visits/Month (total = 186)	15.50	11	6	11	7	13	3	3	9	8				7.9	\downarrow
ALOS (Total Days= 858)	4.61	7.09	3.33	5.45	4	1.48	4.67	3.67	10.00	3.38				4.8	↑
OP Visits/Month (non-ED) (total=88)	7.33	14	6	7	8	5	9	6	2	3				6.7	\downarrow
ED Visits/Month (total =981)	81.75	36	47	47	34	40	38	28	30	41				37.9	\downarrow
All Visits/Month (total =1255)	104.58	61	59	65	49	58	50	37	41	52				52.4	\downarrow
FINANCIAL DATA														YTD Total	
Total Charges	\$10,912,111	\$660,694	\$320,312	\$441,061	\$286,888	\$571,489	\$232,850	\$352,890	\$352,890	\$365,980				\$3,585,056	\downarrow
Total Cost	\$2,305,399	\$152,768	\$62,109	\$110,427	\$71,655	\$125,939	\$44,185	\$32,552	\$181,064	\$73,357				\$854,056	\downarrow
Cost/Patient (DMAP Metric)	\$2,343	\$1,886	\$767	\$1,363	\$907	\$1,594	\$566	\$417	\$2,321	\$953				\$1,200	\downarrow
% Cost Savings/Patient compared to 2014 Baseline		-20%	-67%	-42%	-61%	-32%	-76%	-82%	-1%	-59%				-49%	\downarrow
*Progress: Calculated based on YTD data; Red i	indicates unintend	led direction,	green indicate	s intended dire	ction										

Data Source: JDA and CostFlex



Is the MLH Community Navigator Program Working Outside MLH Walls?

- Are 38109 Familiar Faces visiting other Memphis hospitals outside the MLH network?
- If so...
 - Bow frequently prior to the navigator intervention?
 - How frequently following the navigator intervention?
- Is the program truly meeting its goals? Or are patients going to other facilities?

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	Fa	miliar Faces (n=84)	Comp	arison Group	(n=145)		
Utilization Type	Average meai	per year, n (SD)	Relative Reduction*	Average mear	per year, (SD)	Relative Reduction*	Difference-in- Differences	p-valu
	2013	2014	(95% CI)	2013	2014	(95% CI)		
Total Encounters	16.7 (20.4)	13.3 (18.8)	-22.7% (-28.8%, - 16.1%)	12.4 (8.7)	11.4 (10.4)	-7.6% (-12.9%, +0.2%)	0.83 (0.74, 0.92)	<0.00
ED Visits	13.1 (19.1)	11.0 (17.7)	- 19.3% (-26.4%, - 12.6%)	10.1 (8.2)	9.8 (9.5)	-2.3% (-8.5%, +6.6%)	0.82 (0.73, 0.92)	<0.00
Inpatient Admissions	2.1 (3.5)	1.4 (2.2)	- 39.9% (-52.3%, - 22.5%)	1.5 (2.6)	0.8 (1.4)	-48.0% (-59.0%, - 34.2%)	1.17 (0.83, 1.64)	0.36
Observation Stays	1.2 (2.1)	0.9 (1.4)	-28.5% (-47.7%, - 2.2%)	0.7 (1.1)	0.8 (1.8)	+12.3% (-14.9%, +46.7%)	0.64 (0.42, 0.97)	0.035
Total Hospital Days	23.0 (27.1)	15.7 (19.3)	- 30.2% (-35.1%, - 24.9%)	16.5 (20.1)	12.4 (15.1)	-24.9% (-30.5%, - 20.9%)	0.94 (0.85, 1.04)	0.23
Days to Next Encounter	24.4 (19.6)	73.0 (88.6)	+152% (+141%, +165%)	25.5 (18.4)	63.6 (69.9)	+99.0% (+92.1%, +107%)	1.27 (1.19, 1.35)	<0.00
Readmissions	1.1 (2.5)	0.4 (1.1)	(-70.7%, - 34.1%)	0.6 (1.6)	0.2 (0.8)	70.3% (-81.1%, - 53.5%)	1.48 (0.81, 2.71)	0.20

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