



CaroMont Health's Path to Accountable Care: **A Pathway to Health**

Betty Herbert, Director Managed Care

May 17, 2011

CaroMont Health System

- Gaston Memorial Hospital, with 435 beds
- Courtland Terrace, a 96-bed skilled nursing community
- Gaston Hospice, includes the inpatient 12-bed Robin Johnson House
- CaroMont Medical Group, an extensive network of physician practices in five counties and two states with:
 - Nearly 200 employed physicians
 - 3,800 employees
 - Self-insured health plan

Vision

To be a nationally recognized leader and valued partner in promoting individual health and vibrant communities.

Mission

To provide exceptional healthcare to the communities we serve

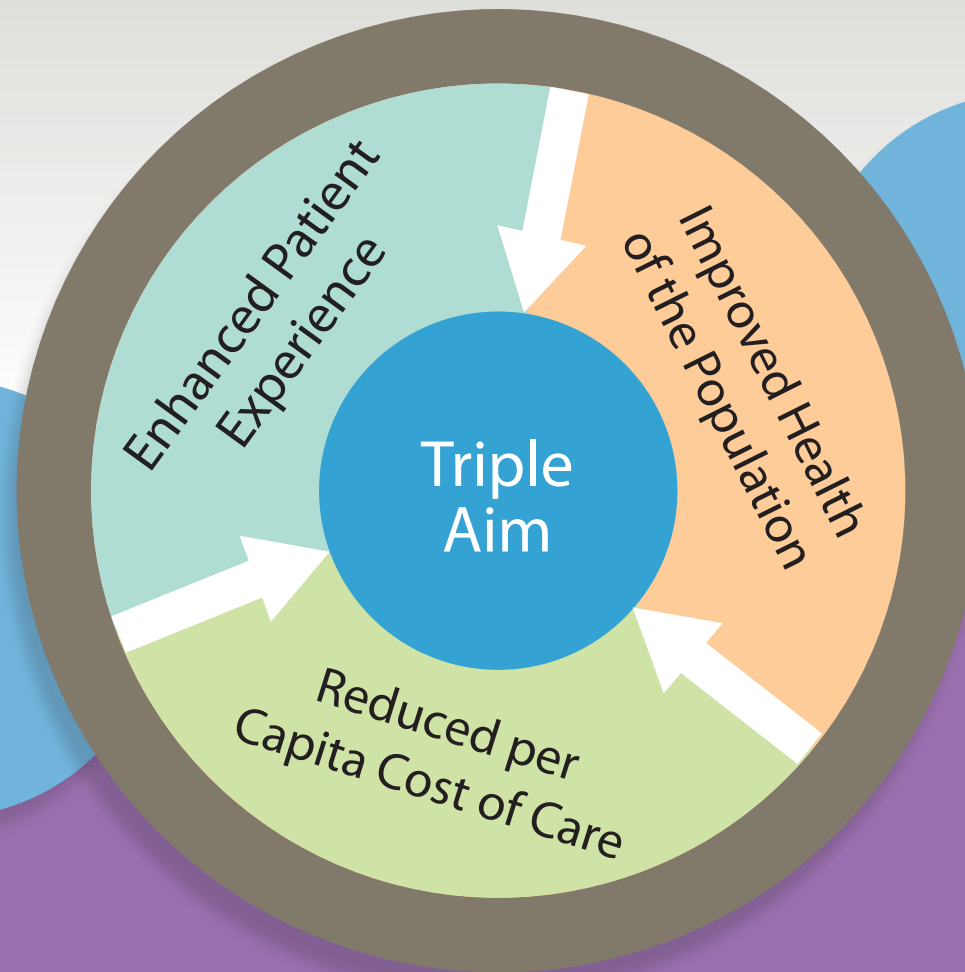


Transformation from Hospital-Centric to Community-Centric with Triple Aim as Framework



Triple
Aim

Triple Aim



Bundled Knee Goals and Objectives

- Develop core competencies to implement community-wide Triple Aim
- Lay the framework for larger accountable care organization development
- Build the foundation for future performance-based product opportunities

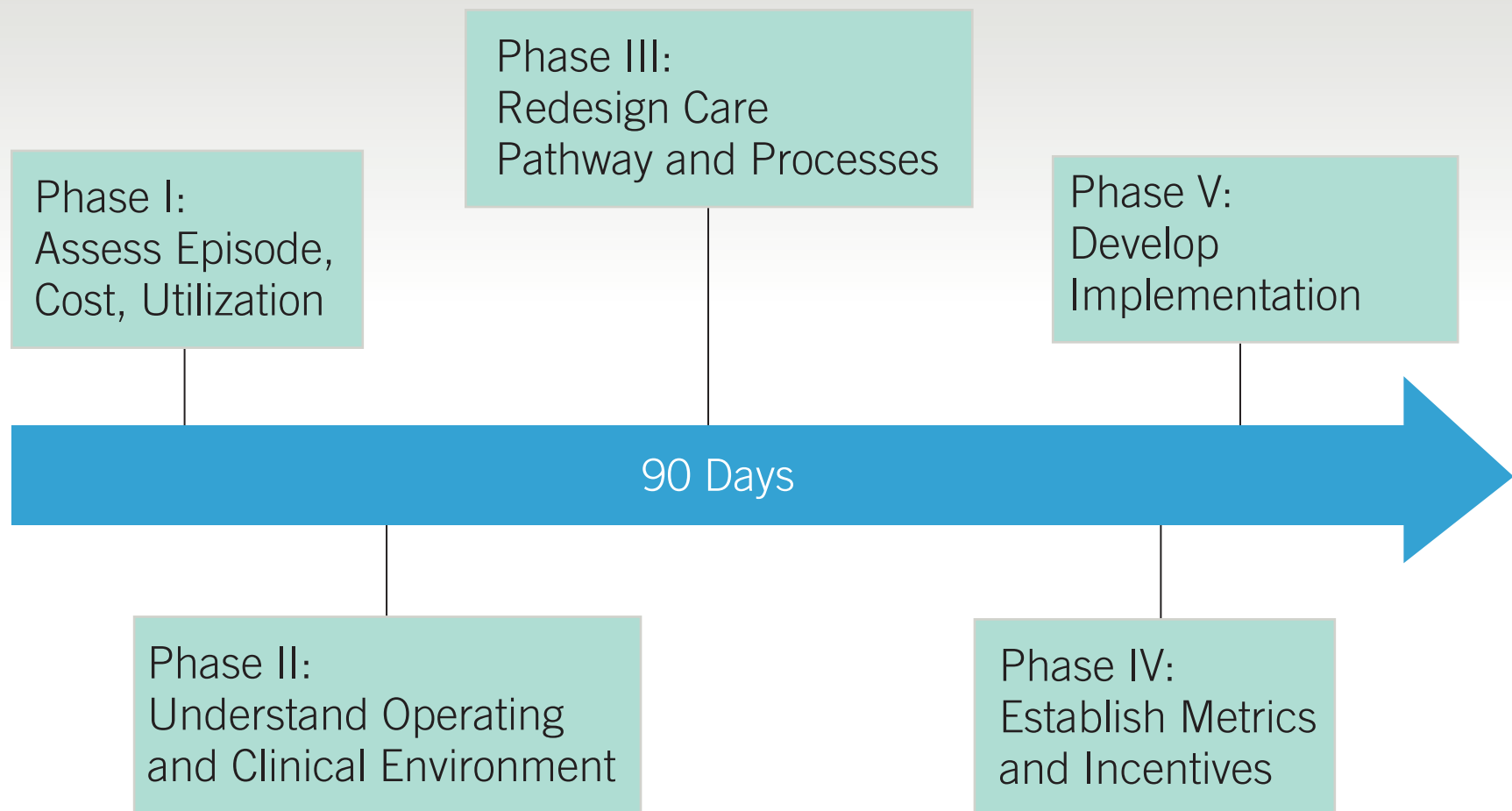
Knee Replacement Episode



Critical Success Factors, Risks and Barriers

- Leadership and collaboration from clinical staff across the full episode
- Payers and providers must act as true partners
- Care re-design across the continuum must occur simultaneous to payment re-design
- Extensive modeling capabilities required to predict changes to quality and cost
- Elevating quality while managing to a budget may require a departure from care as usual
- Identification and real-time tracking of patients will be challenged by lack of IT integration across provider sites
- Completion of performance scorecard will require tracking of additional process/outcome elements
- Program optimization is iterative: lessons from careful examination of high cost episodes should be translated into rapid program improvements

Key Program Milestones and Timing



CaroMont Health Bundled Knee Program Redesign Phases

Phase I:
Assess Episode
Cost, Utilization

Collect and analyze data to understand current utilization and cost variation for knee replacement across the 210-day episode.

Phase I: Assessment of Episode Cost and Utilization

- Analyzed relevant claims data to understand cost drivers and variation
- Analyzed higher cost episodes to identify clinical outliers and develop strategies to improve quality/cost

Key Findings

- Data analysis spanned a 210-day episode of care
- Opportunities were two-fold:
 1. Patient education and patient contract
 2. Optimization of pre-identified patient co-morbidities

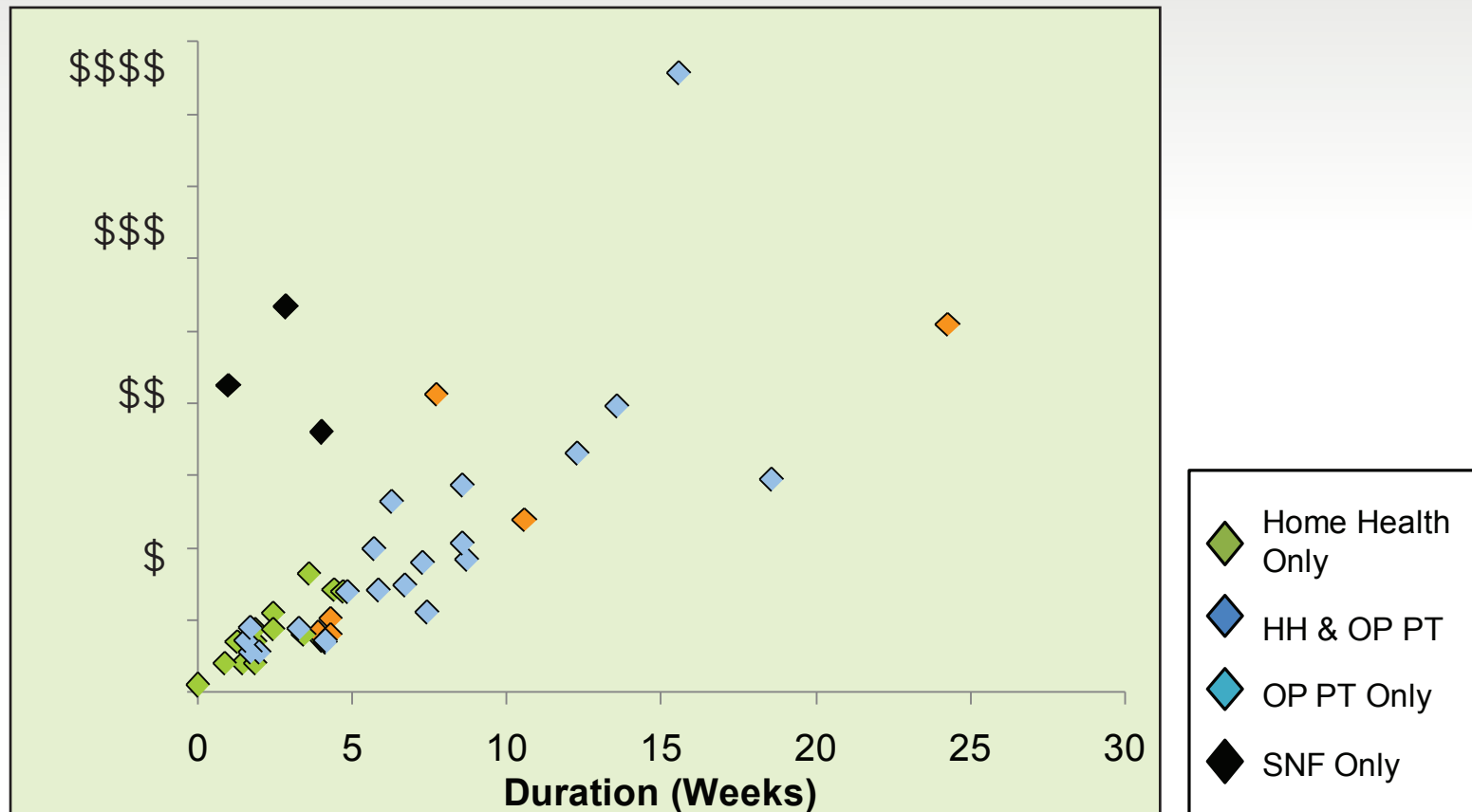
Cost Outliers Emphasize Importance of Optimization and Selection

Patient #	Cost Driver	Other Diagnoses
1	Hospital Stay	BMI >40, COPD, Drug Abuse, Chronic Airway Obstruction, Cardiac arrest, Sleep apnea, Posttraumatic respiratory insufficiency
2	OP PT	Osteoarthritis, Pain in Joint
3	HH, OP PT	Asthma, Hypertension, Hyperlipidemia, Post-hemorrhagic anemia, Pneumonia
4	ER Visit for Hemorrhage	Diabetes, Hypertension, Primary Hypercoagulable state, long-term use of anticoagulant, Post-hemorrhagic anemia
5	Hospital Services for Gastritis, Colonic Polyps, Melena	Long-term Antiplatelet use, Anemia
6	Hospital Stay, Readmission for VTE	Diabetes, Hypertension, Atrial Fibrillation, Drug-Induced Delirium, Hypercholesterol

Note: Sg2 and GE Healthcare analytics

Variation in Post Discharge Care Was Identified As a Key Opportunity

Post-Discharge Rehabilitation Costs/Duration per Patient



Note: Sg2 and GE Healthcare analytics

Redesign Phases Continued

Phase II:
Understand
Operating and
Clinical Environment

Map out the full knee replacement episode, using observations and interviews to supplement analytics from Phase I. Identify opportunities to improve quality, efficiency and cost.

Phase II: Assessment of Clinical and Operating Environment

Interviewed clinicians and staff across the full episode to identify areas of variation and potential opportunities for improvement

Key Findings

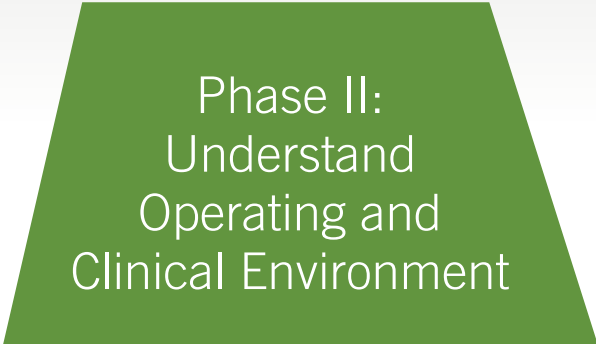
- Expectations and education are critical to overall patient satisfaction
- Optimization clinic is not consistently utilized
- Earlier mobilization, discharge and rehabilitation may be possible, but post-op nausea and fatigue may be impediments
- Socioeconomic barriers may prevent more patients from being discharged directly to home

Interviews Provided Insight Into Systematic Processes

Director, Purchasing
Director, Perioperative Services
Director, Home Care
Director, Case Management
Manager, Social Work
Case Manager
Orthopedic Surgeons
Director, Rehabilitation Services
AVP Quality Management
Joint Care Plus Coordinator
Director, Organizational Improvement
Director, Patient Financial Services
Director, Medical Surgical Services
AVP, Business Planning

Anesthesiologists
Director, Decision Support and Planning
Hospitalist, Optimization Clinic
Service Line Director
Orthopedic Practice Administrator
IP Unit Manager
Director OP PT
Director, Revenue and Reimbursement
Director, Managed Care
Nurse Auditor
CFO
Corporate Controller
General Counsel

Redesign Phases Continued



Phase II:
Understand
Operating and
Clinical Environment

Work with key members of the clinical staff to redesign the care pathway. Quantify the financial impact of the redesign and determine potential episode budget.

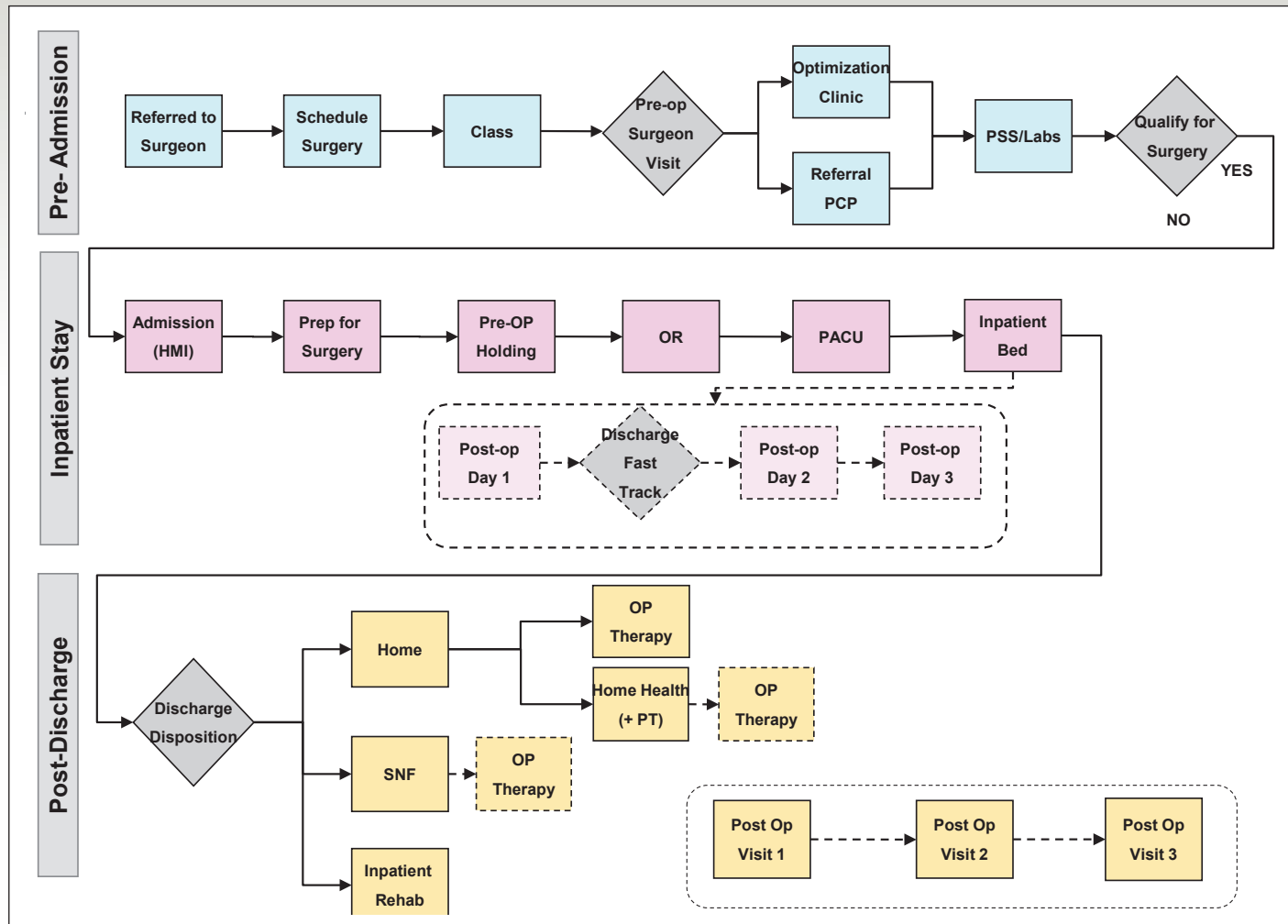
Phase III: Care Pathway and Clinical Process Redesign

- Facilitated care redesign work session to establish consensus on top improvement opportunities
- Simulation quantified the impact of improvement initiatives on episode cost

Key Findings

- Improvement opportunities were categorized into 5 domains

Knee Replacement Episode Process Map

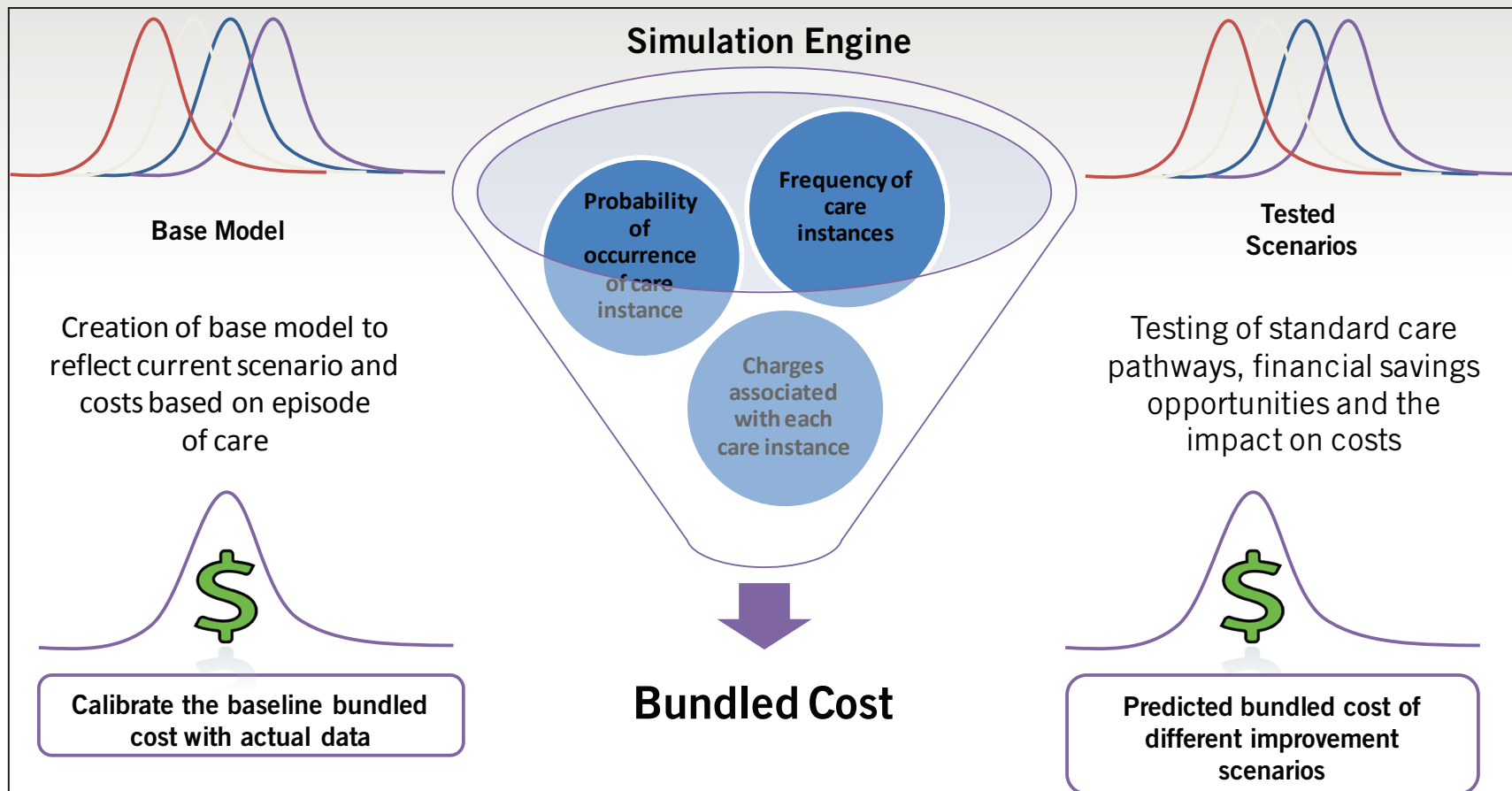


Note: Sg2 and GE Healthcare analytics

Five Improvement Initiatives Were Identified

1. Patient Engagement and Patient Contract
2. Risk Screening and Optimization
3. Acceleration of Return to Wellness
4. Reduce Variable Supply Costs
5. Increase Discharge to OP PT

Simulation Was Used to Model Impact of Initiatives



Note: Sg2 and GE Healthcare analytics

Redesign Phases Continued

Phase IV:
Establish Metrics
and Incentives

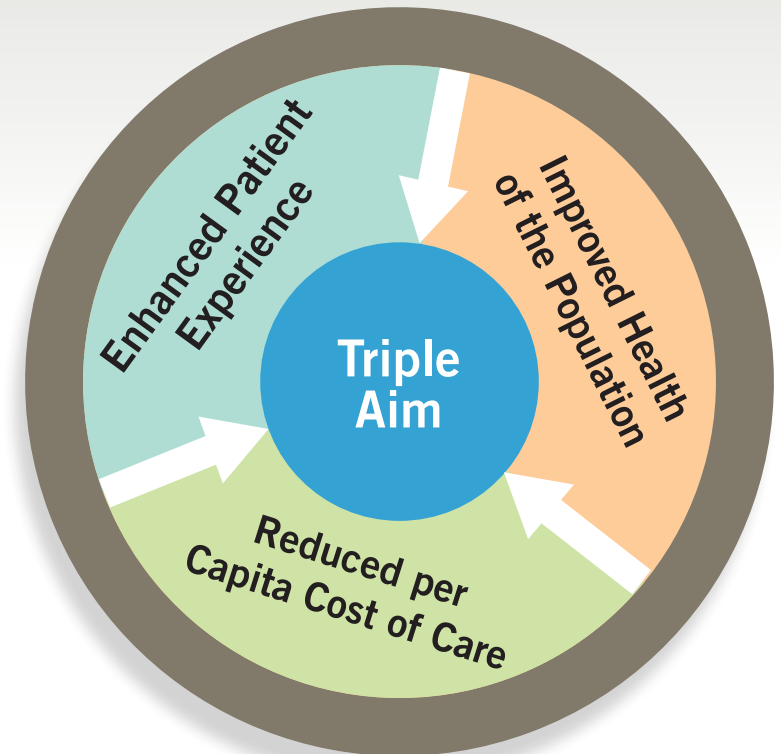
Develop a plan to enable the use of data to track and monitor performance related to both quality and cost.

Phase IV: Establishment of Metrics

- Established improvement priorities based on previous work sessions and findings
- Developed metrics and goals needed to support successful implementation

Key Findings

- A combination of cost, process and outcome measures will be needed to manage the episode of care
- Regular reporting from payer is also critical to success



Performance Measures Detail

Metric
Percent of patients discharged to OP PT
Percent of patient for whom socioeconomic needs prevent discharge to OP PT
Percent of patients rating quality of care as excellent
Percent of patients who attend education classes
Percent of patients with coach who attends education class
Percent of patients with documented risk score
Average LOS, percent of patients with LOS <3 days
Percent of patients with complications/events (readmission, ED visits, other complications)
Percent of patients exhibiting signs of post-op nausea on POD 1

Data Element
Discharge disposition
Discharge disposition; reason for discharge to home health or short term rehab
Patient satisfaction score across episode, inpatient satisfaction as a proxy
Attended education class (Y/N)
Coach attended education class (Y/N)
Risk Score
LOS
Optimization status (OC, PCP, N/A), Risk score, LOS (to allow for segmentation of rates)
Count of patients unable to participate in PT due to nausea

Performance Measures Detail

Metric	Data Element
Incremental change in function/time interval by site of care	Functional status, date of measure, site of care of post-discharge rehab or discharge disposition as a proxy
Avg implant cost per case, by physician	Implant cost, physician name or identifier
Average variable cost per case	Direct cost
Average contribution margin per case	Contribution margin
Average cost of post-discharge care	List of claims and dollars paid out, date of discharge, date of service, allowed amount, discharge disposition (or episode cost minus hospital and surgeon, anesthesiologist fees as proxy)
% of patients with episode cost > budget (may wish to segment by risk score and optimization status)	Episode cost per patient

Redesign Phases Continued

Phase IV:
Establish Metrics
and Incentives

Craft an implementation plan to deliver the Bundled Knee Program to BCBS members.

Phase V: Implementation Plan and Documentation of Lessons

- Establish workgroups, tasks and timelines for implementation
- Document key lessons from this project that will enable CaroMont to expand to future payer-provider partnerships

Findings

- Steering committee and workgroup responsibilities to drive accountability
- Incorporate into existing governance

Workgroups Will Be Responsible for Implementation

Workgroup	Deliverables
Steering Committee	<ul style="list-style-type: none"> • Ensure that implementation occurs successfully • Guide and advise teams as needed
Performance Measures Team	<ul style="list-style-type: none"> • Develop bundled knee project scorecard for monthly review at the Steering Committee • Enhance ability to measure quality and outcomes
Patient Tracking Team	<ul style="list-style-type: none"> • Establish a means to identify patients who are eligible for the bundled knee program across sites of care and data systems • Reconcile to budget • Interface with payer partner
Clinical Pathway Team	<ul style="list-style-type: none"> • Implement care pathway initiatives including: <ul style="list-style-type: none"> - Update patient education material and develop the patient/provider contract - Establish consistent risk screening and optimization requirements - Adjust transition planning practices and engage physicians in more actively managing post-discharge care