Performance Improvement: Why Physicians Must Lead in a Value-Driven Health Care System

Byron C. Scott, MD, MBA
Deputy Chief Health Officer
Simpler Consulting, IBM Watson Health

American Hospital Association
Physician Alliance Webinar
April 19, 2018
Agenda

Why performance improvement is critical in the current health system landscape

The role of physicians and needed competencies in performance improvement

What is healthcare performance improvement and critical areas to focus on

Case studies using a management system approach incorporating Lean
Why performance improvement is critical in the current health system landscape?
### Current Landscape

<table>
<thead>
<tr>
<th>Affordable Care Act (ACA) uncertainty</th>
<th>Elimination of Individual Mandate established under the ACA in new tax bill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll back of certain Value Based Care initiatives</td>
<td></td>
</tr>
<tr>
<td>- Recent modification of CMS bundles</td>
<td>Requirement to straddle Fee for Service (FFS) and Value Based Care (VBC) for foreseeable future</td>
</tr>
<tr>
<td>Current Landscape</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>---</td>
</tr>
<tr>
<td><strong>Mergers &amp; Acquisitions</strong></td>
<td><strong>New Tax Law Impact on Hospitals</strong></td>
</tr>
<tr>
<td><strong>340 B Drug Discount Program</strong></td>
<td><strong>Large Employers Collaboration Demanding Value</strong></td>
</tr>
</tbody>
</table>
The challenges ahead are vast and complex

The most pressing financial challenges facing hospital CEOs 2017:

- **63%** Medicaid reimbursement
- **60%** Increasing cost for staff, supplies, etc.
- **55%** Reducing operating costs
- **54%** Transition from volume to value

Source: American College of Healthcare Executives’ annual survey of top issues facing hospitals; January 31, 2017
The challenges ahead are vast and complex

The most pressing financial challenges facing hospital CEOs 2018:

- **71%** Medicaid reimbursement
- **64%** Increasing cost for staff, supplies, etc.
- **57%** Reducing operating costs
- **56%** Government funding cuts

Source: American College of Healthcare Executives' annual survey of top issues facing hospitals; Feb 1, 2018
Key issues Impacting Performance of Physicians

Processes impacting access to patients

- Technology & processes to enable connectivity for authorizations and scheduling

Electronic Health Record documentation

- Optimization of workflows
- Training
- Merger & Acquisitions impact

Required regulatory reporting such as MACRA and MIPS
Why improve quality and performance?

- Healthcare is more complex today
- Limited resources
- Increasing and aging populations
- Patients have more comorbid conditions
- Burnout in the healthcare workforce
Why improve quality and performance?

- Patients want and deserve:
  - Quality
  - Great outcomes
  - Patient safety
  - Value = quality/cost
- We are all in the business of taking care of patients
- We all want to be associated with something that has a positive image

The IHI Triple Aim

Population Health

Experience of Care

Per Capita Cost
The role of physicians and needed competencies in performance improvement
Physician leadership

- All physicians are leaders
  - Formal vs Informal Roles
- Many clinical costs are created through decisions and orders written by physicians
- Hospitals have limitations in quality and financial improvement without physicians leading change
- Physicians must be leaders in change
Key factors in the development and success of physician leaders in hospitals & health systems

- Willingness to serve and take on more responsibility in leadership and management
- Organizational commitment to physician leadership development
- Training and education in healthcare management and leadership
- Mentoring
- Networking and collaboration
Key competencies for physician leaders

- Healthcare quality
- Patient safety
- Health analytics
- Information Technology
- Patient experience
- Performance improvement
- Crucial conversations
- **Burnout & Resilience**

- Healthcare Finance
- Management
- Leadership
- Team-based care
- Dyads and triads models
- Negotiation
- Population Health
Develop a Personalized Leadership & Management Development Checklist

- **Review current state for each physician leader**
  - Past Formal Education, Certifications, Courses, Roles/Positions
- **Develop future state for leadership development**
  - Roles/Positions
- **Review gaps in key competency areas**
  - Consider unique organizational needs? Academic, Teaching, Research
- **Solutions**
  - What? Courses, Certifications, Internal Mentoring, Individual vs Group
  - Who? AAPL, ACMQ, AMGA, HIMSS, IHI, and many others
  - Where? Live vs Online, Distance vs On-site
Welcome to American Association for Physician Leadership, we are the world’s premier physician leadership organization.

For more than 40 years, we have helped physicians develop their leadership skills through education, career development and thought leadership, and by providing a supportive community of peers.

- 15,000+ The number of physicians educated in 2017.
- 3,300+ Certified Physician Executives since inception of the credential.
- 250,000 The number of education participants since the Association was founded.
- 15,000+ The number of physicians educated in 2017.
Spheres of Leadership Influence

/ from Self to the Betterment of Health Care /

Become a Leader
Leadership starts with honest self-awareness. Think about these questions – what are your values, and more importantly, why are they significant to you?

Lead Your Team
Once you’ve analyzed and built your own personal values, you’re ready to effectively lead others. But to inspire your peers, you need to build relationships – understand the environment in which they operate, and the things that are most important to them.

Lead Your Department
When you effectively connect with those around you, you can begin to shape the culture, values and direction of an organization. Relying on the experience and acumen you’ve gained from others, you lead them to a new identity and way of thinking.

Lead Your Organization
Once your organization (and those within it) are aligned, they start to generate new ideas and interesting lines of thought. You can leverage these insights and develop strategies that can change the industry and influence the world.
<table>
<thead>
<tr>
<th>Level of Mastery</th>
<th>Stages</th>
<th>Traditional Roles</th>
<th>Non-Traditional Roles</th>
<th>Courses</th>
<th>Focus</th>
<th>Components and Characteristics</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>Student, Resident</td>
<td>Chief Resident, Clinical Practice</td>
<td>Pharma, Bio Tech, Medical Device</td>
<td>PIM Physician in Management Seminar</td>
<td>Learning</td>
<td>Education, training, anticipation</td>
<td>Skills, Knowledge, Tools</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploration</td>
<td>Clinician, Emerging Leader</td>
<td>Clinical Practice, Leading Committees</td>
<td>Pharma, Bio Tech, Medical Device, Wall Street, Consultancy for Health Care Tech Startups</td>
<td>Techniques of Financial Decision Making, Three Faces of Quality, Managing Physician Performance in Organizations</td>
<td>Growth</td>
<td>Experience; discovery of strengths and weaknesses; learning from feedback and mistakes; learning about job “fit”</td>
<td>Self-Awareness, Experience, Wisdom</td>
</tr>
<tr>
<td></td>
<td></td>
<td>President Medical Staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td>Established, Leader</td>
<td>CMO, VPMA, Medical Director, COO, CEO</td>
<td>Entrepreneurial Ventures, Speaker</td>
<td>Resolving Conflict and Disruptive Behavior, Health Law, Science of High Reliability</td>
<td>Productivity</td>
<td>Leverage of strengths; period of greatest productivity</td>
<td>Personal growth, value added and business results</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulfillment</td>
<td>Master Leader, Retired</td>
<td>Consulting, Interim CEO</td>
<td>Consulting</td>
<td>Coaching &amp; Mentoring, Metaleadership</td>
<td>Contribution</td>
<td>Mentoring, coaching, board memberships, giving back, leaving a legacy</td>
<td>Contributions, Wisdom, Legacy</td>
</tr>
</tbody>
</table>
What is healthcare performance improvement and critical areas to focus on
• Must consider Healthcare Quality in any discussion about Healthcare Performance Improvement

• Need to understand the history and definition of Healthcare Quality
History of Healthcare Quality & Performance Improvement

– Institute of Medicine (IOM)
  • Report on Quality, 1998
  • To Err is Human, 2000
  • Crossing the Quality Chasm, 2001
– National Healthcare Quality Report, 2003
– National Priorities and Goals: Aligning our efforts to transform America’s healthcare, 2008
Definition of healthcare quality

World Health Organization (WHO):
The extent to which healthcare services provided to individuals and patient populations improve desired outcomes

Institute of Medicine (IOM):
Quality is the degree to which health services for individuals and populations increase the likelihood of desired healthcare outcomes and are consistent with current professional medicine

IOM Six Domains
– Safe
– Effective
– Timely
– Efficient
– Equitable
– People-centered
FIGURE 9: Approach to Operational Excellence

Q With respect to delivering value-based care, please assess the status of your organization’s systemic approach to operational excellence (e.g., Lean, Six Sigma, etc.).

- Very strong: 12%
- Strong: 38%
- Neutral: 30%
- Weak: 16%
- Very weak: 5%

Base = 216
Performance improvement methodologies

- PDSA
  - Plan, Do, Study, Act

- Six Sigma
  - Reduce Variation

- Root Cause Analysis
  - Retrospective

- Lean
  - Eliminate waste (Muda)
Improve performance and quality --- Why engage physicians?

Performance improvement with a focus on “Quadruple Aim”

Return the Joy to Work

Implement a management system creating standard work utilizing best practices
High-Opportunity & Return On Investment areas

- Emergency department (ED)
- Inpatient (IP)
- Operating room (OR)
- Supply chain
- Revenue cycle
- Medical Groups & Ambulatory Clinics
- Health Plans
Case Studies using a Management system approach incorporating Lean
Why Lean in Quality and Performance Improvement?

- Respect for people
- Continuous improvement
- Cultural transformation
- Sustainable
- Hierarchical alignment
- Front-line workforce involvement
- Data-driven
- Use of various tools to see and eliminate waste
Remove Barriers – Reduce Frustration: Eight Wastes in Healthcare

1. **Overproduction**
   - Repeating tests because results are not available

2. **Transportation**
   - Moving patients from room to room in an office or unit

3. **Defects**
   - Rx errors, wound infections, inaccurate notes, broken equipment

4. **Waiting**
   - Is a full waiting room a good thing?

5. **Overprocessing**
   - Repeatedly filling out/signing forms, CPOE v. verbal orders

6. **Motion (unnecessary)**
   - Going in and out of a room to get supplies or equipment

7. **Inventory**
   - Secret stashes of supplies because you might run out of what you need

8. **Unused human potential**
   - Clinicians entering data into the EHR
Lean tools

- A3 Thinking
- Visual management
- Value Streams
- Standard work
- Rapid Improvement Events

Source: Hino, S., Inside the Mind of Toyota, 2006
True North & True North Metrics

Human development  Quality & safety  Delivery & Service  Cost & productivity  Growth

Source: Hino, S., Inside the Mind of Toyota, 2006
What is standard work?

**Standard work:** Work done in a specific way by every person, every time

| The best known, least wasteful way that is current | Continue this way until a better way is found | Evidence-based; can be trusted | Continuous improvement |

Source: Hino, S., Inside the Mind of Toyota, 2006
What is clinical standard work?

**Clinical standard work:**

<table>
<thead>
<tr>
<th>Clinical care processes with standard work</th>
<th>Daily rounds, as one example</th>
<th>Daily plan of care</th>
<th>Standardized team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team members with specific roles, including the patient &amp; family</td>
<td>Plan of care will include use of clinical standard work pathways</td>
<td>Very useful in academic settings</td>
<td>Can have other different rounding teams daily</td>
</tr>
</tbody>
</table>

## Case Study
### Johnston Memorial Hospital

<table>
<thead>
<tr>
<th>Part of Mountain States Health Alliance with 13 hospitals in four states</th>
<th>Created Transformational Plan of Care (TPOC) at system level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Created value streams for improvement</td>
<td>Conducted Rapid Improvement Events (RIE)</td>
</tr>
</tbody>
</table>
Case Study
Johnston Memorial Hospital

ED
Bed Holds

% of ED Holds
2015 & 2016 Comparison

© Copyright 2017 Simpler Consulting, part of the IBM Watson Health™ business
Case Study
Johnston Memorial Hospital

ED
Door to provider from 37 minutes to 15 minutes
ED

Fundamental work done:
- Multidisciplinary teams throughout the hospital
- Engaging physicians — alignment of ED and hospitalist
- Rapid Improvement Events

Key lesson: Interconnectedness of ED and inpatient units
Case Study
Johnston Memorial Hospital

IP

↓ 0.78 days
Average IP length of stay (LOS) reduced from 4.23 to 3.45 Days

↓ 16.6 hours
Average observation LOS reduced from 37 hours to 20.4 hours

↓ $623
IP cost per stay decreased from $3,973 to $3,350

↓ $65
Observation cost per stay decreased from $294 to $229
# Case Study
Johnston Memorial Hospital

## Sepsis Care

<table>
<thead>
<tr>
<th>Metric</th>
<th>Percentage Change</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening for sepsis at triage</td>
<td><strong>↑ to 100%</strong></td>
<td>Increased from 0% to 100%</td>
</tr>
<tr>
<td>Order set utilization</td>
<td><strong>↑ to 97%</strong></td>
<td>Increased from 0% to 97%</td>
</tr>
<tr>
<td>Mortality rate</td>
<td><strong>↓ to 6.4%</strong></td>
<td>Decreased from 17% to 6.4%</td>
</tr>
<tr>
<td>Length of Stay (LOS)</td>
<td><strong>↓</strong></td>
<td>Decreased</td>
</tr>
</tbody>
</table>

**Savings of almost $3,100 per case = $1 million over study period**

© Copyright 2017 Simpler Consulting, part of the IBM Watson Health™ business
Case Study
Johnston Memorial Hospital

Joint replacement surgery

↓ 6%
Readmission rate reduced from 8% to 2%

↓ $400
Cost per episode reduced from $8,800 to $8,400
Case Study
Johnston Memorial Hospital

IP

Fundamental work done:
- Developed standard work on clinical units: team’s best practice
- Daily huddles with multidisciplinary teams: work plans for the day
- Daily improvement boards (visual management): help identify gaps
- Engaging physicians

Key lesson: Daily huddles, Daily Improvement boards
Case Study
Caldwell Memorial Hospital Supply Chain Management

Performance improvement
Working with Simpler Consulting, part of the IBM Watson Health business, used Lean to standardize overall supply chain process

$2.62M
Consolidation of supplies and elimination of excess inventory led to annualized $2.62M in savings over 13 month initiative

$421K
Identified $421K that could be saved in distribution costs

336K
Identified $366K from reducing amount of time clinicians spent managing supplies
## Summary

With the complexities of healthcare today, it is critical to engage physicians as you navigate improving clinical and financial performance.

| Identify, develop, and train key physician leaders | Create a performance improvement strategy that is inclusive, uses good data, and sustainable |
Questions?
Contact Information

byroncs@us.ibm.com

Case Studies links:


Dr. Byron Scott is Deputy Chief Health Officer at Simpler Consulting, which is part of the IBM Watson Health business where he is the practice leader for large integrated health systems. Simpler is a leading management consulting firm around the globe that helps organizations improve performance through lean transformations. He previously was Associate Chief Medical Officer at Truven Health Analytics, an IBM Company where he supported hospitals, physician groups, health plans, and employers to improve overall healthcare and clinical performance with quality and leadership initiatives using health analytics.

Prior to joining Truven Health, Dr. Scott was an executive for a physician practice management company, for over 20 years. He has also had leadership roles within hospitals including Medical Director of the emergency department, Chief of Staff, and on the Board of Directors. Dr. Scott is board certified in emergency medicine and most recently practiced at an Urgent Care Center in Chicago, Illinois. He previously practiced emergency medicine for almost 25 years.

Dr. Scott received his undergraduate degree in Psychobiology from the University of California, Los Angeles and his medical degree from the University of California, San Diego. He earned his Masters of Business Administration from the University of Massachusetts, Amherst.

Dr. Scott serves on the Board of Directors for Direct Relief which is an International Humanitarian Medical Aid Organization. He also serves on the Board of Directors for the American Association for Physician Leadership. He is an Adjunct Faculty member at the University of Massachusetts, Amherst Isenberg School of Management MBA program where he teaches a Healthcare Quality and Performance Improvement course. He currently serves on the Editorial Board of American Health and Drug Benefits Journal.
Legal Disclaimer

© IBM Corporation 2017. All Rights Reserved.

The information contained in this publication is provided for informational purposes only. While efforts were made to verify the completeness and accuracy of the information contained in this publication, it is provided AS IS without warranty of any kind, express or implied. In addition, this information is based on IBM’s current product plans and strategy, which are subject to change by IBM without notice. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, this publication or any other materials. Nothing contained in this publication is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software.

References in this presentation to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates. Product release dates and/or capabilities referenced in this presentation may change at any time at IBM’s sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way. Nothing contained in these materials is intended to, nor shall have the effect of, stating or implying that any activities undertaken by you will result in any specific sales, revenue growth or other results.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations such as the amount of multiprogramming in the user’s job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.

All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics may vary by customer.

IBM, the IBM logo, ibm.com, and Watson Health are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at ibm.com/legal/copytrade.
IBM’s statements regarding its plans, directions and intent are subject to change or withdrawal without notice at IBM’s sole discretion.

Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision.

The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.
Forward Looking Statements

Certain statements contained in this presentation may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on the company’s current assumptions regarding future business and financial performance. These statements involve a number of risks, uncertainties and other factors that could cause actual results to differ materially, including the following: a downturn in the economic environment and client spending budgets; the company’s failure to meet growth and productivity objectives; a failure of the company’s innovation initiatives; risks from investing in growth opportunities; failure of the company’s intellectual property portfolio to prevent competitive offerings and the failure of the company to obtain necessary licenses; cybersecurity and data privacy considerations; fluctuations in financial results; impact of local legal, economic, political and health conditions; adverse effects from environmental matters, tax matters and the company’s pension plans; ineffective internal controls; the company’s use of accounting estimates; the company’s ability to attract and retain key personnel and its reliance on critical skills; impacts of relationships with critical suppliers; product quality issues; impacts of business with government clients; currency fluctuations and customer financing risks; impact of changes in market liquidity conditions and customer credit risk on receivables; reliance on third party distribution channels and ecosystems; the company’s ability to successfully manage acquisitions, alliances and dispositions; risks from legal proceedings; risk factors related to IBM securities; and other risks, uncertainties and factors discussed in the company’s Form 10-Qs, Form 10-K and in the company’s other filings with the U.S. Securities and Exchange Commission (SEC) or in materials incorporated therein by reference. The company assumes no obligation to update or revise any forward-looking statements. These charts and the associated remarks and comments are integrally related, and are intended to be presented and understood together.