Pandion Healthcare Innovation Conference

Clinical Optimization at Rochester Regional Health

Today's Discussion

We plan to lead an engaging discussion about our experience implementing a clinical optimization program through the point of view of three key stakeholders:

Administrator	Physician Leader	Executive
• Facilitates the performance improvement process • Provides analytical support • Serves as internal consultants to our clinical teams	• Enhance the care delivery for our patients • Improve clinical outcomes, including minimizing unnecessary variation • Establish the standard of care • Grow the service line through innovation	• Oversee governance of entire clinical optimization program • Champion engagement from physician leaders • Ensure resource alignment and teamwork • Augment integration through strategic positioning of work • Organizational messaging

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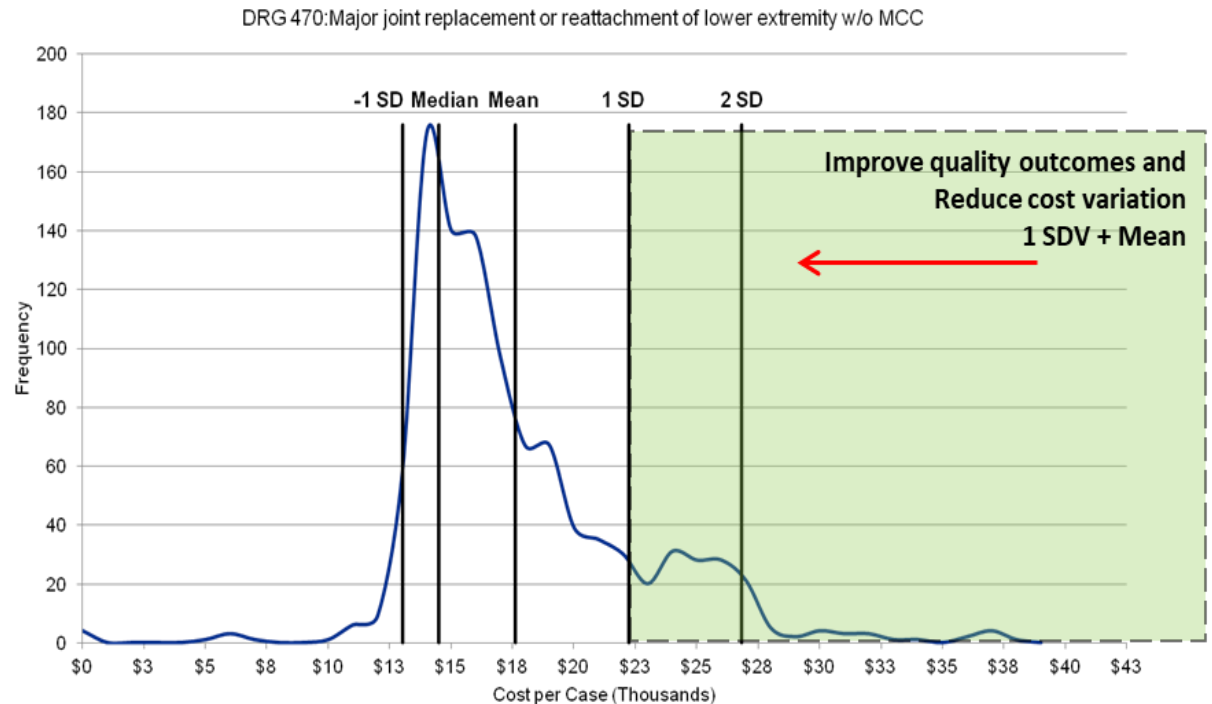
Role of Administrator

Facilitates the performance improvement process

Provides analytical support

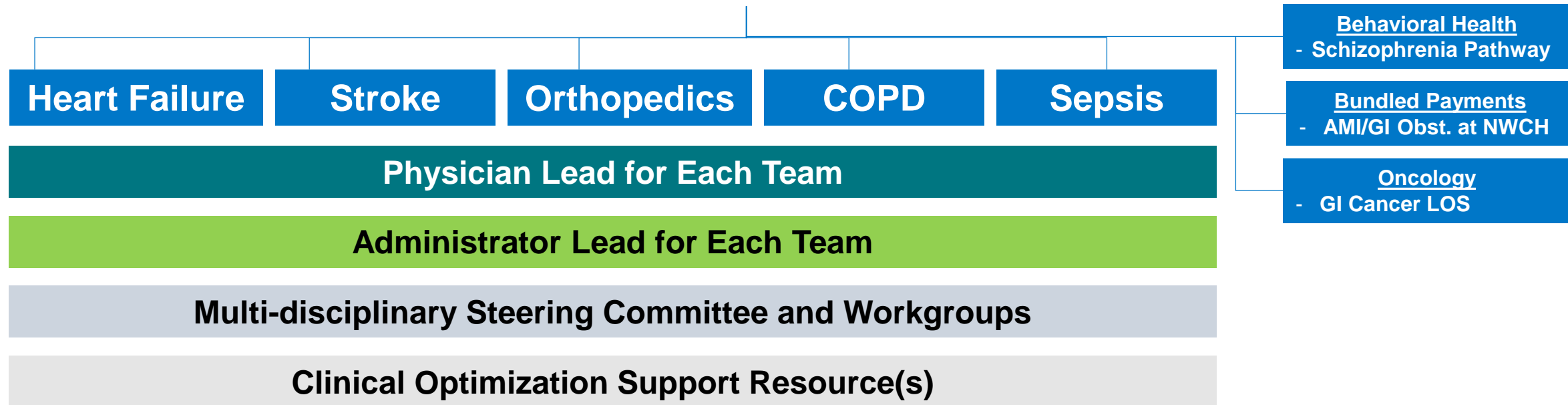Serves as internal consultants to our clinical teams

Clinical Optimization: Objectives

- Reduce variation
- Create a culture of High Reliability
- Develop consistent clinical and patient experience across the continuum
- Utilize and implement evidence-based standards of care
- Yield sustainable results

DRG 470: Major joint replacement or reattachment of lower extremity w/o MCC

Improve quality outcomes and Reduce cost variation 1 SDV + Mean

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Clinical Optimization: Scope & Structure

**Clinical Optimization
Steering Committee**

Heart Failure	Stroke	Orthopedics	COPD	Sepsis

Behavioral Health
- Schizophrenia Pathway

Bundled Payments
- AMI/GI Obst. at NWCH

Oncology
- GI Cancer LOS

Physician Lead for Each Team

Administrator Lead for Each Team

Multi-disciplinary Steering Committee and Workgroups

Clinical Optimization Support Resource(s)

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Clinical Optimization: 4-Step Approach and Timeline

Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8+

1 **Macro-Analysis: LOS, Readmissions, Mortality, Resource Utilization**
Complete analysis to 'size' opportunity and support prioritization

2 **Prioritization and Roadmap**
Prioritize initiatives and improvement teams

3 **90-Day Improvement Cycle**

Current State Analysis   Future State Design   Plan for Implementation

4 **Sustain and Monitor**

Monitor 1-3 performance metrics per initiative and support variance reporting

Clinical Optimization: Analytical Support

- Assessment

- Benchmark Analytics

- Drill-Down Analyses

- Performance Measurement

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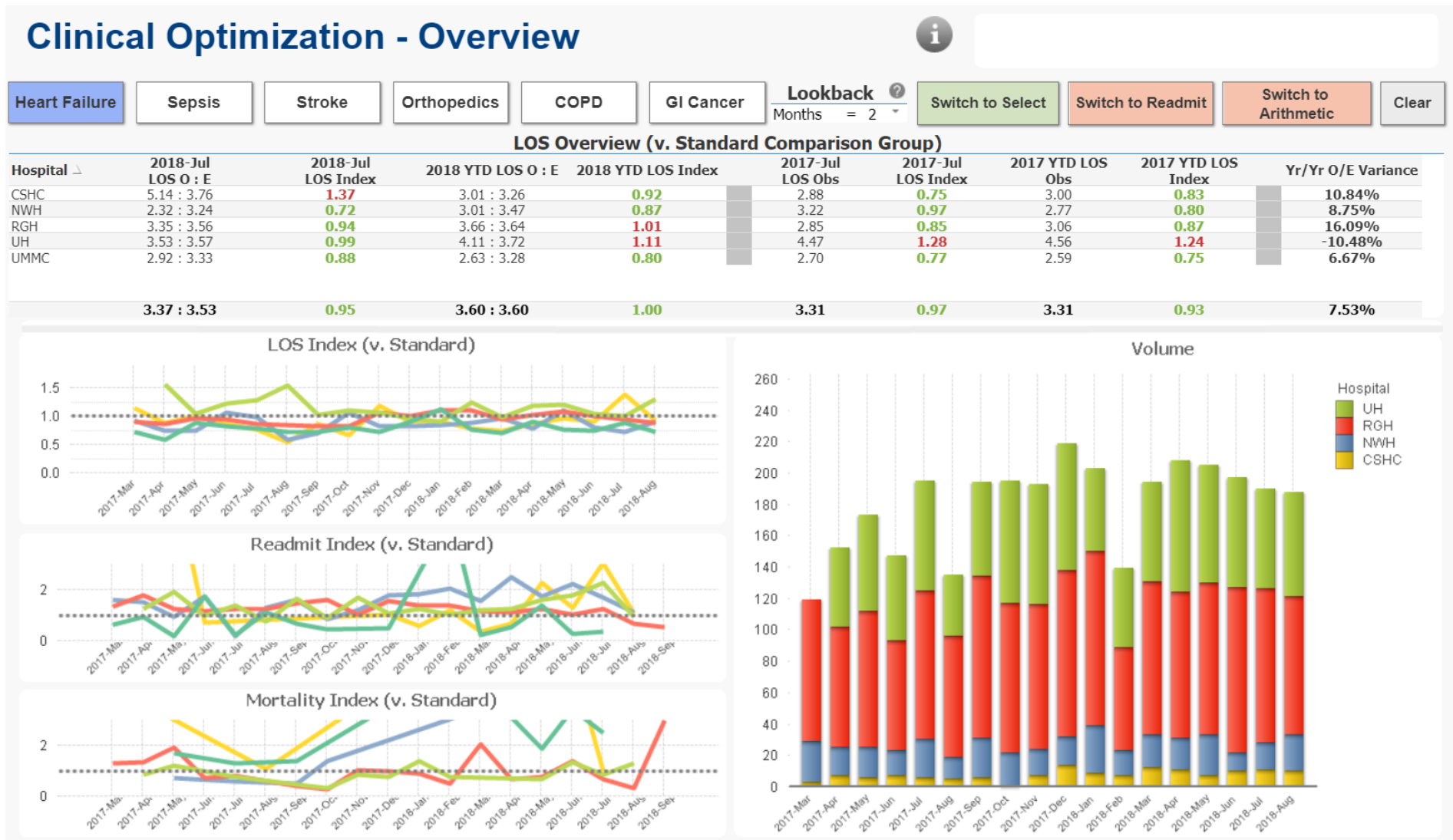
Clinical Optimization: Target Setting and Tracking

Target Summary Tab

Target Audience:
- RRH Leadership
- Hospital Presidents
- Operational Leaders

Purpose: Provide an overall summary of YTD performance for those clinical bundles and facilities that have been assigned a length of stay, readmission, or mortality reduction target for 2019. Users may view data in O/E or Observed value formats.

Facility Summary Tab

Target Audience:
- Hospital Presidents
- Operational Leaders

Purpose: Provide an overall summary of YTD performance for all facilities and all clinical bundles regardless of whether a 2019 target has been assigned. Users may view data in O/E or Observed value formats.

Bundle Summary Tab

Target Audience:
- Operational Leaders

Purpose: Provide a month-by-month view of YTD performance at the clinical metric and facility level. There are separate tabs for each clinical bundle.

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Role of the Physician Leader

Enhance the care delivery for our patients through development of clinical programs

Improve clinical outcomes, including minimizing unnecessary variation

Establish the standards of care consistent with current medical knowledge

Champion and promote collaboration in service of improving outcomes

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System-Wide Sepsis Improvement Project

- High volume, high morbidity and high mortality condition

- Opportunity to improve recognition, diagnosis and treatment

- Compliance with evidence based bundles for treatment and assessment

- Leveraging new technology to assist providers

- Clinician led and driven project

Steering Committee Members:

Jose Alcantara Contreras, M.D.	Medical Director, Health Informatics, RGH	Theresa Glessner	VP, CNO, Eastern Region	Nancy Nicoletta	Assistant Director, Pharmacy, RGH
Hiloni Bhavsar, M.D.	Associate Medical Director, Quality & Safety Institute, RGH	Keith Grams, M.D.	System Chair, Emergency Medicine, RGH	Kristin Opett	VP, CNO, RGH
Maureen Krenzer, RN	Clinical Nurse Specialist, Nursing Informatics	Valerie Grapensteter	Director, System Clinical Practice	Shashi Patel, Pharm.D., CGP	Pharmacy Director of Clinical Services, Unity Hospital
Patrick Briody	Director, Integration	Tracy Greene	Director, IT Business Intelligence	Katherine Schantz	Senior Director, Clinical and Quality Reporting, RRH
David R. Brown	EMR Architect	James Haley, M.D.	Chair, Unity Department of Medicine	Janine Schindler, MS, BSN, RN	Senior Quality Improvement Coordinator, Unity Hospital
Kurt Calman	VP, Operations, UMMC	Kalyana Kanaparthy, M.D.	Associate CMO, Physician Advisor Program, RRH	Michael Schinlever, M.D.	Critical Care Medicine, Unity Hospital/UMMC
Angela Cavallaro	Associate Director, Clinical Practice, Unity Hospital	Maryrose Laguio-Vila, M.D.	Infectious Disease, RGH	Mohammad Shaheed, M.D.	Medical Director, Physician Advisor Program, RGH
Robert Cole, M.D.	CMO, Eastern Region	Elizabeth Lattimore	VP, Department of Medicine, Ophthalmology and Oncology	Daniel Shand, M.D.	Medical Director, Adult Emergency Medicine, RGH
Dieirdre Colgan, M.D.	Pulmonary Medicine, Newark	Deerajnath Lingutla, M.D.	Unity Medical Director, Physician Advisor Program	Karan Sharma, R.N.	Clinical Informatics RN
Jennifer Dennis	Director, DOM Operations, Unity Hospital	Jason Lyons, M.D.	Division Lead, Critical Care Medicine, Unity Hospital	Todd Sheppard, M.D.	Pulmonary Medicine, RGH
Maureen Doyle	Director, Clinical Practice, Unity Hospital	Robert Mayo, M.D.	CMO, EVP, RRH	Deborah C. Stamps, EdD, MBA, MS, RN, GNP, NE-BC	System Vice President, Quality, Safety & Innovation
Elizabeth Duxbury	Clinical Nurse Specialist Lead, RGH	Diane Molinari, D.O.	Associate Chair, Unity Hospital, Emergency Department	Umphavanh Emmy Thatvihane	Project Manager, IT PMO
Nayef El-Daher, M.D., Ph.D.	Division Lead, Infectious Disease Unit, Unity Hospital	Ninad Nadkarni, M.D.	Chief Medical Resident, Unity Hospital	Rachael Wiedel	Physician Assistant, RGH
Jennifer Gales	VP, CNO, Unity Hospital	Farhad Nasar, M.D.	Unity Medical Director, Health Informatics	Steven Wolfe, D.O.	Chair, Unity Hospital & St. Mary's WICC, Emergency Medicine
Tara Gellasch, M.D.	CMO, UMMC	Donna Newhart	Performance Improvement System Manager	Karan Alag, M.D.	Medical Director, Health Informatics, Internal Medicine

Project Overview: Sub-Groups

Standardized Definitions and Coding

Consensus reached on definitions to ensure patients are grouped in the right buckets for measure reporting but, most importantly, that care is delivered in a timely way.

Dr. Kalyana Kanaparthy

Orderset Review & Revisions

Existing order sets were reviewed and opportunities for standardization were found (e.g. prioritize order location with bundle elements and antibiotic standardization).

Dr. Farhad Nasar

Best Practice Alerts & Predictive Analytics

To aid early recognition of Sepsis, Epic's Predictive tool will be used to predict the risk of acquiring sepsis within four hours. Targeted BPAs will be developed to drive timely and appropriate care.

Dr. Jose Alcantara

Rapid Recognition & Response

Developing processes to ensure bundle elements are completed in a timely manner while improving early recognition through collaboration with the Predictive Analytic tool.

Dr. Jason Lyons

Quality Reporting & Abstraction

Through analyzing historical Sepsis abstraction, several key fall-out (failed to meet 3- or 6-hr bundle) areas were found and solutions were developed.

Kate Schantz

Education & Communication

Draft education and communication plans have been developed in conjunction with System Education/Communication resources.

Dr. Hiloni Bhavsar

AIP-Related Workstreams: Standardized Definitions and Coding, Orderset Review & Revisions, BPAs and Predictive Analytics.

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Clinical Optimization – Sepsis Volumes

RGH and UH continue to see the majority of Sepsis cases at RRH, averaging 175 and 125 cases per month, respectively. A slight upward trend for RGH and downward trend for UH has been seen.

Sepsis Volumes

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Premier QA, Jan 2018 – Apr 2019, CS Std., Sepsis ICD10 Codes
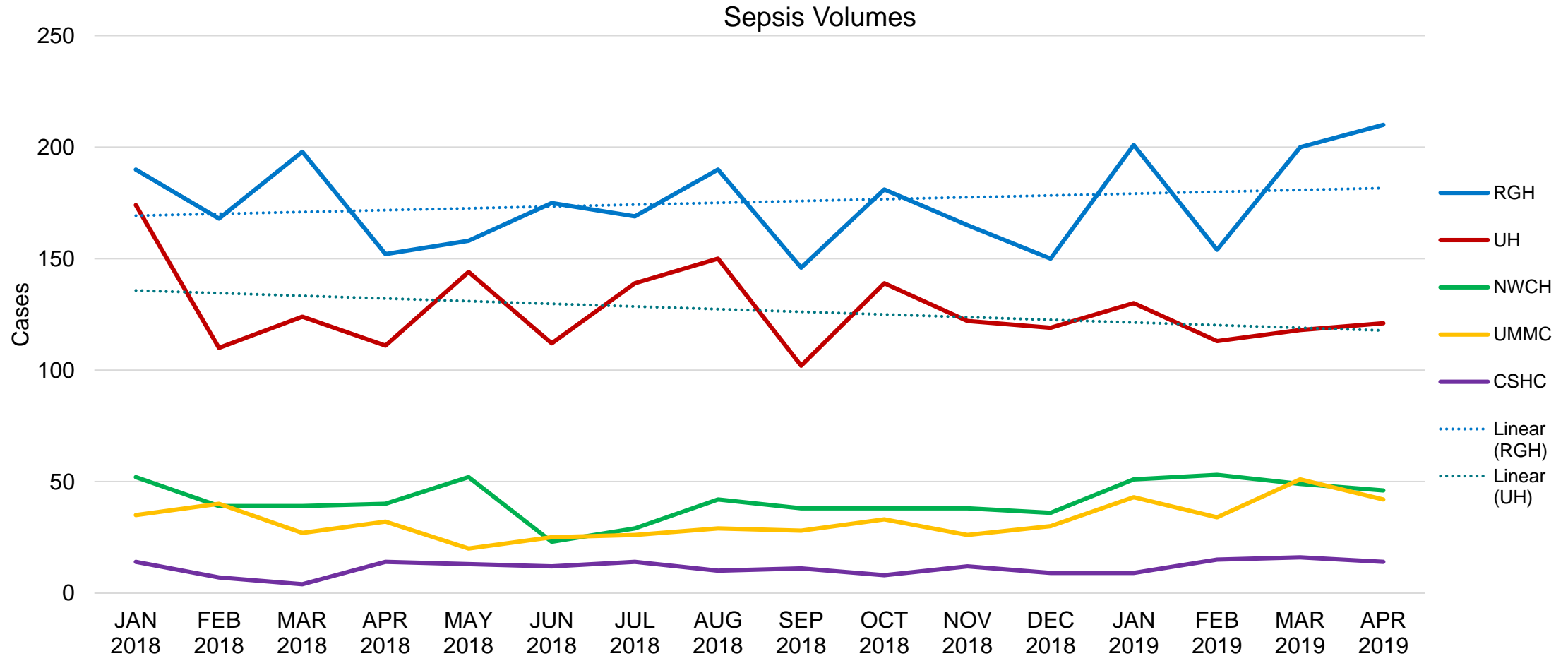
Role of Executive

Governance of entire clinical optimization program

Champion engagement from physician leaders

Ensure resource alignment and teamwork

Augment integration through strategic positioning of work

Organizational messaging

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Evolution of Governance Structure

The governance structure has evolved over the past two years to be chaired by two physician leaders and become more multi-disciplinary. This has resulted in enhanced physician ownership and engagement in the process.

Original Clinical Optimization Steering Committee		2018 Clinical Optimization & Hospital Capacity Management Steering Committee	
Chair: James Williams		Chairs: Hiloni Bhavsar, MD & Anil Job, MD	
Administration	9	Administration	2
Service Line Physician Leaders	0	Service Line Physician Leaders	3
Service Line Administrators	1	Service Line Administrators	3
Business Intelligence	1	Business Intelligence	1
Finance / Supply Chain	1	Finance / Supply Chain	2
IT & S	0	IT & S	1
Quality Safety Institute and Clinical Optimization	1	Quality Safety Institute and Clinical Optimization	3

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Physician Engagement

- Service Line Leaders – Engaged in Clinical Optimization Teams
- Chief Medical Officers – Annual Projects / Goals
- Regular Communication to Medical Staff Governing Bodies
- Department Chiefs – 2020 Projects / Goals

The ultimate goal is for Clinical Optimization to be embedded into our culture on a day-to-day basis, not seen as standalone projects.

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Aligning Goals

Clinical Outcomes

Goal Statement: Achieve targeted O/E performance improvements by Q4-19 for identified areas of focus

Financial Outcomes

Goal Statement: Work in conjunction with Finance to quantify and track financial performance of CO work

People Engagement

Goal Statement: Increase the engagement of RRH team members around Clinical Optimization

Eminence

Goal Statement: Increase awareness of RRH's Clinical Optimization work on a national level

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Demonstrating Value to the Organization

In the current environment of margin pressures and limited resources, it is becoming more important to quantify the financial impact of our work. The table below estimates the financial impact of improving O:E in LOS.

		Q1-17	Q2-17	Q3-17	Q4-17
Heart Failure	Days Avoided	80	106	261	474
	$$ Avoided	$ 28,300	$ 37,300	$ 92,000	$ 166,800
Orthopaedics	Days Avoided	-15	17	-23	8
	$$ Avoided	$ (5,300)	$ 6,100	$ (8,000)	$ 2,700
Stroke	Days Avoided	134	17	115	329
	$$ Avoided	$ 47,200	$ 6,100	$ 40,400	$ 115,900
Total Days		**199**	**140**	**353**	**810**
Total $$s		**$ 70,200**	**$ 49,500**	**$ 124,400**	**$ 285,400**

2017 Total Days and Cost Avoidance by Bundle

2017 Cost Avoidance

$529,500

2017 Days Avoidance

**1,503**

Demonstrating Value to the Organization

The table below depicts improvements in length of stay, readmissions realized in the first two years in the program as well as targeted improvements for 2019.

	RGH Length of Stay Improvements (2016 – 2017)	RGH Readmission Rate Improvements (2016 – 2018)	RRH LOS Improvements (2019 Projected)	RRH Readmission Rate Improvements (2019 Projected)
Heart Failure	$152,085	$29,133	RGH: $0 UH: $24,323	RGH: $40,000 UH: $30,000
Stroke	$110,352	$(89,725)	RGH: $10,648	
Orthopaedics	$28,927	$112,800		
COPD				RRH: $40,000
Sepsis			RRH: $184,109	RRH: $120,000
Total	**$291,364**	**$52,208**	**$219,080**	**$230,000**

Source: Premier QualityAdvisor
CareScience Standard
Geometric LOS
30-Day All-Cause Readmissions
$352/day $10,000/readmission

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19

Future Focus of Clinical Optimization

Focusing on initiatives that improve processes, outcomes, and reduce costs.

PROCESS

OUTCOME

COST
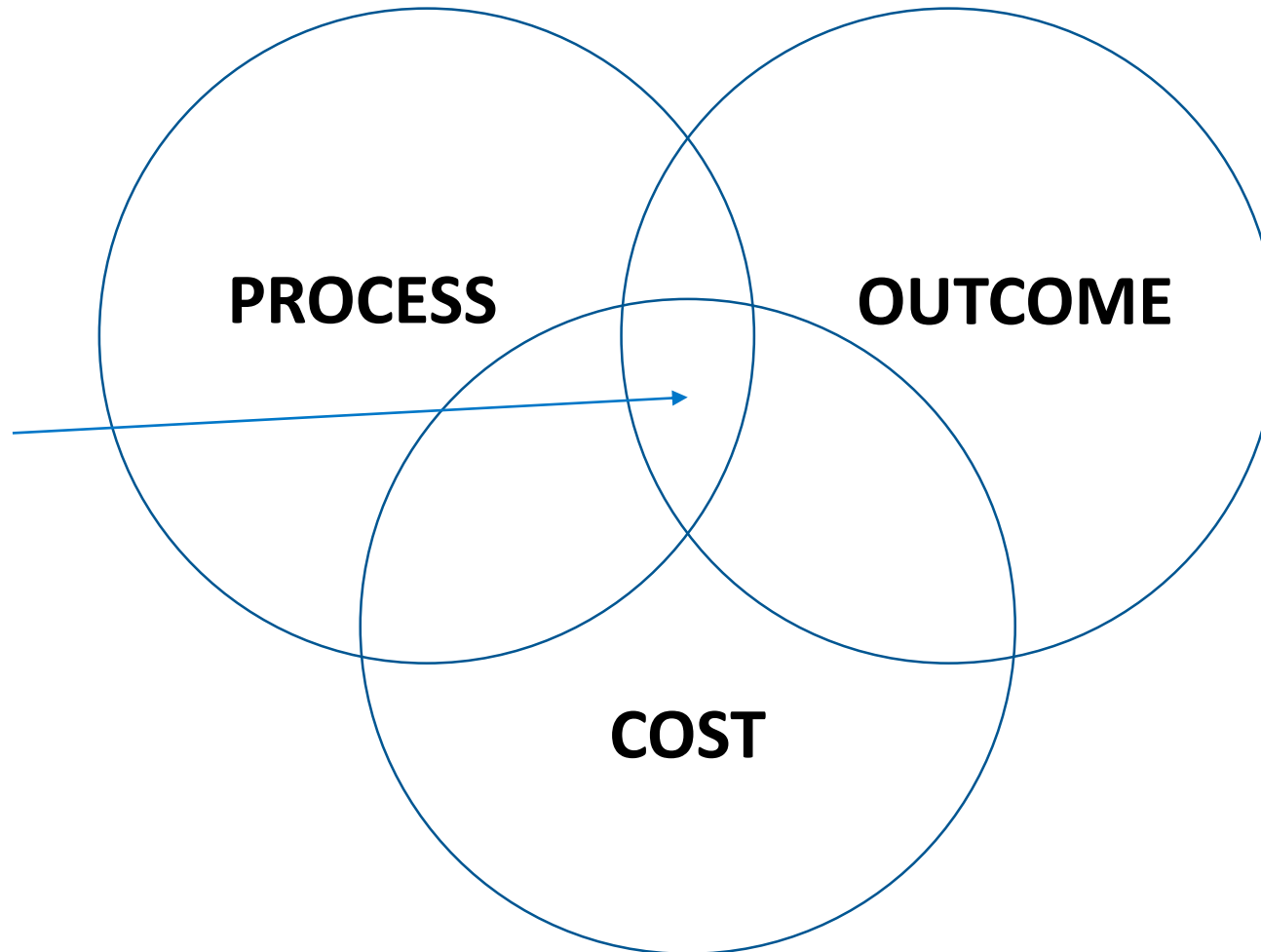
Executive Summary

Key Success Factors

- Involve key stakeholders, including physicians, from day one
- Drive accountability by aligning with operational / service structure
- Evaluate data in an open and transparent manner
- Establish a governance structure that is engaged and empowered to oversee work

Challenges

- More work added to IT queue
- Clinician time and resource commitment
- Competing priorities
- Balancing the need to drive performance improvement while also integrating a recently merged health system

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