Today’s Speakers
Today’s Speakers

Cailin Purcell
Senior Director

Cailin Purcell is the Senior Director for the Department of Medicine at Bassett Medical Center in Cooperstown, New York. Her role at Bassett includes a broad scope that includes providing leadership over 15 clinical divisions ranging from Cardiology to Dialysis to Internal Medicine (Prime Care), and beyond. She is a Certified Medical Practice Executive and holds master’s degrees in business administration and counseling psychology. She has 20 years of experience working in healthcare in both clinical and operational leadership roles.

Emma Mandell
Manager

Emma Mandell is a Manager in the Health Reform and Contracting and Reimbursement practice at ECG. Emma helps lead major accountable care organization (ACO), patient-centered medical home (PCMH), and population health management (PHM) initiatives that improve the quality, cost, and overall outcomes in both the physician practice and hospital settings. She is a NCQA PCMH Certified Content Expert and holds a master’s degree in business administration with a concentration in healthcare administration.
Realize the strategic importance for Bassett Healthcare Network’s patient-centered approach to primary care.

Review Lean tools and techniques for improvement.

Discuss the integration of Lean concepts and tools into the optimization of primary care.

Review the future-state models and understand preliminary outcomes and lessons learned.

Discuss next steps for further expanding the optimization efforts.
Setting the Stage
Setting the Stage
Anatomy of a Crisis

The healthcare system in the United States is on the trajectory of insolvency.

» Budgetary constraints of federal and state programs are compressing reimbursement to providers.
» The consolidation of commercial payors and their resulting market power contribute to minimal revenue growth.
» Clinical care delivery processes are inefficient, and quality of care is mediocre.
» The sustainability of the current configuration of physician organizations without structural change is being questioned.

The nation is looking to healthcare organizations to innovate and improve care delivery through better coordination and more efficient use of resources.
Healthcare organizations will have to collaborate to succeed in a patient-centric, value-based system. By working together to develop best practices and standardized ways of practicing medicine, patient care can subsequently be improved.

The movement to value-based care entails a shift from the previously fragmented and inefficient healthcare system to a system that focuses on the patient’s total health picture across the full continuum of care.
Bassett Healthcare Network
Bassett Healthcare Network
Overview

Bassett is an integrated healthcare system that provides care and services to people living in an eight-county region covering 5,600 square miles in upstate New York.

» Bassett includes:
  › Six corporately affiliated hospitals
  › Skilled nursing facilities
  › Home health
  › Community and school-based health centers
  › A medical school
  › DME companies
  › Health partners in related fields

» Bassett Prime Care is the system’s main primary care clinic and part of the Bassett Medical Group, a large multispecialty practice that employs more than 250 physicians and other providers, as well as 150 allied health professionals.

Bassett has been ranked as one of the top 100 most integrated health systems in the nation.
Over the past 20 years, Bassett has dramatically grown, both in terms of geographic reach and services offered.
Bassett is currently engaged in a number of initiatives focused on value-based care and payment delivery.

**Strategies in Play**
- Insurance partnership
- NEWCO IPA expansion of network
- Value-based insurance: ACO, ACQA, Medicare Advantage, EXG
- Medicaid Health Home
- Patient-Centered Medical Home (PCMH)
- Patient-Centered Specialty Practice (PCSP)
- Lean Six Sigma
- Business intelligence
- DSRIP

**Effective Operations**
- ECG — medical group efficiency and performance
- Inpatient efficiency, capacity, and flow
- External benchmark and regional peer comparisons
- Systematic cost reductions
- Health plan management
- Targeted program reviews
- Unity (Epic) optimization
Bassett Healthcare Network

Lean Journey

2014

Lean Six Sigma

Guthrie Lean

Relationship-Based Care Practice Councils

Service Excellence and Patient Focus

Quality/Safety Culture — AHRQ/Just Culture

Coaching Model — Culture of Pride

Physicians as Partners

Leadership Development/Coaching as the Leadership Approach

The Learning Organization (Senge)
Many organizations are turning to Lean and Lean Six Sigma as tools to address cost and quality simultaneously. They are complementary and often overlapping philosophies that make the patients’ needs the top priority.

**Lean**
» Considers any activity that does not directly create value for the customer to be a target for improvement or elimination
» Often known for the principle of “waste reduction”
» Valued as a tool for cultural change as well as cost reduction

**Lean Six Sigma**
» Targets perfection by identifying the causes of errors and reducing process variation
» Focuses on quality improvement, with cost reduction as a benefit of reaching that goal
» Establishes a threshold of acceptable performance at the Six Sigma” level (e.g., 3.4 defects per million opportunities)

“Americans would be better served by a more nimble health care system that is consistently reliable and that constantly, systematically, and seamlessly improves.”
— IOM, September 2012
Many organizations struggle with the Control phase, which requires sustained focus on gains that have been made through an improvement effort.
A rapid improvement event (RIE) is a 3- to 5-day event that brings together a team of stakeholders with the objective of improving a process. The goals of the event are to identify improvement opportunities, develop solutions, and implement them quickly.

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Goal</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>» Scope the problem.</td>
<td>» Observations</td>
</tr>
<tr>
<td></td>
<td>» Select a team.</td>
<td>» Stakeholder interviews</td>
</tr>
<tr>
<td></td>
<td>» Collect outcomes data.</td>
<td></td>
</tr>
<tr>
<td>Day 1</td>
<td>Identify the current state.</td>
<td>» Current-state VSM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Observation and time studies</td>
</tr>
<tr>
<td>Days 2 and 3</td>
<td>Identify opportunities to improve the process.</td>
<td>» Turnover reduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Fishbone diagram</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Five whys</td>
</tr>
<tr>
<td>Days 4 and 5</td>
<td>Design and test the future state.</td>
<td>» Future-state VSM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Pilot/trials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Potential problem analysis</td>
</tr>
<tr>
<td>Action Plan</td>
<td>Clarify required next steps to achieve the desired future state.</td>
<td>Action plans</td>
</tr>
</tbody>
</table>

RIEs can provide immediate benefits, but the organization must develop an action plan and arrange for ongoing monitoring to ensure sustainment.

» May be integrated into existing projects.

» Can obtain leadership buy-in with quick results.

» Can be condensed if resources are needed on clinical duties.

» Are an efficient use of client resources.
Performance Improvement Toolbox
Standard Work

“Standard work” is the best-known way of doing something. It is one of the most powerful Lean tools and forms the baseline for continuous improvement.

Elements of Standard Work

» Takt Time — The rate at which a process must be completed in order to meet customer demand

» Work Sequence — The order in which tasks are performed

» Standard Inventory — The number of units required to keep the process operating smoothly

1 Units may be patients, instrument trays, charts, lab tests, etc.

Standard work is a continuous effort and relies on feedback from staff and providers.
Without providing the tools to monitor and meet best practices, it is unreasonable to expect sustained improvement over time.

» Many organizations forget to allocate time for the sustainment phase of the project.

» Lean Daily Management is one of the most common accountability tools in healthcare.

» EMR reporting tools may need to be leveraged to support performance improvement efforts.
Bassett Prime Care
Bassett Prime Care identified numerous areas of improvement throughout the year in 2013.

» Based on a review of Bassett Prime Care operations and performance during a Prime Care Advance Retreat (March 2013), clinical and administrative leadership identified performance improvement strategies with a long-term goal of improving health outcomes, increasing efficiency, and reducing costs.

» Subsequently, Bassett Prime Care renewed its National Committee for Quality Assurance (NCQA) PCMH, Level 3 recognition in October 2014 and continues to further evolve its care delivery model and culture to one that embraces continuous improvement.
Bassett Prime Care
Situation (continued)

Bassett developed and implemented performance improvement strategies, while leveraging Lean tools and PCMH concepts to optimize Prime Care.

Objectives
» Develop an optimal patient flow.
» Optimize scheduling processes.
» Design a team-based care model.
» Provide patient-centered care.
» Define standards of care for preventive medicine and care management processes.
» Develop a culture of improvement, initially through daily huddles.

First Steps
» Understand available Lean tools for improvement.
» Conduct a value stream analysis, and develop a future-state model and implementation plan.
Optimization of Prime Care
Optimization of Prime Care
Rapid Improvement

**Bassett utilized Lean management tools to improve operations.**

<table>
<thead>
<tr>
<th>Component</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Statement</td>
<td>Many patients are leaving the clinic without the necessary follow-up appointments scheduled, creating additional work for the patient, opportunities for miscommunication, appointment volumes not being captured, and additional calls through the call center.</td>
</tr>
<tr>
<td>Scope</td>
<td>A redesign of the checkout function after a provider clinical visit has been completed.</td>
</tr>
<tr>
<td>Measure Definition</td>
<td>It will be measured by the portion of patients leaving the clinic building with all follow-up appointments scheduled.</td>
</tr>
<tr>
<td>Goal Performance</td>
<td>TBD.</td>
</tr>
<tr>
<td>Tasks</td>
<td>The team will work to establish a reliable measurement for both current performance and the reasons for failure. This information will be utilized to conduct an RIE that ultimately culminates in a new checkout process.</td>
</tr>
</tbody>
</table>
| Timeline and Plan          | 45 to 60 days. Change management plan: TBD.}
Bassett selected the VSM tool as a means to first gain a solid understanding of the current state, identify critical process areas that need improvement, and begin the process of continuous improvement.

Key Considerations

» A team of dedicated staff is required to commit to participating in an uninterrupted 1-day to weeklong retreat to conduct the VSM.

» Substantial work is required pre- and post-VSM retreat.

» The VSM will be far more effective if the facilitators “go to the gemba.”

» The VSM provides organizations with the improvement plan. The next struggle lies in implementing the future-state plan and truly sustaining the changes and a culture of continuous improvement beyond implementation.

» Organizations embarking on VSMs need strong leadership committed to a culture of change.

VSM Process

- Develop Project Goals and Objectives
- Define Process and Outcome Measures
- Map Current State
- Identify Barriers and Opportunities
- Design Future State and Improvement Goals
- Develop Training and Transition Plan
- Implement
- Sustain
Optimization of Prime Care

Approach

A team of physicians, nurses, administrative assistants/schedulers, and other administrative staff spent 2 days conducting the VSM.

» Developed and concurrently managed two work streams focused on processes identified as priority improvement areas:
  › Work Stream I — Team-based care, huddle processes, patient flow, and care management
  › Work Stream II — Scheduling process, preventive care, staffing model, and patient navigators

» Leveraged PCMH concepts as a foundation for developing the future-state plan

» Mapped out the current-state patient flow, including identifying areas of waste, decision points needed, and opportunities for improvement

» Developed recommendations for the future-state model, addressing all activities in Work Streams I and II
The Bassett Prime Care retreat team developed a future-state value stream for pre-visit, day prior to patient visit, patient visit, and post-visit.

**Patient Visit Future-State Value Stream**

- **Care team conducts daily huddle.**
  - Check and stock rooms for the day.
  - Review schedule for the day and any patient notes.
  - Review patient reason for visit, snapshot, and care team notes.

- **Bring patient back from waiting room.**
  - Room patient — vitals, chief complaint, allergies, med list, medical/social history, and other data entry.
  - Pend any orders for MD/NP.

- **MD/NP conducts visit with patient and submits orders.**
  - MD/NP reviews medication list that RN previously reconciled.

- **AOA enters patient room with AVS and assists checkout and scheduling follow-up.**
  - AOA provides patient with care team phone number for other follow-up needs and referrals.

- **AOA walks patient out of clinic.**
  - Print patient AVS to nursing station and bring to patient.
  - AOA enters patient room with AVS and assists checkout and scheduling follow-up.
  - MD/NP reviews medication list that RN previously reconciled.

- **RN or LPN/MA administers any approved vaccines or injections.**
  - MD/NP documents visit in Epic, including care plan, goals, and follow-up instructions.

- **Room patient — vitals, chief complaint, allergies, med list, medical/social history, and other data entry.**
  - Pend any orders for MD/NP.

- **Bring patient back from waiting room.**
  - Room patient — vitals, chief complaint, allergies, med list, medical/social history, and other data entry.

- **Care team conducts daily huddle.**
  - Check and stock rooms for the day.
  - Review schedule for the day and any patient notes.
  - Review patient reason for visit, snapshot, and care team notes.
The Bassett Prime Care optimization retreat resulted in an improvement plan that ultimately helps improve efficiencies and reduce waste, allowing clinical staff to work at the top of their license and provide high-quality, patient-centered care.

Recommendations

» Optimize patient flow, restructure huddle processes, simplify scheduling process, develop care teams, improve medication reconciliation process, and redesign clinical space for improved efficiency and a collaborative environment.

» Hire patient representative.

» Establish a Prime Care optimization team and delegate a physician champion.

» Initiate and expand upon the 6-month implementation plan for the future-state model with a phased-in approach over time.

» Develop and track measures of success—process, clinical, quality, and service.

» Invest in improving and optimizing the IT infrastructure.
Optimization of Prime Care
Key Considerations

» Spend the time prior to the VSM to walk through the practice and understand the current state yourself.

» Representation from various roles is crucial during the VSM.

» Everyone has a different perception of the current state.

» When planning the future state, set high expectations but also be realistic.

» It is critical to have the patient’s perspective in process redesign. It will change the perspective of physicians to become more patient-centered versus physician-centered.

» Build a change management platform and ensure a culture of continuous improvement.

» Data and measurement are key to improvement.

» Ensure communication to those who are not necessarily involved in the process.
Optimization of Prime Care
Results — Expected Outcomes

Across-the-board changes have been implemented; however, only two pilots of key enhancements have demonstrated significant results.

### Balanced Scorecard Domains

- **Quality**
- **Access**
- **Patient and Staff Satisfaction**
- **Cost**

### Expected Outcomes

- Increase access.
- Incorporate team-based care.
- Integrate APCs.
- Reorganize care model.
- Increase patient satisfaction.
- Enhance economic sustainability.

Across-the-board changes have been implemented; however, only two pilots of key enhancements have demonstrated significant results.
Optimization of Prime Care
Results — Care Team Pilot

» **Pilot Description** — The main focus of the pilot was to improve the effectiveness and efficiency of utilizing a care team model. The pilot worked to provide and manage comprehensive care through patient visits, outreach calls, referrals, and scheduling. The pilot also leveraged care teams. The care team collaborated through huddles, which addressed pre-visit planning, referrals, patient requests, and prioritization. Additionally, the pilot worked to align care team members’ schedules and work areas to maximize patient flow and resource utilization.

» **Care Team Members** — Members included the physician, physician assistant, nurse, administrative assistant, and scheduler. Residents were leveraged, when possible.

» **Duration** — The first pilot began on February 3, 2014, and lasted 12 weeks, while the second pilot began on October 6, 2014. The remaining care teams began on April 6, 2015.

» **Measures of Success** — Measures included patient satisfaction, provider satisfaction, third next available appointment, call abandonment rate, and follow-up appointments scheduled.
Optimization of Prime Care
Results — Process Redesign

Current State

Nursing Pool
- Utilization of whomever is available
- Limited clinic preparation
- Limited clinic discharge
- High level of staff dissatisfaction
- Provider-centric versus patient-centric

Future State

- Team-based care
- MA assignment
- RN scope of practice
- Appropriate staff levels

RN Triage and Clinical Support
- Team-based care
- MA assignment
- RN scope of practice
- Appropriate staff levels
## Optimization of Prime Care

### Results — Performance Dashboard

### Visit Volume Improvements

<table>
<thead>
<tr>
<th>Care Team</th>
<th>Provider</th>
<th>Visits Per Month Pre-Pilot</th>
<th>Visits Per Month During Pilot</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Team 1</td>
<td>Susan Huffman, M.D.</td>
<td>174</td>
<td>181</td>
<td>Increased 4%</td>
</tr>
<tr>
<td>Care Team 1</td>
<td>Courtney Graham, F.N.P.</td>
<td>188</td>
<td>197</td>
<td>Increased 5%</td>
</tr>
<tr>
<td>Care Team 2</td>
<td>Fred Kaplan, M.D.</td>
<td>161</td>
<td>174</td>
<td>Increased 7.5%</td>
</tr>
<tr>
<td>Care Team 2</td>
<td>Alyssia Lloyd, F.N.P.-C</td>
<td>154</td>
<td>175</td>
<td>Increased 12%</td>
</tr>
</tbody>
</table>

### Schedule and Patient Slots Per Session

#### Pre-Pilot

<table>
<thead>
<tr>
<th>Provider</th>
<th>Week</th>
<th>Total Sessions</th>
<th>Visits</th>
<th>Visits/Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courtney</td>
<td>1</td>
<td>8</td>
<td>72 slots</td>
<td>9</td>
</tr>
<tr>
<td>Huffman</td>
<td>1</td>
<td>8</td>
<td>66</td>
<td>8.28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Courtney</td>
<td>2</td>
<td>8</td>
<td>72</td>
<td>9</td>
</tr>
<tr>
<td>Huffman</td>
<td>2</td>
<td>8</td>
<td>66</td>
<td>8.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>138</td>
<td></td>
</tr>
</tbody>
</table>

#### Late Pilot

<table>
<thead>
<tr>
<th>Provider</th>
<th>Week</th>
<th>Total Sessions</th>
<th>Visits</th>
<th>Visits/Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courtney</td>
<td>1</td>
<td>10</td>
<td>81</td>
<td>8.1</td>
</tr>
<tr>
<td>Huffman</td>
<td>1</td>
<td>10</td>
<td>77</td>
<td>7.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>158</td>
<td></td>
</tr>
<tr>
<td>Courtney</td>
<td>2</td>
<td>10</td>
<td>79</td>
<td>7.9</td>
</tr>
<tr>
<td>Huffman</td>
<td>2</td>
<td>10</td>
<td>68</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>147</td>
<td></td>
</tr>
</tbody>
</table>
Optimization of Prime Care
Results — Patient Satisfaction

Patient Survey Questions
1. How satisfied were you with the information, treatment plan, and discharge instructions provided to you during your visit today?
2. Were you satisfied with the care of the nursing and medical office assistant staff?
3. How likely are you to recommend our service to others?

Pilot Patients
1. 94% (80)
2. 97% (81)
3. 90% (77)

Non-Pilot Patients
1. 83% (299)
2. 85% (315)
3. 73% (265)
Optimization of Prime Care
Redesign of Physical Space – Future State

As the care delivery model evolved, the Prime Care physical environment also required redesign to allow for the care team model to be most effective.

Care Team Pods
Optimization of Prime Care
Redesign of Physical Space – Future State (continued)

Care Team Station Study

- Soffit
- Upper Cabinets
- Counter Top Printer Location
- Pull Out Shelf for Additional Printer
- File Pedestal
Optimization of Prime Care
Current State

» Transitioned the remainder of all Prime Care to the care team model.
» Educated patients and helped them understand the care team and benefits of the model.
» Renewed NCQA PCMH Level 3 Recognition and continue to evolve the care model.
» Expanded the measure set to include additional measures. Continue to develop dashboards for further continuous improvement.
» Implementing Epic Healthy Planet for additional care management and care coordination functionalities.
» Continue the improvement of care coordination and handoffs between inpatient and outpatient settings.
» Redesigning physical space to be more conducive to care team model.
Key Takeaways
**Key Takeaways**

» Engage patients in their healthcare.

» Engage leadership, providers, and staff in the model.

» Use structured tools, such as Lean, to facilitate the process.

» Take the time to do the pre-work and pre-planning.

» Acknowledge the things you cannot control and recognize the things you can change.

» Emphasize and ensure change management capabilities and tools.

» Shift the culture in conjunction with the care delivery model.

» Share best practices and lessons learned.
Questions & Discussion

Emma Mandell
Manager
ECG Management Consultants
emandell@ecgmc.com
617-227-0100

Cailin Purcell
Senior Director, Department of Medicine
Bassett Medical Center
cailin.purcell@bassett.org
607-547-6306