What’s All The Fuss About Bundled Payments?

Session #231, February 23, 2017

Cathy Ball, Dir., Bundled Payments, & Lorraine Chapman, CEA, VP, IT Solutions

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DISCLAIMER: The views and opinions expressed in this presentation are those of the author and do not necessarily represent official policy or position of HIMSS.
Speaker Introduction

Cathy Ball, PT, MHA, PMP, CPHIMSS
Director, Bundled Payments Program
Lahey Health System, Burlington, MA

- Experienced operations, business and project manager, team facilitator and clinician with an excellent track record in healthcare operations, workflow redesign, information systems, and process improvement. Proven ability to adapt skill set across a broad array of specialty areas, and work successfully at all levels of the organization. Dynamic, self-motivated, and results oriented. Certified Project Management Professional, CPHIMSS certified, Masters in Healthcare Administration, and licensed Physical Therapist in MA.
Lorraine (Lore) Chapman,
CEA, VP IT Solutions & Architecture
Lahey Health System, Burlington, MA

• Chief enterprise architect at Lahey Health in Massachusetts. In recent years, led the Epic Program Implementation for Lahey Health in the role of Epic Program Director. The enterprise robust EHR was delivered on time and on budget. In recent months, focus is on establishing an enterprise architect domain through innovation that drives IT value and alignment with business strategies and outcomes.
Conflict of Interest

Cathy Ball, PT, MHA, PMP, CPHIMSS

Has no real or apparent conflicts of interest to report.

Lorraine (Lore) Chapman

Has no real or apparent conflicts of interest to report.
Agenda

1. Audience Poll
2. Bundled Payment Care Improvement (BPCI) Overview
3. Bundle Implementation Methodology
4. BPCI EHR Activities to date
5. Performance Metrics
6. Lessons Learned and Next Steps
7. Questions
Learning Objectives

1. Describe the Bundled Payment Care Improvement (BPCI) Initiative purpose and goals
2. Discuss the methodology followed to implement a bundle at risk
3. Identify challenges clinicians face in exchanging information across the episode of care
4. Summarize actions to date to enhance exchange of information
5. Hypothesize potential next steps toward a longitudinal patient record across care settings
Audience Poll

1. Are you familiar with the CMMI bundled payments initiative?
Audience Poll  (continued)

2. Does your organization have a bundle at financial risk? (Y/N)
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Start the presentation to activate live content

If you see this message in presentation mode, install the add-in or get help at PollEv.com/app
Audience Poll (continued)

3. If yes, are you using your EHR for BPCI work? (Y/N)
If yes, are you using your EHR functionality for BPCI work?

Yes

No

Start the presentation to activate live content

If you see this message in presentation mode, install the add-in or get help at PollEv.com/app
4. Do you have an integrated EHR with your post-acute network? (Y/N)
Do you have an integrated EHR with your post-acute network?

Yes

No

Start the presentation to activate live content
If you see this message in presentation mode, install the add-in or get help at PollEv.com/app
Realizing the Value of Health IT

- Satisfaction – Enhance the colleague as well as patient’s satisfaction by removing barriers or obstacles that disrupt their daily work.

- Treatment/ clinical – Identify and incorporate best practices into future state workflows; track metrics to ensure goals for better patient care are being met.

- Electronic Information/Data – All those involved must have a shared understanding of the patient’s health problems, care being provided, and expected outcomes.

- Patient Engagement/ Population Health – Focus is on all aspects of a patient’s care across the continuum and emphasizes the patient’s role in their own recovery.

- Savings – The current healthcare model is unsustainable from a cost perspective; this project provides real opportunities to enhance how care is delivered in a more effective, less costly manner.
BPCI – Value-Based Payment Model

- “Population Health”
- ACA Legislation 2010 – Centers for Medicare and Medicaid Innovation (CMMI)
- Pay for Value, not Volume with quality gaits
Value Based Models

• BPCI 1 – Five-year voluntary pilot initiative – 10/13/13 – 9/30/18
• Comprehensive Joint Replacement (CJR) – Mandatory – 4/1/16 – 12/31/20
  – 67 Metropolitan Service Areas (MSA)
• Oncology Care Model (OCM) – 7/1/16 – 6/30/21
  – Six month chemotherapy
• Cardiac Bundle (AMI, PCI, & CABG) – Mandatory – Begins 7/1/17
  – Medical treatment, procedures, and emphasis on cardiac rehab
  – Surgical Hip and Femur Fracture Treatment (SHFFT)
  – 98 Metropolitan Service Areas (MSA)
Bundled Payments Care Improvement (BPCI)

 CMS Aim: Better Health, Better Care, Lower Costs

1. Four different options offered by CMMI (Center for Medicare & Medicaid Innovation):
   - Model 1 – Retrospective Acute Care Hospital Only
   - Model 2 – Retrospective Acute Care Hospital Stay plus Post-Acute Care
   - Model 3 – Retrospective Post-Acute Care Only
   - Model 4 – Prospective Acute Care Hospital Stay Only

2. Two years into the pilot, Models 1 & 4 are phasing out, Model 2 most popular and implementation model selected for mandatory bundles

3. Payments continue via PPS methodology during pilot episodic based payments (EPM)
Bundled Payments Care Improvement (BPCI)

- **Current** => Hospital and Physician services have adapted to a “DRG Mentality” where we manage cost for *acute* hospital stay:

  3 days prior to admit ➔ Acute hospitalization at Lahey - Burlington ➔ Acute Discharge (~4.6 days)
  
  *(All inpatient cost, including OR time, supplies, and implants, post operative care, inpatient and post op consults, rehab, CM)*

- **Future** => New model (Bundled Pymt, Model 2) – manage total *continuum of care* episode costs:

  3 days prior to admit ➔ Acute hospitalization at Lahey - Burlington ➔ 90 days post-d/c (~94.6 days)
  
  *(Inpt Rehab, SNF, HHA, LTCH, OP, PCP/Specialist Appts, DME)*

- **Current** => Individual payments ➔ *Future* => One Bundled payment tied to quality
BPCI – We had Choices; Future may be Mandatory

48 pilot bundles – organized by service line

<table>
<thead>
<tr>
<th>Cardio</th>
<th>Ortho</th>
<th>Neuro</th>
<th>Diabetes/ Vascular</th>
<th>Gastroenterology / Colon / Rectal</th>
<th>Pulmonary</th>
<th>Infection Control</th>
<th>Other</th>
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<tbody>
<tr>
<td>Acute Myocardial Infarction (AMI)</td>
<td>Fractures – Femur and Hip/ Pelvis</td>
<td>Lower Extremity &amp; Humerus Procedure (ex. hip, foot &amp; femur)</td>
<td>Spinal Fusion (non-cervical)</td>
<td>Stroke</td>
<td>Transient Ischemia</td>
<td>Amputation</td>
<td>Diabetes*</td>
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<tr>
<td>Atherosclerosis</td>
<td>Hip &amp; Femur Proc</td>
<td>Major Joint Lower Extremity (J&amp;A C&amp;R)</td>
<td>Cervical Spinal Fusion</td>
<td>Combined Ant/ Post Spinal Fusion</td>
<td>Major Bowel</td>
<td>Other Respiratory</td>
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<tr>
<td>Auto-implantable Cardiac Defibrillator</td>
<td>Major Joint Upper Extremity</td>
<td>Medical Non-Infected Orthopaedic</td>
<td>Back &amp; Neck (Except Spinal Fusion)</td>
<td>Complication Post Spinal Fusion</td>
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<td>CABG/CABG</td>
<td>Medical Non-Infected Orthopaedic</td>
<td>Other Knee Procedures</td>
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<td>Stroke</td>
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<tr>
<td>Cardiac Arrhythmia</td>
<td>Orthopaedic Procedures</td>
<td>Removal of Orthopaedic Devices</td>
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<td>Stroke</td>
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<td>Cardiac Valve</td>
<td>Other Knee Procedures</td>
<td>Revision of Hip or Knee</td>
<td>Spinal Fusion (non-cervical)</td>
<td>Stroke</td>
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</tr>
<tr>
<td>Chest Pain</td>
<td>Other Knee Procedures</td>
<td></td>
<td>Spinal Fusion (non-cervical)</td>
<td>Stroke</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
| Congestive Heart Failure (CHF)* | Other Knee Procedures | Other Knee Procedures | Spinal Fusion (non-cervical) | Stroke | | | | | | | | *
| Pacemaker Device Rep/ Revision | Orthopaedic Procedures | Orthopaedic Procedures | Spinal Fusion (non-cervical) | Stroke | | | | | | | | |

*Commonly followed by ACO
Project Milestones

2012

3/4/2012
LHMC submits LOI, Readiness Assessment, Awarded Proposal to CMS

2013

11/4/13
LHMC BPCI Agreement signed with CMS - Phase 1

2014

1/1/2014
LHMC transitions TIA episode bundle to Phase 2 (at risk)

3/28/2015
Epic Go-live

2015

10/1/2015
CABG, Hip & Femur (except TIA), Major Bowel and Stroke bundles moved to Phase 2 (at risk); Phase 1 ended

2016

7/1/2016
Oncology Care Model Implemented

4/1/2016
Comprehensive Care for Joint Replacement (CJR) Mandatory

7/1/2017
Proposed AMI/PCI/CABG Go-live (Lake Health System)

2017

10/1/18
New BPCI Initiative Begins (MACRA APM)

2018

9/30/18
End of first BPCI Pilot - CABG, Hip & Femur (except TIA), Major Bowel, & Stroke
Implementing A Bundle Program

- Steering Committee – Project Champion, Project Manager, Home Dept.
- Project Charter
  - Problem Statement
  - Aim, Goals
  - Resources
  - Metrics
  - Risks, Barriers/Constraints
  - Milestones/ Timeline
- Organizational Readiness Assessment
- Bundle Selection - strategic alignment, ~100 episodes annually, current performance
LHS Bundle Program Infrastructure

• Program Director - Project Manager (1 FTE for 2 bundles); Case Managers based on bundle volume

• BPCI Convener - Public Policy/Issues Forum/ CMS Liaison, Project Manager Roundtables, Data Analytics/ Reports/ Interpretation, Advisory Meetings/ Services
  - Training Resources

• Administrative Workgroup – clinical, finance, legal, HIM, supply chain, care coordination, quality, IT

• Multidisciplinary, multi-setting team per bundle
Community Resource Network

• Services not provided by hospital/health system but integral to patient’s episode of care (anchor stay + 90 days)
  – **Pre-admission for elective bundles**: Preventative services, health optimization, patient education, home preparation
  – **Post-acute discharge**: Acute Inpt Rehab, SNFs, Home Health, OP Svcs, Transportation, Hospice, Assisted Living Communities, Long-term Acute Care organizations, Meals on Wheels, Elder/ Senior Centers, Social Work resources, etc.

• How many different patient medical records and/or systems are involved?
Care Transitions and the EHR

Most Common Discharge Disposition Options from an Acute Care Hospital (LHMC Dec 2016 data)

- Patient experiencing hip/knee pain; adversely impacting quality of life
  - Decision to have surgery
  - Pre-operative Phase
  - Acute care hospital admission for surgery

- Home - Self Care (Safe at home, able to leave home without undue effort)
  - Home with Home Healthcare Services
  - Ortho Team call w/in 48 hrs of discharge home
  - Skilled Nursing Facility
  - Acute Rehab Hospital

- 28.2% of Lahey TJA patients
- 9.4% of Lahey TJA patients

- Ortho Visit
- PCP Visit within 7 days of discharge
- 2 week Ortho Clinic Visit
- 6 week Ortho Clinic Visit
- 90 Days post-acute discharge

Most common post-acute referrals are to:
- Inpt (Acute) Rehab Hospital (IRF) - Unsafe at home, ≥3 hrs of therapy/day; most expensive option
- Skilled Nursing Facility (SNF) - Unsafe at home, up to 3 hrs therapy/day; per diem rate, avg $600/day
- Home with Home Healthcare Svcs (HHC) - Safe at home, not able to leave without undue effort; least costly option for svc's provided

Outpatient Rehab Services (if indicated)
- Patient recovering, resuming quality of life activities as mobility improves
- Medication reconciliation occurs at each visit

Finish
### Care Transitions & Longitudinal Medical Record - Then

<table>
<thead>
<tr>
<th>Decision for Surgery</th>
<th>Pre-op Prep</th>
<th>Day of Surgery</th>
<th>Acute Inpt Care</th>
<th>Post-acute Care</th>
<th>Post-op Amb Care</th>
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</thead>
<tbody>
<tr>
<td>Surgeon/ Patient Visit</td>
<td>Pre-op Center Visit</td>
<td>Amb Surg/ Holding Area</td>
<td>Nursing</td>
<td>Home with HHA Services</td>
<td>PCP visit (w/in 7 days post d/c)</td>
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<td>EHR #3</td>
<td>Paper</td>
<td>Paper/ EHR #3</td>
<td>Paper/ Other EHR</td>
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<td>Hospital Case Mgmt planning call</td>
<td>Operating Room</td>
<td>Rehab Therapy</td>
<td>Skilled Nursing Facility</td>
<td>2 week Ortho visit</td>
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<td>Paper/ RN EHR #5/ Rehab EHR #4</td>
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<td>Pre-op Ortho Clinic Visit</td>
<td>Recovery/ PACU</td>
<td>Ortho Team</td>
<td>Ambulatory Case Management</td>
<td>6 week Ortho visit</td>
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<td></td>
<td>Paper</td>
<td>N/a</td>
</tr>
</tbody>
</table>

**EHR** - Electronic Health Record

**Paper** - Physical Paperwork

**N/a** - Not Applicable
## Care Transitions & Longitudinal Medical Record - Now

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<td>EHR #6/ Paper/ Other EHR</td>
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<td>Hospital Case Mgmt planning call</td>
<td>Operating Room</td>
<td>Rehab Therapy</td>
<td>Skilled Nursing Facility</td>
<td>2 week Ortho visit</td>
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<td>EHR #6</td>
<td>RN EHR #5 / Rehab EHR #4 / Other EHR/ Paper</td>
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<tr>
<td>Admitting</td>
<td>Patient Education Class</td>
<td>Anesthesia</td>
<td>Hospital Care Management</td>
<td>Acute Rehab</td>
<td>Outpatient Therapy</td>
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<td>EHR #6</td>
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<td>Hospitalist (if co-managed)</td>
<td>90 day functional assessment</td>
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</tbody>
</table>

### EHR #6
- RN EHR #5
- Rehab EHR #4
- EHR #2
- EHR #4
- EHR #6
EHR Considerations

• Role Provisioning
• Identify bundle Patients for Patient Tracking thru Episode
  – Bundle Flag, Registry
  – SNF waiver
  – Concurrent coding/ Working DRG
• Multidisciplinary Snapshot
• Episodes of Care
• Care Pathways vs. Order Sets
EHR Considerations (continued)

- Best Practice Elements
- Functional assessment tools
- Notification of readmission or ED visit
- Read-only view of key patient information
- Secure exchange of patient info
- Longitudinal medical record across episode
- Reporting Dashboards
- Data warehouse
Data Analytics is Crucial

• Before Pilot Adoption
  – Internal acute cost and quality data metrics only
  – No post-acute provider utilization data beyond first d/c disposition location
  – No acute or post-acute benchmarks for comparison
  – No trending of current costs, LOS, or outcomes across care continuum

• After Pilot Adoption
  – Provided with mock reconciliation estimates to trend performance
  – Verify all bundle patients & identify outliers, readmissions, ED visits, etc.
  – Identification of high-level practice variations across providers
  – ID post-acute services utilized, LOS, & costs across 90-day episode
  – High-level pricing benchmarks nationally and within the state
Acute Care Metrics – Case Volume
Acute Care Metrics – Elective vs. Non-Elective

Elective and Non-Elective Cases (DRG 469 & 470)

<table>
<thead>
<tr>
<th>Discharge Month</th>
<th>Elective</th>
<th>Urgent/Emergency</th>
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<td>2015-10</td>
<td>2</td>
<td>105</td>
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<td>2015-11</td>
<td>12</td>
<td>82</td>
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<td>2015-12</td>
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<td>69</td>
</tr>
<tr>
<td>2016-01</td>
<td>3</td>
<td>87</td>
</tr>
<tr>
<td>2016-02</td>
<td>9</td>
<td>83</td>
</tr>
<tr>
<td>2016-03</td>
<td>7</td>
<td>66</td>
</tr>
<tr>
<td>2016-04</td>
<td>2</td>
<td>90</td>
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<td>2016-05</td>
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<td>2016-07</td>
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<td>2016-09</td>
<td>9</td>
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<tr>
<td>2016-10</td>
<td>8</td>
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</tbody>
</table>
Acute Care Metrics – LOS Index

Length of Stay Index Comparison

Length of Stay Index Comparison (Ratio of Observed to Expected)
Acute Care Metrics – Blood Transfusions

% of Patients Receiving Red Blood Cell Transfusions (DRG 469&470)

Lahey | UHC Peer Group A

Lahey Dec'12-Nov'13: 17.72%
38/79 in Peer Group A

% of patients receiving RBC transfusion

Discharge Month

% of Patients Receiving Red Blood Cell Transfusions (DRG 469&470)

Lahey | Vizient Peer Group A

Discharge Month

% of patients receiving RBC transfusion

Lahey: 11.8
Vizient Peer Group A: 5.5
Acute Care Metrics – D/c Disposition

Discharge Disposition (DRG 469 & 470)

Discharge Month

% of Discharges

Home w/ services | SNF | Rehab

Home w/o Services | SNF | Rehab


% of Discharges

Home w/ services | SNF | Rehab

Home w/o Services | SNF | Rehab


% of Discharges

Home w/ services | SNF | Rehab

Home w/o Services | SNF | Rehab

46.4% | 41.1% | 8.9% | 57.6% | 28.2% | 9.4% | 3.5%
Acute Care Metrics – Readmissions

30-Day All-Cause Readmission Rate (DRG 469 & 470)

Lahey | UHC Peer Group A

<table>
<thead>
<tr>
<th>Discharge Month</th>
<th>% of cases readmitted w/in 30 days</th>
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<tbody>
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</table>

Lahey avg Sep’15-Sep’16: 3.71%
Peer Group A avg: 3.77%

30-Day All-Cause Readmission Rate (DRG 469 & 470)

Lahey | Vizient Peer Group A

<table>
<thead>
<tr>
<th>Discharge Month</th>
<th>% of cases readmitted w/in 30 days</th>
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<tbody>
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</tbody>
</table>

Lahey avg Sep’15-Sep’16: 3.71%
Peer Group A avg: 3.77%
Acute Care Metrics - HCAHPS

Discharge Information Domain

- Bur 7 Cent
- Lahey Overall

% Yes

0 20 40 60 80 100

Aug'15  Sep'15  Oct'15  Nov'15  Dec'15  Jan'16  Feb'16  Mar'16  Apr'16  May'16  Jun'16  Jul'16  Aug'16  Sep'16  Oct'16
Post-acute Metrics (from CMS Claims Data)

- Mock Reconciliation – target price to actual by DRG
- ALOS, # of visits, & costs in each care setting by CCN
- Readmit rates & reason by DRG – tied to specific pt
- Outlier patients compared to target price
- Discharge disposition trends
- Distribution of costs by care setting
- Patient Summary detail through episode
- Individual Physician case volume & resource utilization
- Office Visits Summary
- Potentially Avoidable Costs
- Trend results from historical thru ~2 months retrospective
# Post-acute Metrics – Target vs. Actual Cost

<table>
<thead>
<tr>
<th>Period</th>
<th>Bundle ID</th>
<th>Anchor DRG</th>
<th>Adjusted Actual</th>
<th>Trended Target Price</th>
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<td>2016Q1</td>
<td>27-MJR - LOWER</td>
<td>460-MJR LOWER W/MCC</td>
<td>49,448</td>
<td>52,179</td>
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<tr>
<td></td>
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## Post-acute Metrics – Cost Distribution

**Cost Distribution by Bundle ID and Service Type**

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### Post-acute Metrics - Readmissions

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**Cost per Readmission**

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### Post-acute Metrics – Claim Sequence

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Claim From Date [2016]
Operational Metrics – Pre-op Class

Discharge dates 1/1-11/30/2016
Operational Metrics – ALOS by MD
Operational Metrics – MD D/c Disposition
Lessons Learned

- Leverage the technology in place – even if it means tracking patients initially using Excel spreadsheets
- MD Performance Data for eliminating practice variation
- Working relationships and ongoing communication across disciplines and care settings
- Ongoing performance improvement – spread throughout organization
- Data provided by CMS incredibly rich – important to have good data analytics tools in place - Post-acute referral patterns, cost and LOS variances
- Learning collaborative across system service lines
Longitudinal Medical Record

• Next Steps
  – Metrics Dashboards by Bundle using real-time data at project and patient level
  – Secure, electronic exchange of admission and discharge documentation across care settings, compiled into EHR in real-time, organized for viewing in chronological order
  – Automatic alerts if patient begins falling off of standard of care pathway to prevent ED visits, readmissions, other outliers
  – Episode billing capabilities – virtual and real-time
  – Information maintained in data warehouse for additional analysis of best practice elements, prevention of illness, and identification of process improvement opportunities
Getting Started in the Value-based Program

• Educate yourself and your teams on new payment models
• Evaluate and enhance multidisciplinary workflows, incorporating best practices across care settings
• Ensure discharge documentation is helpful and immediately actionable
• Implement real-time process metrics for clinician’s reference
• Help identify and mitigate barriers to better care at a lower cost, and
• Strategize how best to securely share information that enhances the patient’s care across care settings and throughout an episode of care
Realizing the Value of Health IT

Satisfaction – Enhance the colleague as well as patient’s satisfaction by removing barriers or obstacles that disrupt their daily work.

Treatment/ clinical – Identify and incorporate best practices into future state workflows; track metrics to ensure goals for better patient care are being met.

Electronic Information/Data – All those involved must have a shared understanding of the patient’s health problems, care being provided, and expected outcomes.

Patient Engagement/ Population Health – Focus is on all aspects of a patient’s care across the continuum and emphasizes the patient’s role in their own recovery.

Savings – The current healthcare model is unsustainable from a cost perspective; this project provides real opportunities to enhance how care is delivered in a more effective, less costly manner.
Questions

• Cathy Ball, PT, MHA, PMP, CPHIMS
  • Cathy.L.Ball@lahey.org
  • Linkedin.com/in/cathyball

• Lorraine Chapman,
  • Lore.Chapman@lahey.org

• Please complete online session evaluation; let us know if you’d be interested in a follow-up session in 2018