Reducing Clinical Variation via the Collaborative Model

(Session #194)

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President, MultiCare Connected Care™, LLC
Conflicts of Interest

Christopher Kodama, MD, MBA
Has no real or apparent conflicts of interest to report.
Agenda

1. Why   Environmental Context
2. What   Key Elements
3. How    Use Cases & Results
Learning Objectives

At the end of the presentation, participants should be able to describe:

• **Objective 1:** *Analyze the critical components* of the Collaborative model, and how it was developed at MultiCare

• **Objective 2:** *Evaluate use cases* from MultiCare’s Women’s Collaborative on elective inductive and C-Section rates and innovative care pathways for OB patients with high BMI within OB and GYN specialties, and the Surgery Collaborative’s work on joint surgery readmissions and order set utilization rates

• **Objective 3:** *Evaluate reductions in clinical care and patient outcome variations*, and measure the *return on investment* in the Women’s and Surgery Collaboratives’ efforts
Providers at the point of care have access to real-time, actionable information which can yield dramatic reductions in clinical care variation through the use of evidence-based best practice standards.

Quantitative improvements to specific provider processes and patient outcomes.

With the enterprise data warehouse and collaborative process, MultiCare staff can leverage real-time data and analytics to achieve performance improvements.

Provides a value creation engine to achieve population-based care improvements to health & well-being.

Real-time, self-service performance reporting with the actionable information clinicians need to be accountable for hitting aggressive targets.
Environmental Context

Why now?
## Paradigm Shifts

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sick Care</td>
<td>Wellness and Disease Management</td>
</tr>
<tr>
<td>Episodic Care</td>
<td>Seamless Comprehensive Care Across the Continuum</td>
</tr>
<tr>
<td>Silos &amp; Fragmented Care</td>
<td>Person-centered &amp; Integrated</td>
</tr>
<tr>
<td>Exclusively Fee-For-Service</td>
<td>Total Cost of Care</td>
</tr>
<tr>
<td>Duplication</td>
<td>Coordinated Providers</td>
</tr>
<tr>
<td>Bricks &amp; Mortar Care</td>
<td>Virtual Care</td>
</tr>
<tr>
<td>Acute Care</td>
<td>Continuum of Care</td>
</tr>
<tr>
<td>Single EHR</td>
<td>Single Source of Information</td>
</tr>
<tr>
<td>Patients</td>
<td>Populations</td>
</tr>
</tbody>
</table>
Dimensions

The IHI Triple Aim

Quality

Service

Cost
Value = \frac{Quality \times Service}{Cost}
Key Elements

What is a Collaborative & how does it work?
What is a Collaborative?

• Physician-led
• Multi-disciplinary
• Evidence-based Care Pathway Development
• Empowered with Real-time Data Analytics
• Accelerated Improvement
Key Facets

• People - the right skills & temperament; role clarity

• Focus - prioritization and discipline

• Information-driven Insight - credible, actionable, real-time

• Measurable - deployment, adoption, and favorable results
People

The right skills & temperament; role clarity
Right Skills

Executive Oversight
Market Executives, RN/Physician Executives, Operations Executives
Right Skills

Executive Oversight
Market Executives, RN/Physician Executives, Operations Executives

Physician Lead
Operations Lead
Clinical Lead
Right Skills

Executive Oversight
Market Executives, RN/Physician Executives, Operations Executives

Leadership & Direction

Physician Lead
Operations Lead
Clinical Lead

Coordination, Alignment & Accountability

Organizational Effectiveness
Business Intelligence
Analysts
Educators
Administrators
Clinical SME’s
## Collaborative Membership 2016

<table>
<thead>
<tr>
<th>Executives</th>
<th>Womens (OBGyn)</th>
<th>Medicine</th>
<th>Surgery</th>
<th>Critical Care</th>
<th>Pediatrics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Executive Oversight Committee</strong></td>
<td>Christopher Kodama, Christi McCarren, Kate Mundell, Shelly Mullin, Glenn Kasman, Toni Foster, Roseanna Bell, Anita Wolfe, Jody Obergfell, Diana Brovold, Karen Koch, Kathleen Clary, Beth Wheeler, Jim Polo, Chad Krilich, Al Fink, George Williams, Zak Ramadan-Jradi, Hakeem Olanrewaju, Eric Herman</td>
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<table>
<thead>
<tr>
<th>Monthly Meetings</th>
<th>1st Thursdays 0700 (OB)/ 1st Tuesday 0700 (GYN)</th>
<th>4th Thursday 0700</th>
<th>3rd Thursdays 0645</th>
<th>3rd Fridays 0700</th>
<th>3rd Monday 0700</th>
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<tbody>
<tr>
<td><strong>Medical Lead (Chair)</strong></td>
<td>Steve Poore John Lenihan</td>
<td>Ugo Uwaoma</td>
<td>Nancy Juhlin Leaza Dierwechter (Colon WG) Rob Tamurian (Total Joint WG) Jim Taylor David Angulo-Zereceda Jared Capouya</td>
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</table>

<table>
<thead>
<tr>
<th>Clinical Lead (Chair)</th>
<th>Rotate primary POC annually. *= Primary **= Backup</th>
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<tbody>
<tr>
<td>2016</td>
<td>Keila Torres Martha McNeil Dawn Hampton Susan Hensley Lara Wood</td>
</tr>
<tr>
<td>2017</td>
<td>Judith Withers Andrea Shockman Hillie Davis-Jaworski Deb Coles TBD</td>
</tr>
<tr>
<td>2018</td>
<td>TBD Rita Wilson Paula Swanson TBD TBD</td>
</tr>
<tr>
<td>2015</td>
<td>TBD Karen Baker Patty Meyers Barbara Zuelzke Becky Hawkins Diana Brovold</td>
</tr>
</tbody>
</table>

| Operations Lead | TBD (Kate Mundell) Susan Campanelli Jennifer Yahne Dee Harris Marianne Bastin |

| Medical Staff Reps | TBD | TBD | TBD | TBD | TBD |

| Medical Staff - Chiefs of Staff | TBD |

| Physician Executives | Chad Krilich (AMC) Al Fink (GS) Elizabeth Wheeler (TG/AH) TBD (MB) |
RACI Assessment

**Responsible**
- Owns the project/problem

**Accountable**
- Must approve work before it is effective

**Consulted**
- Has information/capability necessary to complete the work

**Informed**
- Must be notified of results, but need not be consulted
## Role Clarity

<table>
<thead>
<tr>
<th>Role</th>
<th>Stabilize</th>
<th>Implement</th>
<th>Develop</th>
<th>Investigate</th>
<th>Prioritize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive</td>
<td>A</td>
<td>A</td>
<td>C/R</td>
<td>I</td>
<td>I/C</td>
</tr>
<tr>
<td>Medical Lead</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>I</td>
<td>R</td>
</tr>
<tr>
<td>Clinical Lead</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>R</td>
<td>C</td>
</tr>
<tr>
<td>Operations Lead</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>I</td>
</tr>
<tr>
<td>Service Line Lead</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>R</td>
<td>C</td>
</tr>
<tr>
<td>OE/PM Support</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>R</td>
<td>C</td>
</tr>
<tr>
<td>BI/CI/Epic/Educ</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>R</td>
<td>I</td>
</tr>
</tbody>
</table>
Focus
prioritization & discipline
Prioritization

- Can’t Boil the Ocean
- The 80/20 Rule
Clinical Collaboratives

**Critical Care Collaborative**
- Sepsis
- Resp Failure
- ARDS
- Early Mobility

**Women’s Collaborative**
- OB
- Gyn

**Surgery Collaborative**
- Ortho Joints
- Colon
- Spine (Surgical)
- Glycemic Control

**Medicine Collaborative**
- Pneumonia
- COPD
- Spirometry
- Spine (Acute BP)

**Cardiac Collaborative**
- Heart Failure
- AMI
- CAB

**Pediatric Collaborative**
- Peds Cohort

QI Contractual Deliverables

<table>
<thead>
<tr>
<th>Quality Improvement Plans</th>
<th>Deliverable Date</th>
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</thead>
<tbody>
<tr>
<td>Potentially Avoidable Hospital Readmissions</td>
<td>30-Sep-15</td>
</tr>
<tr>
<td>Care Coordination for High-Risk Patients</td>
<td>30-Sep-15</td>
</tr>
<tr>
<td>Obstetrics and Maternity Care</td>
<td>31-Dec-15</td>
</tr>
<tr>
<td>Total Hip and Knee Surgery Bundle</td>
<td>31-Mar-16</td>
</tr>
<tr>
<td>Spinal Fusion Bundle</td>
<td>31-Mar-16</td>
</tr>
<tr>
<td>Cardiology Improvement</td>
<td>31-Mar-16</td>
</tr>
<tr>
<td>End of Life Care Improvement</td>
<td>30-Jun-16</td>
</tr>
<tr>
<td>Low Back Pain Improvement</td>
<td>30-Jun-16</td>
</tr>
<tr>
<td>Addiction and Dependence Treatment Improvement</td>
<td>30-Jun-16</td>
</tr>
</tbody>
</table>
Focus - Discipline

0 Month
PRIORITIZE
- Criteria for workgroup selection
- Prioritization of future work

1 – 3 Month
INVESTIGATE
- ID Root Cause for complex LOS, Readmits, and Mortality
- Pull data, vet & document baseline
- Identify best practice (Internal & External)

3 – 9 Month
DEVELOP
- Develop & Test interventions
- Create supporting documents – EPIC order sets, MHS policies, etc...
- Plan Implementation

9-12 Month
IMPLEMENT
- Implement
- Obtain Med Staff Approval
- ILD → CBL’s
- Conduct staff education & training
- 3 PDCA cycles = requirement to moving to stabilization phase

12 Month+
STABILIZE
- Ongoing monitoring – monthly review of data application
- Reaction plan for “red” or not sustaining targets
Information-driven Insight
credible, actionable, real-time
Credible

- Evidence-Based Best Practice
  - Care pathways
  - Care guidelines
  - Bundles (discrete elements of the pathway vs. synonymous with the pathway)

- Data analytics testing
- Data definitions and standards
Actionable

• Data → Information → Knowledge
• User Interface
• Education
## MultiCare Analytics Portal

### Home / Facility / Business Unit: MHSMultiview

#### Clarity
- MHSMultiview Dashboards & Performance
  - Emergency Department Performance
  - Inpatient Performance
  - Performance Excellence Dashboard
  - Pharmacy Management
  - Productivity Monthly
  - Resident's Dashboard
  - Severe Sepsis Operational Dashboard
  - Smart Order Sets Analytics
  - Provider Performance Dashboard
  - Advanced Access
  - Women's Collaborative Performance
  - Surgical Collaborative Total Hip and Total Knee
  - Surgical Collaborative: Colon
  - Respiratory Failure
  - MultiCare Inpatient Specialist (MIS) Dashboard

#### MHS Patient Fall, HAPU & Patient Relations Events
- Description: MHS Patients with Fall or Pressure Ulcer Risk Events and Patient...

#### Provider Performance Dashboard
- This application provides information related to provider performance for metrics...

#### Heart Failure Collaborative
- This application contains adult Heart Failure patient discharge data for care p...

#### MHS Acute Care Readmissions
- This application provides summary and detail information on MultiCare Health Sy...

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**Browse Reports**
- MHS Daily Census
- Advisory Board
- LEM-Leadership Evaluation Manager
- Studer Group - Rounding
- Studer Group - Patient Call
- Press Ganey - Service Score
- Sg2 Intelligence
- Request Access to Report Application

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Realtime

• Data sources
• Information exchange - testing
• Workflow
  – Order Sets
  – Hard Stops
  – Decision Support
• Rapid feedback loops
Measureable
deployment, adoption, alignment
Deployment

PRIORITIZE
- Criteria for workgroup selection
- Prioritization of future work

INVESTIGATE
- ID Root Cause for complex LOS, Readmits, and Mortality
- Pull data, vet & document baseline
- Identify best practice (Internal & External)

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STABILIZE
- Ongoing monitoring – monthly review of data application
- Reaction plan for “red” or not sustaining targets

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Buy-in & Approval

18 months → 6 months → 6 weeks
Adoption

• Rapid Feedback Loops
  – Leading (In process):
    • order set utilization
    • NOREADMITS
  – Lagging (Outcomes):
    • Readmissions
    • Elective induction rates
    • Wound infections

• Qualitative
  – Public comments
  – BI requests
  – Physician Engagement
by specific physician name
Alignment

Health Condition #1
Health Condition #2
Health Condition #3
Health Condition #4

Readmissions
Mortality
Cost Improvement
Service & Engagement
Use Cases & Results

collaborative impacts on performance
Women’s Collaborative
obstetrics & gynecology
Key Results

- 2015 elective deliveries:
  - 2015 November YTD: **0.05%**
- Caesarian-Section Rates (as of October 2015)
  - NTSV **21.87%**
    (WA State goal by 2020 < 23.9%)
  - TSV **13.28%**
    (WA State goal in 2016 < 14.7%)

*NTSV: Nulliparous Term Singleton Vertex*
*TSV: Term Singleton Vertex*
# Next Steps

- **Stabilization & Improvement**
- **Development**  *Morbidly obese OB pathways (up to 60% of MHS OB population)*
- **Implementation**  *Elective Hysterectomy*

## Elective Hysterectomy Performance

<table>
<thead>
<tr>
<th>Leading Indicator: Order Set Utilization</th>
<th>Baseline</th>
<th>Post-Implementation (3 months)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28.3%</td>
<td>48.3%</td>
<td>80%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lagging Indicator: Same-day D/C Rate</th>
<th>Baseline</th>
<th>Post-Implementation (3 months)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30.2%</td>
<td>52.67%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Surgery Collaborative

Total joint replacement & elective colon surgery
## Key Results

### total joints

<table>
<thead>
<tr>
<th>System-wide Performance</th>
<th>2014 YE</th>
<th>2015 Nov YTD</th>
<th>Target</th>
<th>National Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.0%</td>
<td>2.3%</td>
<td>&lt;3%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>
Key Results

elective colon

- Order set utilization 100% (1 year post-implementation)
  - Elimination of >12 conflicting/duplicative care processes
  - LOS 4.3 Nov 2015 YTD (target 5.5)
Next Steps

• Stabilization & Improvement
  – Elective Colon Order Set Utilization currently at 100%

• Development
  – Glycemic Control
    • Pre-Op identification of high HgbA1C with peri-op control to reduce harm and eliminate cancellations

• Implementation
  – Total Joint Guidelines and preparation for CMS TJ Bundles
  – Pre-Operative Fasting Guideline just deployed across 4 hospitals
Closing Thoughts

The journey continues
## Updates

<table>
<thead>
<tr>
<th>Lesson</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Down</td>
<td>Initiated; tied to the ACO</td>
<td>Implemented</td>
<td>Built into System Objectives</td>
</tr>
<tr>
<td>Rapid Sequential</td>
<td>Clunky</td>
<td>Improved</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Change Management</td>
<td>Ad hoc</td>
<td>Implemented practice outreach; medical staff committee updates; public comment periods</td>
<td>Integration into ACO committees</td>
</tr>
<tr>
<td>Resource</td>
<td>Ad hoc</td>
<td>Budgeted &amp; Purchased</td>
<td>Refinement</td>
</tr>
<tr>
<td>Education</td>
<td>Ad hoc</td>
<td>Consistent</td>
<td>CME events</td>
</tr>
<tr>
<td>Don’t Boil the Ocean</td>
<td>Macro prioritization</td>
<td>Contract alignment</td>
<td>Data-driven</td>
</tr>
<tr>
<td>Design + Deploy</td>
<td>Strong design, limited deployment</td>
<td>Increased focus on deployment</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Good Enough</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
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<tr>
<td>Approval Process</td>
<td>Initial formal process</td>
<td>Refinement</td>
<td>Simplification</td>
</tr>
</tbody>
</table>
Learning Objectives

At the end of the presentation, participants should be able to describe:

• **Objective 1**: The Definition of a Collaborative

• **Objective 2**: The Function of a Collaborative

• **Objective 3**: The Impact of a Collaborative on Performance
Value

Easier to consistently deliver improved care

Quantitative improvements

Actionable information to improve results

The population health engine

Efficiency