

Davies Case Study Vehicles for Communication

August 2018



VCU Health's Vision by Design

Lynn Goodloe, MS, RN, NE-BC

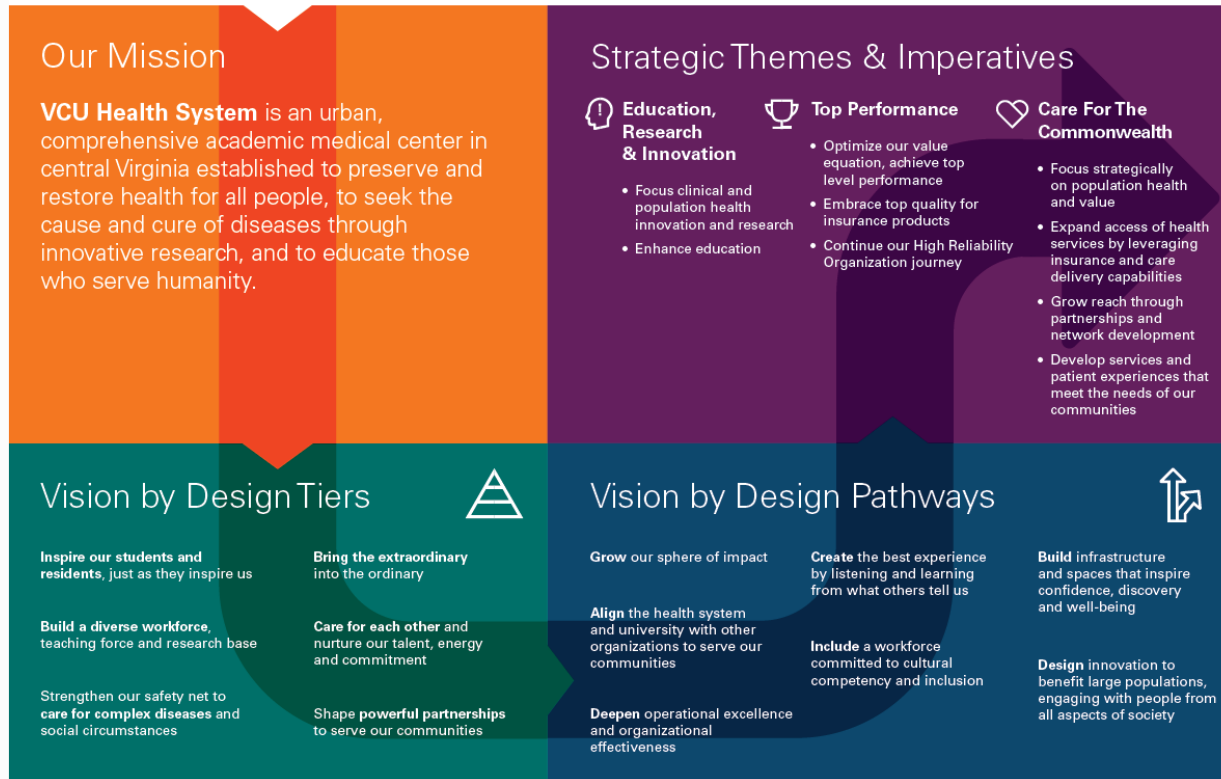
*Director of Patient Flow, Telepage, Service Response, Communications and
Emergency Management*



Vision by Design – Throughput and Capacity

Vision by Design

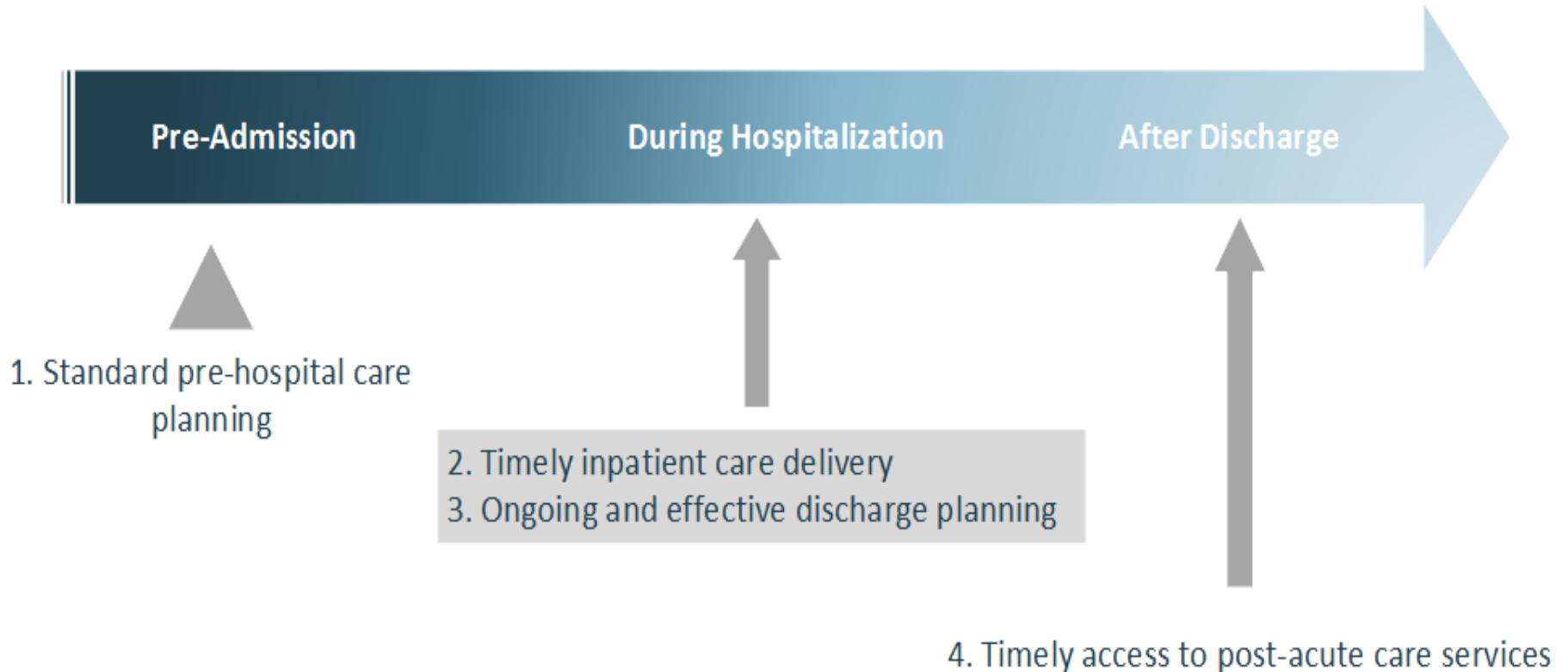
provides pathways to preserve, sustain, and advance our mission, and elevates us to be among the premier academic health systems in the nation.



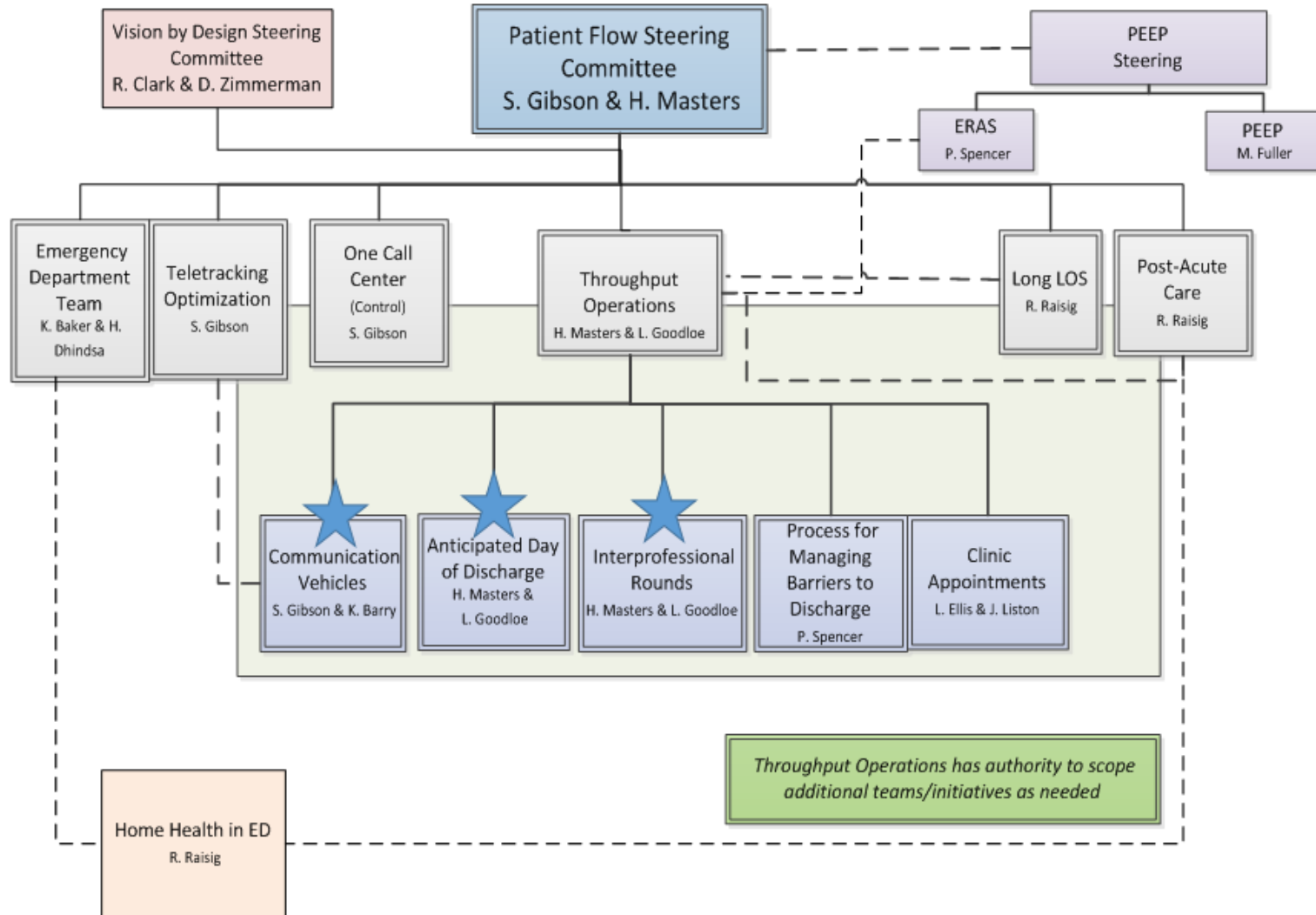
Vision by Design provides pathways to preserve, sustain and advance our mission and elevates us to be among the premier academic health systems in the nation. One of the pathways specifically challenges us to deepen our operational excellence and organizational effectiveness by optimizing patient flow so we can care for those who need us, when they need us, where they need us and in the most appropriate manner.

Four Components of Efficient Care

Inpatient Hospital Stay



Patient Flow Steering Committee: Project Management Reporting Structure



6.30.2017 v10 seb

Why not open more beds?

Opening more beds, without fixing our processes, would immediately fill the beds and we would still be needing more inpatient space to accommodate our patients.

VCU Health had ZERO beds that could be converted into inpatient beds.

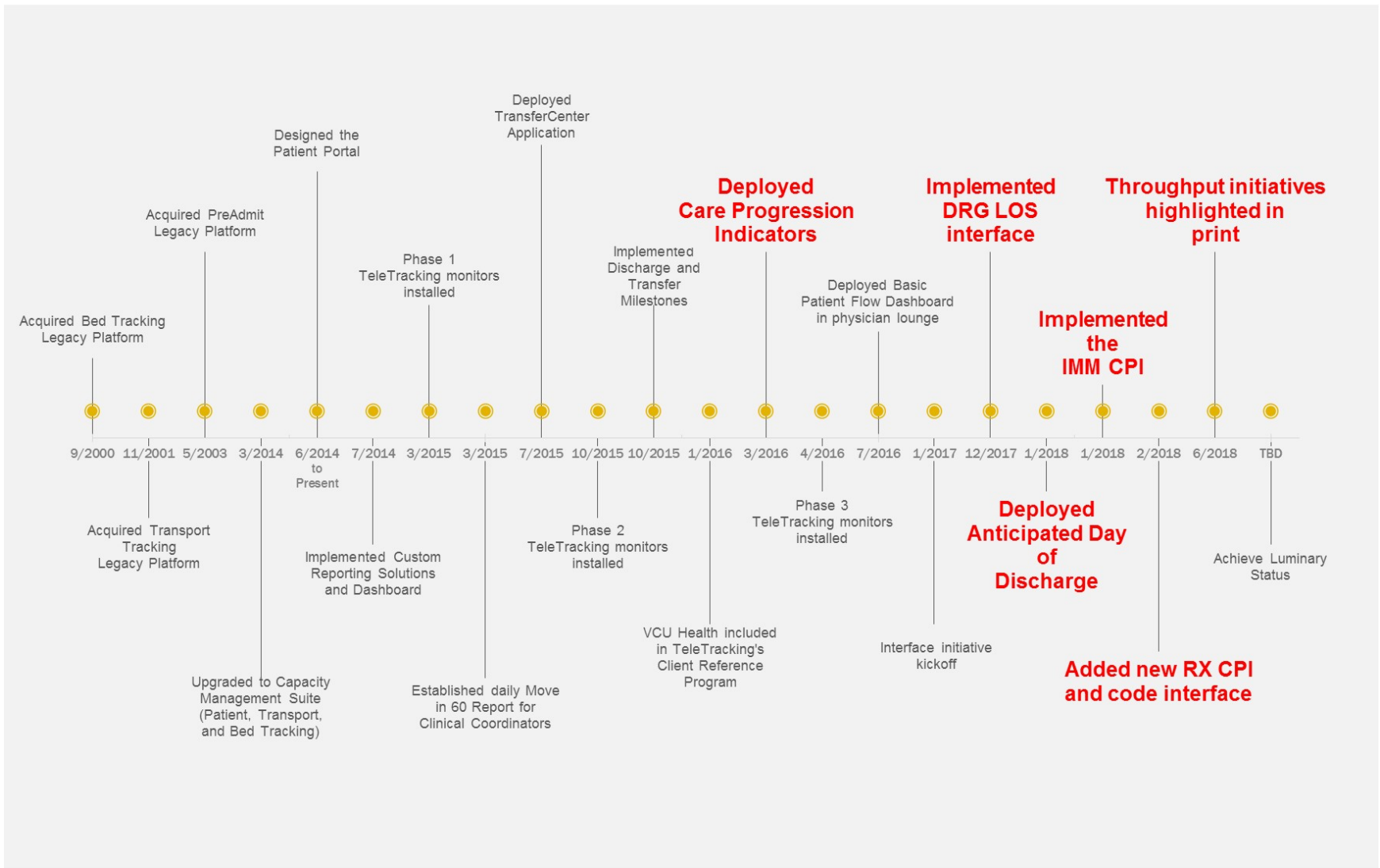
WHY NOT?



VCU Health and TeleTracking

*Sharon Bednar MSN, RN, CEN, LSSGB
Performance Improvement Coordinator*

VCU Health and TeleTracking



Local Problem:

Ineffective Communication:

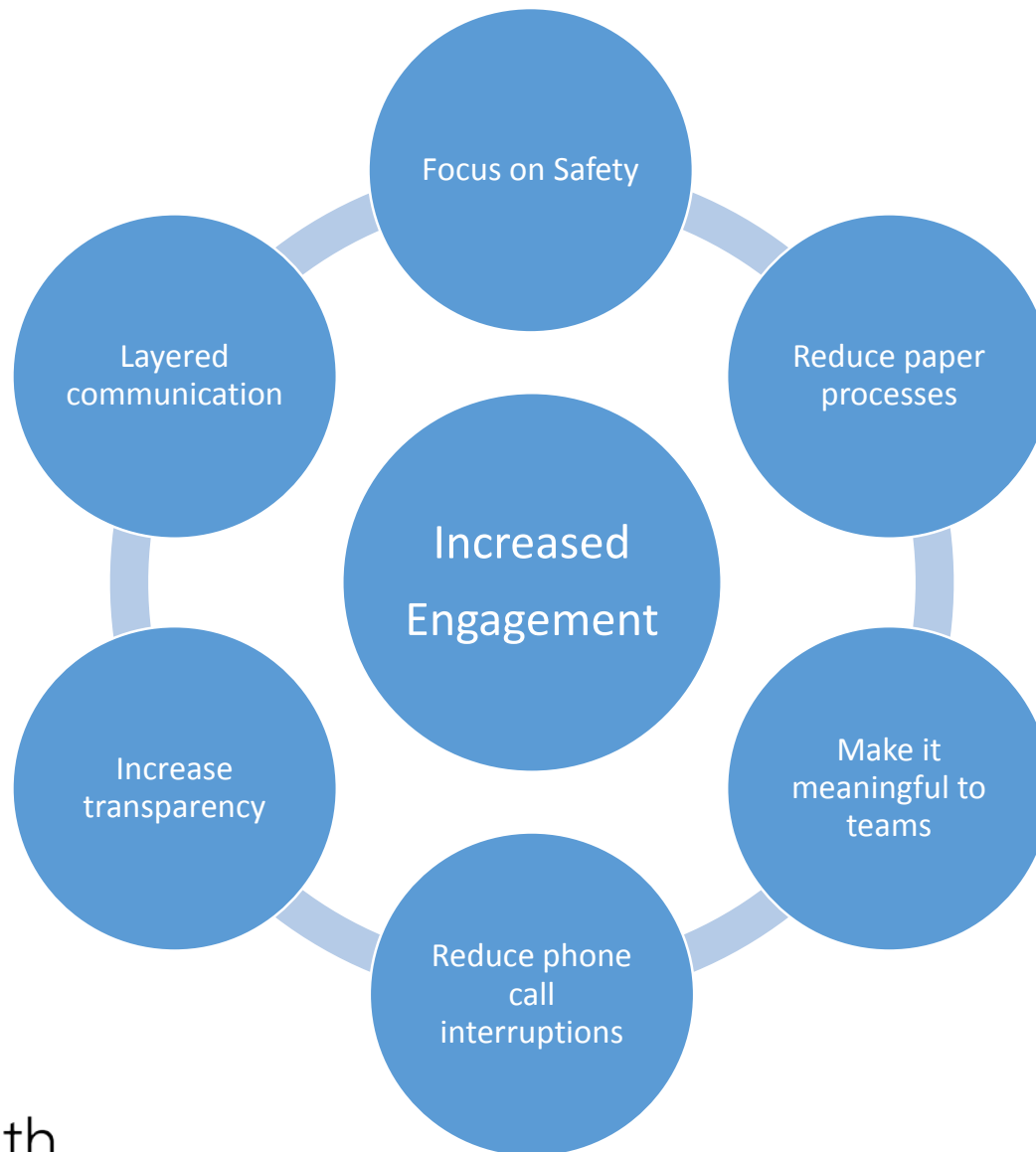
Potential to have a negative impact on the number of patient days for inpatients admitted to the acute care setting.

Goal:

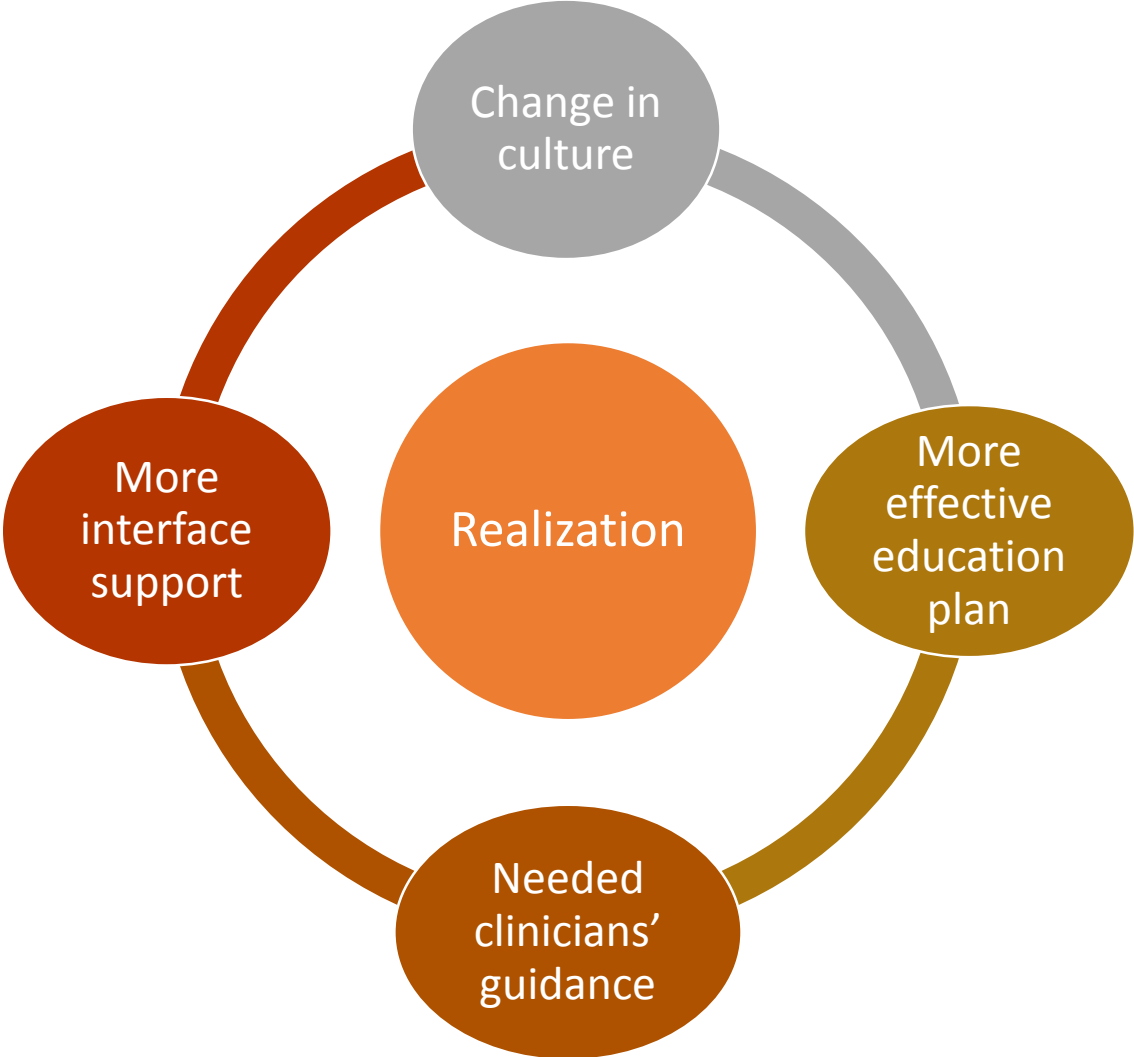
Improving communication among providers, patients, and families may improve the length of stay while improving patient satisfaction, safety and quality of care.



Strategies to Engage Team Members



Lessons Learned



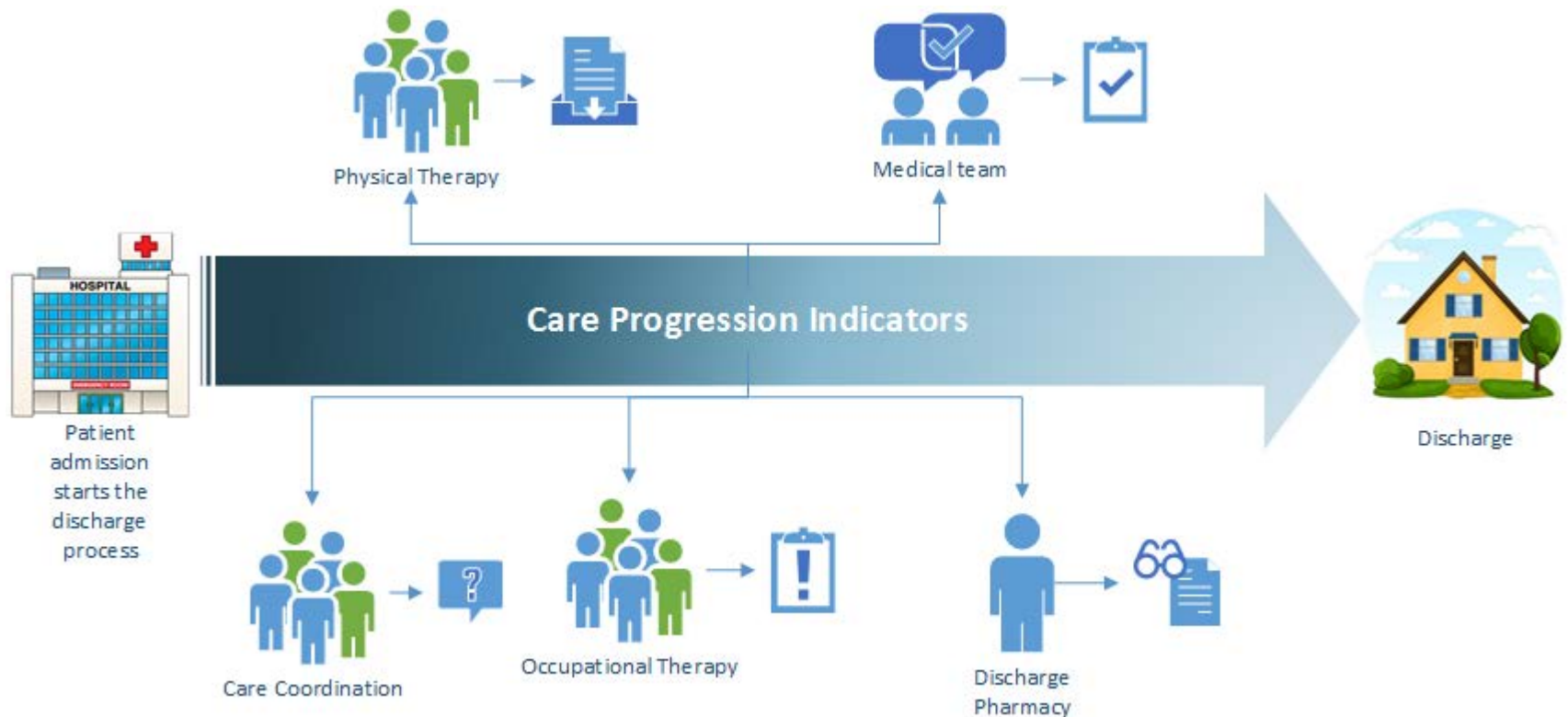
Care Progression Indicators

*Sharon Bednar MSN, RN, CEN, LSSGB
Performance Improvement Coordinator*



Care Progression Indicators

Documented by the care teams to show progress to those patients that need their services. Used as a communication tool to provide real-time information.



Care Progression Indicators

The screenshot shows a clinical software interface with a patient list. The interface includes a top navigation bar with various icons and a search bar. Below the navigation bar, there are tabs for different units: Security Care, CCH3 ACM, CCH4 MRICU, Main 8W, and Pending/Conf Discharges. The current unit is CCH3 ACM. The patient list table has columns for Bed, ST, Age, Patient Attr, LC, Milestones, CC, OT, PT, DRG, LOS, SIBR, and Comments. A red arrow points to the CC, OT, and PT columns, which contain icons representing care progression status.

Bed	ST	Age	Patient Attr	LC	Milestones	CC	OT	PT	DRG	LOS	SIBR	Comments
C3 102-A	IH	62	Telemetry, Influenza	GN						1.8		
C3 104-A	D	21	Telemetry	GN						0.7		pending psych eval
C3 106-A	IH	34		GN						4.3		
C3 108-A	IH	54		GN						1.5		IP to re-eval
C3 110-A	C	45		GN						4.5		possible DC today
C3 112-A	IH	42	Peritoneal Dialysis, Sto...	GN						5.4		
C3 114-A	IH	26	Influenza	GN						0.5		
C3 116-A	IH	35	Tuberculosis, pulmonary	GN						0.2		
C3 118-A	IH	50	C. Diff, Stool Studies	GN						0.5		
C3 120-A	T-	64	Telemetry, C. Diff, Stool...	PC						2.0		
C3 122-A	T-	23		PC						7.5	9.21	possible d/c 9.20 if pain c
C3 124-A	IH	55	Immune Suppressed, In...	PC						3.6	9.21	

Status	Description	Icon
Recommendation	New information that needs to be acknowledged or acted upon.	
In Progress	The patient and the appropriate therapist or caregiver are in the process of completing the care type, but it is not finished.	
Completed	The patient and the appropriate therapist or caregiver have finished the care type.	
Delayed	If the progress of the care type cannot continue at this time, select a reason from the Delay Reason list.	

CPI: Communication between groups

The screenshot shows a hospital information system interface. On the left is a patient list for 'North 6 MS' with columns for Bed, ST, Age, Patient Attr, LC, Milestones, CC, OT, PT, and DRG. A red arrow points from the 'CC' icon in the patient list to the 'Patient Placement' row in the 'Set Care Progression Group Detail' dialog box. The dialog box has a 'Care Coordination' header and a table with columns: Recommendation, In Progress, Completed, Delay Reason, and Notes. The 'Patient Placement' row is highlighted with a red arrow.

Recommendation	In Progress	Completed	Delay Reason	Notes
Important Message from Medicare	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Select...	
Patient Placement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Select...	SNF recommendation x
Dept Procedure/Service Delay	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Select...	
Home Care	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Select...	

Additional information:

- Care Coordination
- Occupational Therapy
- Physical Therapy

This screenshot shows the same 'Set Care Progression Group Detail' dialog box. A red arrow points to the 'In Progress' column header. In this view, the 'Patient Placement' row is highlighted in yellow, and the 'In Progress' checkbox for that row is checked.

Recommendation	In Progress	Completed	Delay Reason	N.
Important Message from Medicare	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Select...	
Patient Placement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Select...	
Dept Procedure/Service Delay	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Select...	
Home Care	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Select...	

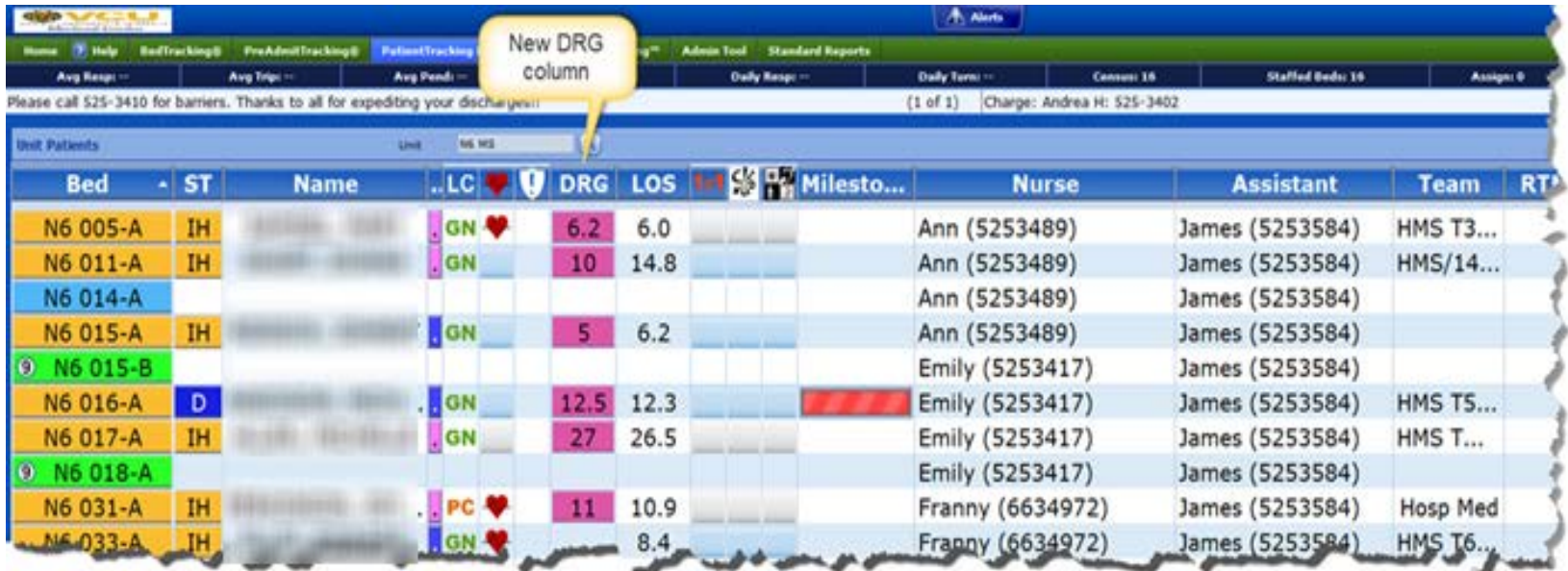
Discharge Pharmacy

Bed	ST	Name	Age	LC	Patient Attr	Proj Discharge	Milestones	CC	OT	PT	RX	RX Code	DRG	LOS	ST
C3 102-A	IH			C GN	CF	08/20 12:00 AM				1	Red Pill		3.8	1.8	
C3 104-A	IH			GN		08/24 12:00 PM							4.6	2.7	
C3 106-A	D			GN		08/17 12:58 PM				2	Yellow Pill		8.5	15.5	
C3 108-A	IH			GN	Discharge by noon	08/18 12:00 AM				3	Green Pill		3.8	10.0	
C3 110-A	IH			GN	Medicare/Medicare Manage...	08/18 12:00 AM				4	Alert Icon	511	4.7	0.6	M
C3 112-A	IH			GN							Red Pill				
C3 114-A	IH			GN	Medicare/Medicare Manage...	08/20 12:00 AM					Red Pill with Alert		4.9	4.0	M
C3 116-A	IH			GN	Medicare/Medicare Manage...								3.3		M

1. **Red pill:** Prescriptions sent to Pharmacy
2. **Yellow pill:** Pharmacist is filling prescriptions
3. **Green pill:** Prescription filled. 4-digit code to release medications from the tube station automated
4. **Alert icon:** Delay was noted

Diagnosis-Related Group LOS

3M 360 ->TeleTracking



The screenshot shows a software interface with a table of patient data. A yellow callout bubble points to a new column labeled 'DRG'. The table has columns for Bed, ST, Name, LC, DRG, LOS, Milesto..., Nurse, Assistant, Team, and RT. The DRG column contains values like 6.2, 10, 5, 12.5, 27, 11, and 8.4. The LOS column contains values like 6.0, 14.8, 6.2, 12.3, 26.5, 10.9, and 8.4. The Nurse and Assistant columns list names and IDs. The Team column lists various departments like HMS T3, HMS/14, HMS T5, HMS T, Hosp Med, and HMS T6.

Bed	ST	Name	LC	DRG	LOS	Milesto...	Nurse	Assistant	Team	RT
N6 005-A	IH		GN	6.2	6.0		Ann (5253489)	James (5253584)	HMS T3...	
N6 011-A	IH		GN	10	14.8		Ann (5253489)	James (5253584)	HMS/14...	
N6 014-A							Ann (5253489)	James (5253584)		
N6 015-A	IH		GN	5	6.2		Ann (5253489)	James (5253584)		
N6 015-B							Emily (5253417)	James (5253584)		
N6 016-A	D		GN	12.5	12.3		Emily (5253417)	James (5253584)	HMS T5...	
N6 017-A	IH		GN	27	26.5		Emily (5253417)	James (5253584)	HMS T...	
N6 018-A							Emily (5253417)	James (5253584)		
N6 031-A	IH		PC	11	10.9		Franny (6634972)	James (5253584)	Hosp Med	
N6 033-A	IH		GN		8.4		Franny (6634972)	James (5253584)	HMS T6...	

- DRG is a statistical system of classification
- Length of stay generated by the Clinical Documentation Improvement Department (CDI)
- Interfaced into TeleTracking from the 3M 360 software



Anticipated Day of Discharge

Georgia McIntosh, MD

Associate Professor, Hospital Medicine

Quality Director for Internal Medicine Residency Program

ADD and TCRs

- Transitional Care Rounds (TCR) evolved
 - Focus on transition
- TCR structure impacted ADD success
 - Care Coordination prompts ADD updates
- Provider satisfier
 - Increased communication
 - Increased patient safety
- Patient satisfier
 - Increased communication on the patient whiteboard



ADD – How it works

The screenshot displays a hospital management software interface. At the top, there is a toolbar with various icons for functions like 'electronic bedboard Views', 'Patient Search', 'New PreAdmit', 'Staffed Beds', 'Staff Assignment', 'Item Trans', 'Instant Notify', 'Notification Message Board', 'RTKI', 'Quick Reports', and 'Console Load/Save Console'. Below the toolbar, there are tabs for 'Security Care', 'CCH3 ACM', 'CCH4 MRICU', 'Main 8W', and 'Pending/Conf Discharges'. The 'CCH3 ACM' tab is active, showing a patient list table with columns for Bed, ST, Name, Age, Patient Attr, Proj Discharge, Milestones, CC, OT, PT, RX Code, DRG, LOS, and ST. A red arrow points from the 'Quick Reports' icon in the toolbar to the 'Discharge Milestones' dialog box.

The 'Discharge Milestones' dialog box is open, showing a table with columns: Complete, Milestone, Delay Reason, Notes, Last Updated, and Updated By. The 'Complete' column has checkboxes. The 'Milestone' column lists various milestones like 'Physician Order', 'Discharge Teaching', 'Transportation', etc. The 'Delay Reason' column has dropdown menus. The 'Notes' column has text input fields. The 'Last Updated' and 'Updated By' columns are empty.

At the bottom of the dialog box, there is a 'Projected Discharge' section with a date field set to '08/17/2018' and a time field set to '12:58 PM'. A red box highlights this section. Below the date and time fields, there is a checkbox labeled 'Do not send automatic discharge reminders'. At the bottom of the dialog box, there are three buttons: 'Save', 'Save and Close', and 'Close'. A 'Send Notifications' button is also present to the right of the 'Projected Discharge' section.

Automated Pending Discharges

- Increase Pending Discharge communication across the organization
- TeleTracking is set to automatically update a patient's status to a Pending Discharge at midnight on the Projected Day of Discharge.
- To avoid communicating a false Pending Discharge, the Projected Discharge Date must be kept as accurate as possible.

Bed	Proj Discharge	ST	Name	LC	Milestones	CC	OT	PT	Rx	RX Code
N5 016-A	09/21 02:00 PM	IH	Ra..sR	GN						
N5 017-A	09/19 02:00 PM	IH	Sm..hC	GN						
N5 017-B	09/20 02:00 PM	IH	Ba..bM	PC						
N5 018-A	09/20 02:00 PM	IH	Tr..rA	GN						
N5 031-A	09/20 12:00 AM	IH	Co..nS	PC						
N5 031-B	09/17 11:50 AM	D	RAA 85, Ms	OB						
N5 033-A		IH	RAA 88, Mr	PC						
N5 033-B	09/18 02:00 PM	d	Do..sW	GN						
N5 035-A	09/17 11:43 AM	D	HENRICO...	GN						
N5 035-B	09/18 02:00 PM	IH	Da..sS	GN						
N5 037-A	09/19 02:00 PM	IH	Wi..nD	GN						
N5 037-B	09/18 01:10 PM	d	Ge..eL	GN						
N5 038-A	09/20 12:00 AM	IH	RAA 60, Ms	GN						
N5 039-A	09/19 02:00 PM	IH	Lo..gM	GN						
N5 039-B	09/21 12:00 AM	IH	Ra..rM	GN						
N5 040-A		IH	HENRICO...	GN						
N5 041-A	09/17 03:06 PM	C	RAA 80, Mr	GN						
N5 041-B	09/19 12:00 AM	d	Ph..sK	GN						
N5 043-A	09/21 02:00 PM	IH	Bo..eR	GN						
N5 043-B	09/18 01:11 PM	d	Ta..qN	GN						
N5 044-A	09/19 02:00 PM	IH	Cr..kJ	GN						
N5 046-A										

Unit View

Automated Pending Discharges

Home ? Help BedTracking® PreAdmitTracking® PatientTracking Portal™ TransportTracking™ Admin Tool S

Avg Resp: 3:19 Avg Trip: 21:10

New RX Code feature starting 2/19/2018! Please see Mass email for details.

electronic bedboard Patient Search New PreAdmit Staffed Beds Assignment Item Trans Instant Notify Notification Message Board RTKI Quick Reports Console Load/Save Settings Console

Telemetry Data Sheet Telemetry Box Print-off PACU PSU/ACC 7 Discharge Pharm Pending/Conf Dis

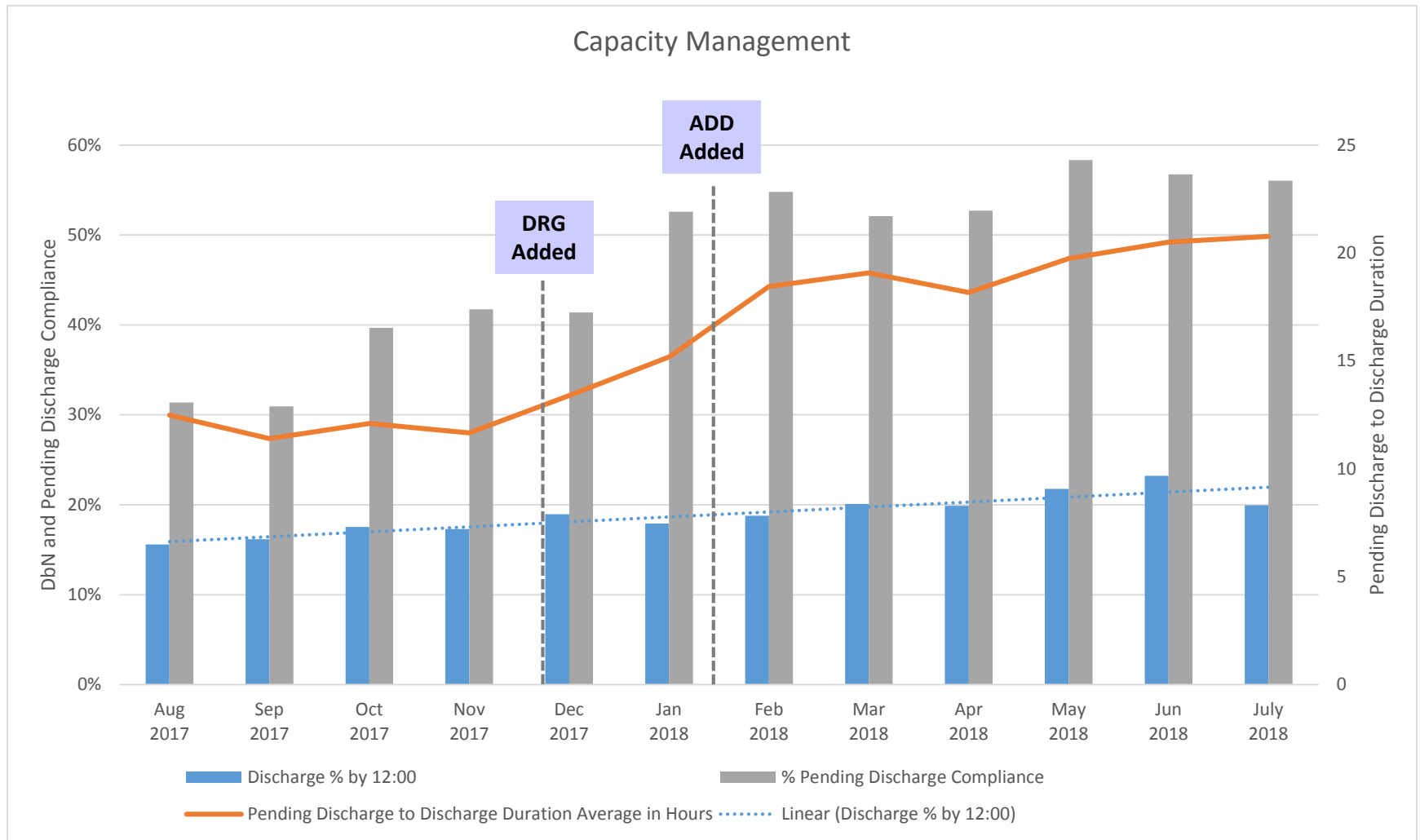
Pending/Conf Discharges Unit CCH3 ACM,CCH4 MRIC

Bed	Proj Discharge	ST	Name	LC	Milestones	CC	OT	PT	Rx	RX Code	DRG	LOS
CCH3 ACM												
C3 102-A	08/21 12:00 AM	d	We...nE	C GN							3.8	4.6
C3 106-A	08/24 12:58 PM	d	Ea...nC	GN						3308	8.5	18.4
C3 108-A	08/21 12:00 AM	d	RAA 59, Mr	GN							4.8	12.8
C3 112-A	08/20 09:44 AM	C	Sp...rP	GN								2.7
C3 118-A	08/20 02:00 PM	D	Jo...rR	GN							12.5	9.8
C3 122-A	08/21 10:00 AM	d	Po...lJ	C GN							4.9	16.5
C3 128-A	08/20 12:00 PM	D	Un...eZ	C GN							10.3	12.5
C3 132-A	08/21 12:00 AM	d	Pa...nD	+ GN							2.2	3.3
C3 134-A	08/21 12:00 AM	d	Wa...rD	GN							3.7	3.8
C3 146-A	08/20 10:00 AM	D	Sm...hL	GN							4.3	8.6
C3 156-A	08/22 02:00 PM	d	Th...sC	+ GN							4.9	9.3
CCH4 MRICU												
C4 154-A	08/20 02:00 PM	D	Cr...yE	GN								1.1
CCHSB SC												
CSB 136-A	08/20 07:41 AM	D	Mu...dM	GN							6.1	12.0
CSB 138-B	08/20 10:18 AM	D	Ta...rM	GN							3.6	3.6
CSB 144-B	08/20 10:18 AM	D	Sm...hJ	GN							4.9	4.0
CSB 150-B	08/20 10:20 AM	D	Ri...kL	GN								0.2
CSB 156-A	08/20 10:18 AM	D	Bu...kL	GN							5.4	20.7
M8W WH												

Throughput Administrator View

ADD Data

Capacity Management



Important Message from Medicare

Cynthia Mathews, MS, BSN, RN
Department of Care Coordination

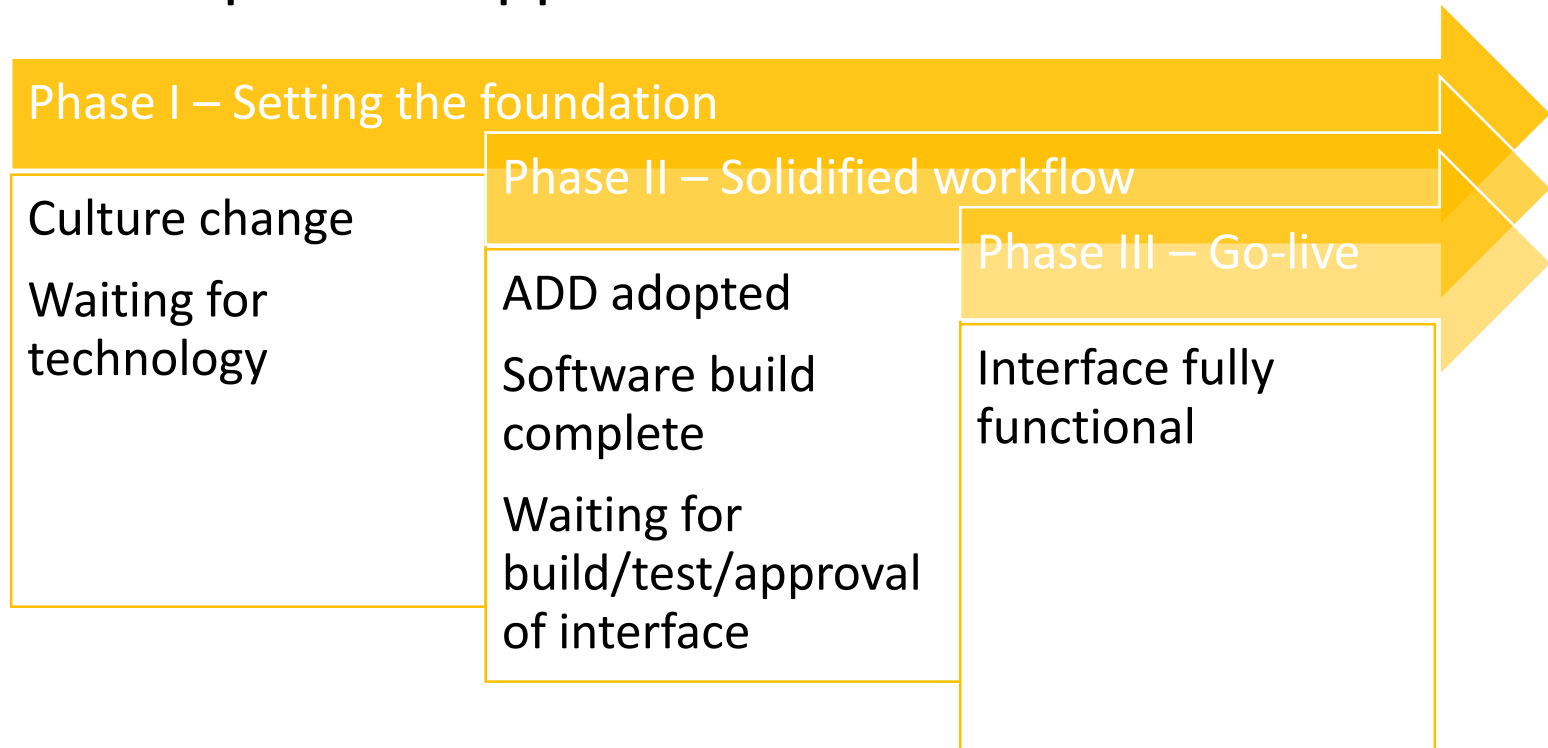
Important Message from Medicare (IMM): Problems

- **Problem**- Not in compliance with IMM regulation.
- **Problem**- Unable to effectively communicate the need for the delivery of an IMM.
- **Problem**- IMM intent not met with “discharge pager” process.



Updating the IMM Delivery Process

Three phased approach:



IMM – How it works

- Medicare/Medicare Managed Payer triggers an **M** in the CPI column

The screenshot displays a patient list in a hospital information system. The table includes columns for Bed, ST, LC, Patient Attr, Proj Discharge, Milestones, CC, OT, PT, RX Code, DRG, LOS, CPI, and SIBR. A red arrow points to a red 'M' in the CPI column for patient C3 110-A. Another red arrow points to a pop-up window titled 'Important Message...' which shows the signature status for this patient as 'Not Signed' with a large red 'M' icon. The pop-up also includes fields for 'Delay Reason', 'Notes', 'Last Updated' (08/09/2018 03:22 AM), and 'Updated By' (Interface). Buttons for 'Save', 'Save and Close', and 'Close' are visible at the bottom of the pop-up.

Bed	ST	LC	Patient Attr	Proj Discharge	Milestones	CC	OT	PT	RX Code	DRG	LOS	CPI	SIBR
C3 102-A	D	GN	Tuberculosis, pulmonary	02/10 12:39 PM					7280	8.5	35.5	M	Ampho f
C3 104-A	D	GN	MDR, Continuous Pulse O...	02/12 01:00 PM						4.9	27.5		CF, p
C3 106-A	IH										99.0		
C3 108-A	IH	GN								3.5	24.2		
C3 110-A	IH	GN									3.0	M	
C3 112-A	D	GN		02/01 12:00 AM						3.4	24.7		dopp
C3 114-A	D	GN	Stool Studies	02/02 12:00 AM						2.8	27.1		
C3 116-A	D	GN	MDR, CF	01/25 04:48 AM						8.5	35.0		
C3 118-A	D	GN	Telemetry	02/13 11:22 AM						3.5	23.9		
C3 120-A	D	GN	Telemetry	01/31 12:00 AM						2.3	24.8		
C3 122-A	D	PC		02/03 12:00 AM						4.4	24.7		
C3 124-A	D	GN	Telemetrv	02/14 11:22 AM						2.4	24.0		

IMM – How it works

- Care Coordination Assistant monitors ADD
- Has IMM signed between 1-2 days of discharge
- Updates IDX with date signed
- Interfaces to TeleTracking and triggers an **M** in CPI column

The screenshot displays a patient discharge list with columns for Bed, ST, Patient Attr, Proj Discharge, Milestones, CC, OT, PT, RX Code, DRG, LOS, and SIBR. A red box highlights the discharge date '02/10 12:39 PM' for a patient with 'Tuberculosis, pulmonary'. A red arrow points to the 'SIBR' column, which contains a green 'M' for the highlighted patient. Another red arrow points to a modal window titled 'Important Message...' which has a 'Signature status' field containing a green 'M'. The modal window also includes fields for 'Not Signed', 'Signed', 'Delay Reason', 'Notes', 'Last Updated', and 'Updated By'.

Bed	ST	Patient Attr	Proj Discharge	Milestones	CC	OT	PT	RX Code	DRG	LOS	SIBR
C3 102-A	D	Tuberculosis, pulmonary	02/10 12:39 PM					7280	8.5	35.5	M
C3 104-A	D	MDR, Continuous Pulse O...	02/12 01:00 PM						4.9	27.5	
C3 106-A	IH									99.0	
C3 108-A	IH								3.5	24.2	
C3 110-A	IH		02/10 12:39 PM							3.0	M
C3 112-A	D		02/01 12:00 AM						3.4	24.7	
C3 114-A	D	Stool Studies	02/02 12:00 AM						2.8	27.1	
C3 116-A	D	MDR, CF	01/25 04:48 AM						8.5	35.0	M
C3 118-A	D	Telemetry	02/13 11:22 AM								
C3 120-A	D	Telemetry	01/31 12:00 AM								
C3 122-A	D		02/03 12:00 AM								
C3 124-A	D	Telemetry	02/14 11:22 AM								

IMM – How it works

- Triggers another message after 2 days, switching back to an **M** in the CPI column

The screenshot displays a medical software interface with a patient list table and a message pop-up window.

Table Data:

Bed	ST	LC	Patient Attr	Proj Discharge	Milestones	CC	OT	PT	RX Code	DRG	LOS	CPI	SIBR
C3 102-A	D	GN	Tuberculosis, pulmonary	02/10 12:39 PM	[Progress Bar]	[Icon]	[Icon]	[Icon]	7280	8.5	35.5	M	Ampho f
C3 104-A	D	GN	MDR, Continuous Pulse O...	02/12 01:00 PM	[Progress Bar]	[Icon]	[Icon]	[Icon]		4.9	27.5		CF, p
C3 106-A	IH							[Icon]			99.0		
C3 108-A	IH	GN								3.5	24.2		
C3 110-A	IH	GN									3.0	M	
C3 112-A	D	GN		02/01 12:00 AM	[Progress Bar]	[Icon]	[Icon]	[Icon]		3.4	24.7		dop
C3 114-A	D	GN	Stool Studies	02/02 12:00 AM	[Progress Bar]	[Icon]	[Icon]	[Icon]		2.8	27.1		
C3 116-A	D	GN	MDR, CF	01/25 04:48 AM	[Progress Bar]	[Icon]	[Icon]	[Icon]		8.5	35.0		
C3 118-A	D	GN	Telemetry	02/13 11:22 AM	[Progress Bar]	[Icon]	[Icon]	[Icon]		3.5	23.9		
C3 120-A	D	GN	Telemetry	01/31 12:00 AM	[Progress Bar]	[Icon]	[Icon]	[Icon]		2.3	24.8		
C3 122-A	D	PC		02/03 12:00 AM	[Progress Bar]	[Icon]	[Icon]	[Icon]		4.4	24.7		
C3 124-A	D	GN	Telemetr	02/14 11:22 AM	[Progress Bar]	[Icon]	[Icon]	[Icon]		2.4	24.0		

Message Pop-up:

Important Message...

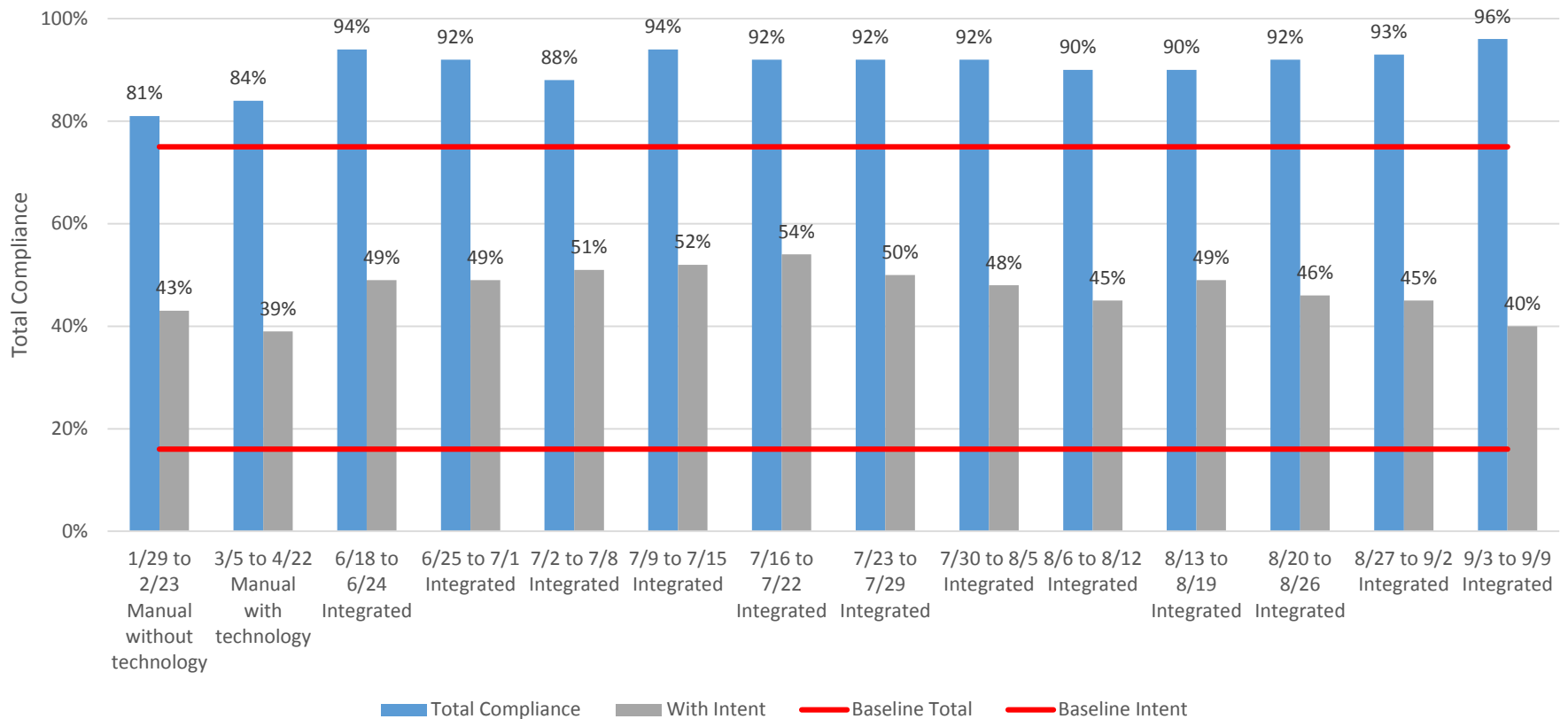
Signature status: **M** [Signed] [Delay Reason] [Notes] [Last Updated: 08/09/2018 03:22 AM] [Updated By: Interface]

Buttons: Save, Save and Close, Close

IMM Compliance relies on ADD

- §482.13 Condition of participation: Patient's rights. A hospital must protect and promote each patient's rights. ***Noncompliance with this requirement places the hospital at risk of termination from the Medicare program.***

IMM Compliance

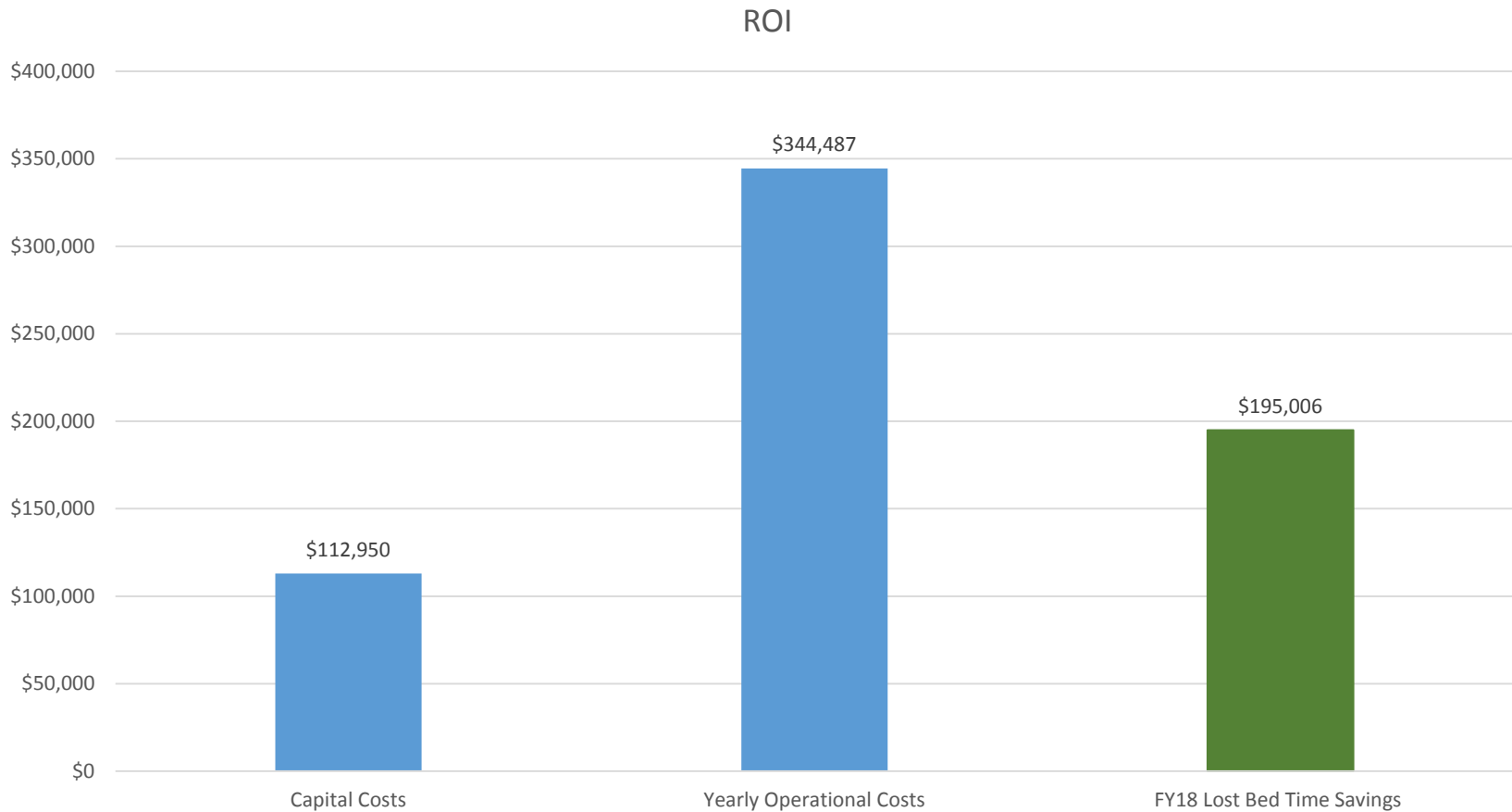


Return on Investment and Accomplishments

*Sharon Bednar MSN, RN, CEN, LSSGB
Performance Improvement Coordinator*

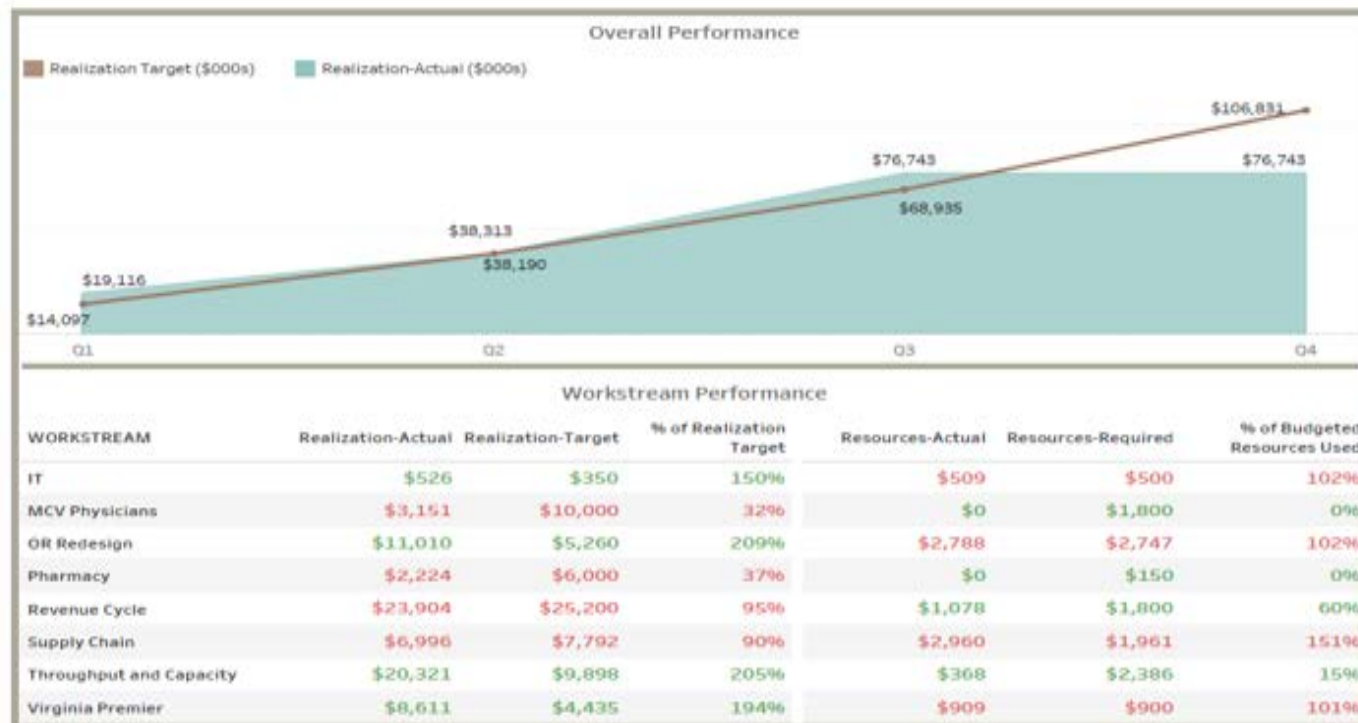
Return on Investment

20% reduction in Lost Bed Time or 96,215 minutes



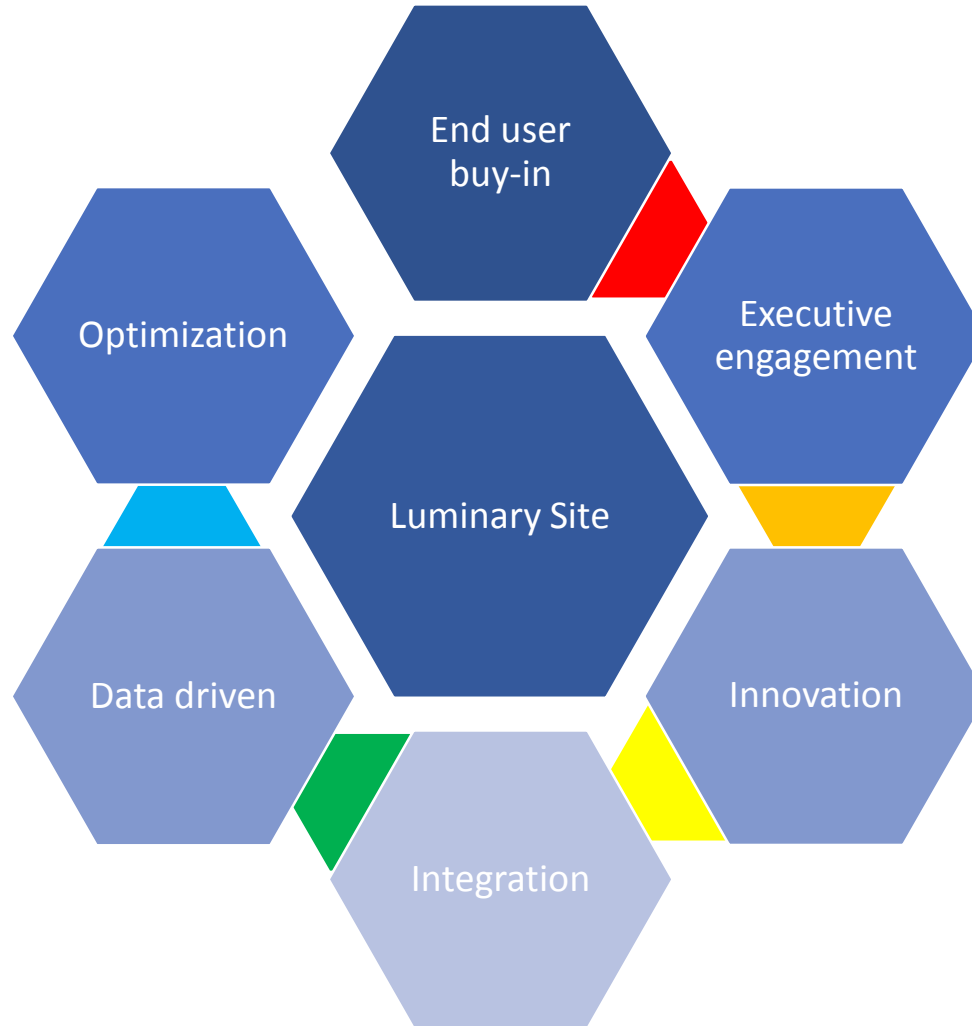
Return on Investment

*Teams working together with improved communication to provide patient-centered care



Throughput & Capacity has realized \$23.6 million in new revenue & savings to the institution.

Roadmap to Luminary Site



FierceHealthcare

Provides latest industry news and analysis



Monthly newsletter for VCU Health team members

PATIENT FLOW quarterly

Quarterly newsletter containing the latest industry insights

Multiple Reference Calls & Site Visits



☰ **FierceHealthcare**

by Paige Minemyer | Jun 4, 2018 2:45pm



VCU Health targeted its discharge pharmacy as a way to improve efficiency. (Shutterstock)

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✉

At Virginia Commonwealth University, pharmacists had a problem.

Even though they are a key part of the discharge process, they had limited information on which patients were closest to being sent home. Clinicians often submitted requests simply marked ASAP, interrupting the pharmacists several times a day to fill prescriptions, even if many of those patients were actually hours from discharge.

"There was really no logical order," Kelley Barry, senior clinical applications analyst at VCU Health, told FierceHealthcare in an interview.

Thank you.