

# A Tale of Two Clinical Pathway Journeys

Winjie Miao and Roberta Schwartz

LI May 2019





# Clinical pathways are purpose-built for different organizational priorities and cultures



- Patient Pathways proactively engages patient with key communications at key times that are coordinated across and visible to entire care team
- Focus is on patient engagement and communication tools for the care team



- Reliable Care Blueprinting is a data and process-driven approach to clinical standardization and optimization
- Focus is exclusively on physician and care team activity and experience

**Although the approaches are different, both organizations have found that Epic is not sufficient for our clinical pathway needs.**

Methodist's workflow tool improve the clinician/patient interface to accelerate engagement and adherence.

Texas Health is co-developing a workflow tool to improve the clinician experience and accelerate outcomes.



Since we presented at LI in 2016, we have continued on our Reliable Care Blueprinting™ journey

## RELIABLE CARE BLUEPRINTING

Reliable Care Blueprinting™ is Texas Health Resources' approach to care model design to provide patients a safe, reliable experience at every Texas Health location, every time.

### MISSION

Implementing Reliable Care Blueprinting™ and principles of High Reliability Organizations will help us fulfill our Mission to improve the health of the people in the communities we serve.



# The RCB program is built on a standard process and structured in three categories

## Our standard process

Engage

Design

Deploy

Improve  
& Sustain

## RCB Categories of Work

### Condition-Specific Care

*Care unique to the clinical condition (new, or exceptions to foundational/situational care)*

### Situational Care

*Trigger-Driven “packages” of care*

### Foundational Care

*All hospital patients, unless an exception applies*



## After the first year of the program, we saw high degrees of variation in performance

- Module average adoption rates ranged from below 20% to over 90% (some individual entities below 9%)
- “Paused” deployment of new modules for 5 months to allow focus on adoption
- Using structured and unstructured feedback, we identified common “best practices”

### We used several mechanisms to gather feedback

- Surveys (including analysis of 600+ comments)
- 45+ meetings with hospital leaders and staff
- Performance data monitoring
- Analysis of workforce characteristics

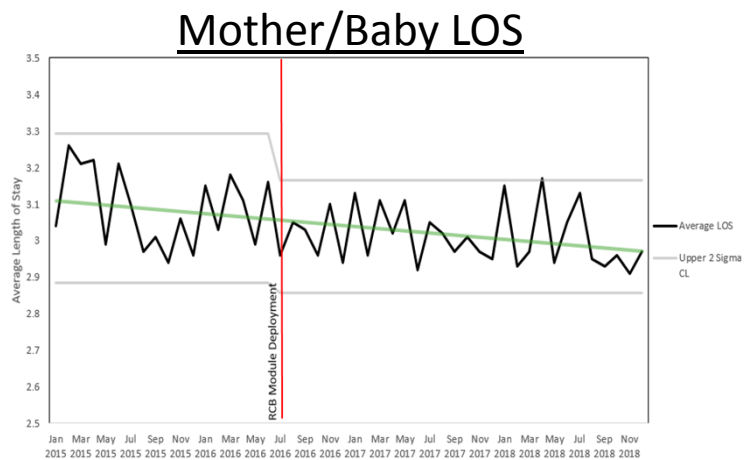
### resulting in standardized deployment/adoption specifications

- Entity deployment/adoption teams
- Process for addressing performance gaps
- Education standards
- Feedback to staff regarding module impact
- Unit and role-specific education
- Ability to use the workflow before it deploys

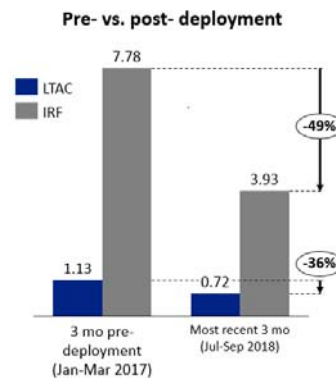


## While adoption continued to improve, outcomes were not improving at the same rate

- Early analytics showed improvements in some outcomes



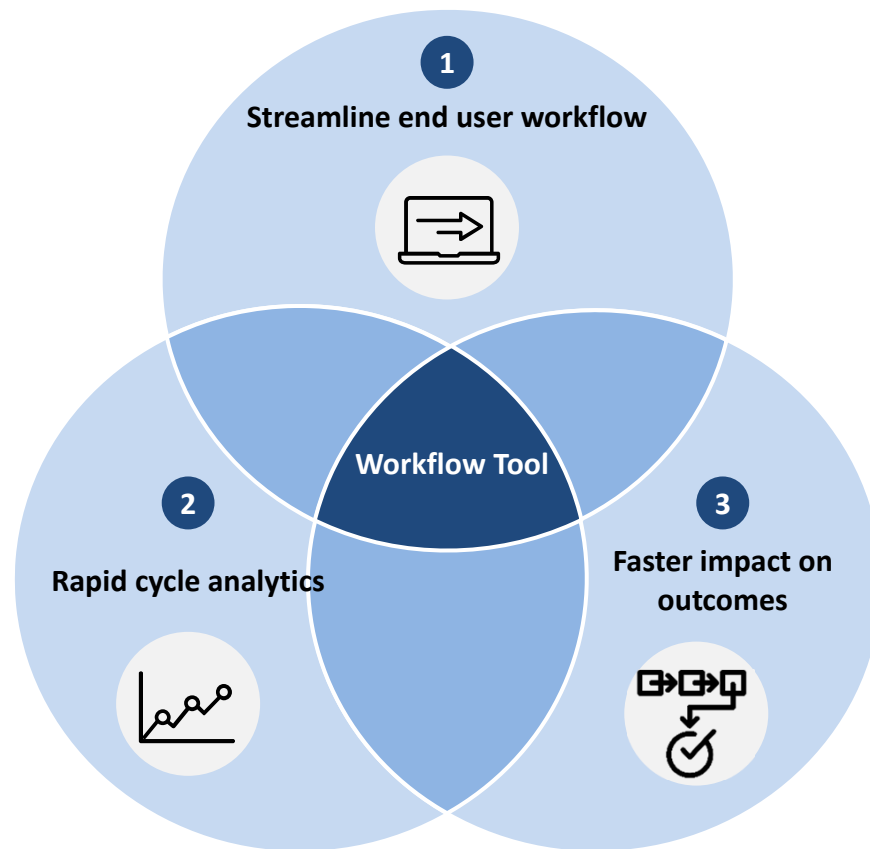
### Post Acute level of care shift



- Current systems do not have the capabilities required to generate faster insights to accelerate outcomes



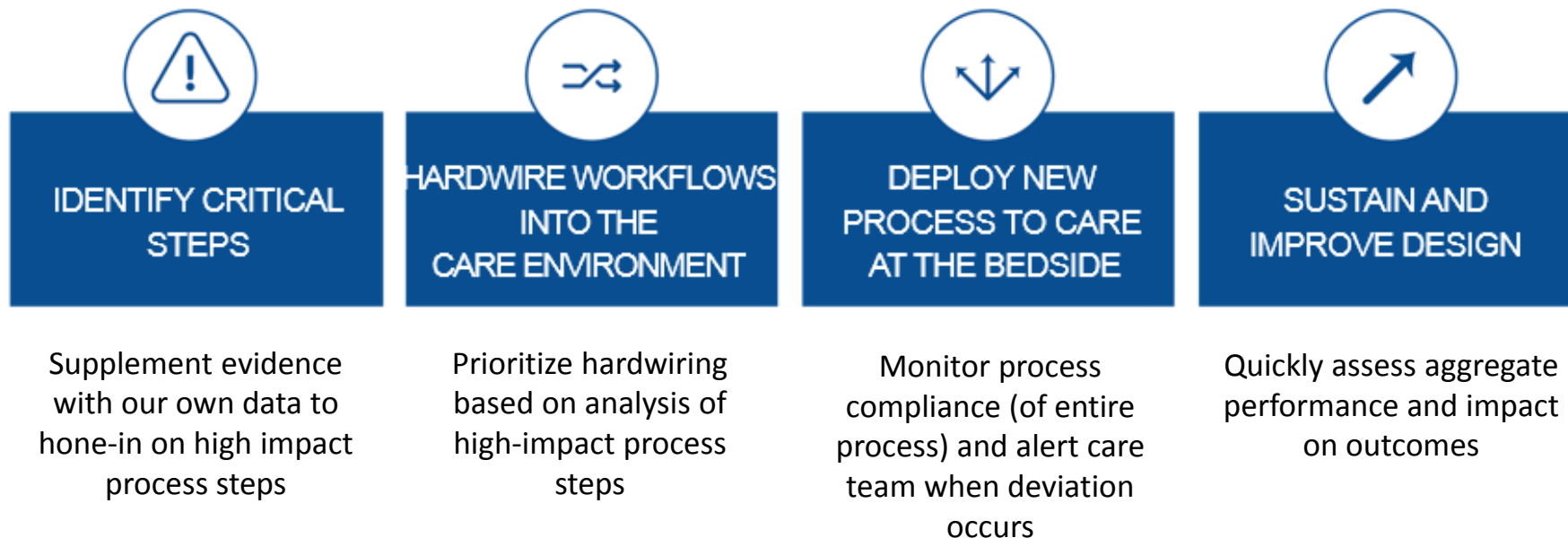
**We started an RFI process to find a technology solution to supplement our existing EMR capabilities...**





...and should provide faster analytics and real time monitoring to accelerate the RCB process

### The Reliable Care Blueprinting™ process





## Conclusions/Lessons Learned

- RCB process has driven systemic clinical standardization
  - Compliance with process measures is collectively over 80%
- Through RCB, we have developed a standardized and reliable way to effectively design, deploy measure and sustain operational specifications
  - Currently expanding methodology to other areas of the organization
- Ways to accelerate outcomes achievement:
  - Deep understanding of each clinical group's preferred learning style
  - Formal and intentional change management training for leaders
  - Upfront advanced data analytic tools to improve effectiveness of both initial and iterative module design
  - Corroborating data sources are needed to verify compliance



# CARE PATHWAYS & PATIENT ENGAGEMENT

Roberta Schwartz, Executive Vice President,  
Chief Innovation Officer

LI MAY 2019





# Goal of the Pathway Program

## Electronic Strategy that Uses:

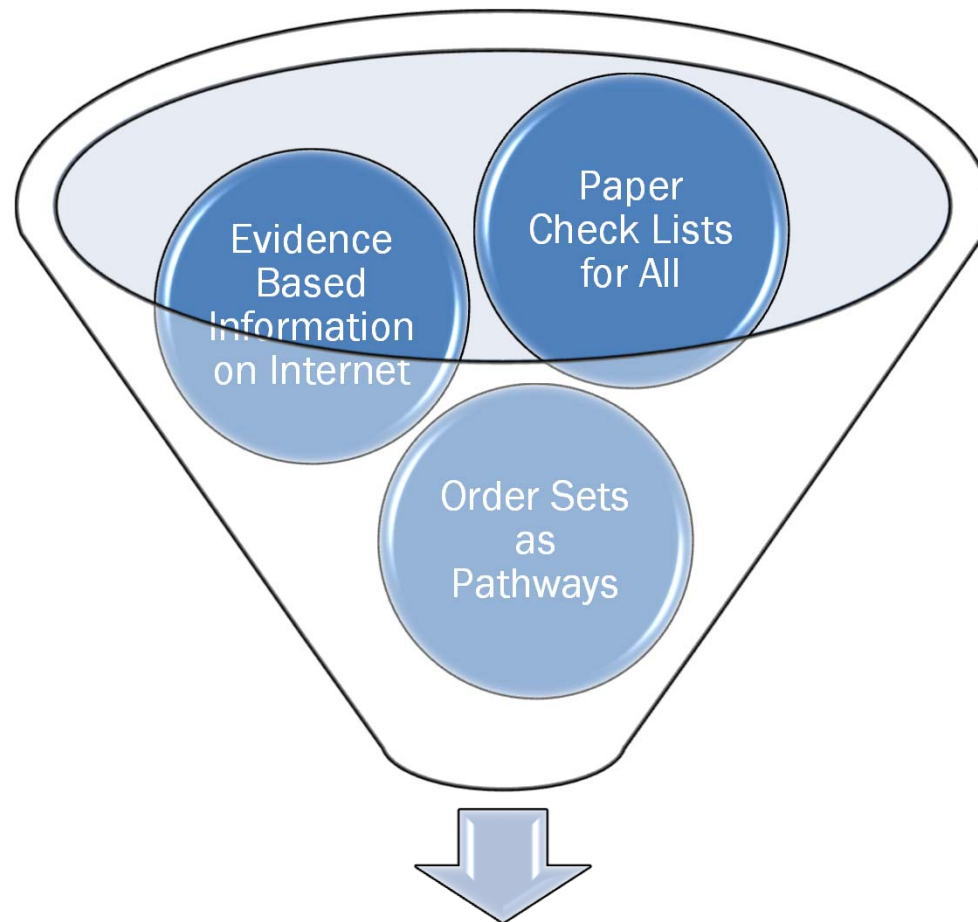
- Standardized, automated tools
- Processes
- Adherence monitoring

## To:

- Improve quality (reduce variation)
- Reduce costs
- Improve patient experience (through coordination)



# Where the Journey Began



**No Success**



# The Physician's Request





# Our Options

## Build

- Comprehensive
- Long
- Expensive

## Use EPIC

- Free
- NYU had success
- Integrated with current tools

## Patient Engagement Pathway Tools

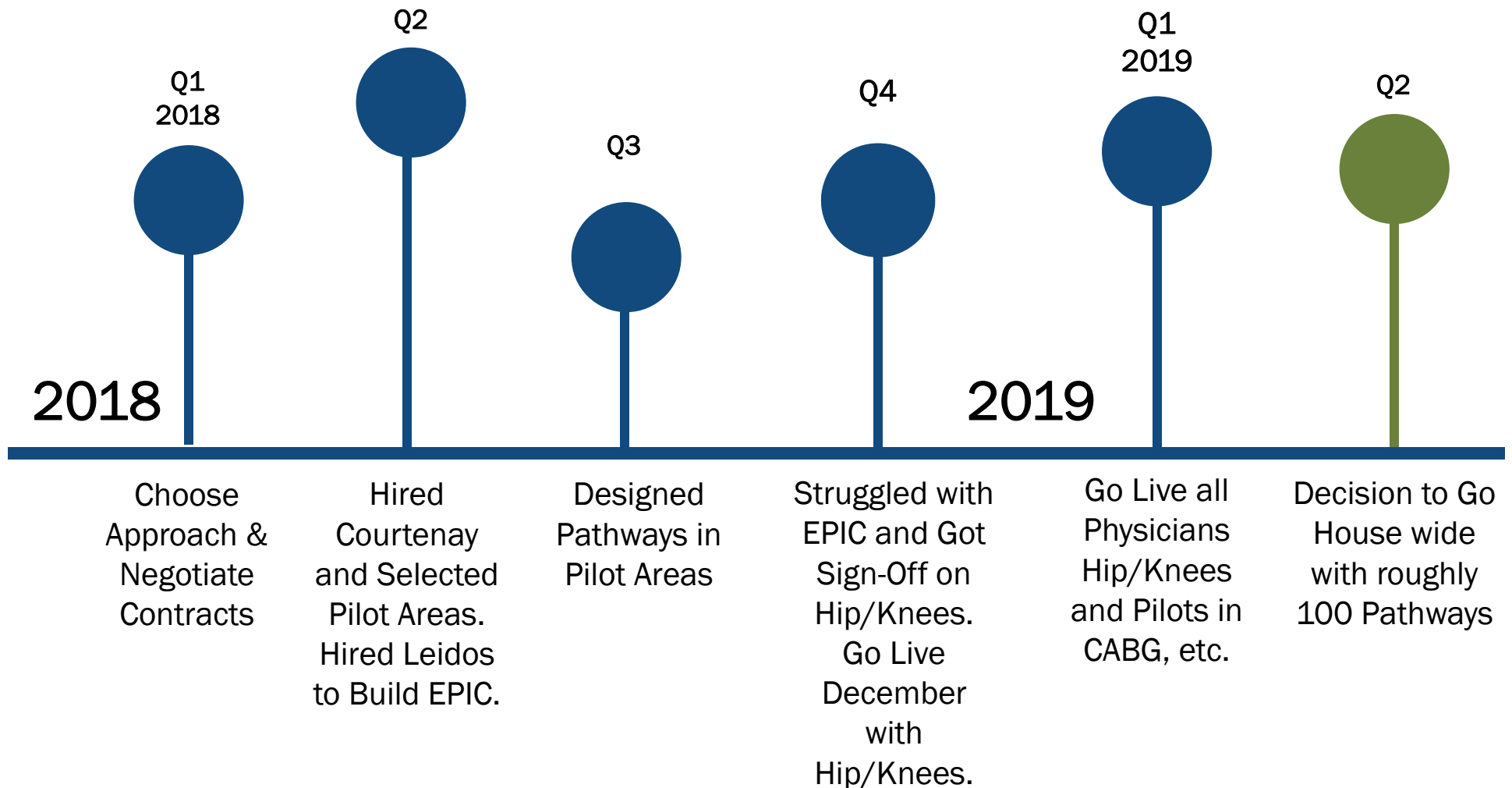
- Tested in limited fashion
- Wasn't necessarily integrated
- Had pathways in limited areas



	EPIC PATHWAYS	PATIENT PATHWAY TOOL
WHAT IT IS	Standardized, automated tools within EPIC	Digital navigation system
KEY OPERATIONS FEATURES	<ul style="list-style-type: none"> <li>• Central hub of communications</li> <li>• Pushes consults up</li> <li>• Defaults orders/meds</li> <li>• Shows goals for the day</li> <li>• Reduce documentation time</li> </ul>	<ul style="list-style-type: none"> <li>• Alerts</li> <li>• Emails</li> <li>• Videos</li> <li>• Monitoring questions</li> <li>• Analytics features</li> </ul>
LOCATION	Inpatient hospitalization	Outpatient, pre and post surgery
FOCUS	Clinician-to-clinician communication	Clinician/clinic-to-patient communication
IMPACTS	<ul style="list-style-type: none"> <li>• Reduce readmissions</li> <li>• Reduce LOS</li> <li>• Improve coordination</li> <li>• Improve communication</li> </ul>	<ul style="list-style-type: none"> <li>• Improve patient adherence</li> <li>• Improve patient understanding</li> <li>• Reduce cancellations/no shows</li> <li>• Improve communication</li> </ul>



# Timeline





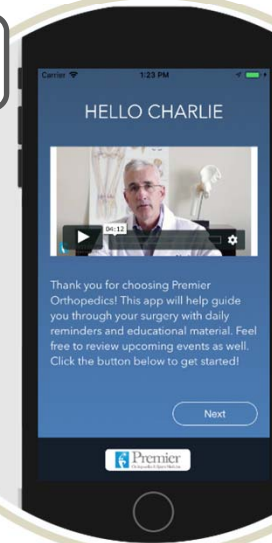
# Patient Communication Methods

HOUSTON  
**Methodist**  
LEADING MEDICINE

## Texts



## App



## Emails

Moving Forward with Surgery

Hello,

Congratulations on moving forward with your surgery. We are thrilled to have you, and we have developed just for patients undergoing spine surgery. This Guidebook, developed just for patients undergoing spine surgery. This Guidebook, recovery. Please click the link to learn more about our Care Navigation & Recovery Center: <https://player.vimeo.com/video/218047888>

Please click the link below to view a message from your Surgeon: <https://player.vimeo.com/video/231938077>

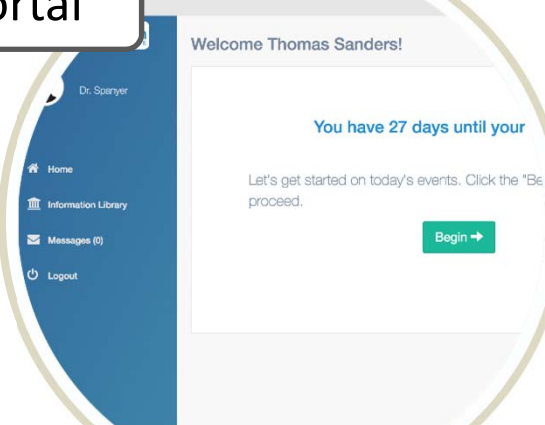
**Meet our Team**

**Your Surgeons**  
We are available 24/7. You can email us with general medical question answering service.

- Dr. Smith
- Dr. Johnson
- Dr. Thomas

**Your Staff**  
We want all questions to be answered rapidly, so call us at 713.440.1234

## Portal





# Outcomes from other Hospitals

HOUSTON  
**Methodist**  
LEADING MEDICINE

\$400/patient savings (discharge)

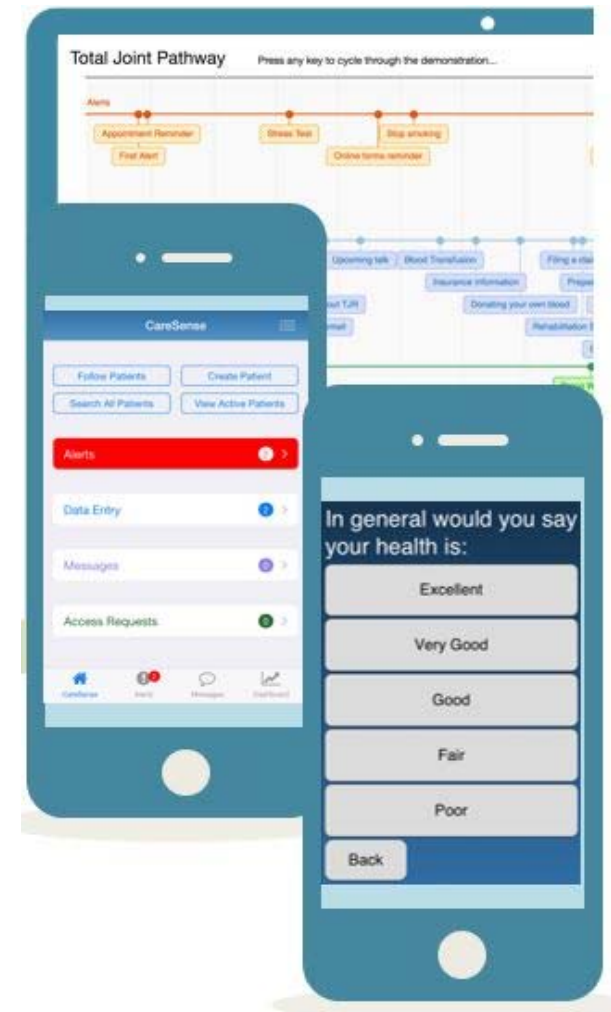
55% reduction in readmissions

Educated patients 38% less expensive

Surgery cancellations below 3%

14% increase in HCAHPS satisfaction

30% reduction in office phone calls





## Houston [NAME OF MEDICAL CONDITION OR PROCEDURE] Pathway

<b>Alert</b>	Notifications patients receive via text message/phone call
<b>Email</b>	Information patients receive via email; usually longer-form
<b>Monitoring Survey</b>	<p>These are specialized alerts that ask patients a specific question. We use monitoring surveys for three purposes:</p> <ol style="list-style-type: none"><li>1. Check in on the patient's health to see how they're doing and/or</li><li>2. To see if they have done certain tasks, like had their pulmonary clearance or gone to APEC/PAT.</li><li>3. Collect data from a whole cohort of patients on standardized instruments or other forms of patient-reported outcome (PRO) collection to see how each patient improves over time. Or how all of your patients improve over time.</li></ol> <p>If a patient responds in a concerning way to a health question, we can route the alert back to a care navigator. The "Care Navigator" is a person identified by the care team as someone who should receive alerts. It could be an MA, APP, coordinator, nurse, or whomever.</p>



<b>3 Day After TAVR</b>	<div><b>Alert</b></div> <p>Tomorrow you will be receiving an email with important information regarding your recovery, including frequently-asked questions and answers. Try to get moving a bit. Moving helps you recover, and walking around can help prevent clots from forming in your legs. Remember to take aspirin or other blood-thinning medication and antiplatelet medications every day.</p>
<b>4 Day after TAVR</b>	<div><b>Email</b></div> <p>Subject: Frequently Asked Questions</p> <p>Here are some <b>answers</b> to commonly-asked questions about TAVR and recovery! We already sent this before your TAVR, but are sending it again now, just to refresh your memory. If you are still in the hospital, please bring up any concerns to your nurse or TAVR team. Please keep this email so you can refer to it if needed.</p>



# Total Joint Pathway

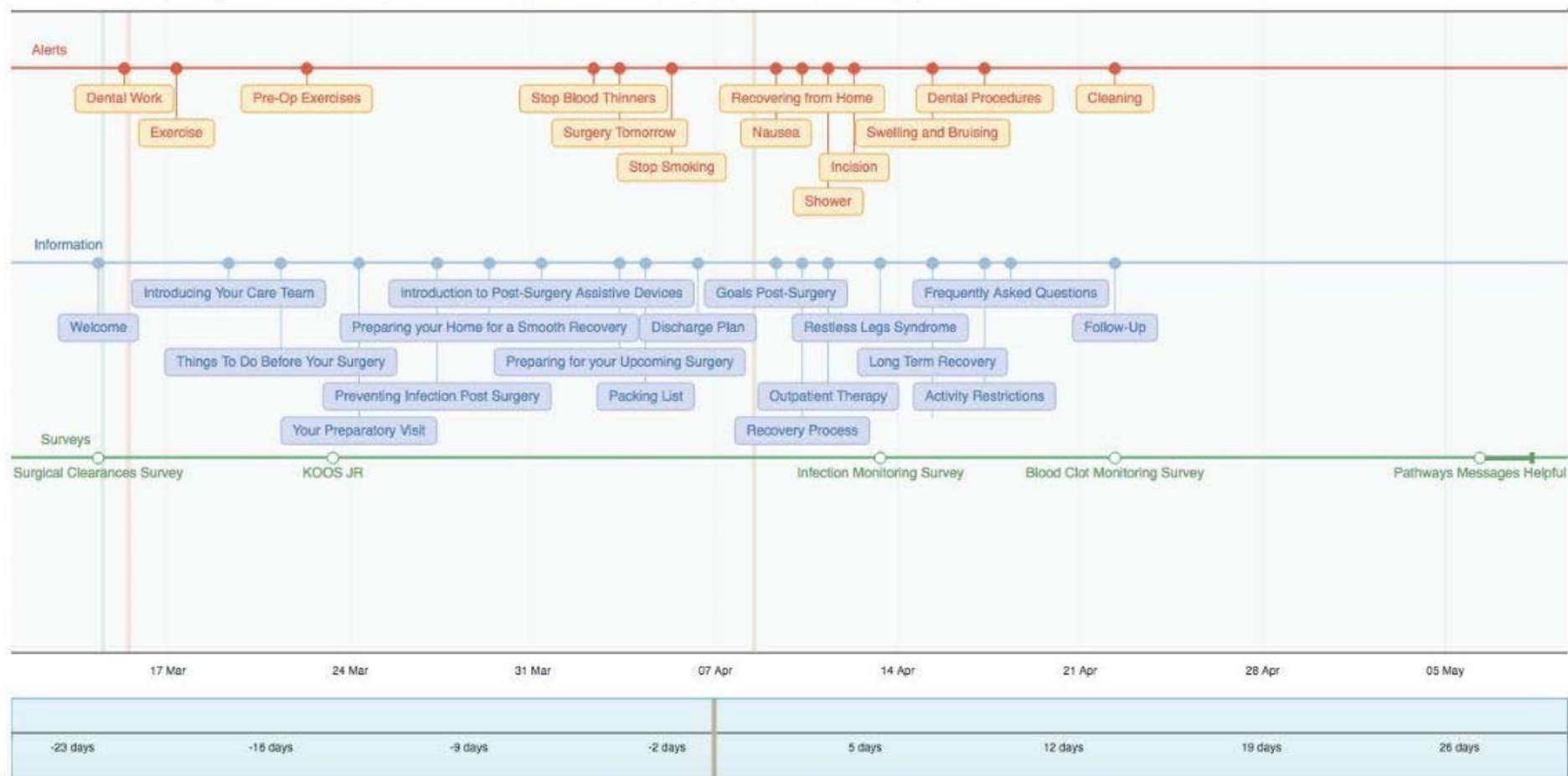
Switch Pathway

Pathway Options

Show Group Options

Show Role Options

Record





# What Does it Look Like to the Patient?

In general would you say your health is:

Excellent

Very Good

Good

Fair

Poor

Back

Today 11:39 AM

Tomorrow, you are going to start taking your bowel prep for those of you who will be on a bowel prep. There is no advantage to beginning your prep before we indicate you should start it. Please look at the label and learn the brand name of your bowel prep or cut out the label. The nurses may ask you the name brand of the bowel prep that your surgeon had you take, if applicable.

Delivered

How much pain do you have in your left knee walking on a flat surface?

None

Mild

Moderate

Severe



Extreme



# What Does it Look Like to the Clinician?

**Epic** Patient Station In Basket Schedule Build Tools Record Viewer Content Review Reports Support Inline Help Editor Outpatient Care Plan Template

**Cadence, Fozzy**

**Cadence, Fozzy**   
Pref Language: English  
Male, 50 y.o., 02/15/1969  
Admitted?: No  
PCP: None, 

Specialty Commen...  
MRN: 100452422  
CSN: 2003010266...  
Weight: None  
Height: None

Last BMI: None  
FYI: (None)  
Phone: \*832-244-0230 (Mobile) 713-098-7...  
Allergies: **No Known Allergies**  
**Health Maintenance: Health Maintenance**

Adv Directive: None  
**Code Status: FULL DEFAULT**  
MyChart: Active  
Outside Info: None

Coverage: N  
Pharmacy: N  
Preferred La  
Next Appt D

**CareSense**

HOUSTON  
**Methodist**  
LEADING MEDICINE

Welcome **Niran Tran**

Patient Data Pathways Reporting Queries Reset Password Logout


Main Dash Search Patients

**PATHWAYS**

Showing Active Pathways (26)

2 Alerts  
0 Forms  
0 Tasks  
0 Messages

Sort by

Patient	Pathway	Forms	Patient Events	Action Items
<b>Bliven , Caitlin</b> DOB: 04/04/1950 MRN: 678954 Phone: 610-235-9933	<b>Houston...</b> Left Hip HMTeserSurgeon1 HMTeserSurgeon1 DOS: 03/21/2019 <a href="#">Add Pathway</a>	No forms	10/68 events complete  <a href="#">View Events</a>	<b>Alert</b> Generated 02/22/2019 12:05 PM <b>A patient has indicated that their pain...</b>





# What Does it Look Like to the Clinician?

Hyperspace - ORTHO OPC 25 - TST Environment - NHAN T. - TMHNXT20

Epic Patient Station In Basket Schedule Build Tools Record Viewer Content Review Reports Support Inline Help Editor Outpatient Care Plan Te

Cadence, Fozzy

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Allergies: **No Known Allergies**  
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Adv Directive: None  
**Code Status: FULL DEFAULT**  
MyChart: Active  
Outside Info: None

Coverage:  
Pharmacy:  
Preferred L  
Next Appt I

CareSense

## Communication Details

All Alerts Emails Surveys

Apr 02	 Alert	Thank you for scheduling your total joint replacement surgery....		Acknowledged...
Apr 02	 Email	Welcome to Houston Methodist		Acknowledged...
Apr 03	 Email	Understanding Your Surgery		Acknowledged...
Apr 04	 Email	Frequently Asked Questions for After Surgery		Acknowledged...
Apr 05	 Survey	Houston Methodist PreOp Class Monitoring Survey		Pending...
Apr 06	 Survey	Houston Methodist TJP Important Info Email Survey		Missed...



# CareSense Pilot Data: Drill-Down



Surgeon: “My patient this morning was so happy. He said he was so ready and confident to have his surgery and that “Methodist” contacted him so much and sent him so much information that he was so ready. He said “I loved it” and we must hear this all the time from our patients. I didn’t tell him that this was the first time in twenty years that one of my patients ever said these things. His joy is because of CareSense.”

Patient: “I like all the communication...helps a lot...like you are not LOST in the midst of all this and can be totally and mentally prepared. I want to hear as much of the detail about the entire process. This is awesome.”

All but 1 patient answered “strongly agree” to the statement, “it was helpful to me to receive reminders and emails from this program.” (1 said ‘agree’)



# Outcomes

- 8 service lines live on pathways across the system.
- 811 patients on the pathways.
- 289 clinicians/office staff on pathways.
- Pathways being written for 42 procedures.
- Data Collection Points for Registries like NSQIP 7 STS were added into pathways.



# Patients and Clinicians Love It



## Patients love it = Better Patient Experience

- No patients have asked to be taken off the system.
- Patients do not call the office confused, complaining, or expressing annoyance.
- Patients consistently (as in 98%) give CareSense the highest score possible on “usefulness” or “helpfulness.”
- The majority of patients (75%+) give CareSense the highest score possible on how it “improves their understanding.”
- Patients do not need to sign up, download apps, or do anything. Other than answer our texted questions to them.

## Clinicians find it easy to use & DOES NOT add work = Happier Employees

- Office staff report a 40-65% drop in patient phone calls or emails after implementation in their practice.
- It takes an average of 3-4 minutes for office staff to put a patient on CareSense through the website.
- It takes an average of 47 seconds for office staff to put a patient on CareSense through EPIC.
- Patients cannot use CareSense to write long emails or two-way correspondence. We send patients information. They respond to our close-ended questions.



## Outcomes

Patient Satisfaction	100% (98% give CS the highest score possible)
Reduction in Office Phone Calls/Emails from Patients	35% average reduction for most offices (some offices report 60% reduction)
Patient Engagement Levels	92% of patients “actively” engaged in CS — average across pathways
Patient Response Rate to Questions & Surveys	78% patient response rate to surveys/questions — average across all pathways
Validated Instruments Scores (Patient-Reported Outcomes)	<ul style="list-style-type: none"> <li>• 7 points above national average on functionality scores, suggesting that HM patients feel 17% better compared to other patients who undergo TJR or fusion surgery elsewhere. Comparison = national average</li> <li>• Every surgeon in CS within HM has higher PRO scores compared to national average</li> </ul>
Improvement in Understanding	90% of patients report that CS improved their understanding prior to surgery
Impacts on Length of Stay, Readmissions, or ED visits	<p>Unknown</p> <p>** Will not be able to assess until we have ~ 400 pts in each pathway</p>



	Total Number of Patients on CareSense = 1,025 Patients					
	Total Joint	Spine	Heart Failure	CABG/valve	Colorectal	TAVR
	736 pts. on CS 19 Surgeons on CS	140 pts on CS 10 Surgeons on CS	97 pts on CS 4 Physicians on CS	27 pts on CS 12 surgeons on CS	19 pts on CS 1 Surgeon on CS	6 pts on CS 4 Physicians on CS
<b>HMH</b>	8 Surgeons	3 Surgeons	4 Physicians	7 Surgeons	1 Surgeon	3 Physicians on CS
<b>West</b>	3 Surgeons	2 Surgeons	0 Physicians	2 Surgeons	0 Surgeons	0 Physicians on CS
<b>Sugarland</b>	2 Surgeons	2 Surgeons	0 Physicians	2 Surgeons	0 Surgeons	1 Physician on CS
<b>Woodlands</b>	2 Surgeons	2 Surgeons	0 Physicians	1 Surgeon	0 Surgeons	0 Physicians on CS
<b>Baytown</b>	1 Surgeon	0 Surgeons	0 Physicians	0 Surgeons	0 Surgeons	0 Physicians on CS
<b>Willowbrook</b>	1 Surgeon	1 Surgeon	0 Physicians	1 Surgeon	0 Surgeons	0 Physicians on CS
<b>Clear Lake</b>	2 Surgeons	0 Surgeons	0 Physicians	0 Surgeons	0 Surgeons	0 Physicians on CS



# Plans Moving Forward

- House wide roll-out for mostly (but not all) surgical procedures and transplant
- Allow a pathway for non-EPIC-offices to kick-off pathways (non-employed)
- Work through medical areas with experimentation
- Consider making these available via voice on Alexa



Slated for September 2019 Go Live Date			Slated for December 2019 Go Live Date		
Service Line	Number of Pathways Anticipated	System or Local	Service Line	Number of Pathways Anticipated	System or Local
Transplant	8	Local	GI	3	System
Liver (hepatobiliary; surgical, non-transplant)	1	System	Urology	3	System
Pregnancy/ObGyn	2	System	Complex GI/Surgery oncology	2	System
Breast CA	1	System	Abdominal Wall Reconstruction	1	Unclear
Thoracic	2-3	System	Cardiac Catheterization	1	System
Global	1	Local	Rehabilitation	2	Unclear
Critical Care	3	System			
Surgical Oncology	1	Local			
Lung	3	System			
General oncology & symptom management for onc/hemat	2	System			
BMT	1	Local			
Mental Health	2	Unclear			
Stroke	1	System			
Observation	3	Unclear			
Bariatrics	3	System			



# Conclusion

- EPIC has a long way to go on Care Pathways and is not investing
- Patient engagement/Care Pathways can blend
- Text is a great way to do this
- Don't do this without a “Courtenay” and “Pat”



# Observations & Lessons Learned

FAST ← **SPEED** → SLOW

SURFACE ← **CLINICAL ALIGNMENT** → DEEP

**Our advice: DO BOTH!**



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