BOSTON UNIVERSITY

BOSTON MEDICAL CENTER

QI Hub

BostonHealthNet
Bringing Together the Best

Boston Medical Center
HEALTH SYSTEM

Boston
Accountable
Care
Organization

BMC's QI Hub is your resource for all things quality improvement.

Visit bucme.org/BMCQIHUB or email QIHub@bmc.org for access to professional coaching, educational tools, support, mentorship, and much more!

Sustainability

True Quality Is A Continuous Iterative Journey To Sustainability

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3/14/2022

No Relevant Financial Relationships to Disclose

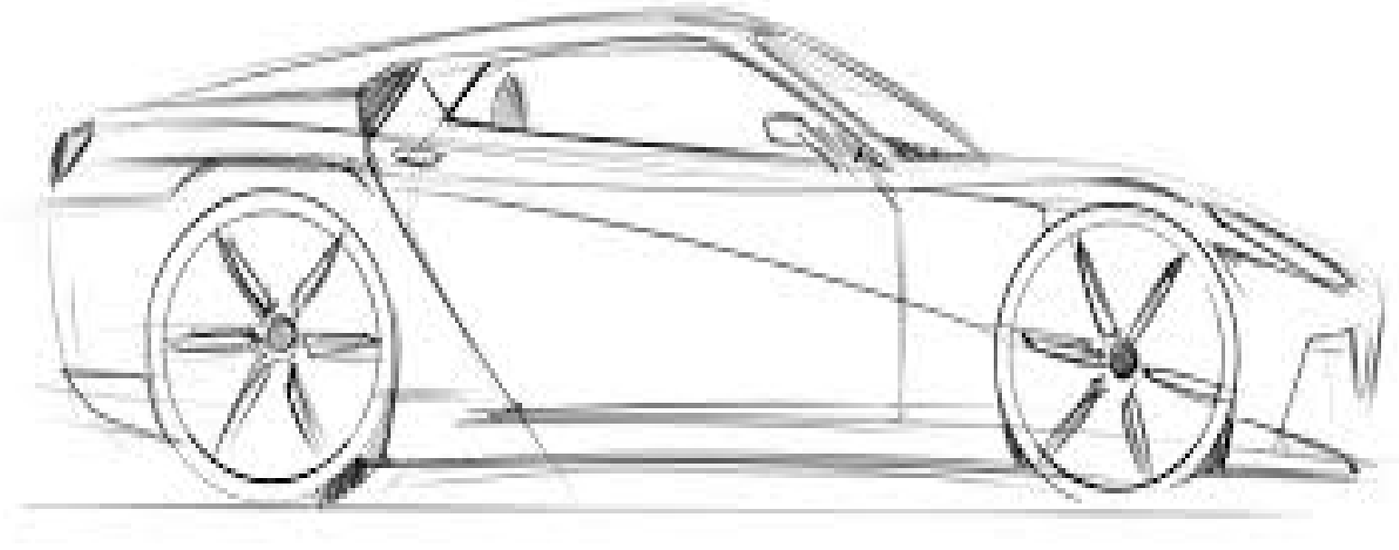
Objectives

- Highlight differences between quality improvement and quality control
- Identify six organizational domains needed to support sustainability
- Discuss components required to achieve sustainability for your projects
- Highlight sustainability features found in current BMC projects
- Evaluate your own projects for likelihood of sustainability

QUALITY MODEL

Quality Planning
The initiation, guidance and monitoring system design for improvement at organizational level

Quality Control
Monitoring in real time and retrospectively focusing on operations for stable performance and for detecting emerging process problems

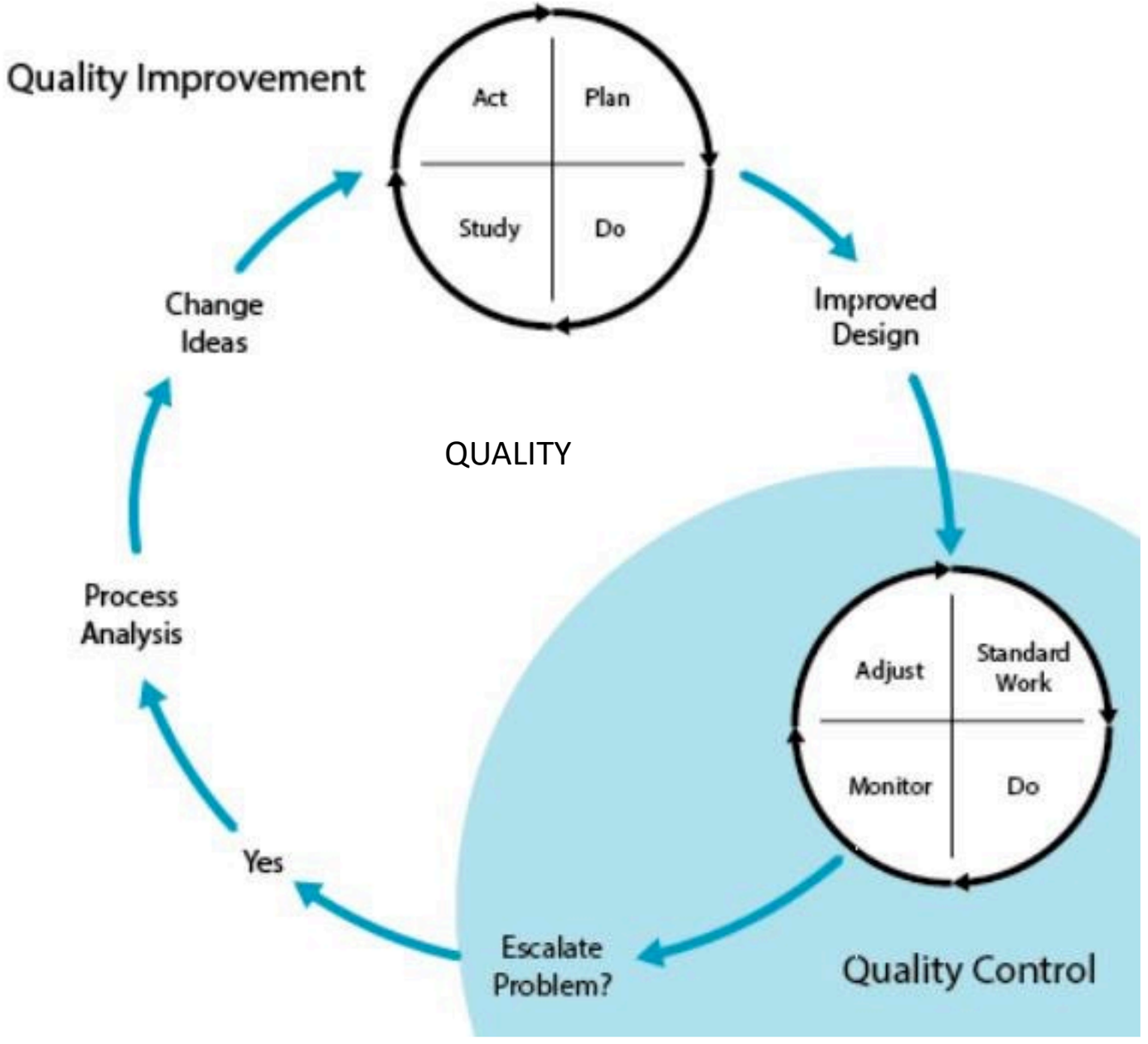


Quality Improvement
Forward thinking and proactively creating new and better processes of care for improving healthcare

QI asks “How can we improve the way we deliver care?”

QC asks “Are we achieving the goals set?”

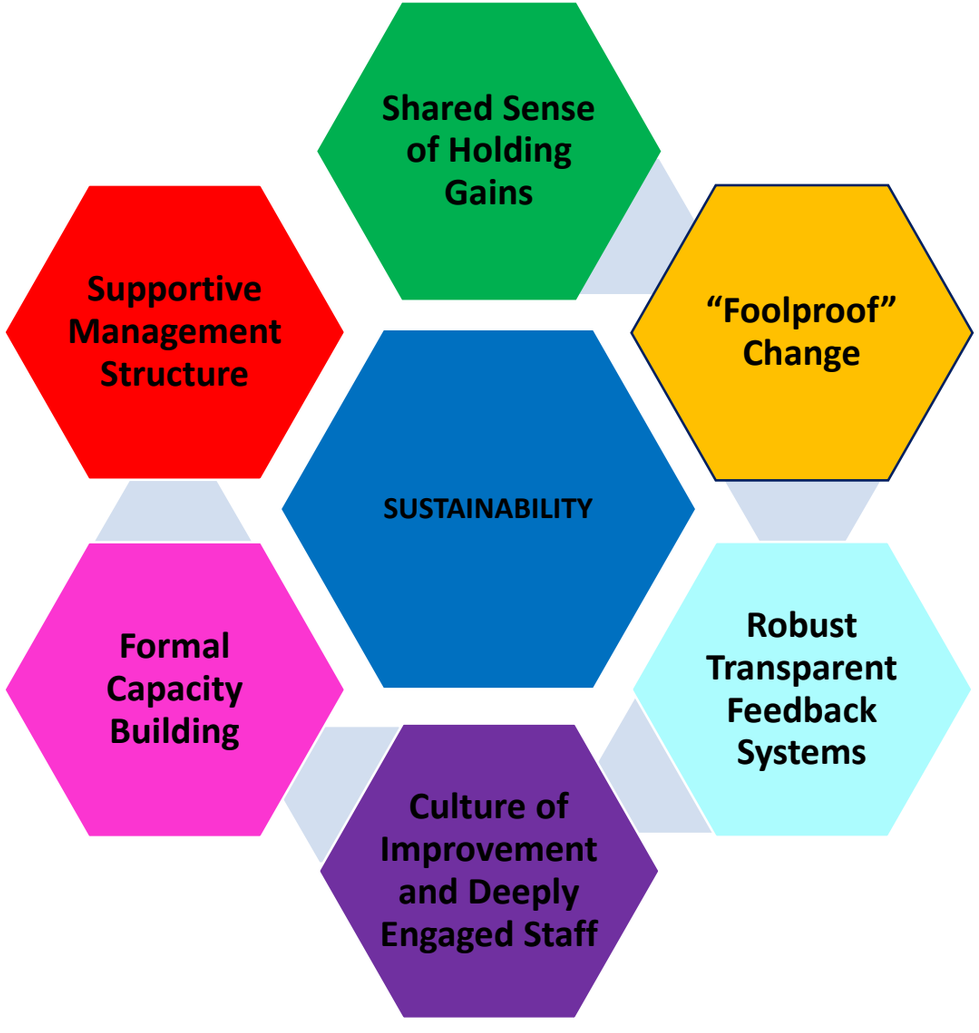
The Relationship of Quality Improvement and Quality Control



Sustaining A Project's Success Is The Key to Sustainability

Organizational Building Blocks

The Six Domains Needed To Support Sustainability



Supportive Management Structure

- In order to support sustainability, **leadership** must keep the improvement's performance success a **continued priority**
  - Just because success is achieved does not mean monitoring performance can stop

Best Practice

- *Standard agenda item of leadership group where continued performance is regularly discussed and monitored so gaps are identified early and can be acted upon*

Shared Sense of Holding the Gains

- **All levels of stakeholders** involved in the improvement (executives, managers, frontline staff) must continue to have **skin in the game** even when project ends.

Best Practice

- *Multidisciplinary team involved in initial improvement plays continuing role in holding the gains (monitoring performance and communicating with staff) as part of formalized new permanent team of the organization.*

Structures to “Foolproof” Change

The organization must **commit resources** to **building structures** such as written policies and procedures, checklists, IT systems to support new process that make it difficult if not impossible to revert to old ways of doing things.

Best Practice

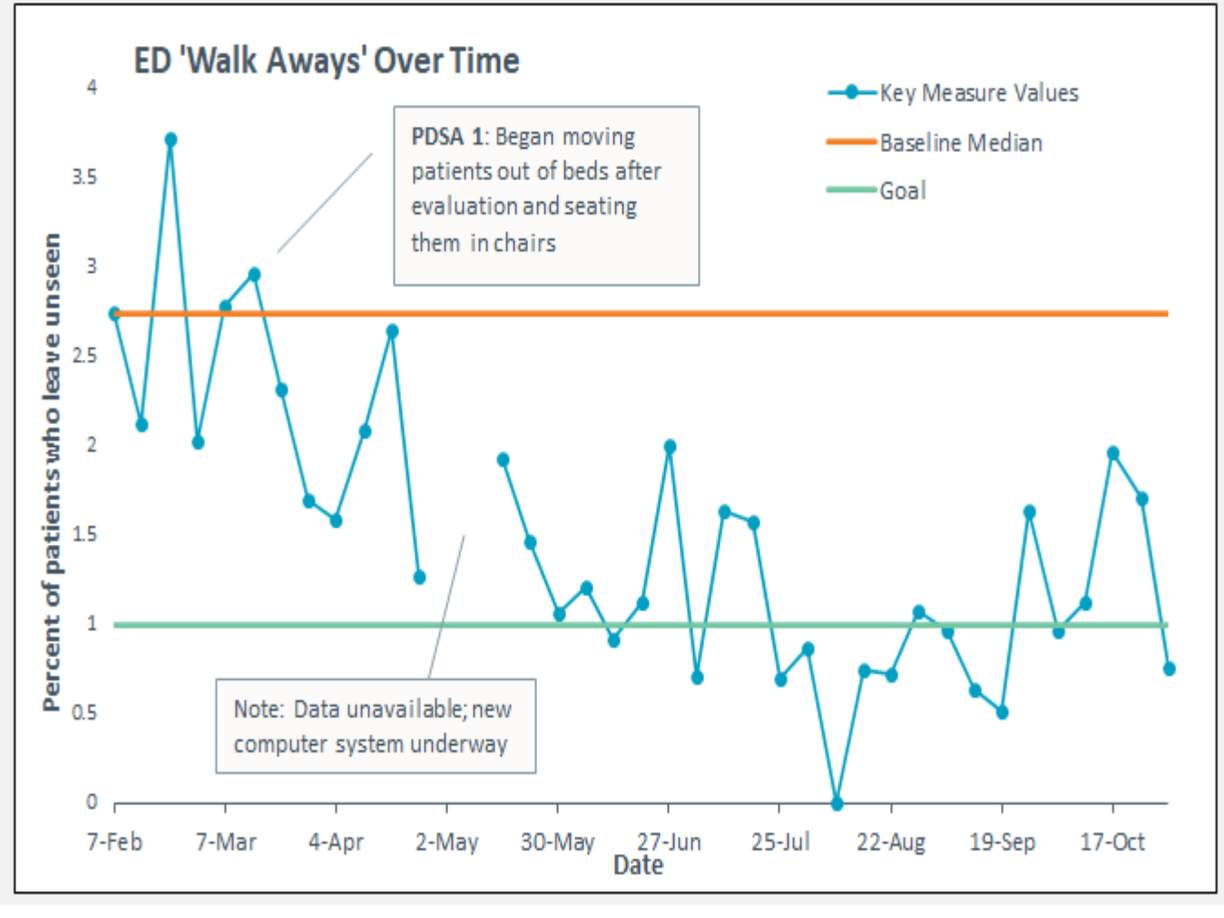
- *EMR based prompts and hard stops*
- *Checklists for filling prescriptions*
- *Phone scripts for patient calls*

Robust, Transparent Feedback Systems

Automated Reports and **dashboards** exist for improvement and are reviewed at every level of the organization to ensure change being sustained

Best Practice

- *Dashboard of performance updated monthly and shared during regular meetings.*
- *Data is communicated to relevant staff and stakeholders from all levels of the organization.*



There Is An Organizational Culture of Improvement Deeply Ingrained All Levels Of The Organization

- Individuals/teams/departments/organization all share a deep **belief in a culture that promotes quality improvement work**. A shared sense of pride exists within teams when performance improvement attained and **quality improvement work** that is done is recognized and valued by organization.

Best practice

- *QI identified in organization's goals as key attribute/core value of the organization.*
- *Quality improvement work is supported at the local level with QI Specialists.*
- *Patient Safety Grants to fund QI ideas developed by teams*
- *Opportunity to share their work at QI Quality Poster Forums.*

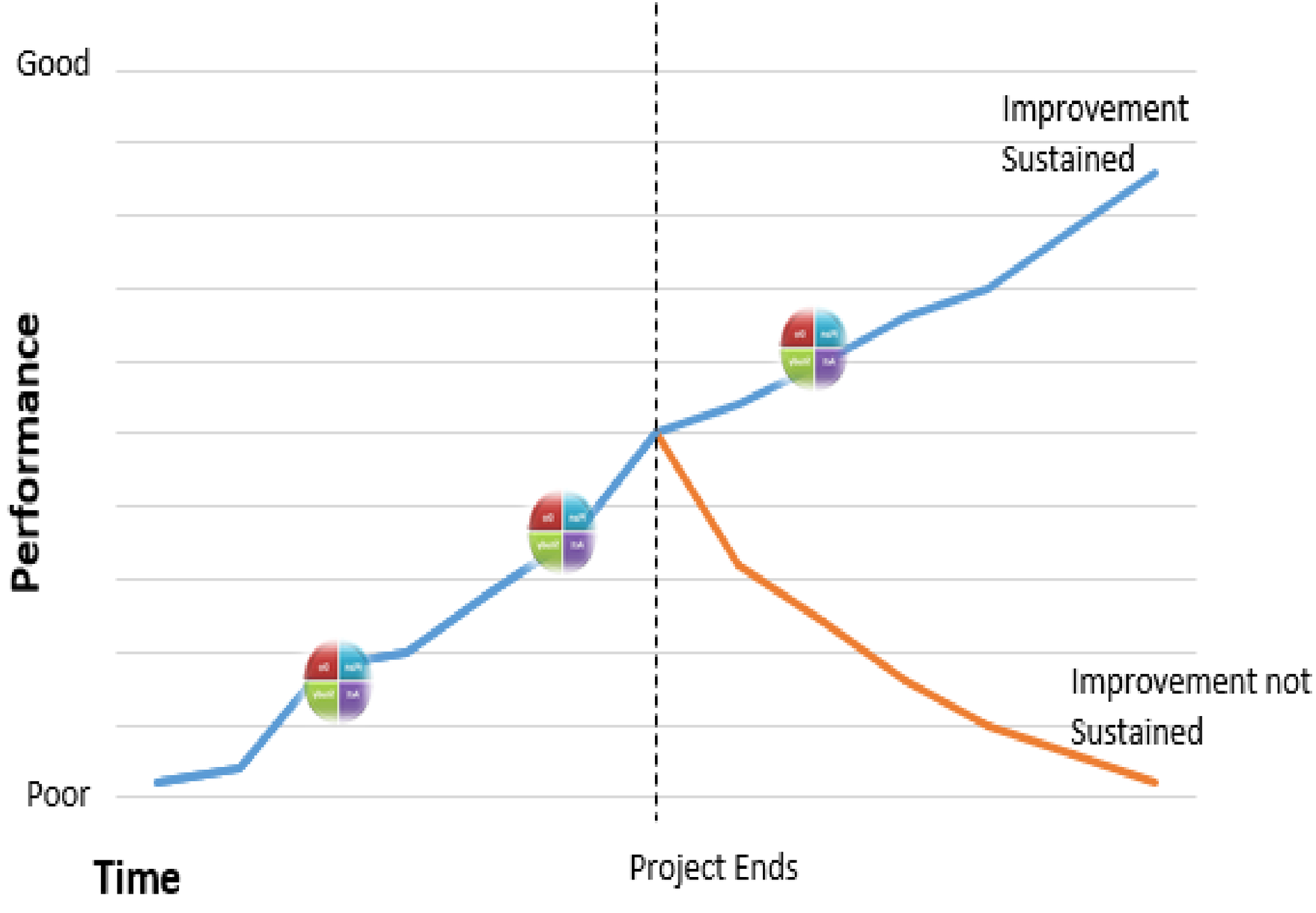
Formal Capacity-Building Programs Build QI Skills Among Staff

Best Practice Examples:

- ***IHI Open School***
- ***QI Hub***
  - ***Improvement Leadership Academy***
  - ***Leading Change Collaborative***
- ***QI Hub Quality Certification***
  - ***Bronze, Silver, Gold and Diamond Level Certification***
- ***Early and Mid Faculty Development Programs***

Chat in how often you think projects become sustainable initiatives of the organization

Less Than 40% Of Projects In Healthcare Achieve Sustainability



How Can You Plan For Sustainability

KEY

PLAN FOR SUSTAINABILITY EARLY

Your Project Ready For Sustainability Phase When:

- The intervention is **near final stage** of development
- The **measurements** are demonstrating **real improvement** over time
- The intervention(s) are **viewed favorably by stakeholders** who will be affected by change
- There **isn't an upcoming policy or technological changes** that would render the project redundant

You've Defined

- **Standardization**
  - A standardize process
- **Accountability**
  - Who will own the process and the operational stakeholders
- **A Visual Management System**
  - Developed Automated reports and dashboards
- **Regular Communications**
  - Established communication system how feedback gets back to those doing the work
- **Problem Solving Mechanisms**
  - How problems will be identified, surfaced and addressed
- **Escalation Process**
  - How and who from leadership will be activated when barriers encountered in plan
- **Integration**
  - How spread and integration across all organizational levels will occur

You've Answered

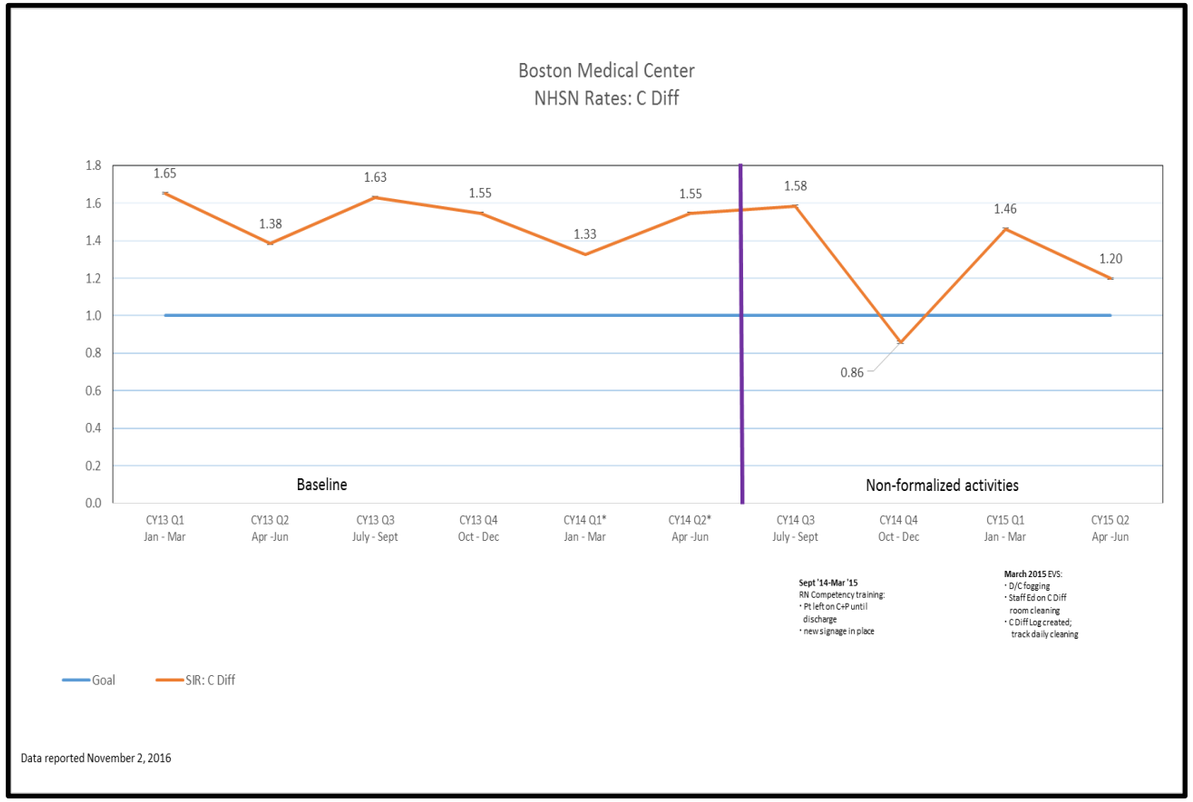
- Who will be accountable?
- Who will be operations team taking over project?
- What type of training and ongoing monitoring is needed?
- How often effectiveness of processes should be measured going forward?
- What thresholds identify processes not functioning as intended?
- Next steps for process and outcome failures?

Two BMC's Projects Facing Sustainability Challenges

-Reducing the Rate of Hospital Acquired C Diff Cases
-Reducing Heart Failure Readmission

Reason for Action C Diff

- Clostridium difficile infections (CDI) are the **leading cause of health care-associated** diarrhea
- Boston Medical Center's **Standardized Infection Ratio (SIR) for Hospital Onset CDI was 1.573, above the US National Benchmark of 1**
- AIM: **Reduce** the SIR Hospital Onset Clostridium difficile (**C. diff)** infections reported to CMS expected **ratio of ≤1** by June, 2016.

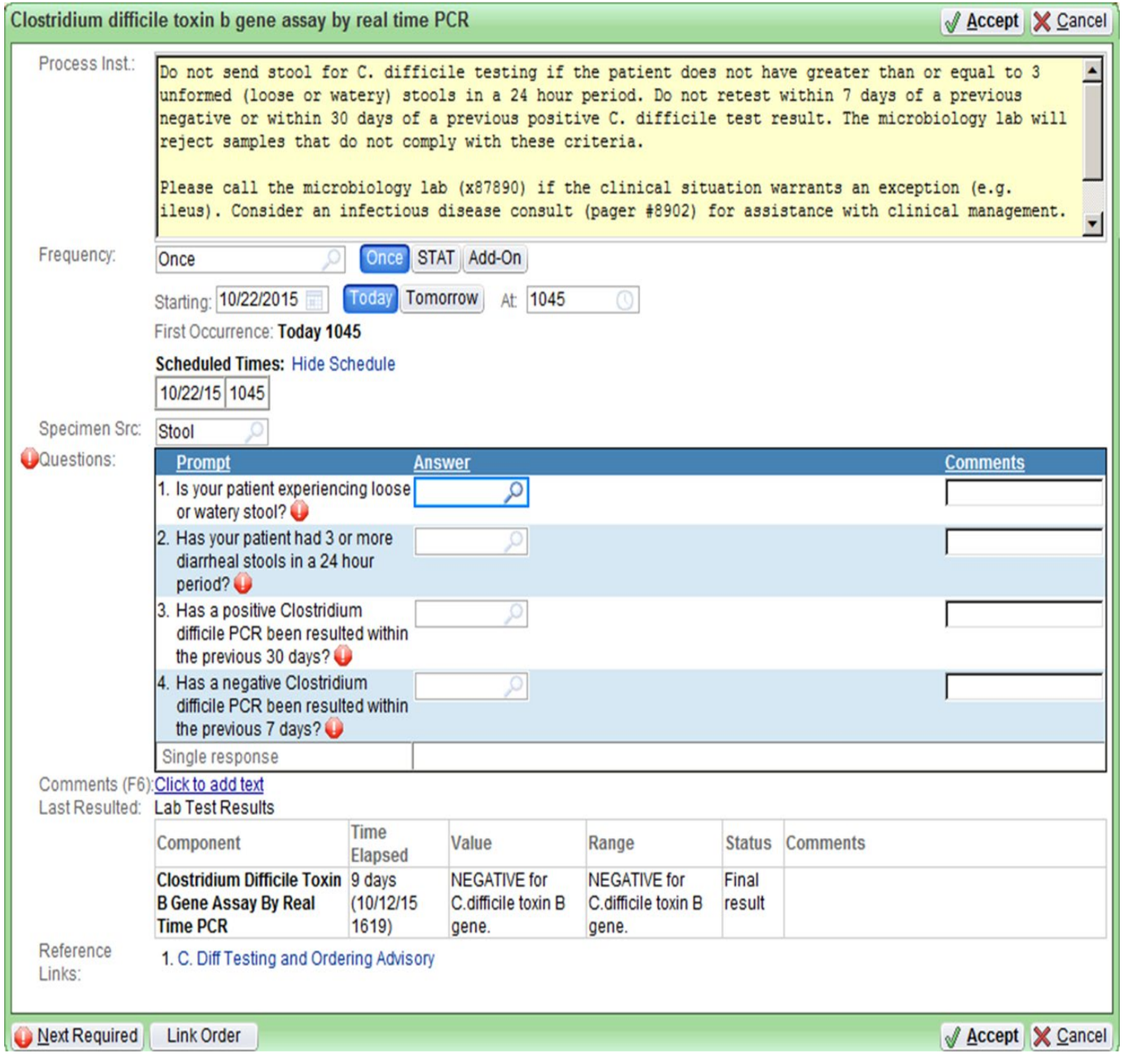


Educational Efforts and EVS Changes

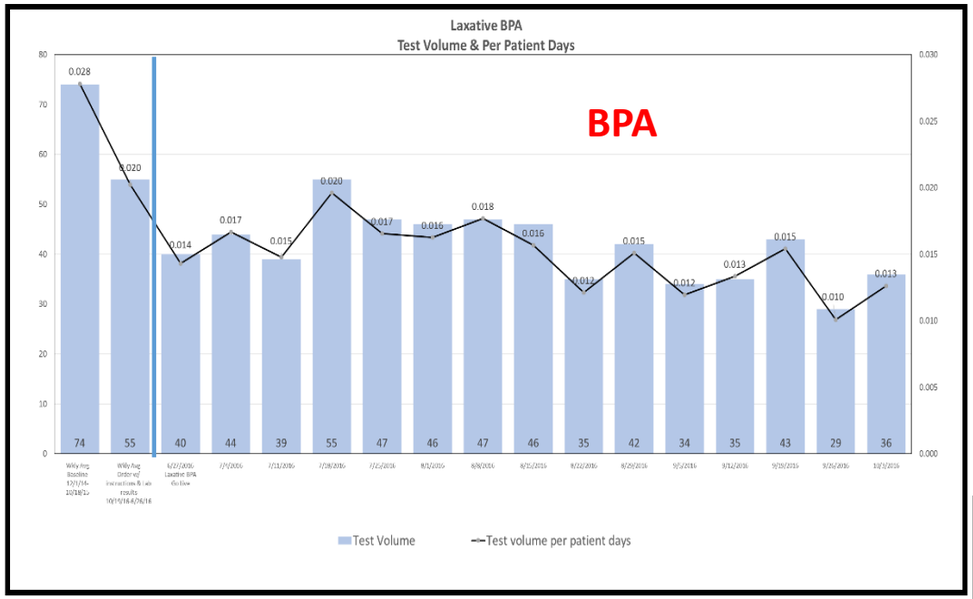
Education Alone Will Never Sustain Change
You Always Need A Methodology

- C Diff used **Quality Improvement Methodologies** forming a **multidisciplinary team addressed**
- **Created a Family of Measures (Outcome, Process & Balancing)**
- **Integrated Data Collection and Reporting**
  - Creating **Workbench Reports** (Epic Electronic Medical Record, EMR) and Clarity Reports (data warehouse),

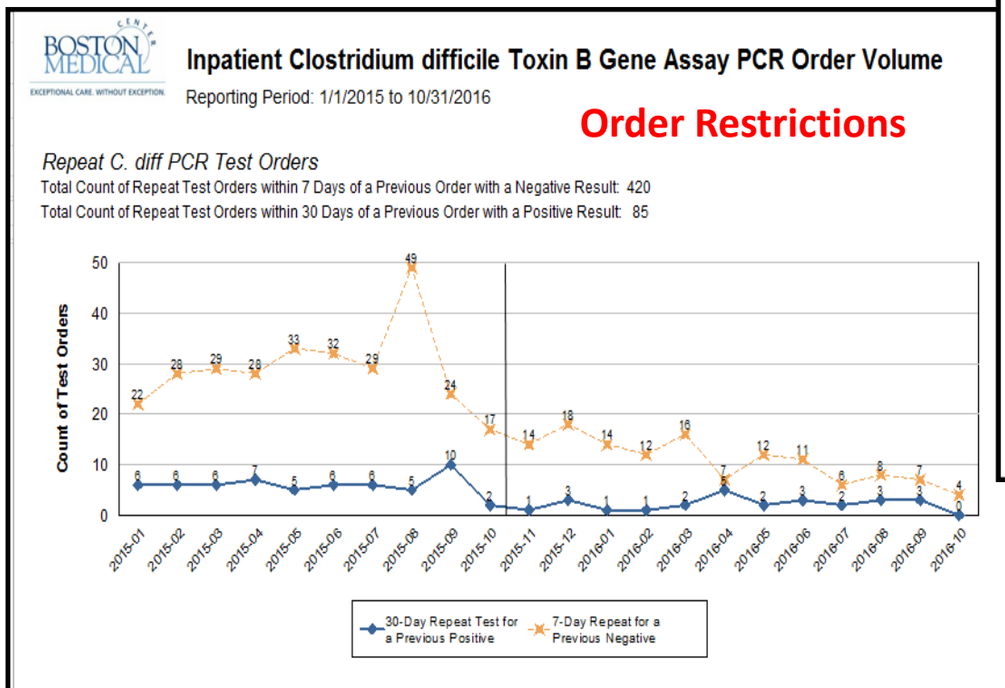
BPA and Hard Wiring C Diff Testing in EPIC

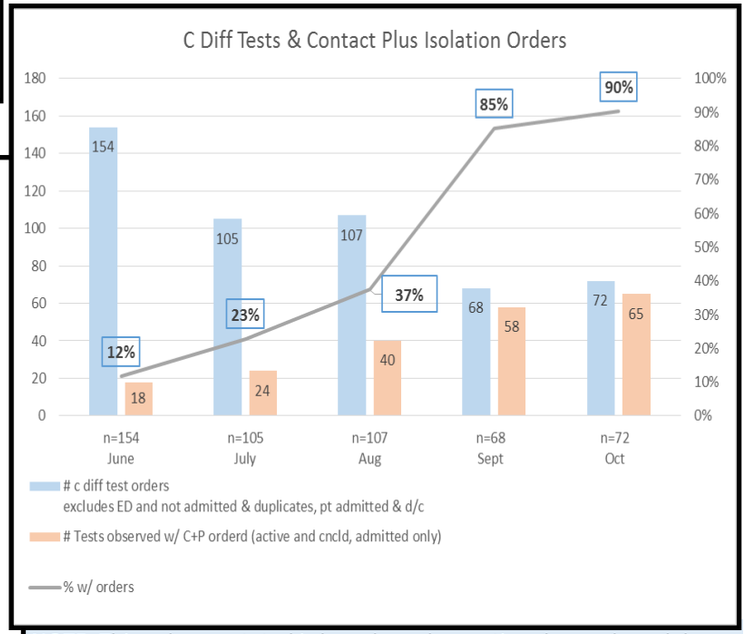


Process Measures



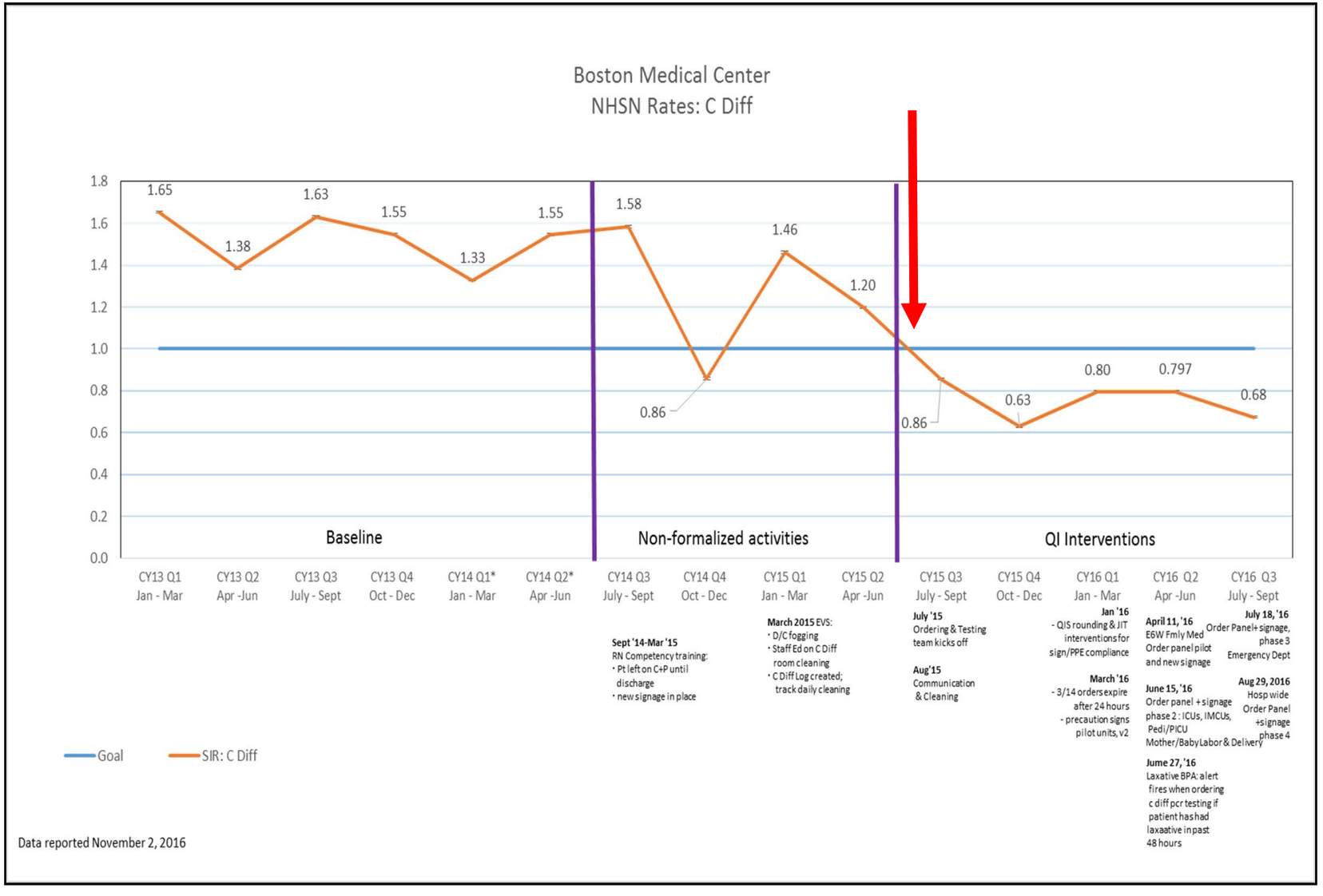
Linking C Diff Testing To Placement Contact Isolation Order





NOTE: This volumes stated is based on observation days only and does not reflect total test volume. Rounding Observations occurred 3-5 times/week, M-F mornings. Report was run from mid-night day prior to the time the rounding began. Overlap occurred from day to day based on when orders were written to when results were obtained.

Outcome Measure

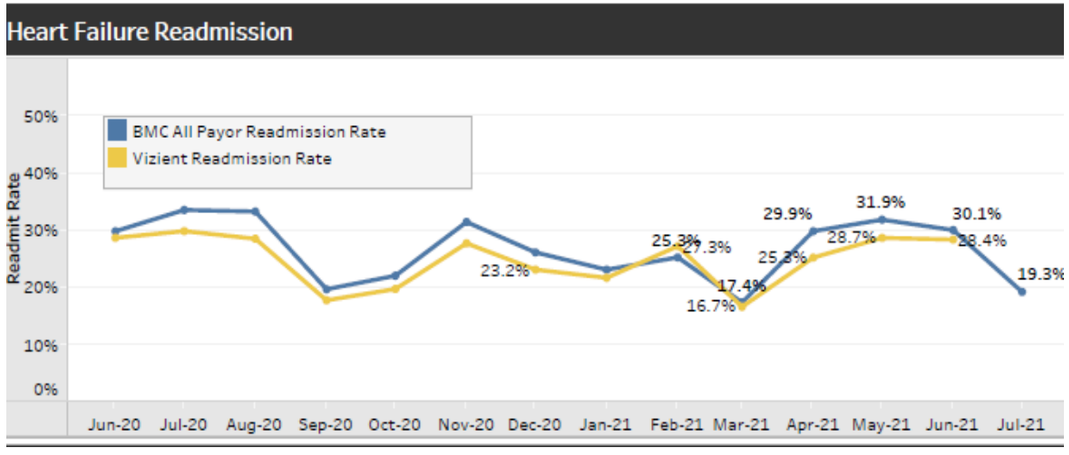


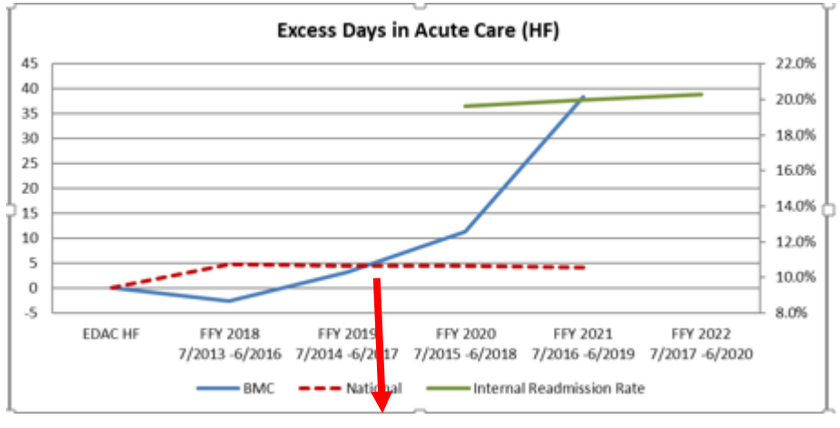
Achieved SIR 4 quarter average 0.72, better than national goal

HEART FAILURE READMISSIONS

Reason for Targeting Heart Failure Readmissions

- **Increasing readmissions** (all payer) with a widening gap compared to national benchmarks.
- **Quality of life** impact patients HF contributes
- A large contributor **BMC overall readmissions and has a significant impact on quality ratings such as CMS Stars** as well financial impact in financial penalties assigned for readmissions.





Loss of dedicated HF Teaching Service
Loss of dedicated Cardiology floor
Loss of dedicated Cardiology Clinical Pharmacist
Loss of 2 RNS and 1 Adm HF Outpatient Program

Multidisciplinary Group Created Bundled Strategies Across Disciplines

- **Cardiology Consult Criteria** placement request for non cardiology teams
- **Standardized** Heart Failure **Teachback** by nursing for patients identified as HF
- Addiction, Homeless **Consults for HF patients** facing these challenges
- **Discharge Home With VNA** Telehealth Services for eligible HF patients
- TCM 7 or 14 day **post discharge cardiology follow up** appointments for patients followed by Cardiology Teams or with Inpatient HF Consult during admission through Fellow Request to Cardiology Pool.
- TCM **post discharge calls** by Cardiology RN within 2 business days
- **Pharmacy support** as directed by RRA Score for admission and discharge med rec and M2B

Modeling suggested achieving a scenario of 90% intervention completion for interventions would reduce HF readmission rate from 26% to 18%

Baseline annual discharges and readmit rate						
		Low	Med	High	Super-high	Total
	Annual discharges	259	429	217	132	1,036
	Readmissions	42	95	64	65	265
	Readmit rate	16.0%	22.1%	29.6%	49.4%	25.6%
Incremental # interventions, annual						
	Intervention	Low	Med	High	Super-high	Total
	Pharmacy calls - 7 day reached	0	173	107	0	280
	Cardiology completed visit - 7 days	0	321	155	101	577
	Discharge Med rec	92	144	49	28	314
	14 day PCP	0	172	68	0	240
Impact on readmissions rate under simulation						
		Low	Med	High	Super-high	Total
	Discharges	259	429	217	132	1,036
	Modeled readmissions	40	61	55	36	191
	Modeled readmissions rate	15.3%	14.2%	25.4%	27.0%	18.4%
	Readmissions avoided	2	34	9	29	74

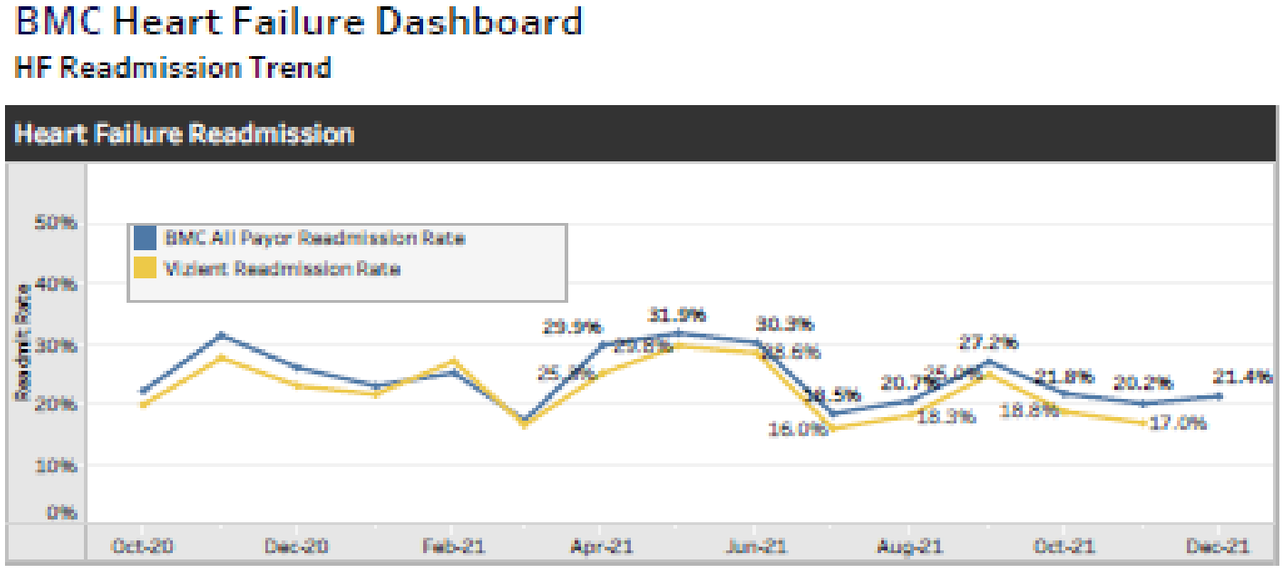
- The model suggests a scenario of 90% completion of high-impact interventions on targeted segments would save about 74 out of 265 readmissions per year
- This would require ~577 incremental annual cardiology appointments and 280 7-day completed pharmacy calls

BMC Committed to Operational Supports Needed Because Of The Clinical Analytics Work Done By Group …
This Included

- Hiring of 3rd Heart Failure Nurse Practitioner
- Hiring of 2nd Heart Failure Clinical Pharmacist
- Assignment of two Inpatient ASARs for making negotiated post discharge Cardiology appointments
- Establishment of two operational workgroups
  - Discharge Med Rec
  - TCM Post Discharge Calls All HF Patients
    - Cardiology driven TCM Calls TBD
    - Pharmacy TCM Calls TBD

Data Support Always Key In Obtaining Resources

Where Are We Today



Where Do You See Your Projects In Terms of Sustainability

Breakout Room Exercise/ Reporting Back

Take the next 30 minutes to look at your project in relation to Sustainability Domains completing this worksheet. When we regroup, we'll ask you to present your assessment of your project's sustainability.

Areas for Consideration	Current Status of Your Project Related to Domain	What Does Your Project Still Need in This Domain? How will you achieve?
Measurement • What will we continue to measure? • What will we stop measuring? • What will we do if we see a negative signal (i.e., special cause variation)?		
Ownership • Who will own the new standard work? • Are they engaged and onboard with the improvement?		
Communication and Training • How will we communicate about the change and who will be the messengers? • How will we support individuals in the new "right way"? • What type of training will we use?		

Hardwiring the Change
• How will we make it hard to do the wrong thing and easy to do the right thing?
  • Can we reduce reliance on human memory?
• How will we standardize?
  • Do we need new documentation and resources?		

Assessment of Workload
• Are our changes increasing the overall workload to the system?
  • If so, how can we decrease the workload?
  • If not, how will we communicate about what is changing and not changing?		