Building the Evidence-Based Organization
Supporting System-Wide Clinical Practice Change

- Identifying Underleveraged EBP Support Tactics
- Overcoming the Adherence Challenge
- Capitalizing on System Advantage
LEGAL CAVEAT
The Advisory Board Company has made efforts to verify the accuracy of the information it provides to members. This report relies on data obtained from many sources; however, and The Advisory Board Company cannot guarantee the accuracy of the information provided or any analysis based thereon. In addition, The Advisory Board Company is not in the business of giving legal, medical, accounting, or other professional advice, and its reports should not be construed as professional advice. In particular, members should not rely on any legal commentary in this report as a basis for action, or assume that any tactics described herein would be permitted by applicable law or appropriate for a given member’s situation. Members are advised to consult with appropriate professionals concerning legal, medical, tax, or accounting issues, before implementing any of these tactics. Neither The Advisory Board Company nor its officers, directors, trustees, employees and agents shall be liable for any claims, liabilities, or expenses relating to (a) any errors or omissions in this report, whether caused by The Advisory Board Company or any of its employees or agents, or sources or other third parties, (b) any recommendation or graded ranking by The Advisory Board Company, or (c) failure of member and its employees and agents to abide by the terms set forth herein.

Members are not permitted to use this trademark, or any other Advisory Board trademark, product name, service name, trade name, and logo, without the prior written consent of The Advisory Board Company. All other trademarks, product names, service names, trade names, and logos used within these pages are the property of their respective holders. Use of other company trademarks, product names, service names, trade names and logos or images of the same does not necessarily constitute (a) an endorsement by such company of The Advisory Board Company and its products and services, or (b) an endorsement of the company or its products or services by The Advisory Board Company. The Advisory Board Company is not affiliated with any such company.

IMPORTANT: Please read the following.
The Advisory Board Company has prepared this report for the exclusive use of its members. Each member acknowledges and agrees that this report and the information contained herein (collectively, the “Report”) are confidential and proprietary to The Advisory Board Company. By accepting delivery of this Report, each member agrees to abide by the terms as stated herein, including the following:

1. The Advisory Board Company owns all right, title and interest in and to this Report. Except as stated herein, no right, license, permission or interest of any kind in this Report is intended to be given, transferred to or acquired by a member. Each member is authorized to use this Report only to the extent expressly authorized herein.
2. Each member shall not sell, license, or republish this Report. Each member shall not disseminate or permit the use of, and shall take reasonable precautions to prevent such dissemination or use of, this Report by (a) any of its employees and agents (except as stated below), or (b) any third party.
3. Each member may make this Report available solely to those of its employees and agents who (a) are registered for the workshop or membership program of which this Report is a part, (b) require access to this Report in order to learn from the information described herein, and (c) agree not to disclose this Report to other employees or agents or any third party.
4. Each member shall not make this Report available solely to those of its employees and agents who (a) are registered for the workshop or membership program of which this Report is a part, (b) require access to this Report in order to learn from the information described herein, and (c) agree not to disclose this Report to other employees or agents or any third party.
5. Each member may make this Report available solely to those of its employees and agents who (a) are registered for the workshop or membership program of which this Report is a part, (b) require access to this Report in order to learn from the information described herein, and (c) agree not to disclose this Report to other employees or agents or any third party.
6. If a member is unwilling to abide by any of the foregoing obligations, then such member shall promptly return this Report and all copies thereof to The Advisory Board Company.
# Table of Contents

**Executive Summary**. ......................................................... 5

**Advisors to Our Work**. ....................................................... 6

**Essay: A Call to Action**. ..................................................... 7

**1. Identifying Underleveraged EBP Support Tactics** ......................................................... 25

  Introducing the Evidence-Based Practice Leadership Audit ................................. 27

**2. Overcoming the Adherence Challenge**. ......................................................... 33

  Lesson #1: Craft an EBP PR Campaign. ......................................................... 38

  Lesson #2: Rightsize Physician Input into Guidelines. ........................................ 40

  Lesson #3: Leverage Noncompliance to Drive Guide Evolution ............................ 45

  Lesson #4: Ensure Guideline Use is Path of Least Resistance ............................. 47

  Lesson #5: Refine Data-sharing Approaches to Maximize Efficacy. .................... 52

  Lesson #6: Make Physicians the Trailblazers of Rationalizing Resource Use ........ 69

**3. Capitalizing on System Advantage**. ......................................................... 73

  Lesson #7: Use a Centralized, Data-Driven Approach to Prioritize System-Wide Opportunities ......................................................... 77

  Lesson #8: Hold Executive Leaders Directly Accountable for Advancing EBP. ........ 84

  Lesson #9: Scale Best Practices System-wide ......................................................... 89

**Coda: A Foot in Two Boats**. ......................................................... 96
Available Within Your Physician Executive Council Membership

The Physician Executive Council (PEC) provides physician leadership teams with extensive resources to advance care transformation, some of which are outlined here. The comprehensive suite of resources, including webconferences, publications, and toolkits, is available on advisory.com.

The content of this particular publication is also available through one-hour, targeted webconferences. These sessions are available on-demand on advisory.com and can be used as learning and strategy sessions for the team(s) focused on these content terrains.

Additionally, physician leaders play a critical role in creating and implementing care standards. Physician leadership development is not addressed in depth in this publication, but is covered extensively in other work, shown here.

If you would like guidance navigating these resources and selecting those most relevant to your organization, please contact your Advisory Board relationship manager.

Accompanying Resources to “Building an Evidence-Based Organization”

- Get Your Physicians to Follow Evidence-Based Guidelines
  (webconference on March 10, 2014)

- Scale Your Evidence-Based Practices Organization-Wide
  (webconference on April 3, 2014)

- How to Identify, and Fix, Gaps in Your Evidence-Based Practice Strategy
  (webconference on May 27, 2014)

- The Evidence-Based Practice Leadership Audit:
  Custom analysis of organization-specific opportunities to advance EBP
  (Available Spring 2014)

Related Acute Care Transformation Resources

- Realizing the Full Benefit of Palliative Care: Service optimization and strategic growth

- Ten Imperatives to Reduce Sepsis Mortality: A playbook for optimizing sepsis care

- Engaging Physicians in Patient Experience: Beyond HCAHPS scores
  (Available Spring 2014)

Beyond the Physician Executive Council: Crimson Continuum of Care at a Glance

- Web-based performance measurement tool facilitating rapid opportunity identification, peer cohort benchmarking, physician self-review, and clinical performance improvement
- Transforms siloed data into comprehensive dashboards and performance profiles at service line, specialty, and provider level
- Data-driven root cause analysis, cohort best practice sharing via annual summit, quarterly intensives, webconferences, onsite workshops, and Dedicated Advisor support
- For more information, please email Veena Lanka at lankav@advisory.com
Executive Summary

Adopting Evidence-Based Practice Is a Winning Strategy to Advance Care Quality and Efficiency

The market is challenging health care organizations with a dual mandate: be more cost-efficient, and boost the quality and coordination of care. Clinical executives are in a linchpin role to advance these aims by ensuring patients receive the right care, and the right amount of care. To that end, most organizations are currently investing significant time and resources into the creation and adoption of evidence-based clinical guidelines. This work is hugely challenging because standards of care are moving targets. Guidelines do not exist for every scenario. This publication does not strive to create certainty where there is none, but to help organizations implement the protocols that are known to produce better outcomes.

Clinical Guidelines Do Not Typically Translate into Consistent Practice

Despite the high level of activity to advance evidence-based practice, most organizations are not seeing the desired return. It is one thing to have clinical guidelines in place. It is entirely another to have a medical staff that consistently follows those guidelines. While physicians may no longer be philosophically opposed to evidence-based practice, over half of physicians do not use guidelines when they are available. Clinical executives struggle to pinpoint, and solve, the precise breakdown causing this knowledge-to-practice gap. As a starting point, executives tend to focus on physicians with outlier performance, or on campaign-type initiatives, to advance EBP adoption. Though effective in the short term, both of these strategies reflect the same problem—the efforts are not scalable. Executives are outnumbered by both physicians and initiatives.

Three Strategies for Clinical Executives to Build an Evidence-Based Organization

Some organizations have overcome these challenges and achieved a “culture of adherence” in which clinicians more consistently follow guidelines. This publication outlines what those organizations do differently, so that other physician executives can accomplish the same transformation. The key is building a scalable infrastructure and processes that accelerate the adoption of EBP across the entire medical staff, and bolster the performance of all initiatives. Readers will learn how to build an evidence-based organization through three primary strategies:

1. **Identify underleveraged EBP support tactics:** Use the Evidence-Based Practice Leadership Audit, a custom benchmarking tool from the Physician Executive Council, to pinpoint and address organization-specific shortfalls hindering EBP adoption

2. **Overcome the adherence challenge:** Enfranchise physicians in EBP strategy and surround them with effective messaging, data, and workflow supports to promote EBP uptake

3. **Capitalize on system advantage:** Ensure maximum return on EBP efforts by scaling clinical best practices organization-wide
The Physician Executive Council is grateful to those who shared their insights, analysis, and time with us. We would especially like to recognize the following people and organizations for being particularly generous with their time and expertise.

**Advisors to Our Work**

- **Banner Health**  
  Phoenix, AZ  
  Charlie Agee, MD  
  Marjorie Bessel, MD  
  John Hensing, MD

- **Catholic Health Initiatives**  
  Denver, CO  
  Manoj Pawar, MD

- **Christiana Care Health System**  
  Wilmington, DE  
  Janice Nevin, MD

- **Danbury Hospital**  
  Danbury, CT  
  Matthew Miller, MD

- **Duke University Health System**  
  Durham, NC  
  George Cheely, MD  
  Caitlin Daley  
  Thomas Owens, MD  
  Devdutta Sangvai, MD

- **Gundersen Health System**  
  La Crosse, WI  
  Gregory Thompson, MD

- **HealthEast Care System**  
  St. Paul, MN  
  Brian Patty, MD

- **Henry Ford Health System**  
  Detroit, MI  
  Bruce Muma, MD  
  Michelle Schreiber, MD

- **Inova Mount Vernon Hospital**  
  Alexandria, VA  
  Donald Brideau, MD

- **Intermountain Healthcare**  
  Salt Lake City, UT  
  Robin Betts  
  Donald Lappe, MD  
  Brent Wallace, MD

- **John Muir Health**  
  Walnut Creek, CA  
  Alicia Kalamas, MD  
  Judie Wilson

- **Johnston Memorial Hospital**  
  Abingdon, VA  
  Hughes Melton, MD

- **North Shore-Long Island Jewish Health System**  
  Manhasset, NY  
  Martin Doerfler, MD

- **Ochsner Health**  
  New Orleans, LA  
  Joseph Bisordi, MD

- **University Hospitals**  
  Cleveland, OH  
  Michael Anderson, MD  
  William Annable, MD  
  Eric Bieber, MD  
  Ken Turner
A Call to Action
With Little Running Room Left on Operational Efficiency, Attention Turns to Clinical Care

Cost reduction has been a mainstay on hospital leaders’ top priority list for the past decade. Historically, organizations realized cost-savings through greater operational efficiencies. This is evidenced by the dramatic decline in length of stay over the past couple of decades. However, average LOS has plateaued in the past few years, indicating that organizations may have largely tapped out traditional, operational cost-savings opportunities.

To address intensifying cost pressures, hospital executives are turning their attention to care delivery. As a result, CMOs are increasingly accountable for system-level cost initiatives. For example, the CEO of a large system tasked the CMO council with finding $100 million in cost-savings from inpatient care redesign.

Medical leaders increased focus on cost-savings is not intended to take precedence over or even be distinct from quality responsibilities. Instead, acute care transformation seeks to deliver the right care (and the right amount of care) to patients, with the goal of finding clinical solutions that both improve quality and efficiency.

Case in Brief: Star Health

- Integrated health care system comprised of 25+ hospitals, employed medical group, and an insurance plan
- System CEO sets ambitious goal of $100M in savings through inpatient care redesign over a three-year period


©2014 The Advisory Board Company • 28311
Clinical Variation an Increasingly Obvious Target

Reducing unnecessary clinical variation has emerged as a primary strategy to meet the industry’s dual mandate of improved efficiency and care quality.

Many studies have evaluated the prevalence and drivers of care variation. For example, Harvard and Dartmouth researchers classified 27% of practicing cardiologists as “cowboys”—meaning they consistently recommend the most invasive care option. Additionally, nearly half of physicians who had performed a cardiac catheterization did so because of colleagues’ expectations rather than out of medical necessity.

This study starkly showcases the dual opportunity of curbing clinical variation. First, it is troubling from a quality perspective to consider that variations abound for no clinical reason. And second, reducing variation would yield tremendous savings opportunities. The study estimated that if physicians followed professional guidelines, end-of-life Medicare expenditures would be 36% less, and overall Medicare expenditures would be 17% less.

“Cowboy” Cardiologists
Cardiologists Who Consistently Recommend Most Invasive Care Option

Guideline Adherence Promises Huge Savings

“Differences in physician beliefs about the effectiveness of treatments are the primary source of variation in Medicare expenditures… Were physicians to follow professional guidelines, end-of-life Medicare expenditures would be 36% less, and overall expenditures 17% lower.”

“Physician Beliefs and Patient Preferences: A New Look at Regional Variation in Health Care Spending”

Study in Brief: “Physician Beliefs and Patient Preferences: A New Look at Regional Variation in Health Care Spending”

- Harvard University and Dartmouth’s Geisel School of Medicine researchers surveyed a national sample of cardiologists and primary care physicians to assess physician practice styles using clinical vignettes.
- Researchers labeled physicians who consistently preferred interventional care as “cowboys” and classified physicians who indicated they would discuss palliative care options with the sickest patients as “comforters.” Overall, 27% of cardiologists and 19% of PCPs qualified as cowboys, 29% of cardiologists and 44% of PCPs qualified as comforters.
- The researchers concluded that patient demand is relatively unimportant in explaining variations in Medicare spending. The single most important factor is physician perception of treatment effectiveness. As much as 36% of end-of-life Medicare expenditures and 17% of overall Medicare expenditures are explained by physician beliefs that cannot be justified either by patient preferences or by clinical effectiveness.

What Do We Mean by “Evidence-Based Practice”?  

Proposed Levels of Clinical Practice by Supporting Evidence  

Strength of Evidence  

- **Clinically Proven Practice**  
  Consistently validated by randomized controlled trials  

- **Practice Based on Empirical Evidence**  
  Supported by non-randomized trials, case or comparative studies  

- **Consensus-Based Practice**  
  Based on usual practice, expert opinion, or descriptive studies  

A Working Definition of EBP:  
In this research, “evidence-based practice” will refer to any standard of care decided upon by a given hospital or health system.  

Source: Physician Executive Council interviews and analysis.
Adopting evidence-based practice is one of the primary mechanisms for reducing the growth of inpatient costs. Though the impact varies by situation, EBP can improve efficiency by preventing undesirable clinical outcomes and reducing unnecessary utilization (e.g., diagnostic tests, procedures, pharmacy), leading to an overall reduction in cost per case and LOS. Therefore, acute care hospitals will move toward a sustainable business model if they can codify and adopt right-answer approaches to treating patients, and achieve consistent adoption of those approaches.

The other mechanisms for reducing cost growth outlined here are curbing labor cost growth and redesigning inpatient care models. The former largely falls outside the physician executive role. The latter hinges on defining a standard of care, and then structuring the care team and clinical processes to provide that care.
In addition to supporting a sustainable acute care business model, adopting evidence-based practice is key to success in the value-based market. The graphic outlines three value-based payment models arranged by levels of provider risk.

To varying degrees, all of the models link finances to quality, making adoption of evidence-based practice critical to providing the highest standard of care to all patients in the most efficient way possible.

**Note:** This publication focuses on adoption of evidence-based practices in the inpatient setting since this represents an opportunity to improve quality and reduce cost per case—a desired goal for organizations under fee-for-service or risk-based contracts. Organizations moving to population health risk will benefit from adopting protocols in the ambulatory setting that reduce unnecessary admissions. For more information, contact your Advisory Board relationship manager.
Recognizing the necessity of adopting evidence-based practices, most organizations have already invested significant time and resources into the creation and adoption of clinical guidelines. Most organizations have multiple simultaneous EBP initiatives, such as the ones outlined here. At any one moment in time, any given institution may have system-wide initiatives, grassroots efforts from specialty groups and frontline clinicians, and lots of guidelines already in place, with revisions rolling out all the time.

**Representative Health System Activities**

**System Efforts to Reduce Variation**
- System convenes multidisciplinary groups to build clinical guidelines for high-cost, high-volume DRGs

**Specialty Group Initiatives**
- Specialist groups select which order sets and care pathways to build

**Cross-Setting Care Pathway Implementation**
- System builds care pathways for patient populations under bundled payments or full risk

**Frontline Innovation**
- Multidisciplinary staff at facilities participate in care redesign initiatives

Source: Physician Executive Council interviews and analysis.
Organizations Have Come a Long Way in Guideline Rollout

Among all EBP activities, the area where most organizations are strongest today is the process for producing clinical guidelines. It can involve some intense deliberation and consensus building, but at its core, the process is straightforward: convene select clinicians to draft the guideline, solicit clinician feedback, and roll them out. This scalable process has allowed most organizations to implement an impressive number of order sets and guidelines.

Common Guideline Development Process

1. Allow physician champions, content experts to draft internal guidelines based on latest evidence
2. Send draft to department chairs and medical directors, request feedback
3. Discuss concerns one-on-one, obtain evidence to support suggested changes
4. Incorporate evidence-based feedback into guidelines
5. Send final draft to all physicians, other stakeholders affected by guidelines
6. Present guidelines at department meetings to promote utilization, solicit feedback

Iterative process repeated as new evidence published

In addition to having guidelines in place, physician support for evidence-based practice is generally strong. In the Physician Executive Council’s 2013 Physician Executive Survey, 76% of Chief Medical Officers reported broad cultural buy-in for EBP among their medical staff. Data from over 2,400 physicians validates this assessment—nearly 80% of physicians agree they should adhere to cost-effective clinical guidelines. This signals a considerable shift in physician attitude since, in the last decade, many considered EBP to be “cookbook medicine” and destructive to the patient-provider relationship.

Physician resistance to EBP puts a hard stop on guideline creation and rollout. So, physician engagement—combined with momentum from value-based care, organizational investment in EBP, and a mature guideline creation process—all suggest that EBP must be coming into widespread use in hospitals. However, the real-world experiences of physician executives are less positive.

1) From the PEC 2013 Physician Executive Survey. Survey asked physician executives to evaluate the statement: “My organization has achieved broad cultural acceptance of evidence-based practice across the medical staff.”
2) Includes responses of “Tend to Disagree,” “Disagree,” and “Strongly Disagree.”
3) Includes responses of “Tend to Agree,” “Agree,” and “Strongly Agree.”
4) Includes responses of “Strongly Disagree,” and “Moderately Disagree.”
5) Includes responses of “Strongly Agree,” and “Moderately Agree.”

Guideline Adoption Still Significantly Lagging

It is one thing to have guidelines in place. It is entirely another to ensure that guidelines are consistently used. While physicians may no longer be philosophically opposed to evidence-based practice, they are typically not incorporating guidelines into their practice. Over half of physicians do not use guidelines when they are available. System CMOs view this as a major problem, with 72% reporting that they are having difficulty promoting EBP at their organizations.

Existing Guidelines Don’t Necessarily Translate into Consistent Practice

### Physician Use of Clinical Guidelines When Available

- **Yes, Consistently Use**: 44%
- **Do Not Use Consistently**: 56%

n=231 physicians

### “I Am Having Difficulty Successfully Promoting EBP”

- **Disagree**: 28%
- **Agree**: 72%

n=37 system-level CMOs

1) Responding to the statement, “I am having difficulty successfully promoting consistent utilization of standard protocols and/or evidence based practices.”

2) Includes responses of “Strongly Disagree,” “Disagree,” and “Tend to Disagree.”

3) Includes responses of “Tend to Agree,” “Agree,” and “Strongly Agree.”

Low adherence to EBP has real consequences for hospitals and, as shown here, patients.

For example, the sepsis bundle, proven to reduce mortality, has existed for over a decade. Yet only 19% of physicians follow the pediatric guidelines, and anecdotal evidence suggests the rate is similarly low for the adult population. Meanwhile hospital deaths due to sepsis increased 17% over the past decade. Despite the high adherence rate required to prevent infections, a recent study found relatively low rates of clinician adherence to prevention policies for central line-associated blood infections, ventilator-associated pneumonia, and catheter-associated urinary tract infections.

Three Representative Examples of the Impact of Low EBP Adherence on Patients

1. **Sepsis Guidelines Effective, but Underutilized**
   - Mortality reduction with introduction of sepsis bundle: 25%
   - Physicians who follow pediatric sepsis guidelines: 19%
   - Increase in sepsis inpatient hospital death rates in the past decade: 17%

2. **Nearly 70,000 Americans die needlessly each year because they are not given optimal heart failure therapy**

3. **Adherence to Prevention Policies in the ICU**
   - Central line-associated bloodstream infections: 37%-71%
   - Ventilator-associated pneumonia: 45%-55%
   - Catheter-associated urinary tract infections: 6%-27%

"Establishing policies does not ensure clinician adherence at the bedside. Previous studies have found that an extremely high rate of clinician adherence to infection prevention policies is needed to lead to a decrease in health care associated infections."

Patricia W. Stone, et al.  
"State of Infection Prevention in US Hospitals Enrolled in the National Health and Safety Network"

Death by a Thousand Cuts

What causes the gap between guideline creation and adoption?

First, pinning the failure to adopt guidelines solely on physicians is unfair and inaccurate. On the whole, physicians want to practice evidence-based care. Second, no one monolithic barrier stands in the way of EBP adoption—physician leaders are barraged with many different obstacles, some of which are outlined here. For example, specialty groups work on quality initiatives but not in the areas with the greatest return. Or, different facilities spend considerable time creating duplicative guidelines. Also, physicians may not know about a new guideline or it may impede their workflow.

Any one of these challenges might be manageable in isolation. But in the aggregate, they lead to the grim adherence statistics outlined earlier.

EBP Change Agents Face Hurdles at Every Turn

Representative Challenges of EBP Implementation

- If it takes five seconds longer, physicians will not do it
- Physicians expressing frustration with volume of clinical practice changes
- Order sets not updated because physician with that responsibility left organization
- Successful unit pilots left under the radar and not brought to scale
- Specialty group focuses on low-ROI EBP initiative
- Physicians practice defensive medicine
- Outlier physician is outspoken critic of guidelines and influences peers
- Leaders roll out an intensive campaign; practice patterns improve but then fall off
- Groups at different facilities reinvent the wheel on similar projects
- Some physicians say they are simply acceding to family demands

Source: Physician Executive Council interviews and analysis.
Outlier-Focused Strategy Yields Diminishing Returns

There are two standard ways to tackle the challenges and promote the adoption of EBP. The first is to focus on physician outliers, conducting one-on-one performance conversations with physicians with low adherence rates. In the short term, this strategy pays off by motivating behavior change. But it will hit a point of diminishing returns and does not elevate EBP adherence among the entire medical staff; it is not particularly scalable or efficient.

Source: Physician Executive Council interviews and analysis.

Organizations score early wins by improving outlier performance. Improvement rate stagnates.

Physician Executives’ Current Focus

Spend significant time and effort managing outlier physicians.

Aggregate Physician Performance

Year One Year Two Year Three
Where Are the Economies of Effort Across EBP Work?

Most organizations focusing on discrete initiatives

Sepsis Mortality Initiative
Reduce Readmissions
Improve CAUTI1 Rates

Underlying Components of a Quality Infrastructure

- Executive leadership
- Physician champions
- Workflow integration
- Data collection, analysis
- Clinical decision-making tools
- Accountability mechanisms
- Education and training
- Clinical knowledge management

In Need of a Scalable Strategy

"I have 100 improvement initiatives on my plate. Each initiative takes nine months. I don’t have nine months times 100."

CEO, Medical Group

1) Catheter-associated urinary tract infection.
The three strategies outlined here differentiate organizations with cultures in which more clinicians follow evidence-based guidelines more of the time. All three strategies promote a scalable approach to EBP.

First, these organizations invest in high-impact resources, including physician leaders and data systems, largely performance-tracking systems and clinical decision-making support.

*For more resources on building physician leadership structures and analytic capabilities to support performance improvement, see page 4.*

Second, they use a multifaceted approach to support EBP adherence. Instead of focusing on outliers, they surround physicians with support structures that promote EBP uptake.

Finally, they capitalize on their system advantage. Most organizations have select pockets where EBP has taken hold, leaving many missed opportunities and redundancies throughout the organization. Top-performing organizations maximize the return of their EBP initiatives by ensuring best practices pervade all services and sites.
What No One Else Can Do

The clinical leadership team is uniquely positioned to credibly navigate the delicate balance required to build an evidence-based organization. Clinical leaders understand, and can represent, the organizational mandate to advance efficiency and quality. Simultaneously, clinical leaders understand the opportunities and challenges associated with changing clinical practice patterns. They deeply respect the core physician mission of determining the best way to treat each patient and can ensure this mission underpins all EBP efforts, thereby engendering trust among the medical staff.

Clinical Leadership Team Best Positioned to Drive Organizational EBP Strategy

What No One Else Can Do

- Input into Resource Allocation
- Oversight of Physician Performance Improvement
- Voice in System Strategy Discussions
- Clinical Credentials
- Knowledge of Physician Culture
- Insight into Clinical Issues

EBP Ambitions Outlined in This Publication

- Create organizational structures that surround physicians with effective messaging, data, and other supports to promote EBP uptake
- Lead and support clinical standardization efficiently across all services and sites

Source: Physician Executive Council interviews and analysis.
To help clinical leaders advance EBP at their organization, the Physician Executive Council has identified nine imperatives for building an evidence-based organization.

- Chapter one introduces a new tool, The Evidence-Based Practice Leadership Audit, to help clinical leaders pinpoint organization-specific opportunities to support EBP adoption.
- Chapter two focuses on how to build a culture of adherence among the medical staff.
- Chapter three showcases strategies to ensure best practice clinical standardization permeates the entire organization.

**Nine Lessons for Supporting System-Wide Clinical Practice Change**

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identifying Underleveraged EBP Support Tactics</strong></td>
<td><strong>Overcoming the Adherence Challenge</strong></td>
<td><strong>Capitalizing on System Advantage</strong></td>
</tr>
<tr>
<td>Use EBP Leadership Audit to pinpoint greatest opportunities for fostering EBP adoption at your organization</td>
<td>Surround physicians with effective messaging, data, and other supports to promote EBP uptake</td>
<td>Lead and support clinical standardization efficiently across all services and sites</td>
</tr>
<tr>
<td>1. Craft an EBP PR campaign</td>
<td>1. Use a centralized, data-driven approach to prioritize system-wide opportunities</td>
<td></td>
</tr>
<tr>
<td>2. Rightsize physician input into guidelines</td>
<td>2. Hold executive leaders directly accountable for advancing EBP</td>
<td></td>
</tr>
<tr>
<td>3. Leverage noncompliance to drive guideline evolution</td>
<td>3. Scale best practices system-wide</td>
<td></td>
</tr>
<tr>
<td>4. Ensure guideline use is path of least resistance</td>
<td>4. Make physicians the trailblazers of rationalizing resource use</td>
<td></td>
</tr>
<tr>
<td>5. Refine data-sharing approaches to maximize efficacy</td>
<td>5. Leverage noncompliance to drive guideline evolution</td>
<td></td>
</tr>
<tr>
<td>6. Make physicians the trailblazers of rationalizing resource use</td>
<td>6. Leverage noncompliance to drive guideline evolution</td>
<td></td>
</tr>
</tbody>
</table>

Source: Physician Executive Council insights and analysis.
Chapter 1

Identifying Underleveraged EBP Support Tactics
To illuminate major opportunities to advance EBP at hospitals, Physician Executive Council (PEC) researchers asked dozens of physician executives to evaluate the performance of their EBP strategy. The results were mixed. Some said they were “doing just fine,” whereas others had “a long way to go.”

Surprisingly, PEC researchers detected an inverse correlation between perceived and actual performance. In other words, leaders who were satisfied with their level of EBP adoption often seemed to confuse activity with success. In contrast, leaders reporting “a long way to go” often had advanced further, giving them a firmer grasp on how much was left to accomplish.

Ultimately, all of these assessments were based on subjective evaluations. Organizations have quality dashboards, but physician leaders do not have an objective dashboard to assess whether or not their organization is effectively supporting the uptake of EBP.

**CMOs Offer Widely Divergent Assessments of EBP Performance**

**Two Representative CMO Evaluations of EBP Performance**

*Doing Just Fine*

“EBP is yesterday’s issue. We’ve created a lot of order sets in CPOE and are doing really well on core measures.”

System CMO, Four-Hospital System

*A Long Way to Go*

“The process is never perfect. It’s always worth assessing how to improve over and over again. To say we’re happy where we are would be contrary to our culture.”

CMO, Integrated System

Source: Physician Executive Council interviews and analysis.
Introducing the Evidence-Based Practice Leadership Audit

To help physician executives identify gaps within their organization’s EBP strategy, the Physician Executive Council created a new tool, the Evidence-Based Practice Leadership Audit.

Physician leaders can use the audit to assess their organization’s adoption of 27 specific practices that have been shown to support uptake of EBP. The result is a customized, ranked list of the organization’s greatest opportunities to support EBP adoption.

Our researchers vetted and piloted the audit with over 100 physician and quality executives, as well as internal experts. One system CMO remarked, “It really forces you to self-evaluate. It is easy to think you are doing something well, but this really makes you face the facts.”

Sources That Guided Development of EBP Leadership Audit

- **Advisory Board Research Expertise**
  - Built upon past Advisory Board best practice research on EBP
  - Vetted with internal EBP experts

- **Industry Literature**
  - Reviewed and incorporated research on organizational attributes common to high-quality organizations

- **Advisory Board Performance Technologies**
  - Tapped into expertise of Advisory Board performance technology staff who analyze physician practice patterns at over 1,500 hospitals
  - Over 50% of inpatient admissions in the U.S. flow through Advisory Board technology platforms

- **Pilot Physician Executive Cohort**
  - Vetted audit framework with physician executives
  - Piloted audit with 30 Chief Medical Officers
  - Extensive revisions made based on executive feedback

---

Tool in Brief: The Evidence-Based Practice Leadership Audit

- For use by clinical leaders; assesses organizational adoption of EBP support tactics and identifies gaps
- Access the interactive, real-time Audit at: www.advisory.com/pec (available in Spring 2014)
- For a PDF copy of the Audit, please visit: www.advisory.com/PEC/2013meetingresources.
The Evidence-Based Practice Leadership Audit is organized into four performance domains, and assesses adoption of EBP support tactics within each. These domains represent the most important focus areas for building an evidence-based organization—executing against all four is necessary to achieve widespread EBP adoption.

1. Prioritization: Does the organization prioritize EBP efforts by highest-return opportunities?

2. Correctness: Does the organization ensure guidelines are trustworthy and contain the most up-to-date evidence?

3. Adherence: Does the organization make it easy and rational for physicians to use EBP whenever they can?

4. Scalability: Do EBP leadership and processes support standardization across services and sites, without unnecessary duplication?

To advance within each domain, organizations should use the Audit to identify and direct resources to underleveraged tactics.

### Four Performance Domains of the Evidence-Based Practice Leadership Audit

<table>
<thead>
<tr>
<th>Domain</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritization</td>
<td>Do we prioritize our standardization efforts based on our greatest opportunities?</td>
</tr>
<tr>
<td>Correctness</td>
<td>Are our guidelines trustworthy sources of the most up-to-date clinical evidence?</td>
</tr>
<tr>
<td>Adherence</td>
<td>Do we surround our physicians with effective messaging, data, and other supports to promote EBP uptake?</td>
</tr>
<tr>
<td>Scalability</td>
<td>Looking across the organization, does our EBP leadership and infrastructure efficiently support standardization across all our services and sites?</td>
</tr>
</tbody>
</table>

Source: Physician Executive Council interviews and analysis.
How Good Is Your Organization at Advancing EBP?

An interactive, automated version of the Evidence-Based Practice Leadership Audit is available on advisory.com. The Audit provides on-demand access to custom analyses that pinpoint specific opportunities—and accompanying resources—to help organizations focus their EBP adoption efforts. Members can access the tool 24/7, including benchmarking data from the PEC member cohort.

Facility leaders and service-line leaders can conduct comparison analyses by completing the audit. Leadership teams can use these analyses to assess system-wide improvement areas and opportunities to scale existing expertise. Before taking the audit, a word of caution: many leaders respond to the questions with the aspiration they have for their organization rather than today’s actual state. Please pause for an “internal reality check” when taking the audit (see example shown here). All benchmarking data is blinded to protect the confidentiality of all responses.

Audit Provides Snapshot of Organizational Readiness to Support EBP

<table>
<thead>
<tr>
<th>In-the-Moment Results</th>
<th>Targeted Best Practices</th>
<th>Custom Analysis to Follow</th>
<th>Facility Comparison Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review custom list of your organization’s greatest opportunities to accelerate EBP adoption</td>
<td>Access suggested best practices to address your organization-specific shortfalls</td>
<td>Receive follow-up custom benchmarking report detailing your opportunities against peer group performance</td>
<td>Distribute Audit to facility-level or service-line leaders to conduct comparison analyses; uncover system-wide improvement areas or opportunities to scale expertise and practices</td>
</tr>
</tbody>
</table>

No “A” for Effort: Avoid Grade Inflation While Taking the Audit

1. At your organization, how frequently do executives discuss strategies or goals for achieving greater organization-wide adoption of EBP?

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Pause for an “Internal Reality Check”

- Can I remember the last executive team meeting when we discussed EBP strategy?
- Have we formalized EBP strategy in some way (e.g., through our strategic plan)?
- Can I name one of our EBP goals?
- Do we have a targeted strategy for EBP rather than a general “Quality” strategy?

Source: Physician Executive Council interviews and analysis.

1) For more information on this service, please email ZweigM@advisory.com or your Advisory Board representative.
Consensus: “We’re Working on It.”

Results from the initial cohort completing the Evidence-Based Practice Leadership Audit revealed significant opportunities to strengthen existing EBP infrastructure and processes.

In the first cohort, over 75 physician and quality leaders completed the Evidence-Based Practice Leadership Audit. Each leader ranked the frequency with which their organization uses each EBP support tactic along a five-point scale. Shown here is the distribution of the cohort’s average responses to each tactic in the Audit. The highest-scoring tactic scored a 3.9, and the lowest scored a 2.0.

Most tactics are being used at least rarely or sometimes, indicating that these tactics are not entirely new ideas. But, while organizations have made foundational strides in EBP, results also suggest that all organizations have the opportunity to strengthen their use of existing tactics.

Access the full cohort results at: advisory.com/pec (available in Spring 2014)
Opportunities to Improve Support for Adherence

The clear Achilles heel of EBP is adherence. Results from the audit show that all five of the lowest-scoring tactics fall in the adherence domain. This validates an earlier point—physicians are not single-handedly to blame for not adopting guidelines. The analysis reveals that organizations have not effectively implemented tactics that promote EBP adoption among the medical staff, such as incorporating guidelines into clinician workflow, regularly sharing individual performance data with physicians, and tracking guideline opt-outs to uncover barriers to compliance.

The good news is physician leaders do not need to find a new set of tactics to improve guideline adherence—they need to make better use of the tactics that have already been proven to be effective.

Analysis Reveals Low Adoption of Adherence Support Tactics

<table>
<thead>
<tr>
<th>Rank</th>
<th>Least-Used EBP-Support Tactics</th>
<th>Score (Out of 5) ¹</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physician opt-outs of clinical guidelines are tracked and analyzed so that appropriate adjustments to guidelines can be made</td>
<td>2.0</td>
<td>Adherence</td>
</tr>
<tr>
<td>2</td>
<td>Experts in workflow efficiency vet clinical guidelines to ensure they can be practically incorporated into clinician workflow</td>
<td>2.4</td>
<td>Adherence</td>
</tr>
<tr>
<td>3</td>
<td>Physician performance or OPPE assessments include metrics tracking the physician’s adherence to clinical guidelines</td>
<td>2.5</td>
<td>Adherence</td>
</tr>
<tr>
<td>4</td>
<td>Physicians receive data on their own individual-level clinical guideline adherence</td>
<td>2.5</td>
<td>Adherence</td>
</tr>
<tr>
<td>5</td>
<td>Individual physicians who have patterns of unwarranted variation receive follow-up communications and corrective actions</td>
<td>2.6</td>
<td>Adherence</td>
</tr>
</tbody>
</table>

¹ Out of five-point scale: 5=Always, 4=Often, 3=Sometimes, 2=Rarely, 1=Never.
Reading Between the Lines Uncovers Clinical Scale as a Significant Opportunity

Unlike the bottom-ranked tactics, the top five most-used EBP support tactics do not cluster within any particular domain.

PEC researchers were eager to learn how these tactics were being executed at different organizations. What they found in speaking with clinical leaders is reflected in the quotes on the right—even where EBP tactics were successfully used, they were largely limited to a small pocket of the organization, not at scale.

Of course, achieving clinical scale is a complex endeavor. But in the long term, taking a decentralized approach to EBP rollout will require more work because of redundancies and disconnects across the organization.

The next two chapters offer nine lessons to address the two most common shortfalls of EBP strategy (as revealed by the EBP Leadership Audit)—bolstering adherence and promoting scalability.

### Most-Used Tactics May Be Adopted—but Not Organization-Wide

<table>
<thead>
<tr>
<th>Rank</th>
<th>Most-Used EBP-Support Tactics</th>
<th>Score (Out of 5)</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guidelines incorporate input from non-physician multidisciplinary stakeholders (e.g., nursing, pharmacy, behavioral health) prior to rollout</td>
<td>3.9</td>
<td>Correctness</td>
</tr>
<tr>
<td>2</td>
<td>Clinical guidelines are drafted and/or reviewed (if coming from a vendor) by a dedicated group prior to being tested for approval with any broader group of clinicians</td>
<td>3.6</td>
<td>Scalability</td>
</tr>
<tr>
<td>3</td>
<td>Organizational metrics (e.g., financial, quality) are used to evaluate the success of initiatives to reduce clinical variation</td>
<td>3.4</td>
<td>Prioritization</td>
</tr>
<tr>
<td>4</td>
<td>Clinical guidelines exist for top variation opportunities</td>
<td>3.3</td>
<td>Prioritization</td>
</tr>
<tr>
<td>5</td>
<td>Executives discuss strategies or goals for achieving greater organization-wide adoption of EBP</td>
<td>3.3</td>
<td>Prioritization</td>
</tr>
</tbody>
</table>

### Conversations with CMOs Underscore Lack of Organization-Wide Adoption

“"Our community hospital increased sepsis bundle compliance by 40% in the ED."

“"Pediatrics is by far the most advanced with their guidelines They have a tremendous leader."

“We incorporated order sets into CPOE at half our hospitals; the other half are still paper based.”
Overcoming the Adherence Challenge

Lesson #1: Craft an EBP PR Campaign
Lesson #2: Rightsize Physician Input into Guidelines
Lesson #3: Leverage Noncompliance to Drive Guideline Evolution
Lesson #4: Ensure Guideline Use is Path of Least Resistance
Lesson #5: Refine Data-Sharing Approaches to Maximize Efficacy
Lesson #6: Make Physicians the Trailblazers of Rationalizing Resource Use
Complex factors underlie physicians’ decisions with cost implications, some of which were explored in a recent 2013 *JAMA* study. Researchers asked physicians, “who is responsible for reducing health care costs?” The bar chart shows most physicians think trial lawyers, insurance companies, and pharmaceutical and device manufacturers have a major responsibility. About one-third of physicians indicate they have a major role to play.

On the surface, this data seems to imply physicians blame everyone but themselves, leading some to pin the problem of nonadherence on physicians. However, this is not the full story. Additional data from the study reveals physicians do think cost reduction is their role, they just don’t want to cut costs at the expense of their patients. This likely explains why physicians philosophically agree with EBP, but do not follow guidelines. They have an ingrained skepticism of any guideline that requires them to change how they practice—particularly if it means doing less.

### Physician Perception of Cost Responsibility Not Captured with a Single Statistic

#### Groups with Major Responsibility for Health Care Cost Reduction

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial Lawyers</td>
<td>60%</td>
</tr>
<tr>
<td>Insurance Companies</td>
<td>59%</td>
</tr>
<tr>
<td>Pharma and Device Manufacturers</td>
<td>56%</td>
</tr>
<tr>
<td>Hospitals and Health Systems</td>
<td>56%</td>
</tr>
<tr>
<td>Patients</td>
<td>52%</td>
</tr>
<tr>
<td>Government</td>
<td>44%</td>
</tr>
<tr>
<td>Individual Practicing Physicians</td>
<td>36%</td>
</tr>
<tr>
<td>Physician Professional Societies</td>
<td>27%</td>
</tr>
<tr>
<td>Employers</td>
<td>19%</td>
</tr>
</tbody>
</table>

#### Physicians Agree That Cost Reduction Is Important...

- **85%** Percentage of physicians agreeing: “Trying to contain costs is the responsibility of every physician”
- **89%** Percentage of physicians agreeing: “Doctors need to take a more prominent role in limiting use of unnecessary tests”

#### …But Not at Patients’ Expense

- **78%** Percentage of physicians who agree they “should be solely devoted to the best interests of their individual patients, even if that was expensive”
The Futile Quest for the Perfect Argument

Many physician executives are working on overcoming physician skepticism of guidelines. Two real CMO requests are shown here. Both asked for presentations or evidence to convince physicians to follow guidelines. The problem is, skeptical physicians are skilled at contesting the validity of any given study. There is not a single case study or “silver bullet” presentation that can single-handedly secure physician trust in guidelines.

Cultivating physician buy-in for clinical guidelines will require ongoing, complex discussions. But, the goal of leaders should be to have fewer discussions about the validity of clinical standardization as a concept, and instead, spend more time on determining how to implement credible care standards across the organization.

Clinical leaders should strive to build a culture of adherence in which the default for clinicians is to trust the validity of, and regularly use, their organization’s clinical protocols, but also exercise clinical judgment to determine when opting out of a protocol is the best option for a patient.

**Physician Executives Seek “Silver Bullet” to Gain Physician Buy-In**

**Member Requests Submitted to Physician Executive Council**

“I want a short PPT presentation to prove to my physicians why they should adopt guidelines.”

“My surgeons get the idea of care pathways, but I need to sell them on it. Do you have a catalogue of case studies where outcomes improved because physicians adopted protocols?”

**Potential Physician Pushback to EBP Case Studies**

- Case studies evaluate single guideline, do not prove efficacy of other guidelines
- Guideline worked at a single institution, but may not work for different patient population
- Study methodology lacks credibility

Source: Physician Executive Council interviews and analysis.
Children’s Hospital Boston has cultivated a culture of adherence among their medical staff through their Standardized Clinical Assessment and Management Plans (SCAMPs) initiative.

SCAMPs provide clinicians with a decision tree to promote a defined care pathway for particular diagnoses. Multiple clinicians contribute to the SCAMP creation process, and outcomes are monitored on an ongoing basis to inform revisions. SCAMPs were created largely for diagnoses without clear evidence, so having this feedback loop ensures the guidelines evolve to reflect new learning.

SCAMPs enjoy broad physician support—90% of physicians think positively of them and 80% adhere to them. This is particularly remarkable because SCAMPs are not supported by an undisputable evidence base.

This case study illustrates that a punitive strategy to get physicians to adhere is not the most effective. Instead, partnering with and empowering clinicians throughout the EBP process promotes sustained adherence.

### Physicians’ Trust in SCAMPs¹ Relies on Multifaceted Approach to Physician Involvement

- Physician and nurse experts lead the guideline creation process
- Guidelines designed to capture clinician input as a source of innovation
- Outcomes data related to SCAMPs guidelines shared with clinicians to prove efficacy

### Physicians Trust and Adhere to SCAMPs

- 90% Physicians with an overall positive opinion of SCAMPs
- 80% Adherence rate to SCAMPs

SCAMPs enjoy widespread trust among physicians despite lack of preexisting, clear clinical evidence

### Case in Brief: Children’s Hospital Boston

- 360-bed pediatric hospital in Boston, Massachusetts
- For any medical condition or set of symptoms, a committee of physician and nursing experts create a Standardized Clinical Assessment and Management Plan (SCAMP)—an algorithm with a decision tree guiding clinicians on how to manage patients with that particular condition
- SCAMPs are intended to be refined over time—this is achieved through robust data-tracking to fine-tune the guideline based on outcomes and analysis of physician opt-outs
- Boston Children’s has developed SCAMPs for 49 medical conditions. Results include: Decreased the cost of caring for children with six different conditions by 11% to 51% when compared with a historical cohort; Increased the rate of “ideal” outcomes for children with a congenital condition from 40% to 69% over one year; Increased the rate of physicians who complied with recommended specialist referrals from 20% to 75%

¹ Standardized Clinical Assessment and Management Plans.

Source: Farias M, MD, Ziniel S, PhD, “Provider Attitudes Toward Standardized Clinical Assessment and Management Plans (SCAMPs): Congenital Heart Disease,” 6, no.8 (2011); Klein S, Hostetter M, “Quality Matters in Focus: Learning Health Care Systems,” The Commonwealth Fund, 2013; Physician Executive Council interviews and analysis.
A Multifaceted Strategy Required

Other organizations with high levels of guidelines adoption use a constellation of tactics to promote the use of evidence-based practice. These tactics are reflected in the six lessons shown here.

These lessons are not particularly effective in isolation. To build a culture of adherence, organizations should utilize most, if not all, of these tactics together.

The following sections offers case studies and implementation advice for each of these lessons.

Distilling Constellation of Adherence-Support Practices into Key Lessons

Six Lessons for Overcoming the Adherence Challenge

1. Craft an EBP PR campaign
2. Right-size physician input into guidelines
3. Leverage noncompliance to drive guideline evolution
4. Ensure guideline use is path of least resistance
5. Refine data-sharing approaches to maximize efficacy
6. Make physicians the trailblazers of rationalizing resource use

Source: Physician Executive Council interviews and analysis.
Lesson #1: Craft an EBP PR Campaign

Make EBP a Front-and-Center Aspiration

The first lesson for promoting EBP adherence is “Craft an EBP PR Campaign.” Communication around EBP usually focuses on specific initiatives. For instance, physicians may receive an overview of a new surgical checklist or learn the new sepsis protocol. But, typically the communication fails to connect these initiatives to the overall concept that evidence-based clinical standardization will produce better results for patients. Physicians can lose sight of the value of these initiatives when inundated with new, mandated protocols.

To keep EBP principles top of mind and reinforce the importance of various sub-initiatives, MemorialCare Health System uses a dedicated branding effort. Their tag-line, “data is for learning, not judgment,” coincides with an effort to give physicians access to performance data. Leaders broadcast the message through several traditional and creative channels, including funny videos starring physician leaders. The campaign connects the dots for physicians—they see how their day-to-day practice contributes to the overall goal of providing better, more consistent clinical care.

Key Elements of Medical Staff Communication at MemorialCare

- **Campaign Branding**
  - Crafted communication plan around theme, “Data is for learning, not judgment,” to emphasize opportunity for collective improvement

- **Multiple Channels**
  - Coupled broader communication strategies such as emails and newsletters with more personalized physician meetings

- **Creative Communication**
  - System tapped medical staff members to star in videos to signal their support for, and explain, performance improvement initiative

**Case in Brief: MemorialCare Health System**

- Seven-hospital system based in Long Beach, California
- System leaders and physician champions crafted a multichannel communication plan using unified messaging on the importance of data and opportunity to minimize clinical variation as a means of improving performance
- Campaign coincided with rollout of The Advisory Board Company’s Crimson Continuum of Care technology to enable individual physician performance tracking

Source: MemorialCare Health System, Long Beach, CA; The Advisory Board Company Crimson Continuum of Care; Physician Executive Council analysis.
A Grassroots Approach to Engage Physicians in Data

A top-down approach, like that at MemorialCare, is important for signaling organizational commitment. However, this strategy works best in tandem with a grassroots approach to cultivate EBP awareness among the medical staff. For example, at Acorn Hill Health Care, a pseudonym, a physician leader hosted a lunch with 10 colleagues to share and discuss blinded performance data. The lunches were effective for three reasons.

First, the guest list included five top performers and five low performers, though this was not revealed to the attendees. This ensured the group would have an outsized impact on EBP adherence, either by being thought leaders or by improving their own performance.

Second, the lunch was a casual, safe forum for physicians to speak freely about these issues.

Third, the lunch was centered on peer discussion about how to make care better. This cultivated a sense of collective accountability. When physicians are stitching together their knowledge to come up with a better way to deliver care, they are likelier to follow it.

Case in Brief: Acorn Hill Health Care

- Multi-hospital system located in the Northeast
- Physician champion hosts luncheons with physician colleagues; purpose of lunch is to engage physicians in data as learning tool, encourage peer-to-peer sharing of best practices, and create shared accountability for improving performance
- Physician champion invites five top-performing and five low-performing physicians to each lunch in order to engage two critical constituencies: influential physicians and those in need of improvement

A top-down approach, like that at MemorialCare, is important for signaling organizational commitment. However, this strategy works best in tandem with a grassroots approach to cultivate EBP awareness among the medical staff. For example, at Acorn Hill Health Care, a pseudonym, a physician leader hosted a lunch with 10 colleagues to share and discuss blinded performance data. The lunches were effective for three reasons.

First, the guest list included five top performers and five low performers, though this was not revealed to the attendees. This ensured the group would have an outsized impact on EBP adherence, either by being thought leaders or by improving their own performance.

Second, the lunch was a casual, safe forum for physicians to speak freely about these issues.

Third, the lunch was centered on peer discussion about how to make care better. This cultivated a sense of collective accountability. When physicians are stitching together their knowledge to come up with a better way to deliver care, they are likelier to follow it.

Physician Luncheon Facilitates Peer-Led, Data-Focused Conversations

Three Key Components of Clinical Variation Working Lunches at Acorn Hill Health Care

1. Key Stakeholders in Attendance
   - Physician champion invites five top-performing and five bottom-performing physicians (rankings are not disclosed)
   - Invite list intended to secure help from highly effective and influential physicians, as well as engage those most in need of improvement

2. Nonpunitive Data Sharing
   - Physician champion shares blinded performance data, highlights opportunity for improvement by reducing variation
   - Physicians discuss data in informal atmosphere, without fear of consequence

3. Peer-to-Peer Learning
   - Physician champion encourages physicians to share clinical experiences and discuss ways to improve quality and efficiency of care
   - Lunch cultivates shared sense of accountability to improve performance

Source: Crimson Continuum of Care interviews, The Advisory Board Company; Physician Executive Council analysis.

1) Pseudonym
Once an organization communicates the EBP vision, the next challenge is to find a way to judiciously involve physicians in the execution of that vision.

There is a careful balance to strike between expediting rollout while also maintaining the integrity of guidelines and physician trust, which requires investments of physicians’ time—a scarce resource.

The challenge of best utilizing physician time is illustrated in the Venn diagram. The left circle represents a model that creates guidelines too quickly and without sufficient clinical input, disenfranchising physicians. The right circle represents a model that overutilizes physicians, leading to prolonged deliberations, delayed rollouts, and frustrated physicians.

Organizations need to find the middle “sweet spot,” in which select physicians contribute top-of-license input but are not overtaxed. The next two case studies show how two organizations achieve this delicate balance during guideline creation and revision processes.

Balancing Expedited Guideline Rollout with Physician Engagement

The Sweet Spot of Physician Participation

**The Factory Model**

- Promotes efficiency at the expense of physician involvement—likely to yield strong clinician resistance to EBP rollout

  **Representative activity:**
  - Implements vendor-built order sets, guidelines without physician vetting process

**Top-of-License Physician Involvement**

- Judiciously leverages physician participation in EBP efforts to secure physician confidence while promoting efficiency

  **Representative activity:**
  - Small group of clinical experts vets predrafted clinical guidelines

**Too Many Cooks in the Kitchen**

- Overutilizes physicians in guideline development and rollout—process often stalls, time spent on redundant activities, and physicians reluctant to participate due to time commitment

  **Representative activity:**
  - Clinicians are free to edit order sets, yielding lack of standardization

Source: Physician Executive Council interviews and analysis.
Henry Ford Health System uses a standard process for guideline creation—draft, incorporate physician input, and implement. But, leaders are strategic about when and how they bring the wider physician community into the process. When they do, it’s within carefully defined parameters that balance input and efficiency.

For instance, a select group of physician leaders dedicated to clinical standardization vet all order set drafts before requesting specialist review. This ensures specialists are consulted, but are not responsible for the background work of collecting the literature or creating the order set. Most feedback is solicited via email to limit in-person meetings. Engagement of medical staff representing the entire system begins during order set creation, promoting system-wide adoption of the clinical standard.

Organizations should consider the preferences of their unique medical staff when creating opportunities for feedback and involvement. For instance, one physician executive reported that his medical staff would not comply with order sets until they met in person to discuss them—online feedback was not sufficient.

Key Steps in Henry Ford’s System-Wide Order Set Rollout

<table>
<thead>
<tr>
<th>Order Set Draft</th>
<th>Specialist Input</th>
<th>Revisions Vetted</th>
<th>Final Sign-Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four physician leaders dedicated to clinical standardization efforts finalize ProVation¹ order set drafts</td>
<td>Cross-system specialty teams review order sets and solicit feedback from colleagues via email</td>
<td>Physician leaders vet and implement revisions, consulting specialty team leads when necessary</td>
<td>Facility-specific specialists sign-off on final order sets and are expected to promote adoption among peers</td>
</tr>
</tbody>
</table>

Implementation Tips: Balancing Efficiency and System-Wide Physician Input

- Create draft before sharing with larger group
- Vet order sets with small, dedicated physician group
- Solicit feedback via email to offer physicians’ flexibility to respond
- Solicit cross-system physician input at all stages
- Only make revisions validated by evidence or consensus

Case in Brief: Henry Ford Health System

- Four-hospital system based in Detroit, Michigan; includes two behavioral health centers
- Currently leveraging Epic implementation to promote clinical and process standardization system-wide
- Four-physician leadership team works nearly full time on clinical standardization efforts; team edits ProVation order set drafts before soliciting feedback from specialist teams
- Specialty teams, consisting of trusted physicians and cross-system representation, send feedback on order sets via email through ProVation; teams may solicit feedback from additional colleagues at their discretion. Specialty teams include: ED, obstetrics, cardiology, oncology, etc.
- Physician leadership team reviews suggestions and selects revisions based on evidence and consensus; they consult with specialty team leads when necessary

¹) ProVation is a health information technology company which sells evidence-based order set templates co-developed with authors from UpToDate. Visit http://www.provationmedical.com/ for more information.

Source: Henry Ford Health System, Detroit, MI; Physician Executive Council interviews and analysis.
Physicians Uncover and Address Compliance Barriers

By right-sizing physicians’ upfront involvement in order set creation, Henry Ford gains a significant benefit on the back end—physician leaders invested in promoting widespread adoption.

The facility-specific specialists, who give final sign-off on order sets, are informally accountable for ensuring their colleagues use them. Henry Ford monitors order set usage on an ongoing basis. Low-use order sets are flagged and sent to the specialty leads who originally approved them. The specialists have three options: modify the order set, delete it, or encourage their colleagues to use the order set as is.

Specialty Groups Expected to Remedy Low Order Set Adoption

System-Wide Order Set Usage Rates at Henry Ford

Ongoing Analysis of Low-Use Order Sets

Clinical standardization leadership team flags order sets with low adoption

Specialty leads must either remove, revise, or promote use of flagged order sets

1) Illustrative.
Streamlining the Revision Suggestion Process

Of course, guideline creation is only the beginning of guideline management. Many organizations lose momentum in EBP efforts when it comes to managing revisions. Many use, by default, a laissez-faire approach. One organization allows any physician to revise order sets, which only ends up formalizing variation. To avoid this, organizations should adopt a process that incorporates new evidence and physician feedback while maintaining the integrity of the care standard.

HealthEast Care System limits revisions to those that are necessary and appropriate through the process shown here. Physicians submit feedback electronically, which is reviewed by a dedicated informatics group. The groups vets change requests and, if warranted, makes the revisions. They notify every physician who makes a suggestion as to whether the change was made, and why.

HealthEast physicians trust this revision process because it is consistent, fair, and transparent. This trust has a positive impact on adherence—physicians are likelier to trust that guidelines are up to date, and use them.

Process for Ongoing Clinical Content Revisions at HealthEast

Electronic Physician Feedback

On ongoing basis, physicians electronically submit suggested revisions to order sets

Revision Prioritization

Dedicated informatics group vets and prioritizes suggestions based on defined criteria

Limited Order Set Revisions Made

Closing the Loop

Group follows up with each physician to communicate if revision was implemented or provide rationale for not making revision

Case in Brief: HealthEast Care System

- Four-hospital system, with 18 clinics, headquartered in St. Paul, Minnesota
- Physicians electronically submit order set revisions to be considered by a designated group consisting of Chief Medical Informatics Officer, Director of Nursing Informatics, Director of Pharmacy Informatics, and Director of Clinical Applications
- Informatics group vets and prioritizes every revision suggestion against defined criteria; this method judiciously allocates time of informatics staff, reduces unnecessary variation in order sets, and allows for ongoing physician engagement with order set revision process
- Informatics group also makes revisions in response to vendor content updates and regulatory requirements
- A full version of HealthEast’s “Order Set Management Procedure” is available at: advisory.com/PEC/2013meetingresources

Source: HealthEast Care System, St. Paul, MN; Physician Executive Council interviews and analysis.
 Defined Criteria for Qualified Revisions at HealthEast

In addition to physician suggestions, the dedicated revision team at HealthEast considers changes from the order set content vendor and regulatory requirements. It could quickly become burdensome to make all these changes. That’s why HealthEast uses the criteria shown here to prioritize revisions. A revision has to meet one of the five listed criteria to be made at all. And, the criteria prioritize revisions based on urgency. For instance, if the FDA rescinds a drug for safety concerns, changing the affected order sets becomes first priority.

This triage system allows for ongoing physician input, preserves the integrity of guidelines, and judiciously focuses the informatics group on high-priority revisions.

Team and Criteria Boost Credibility of Guideline Revision Process

### Dedicated Revision Team
- Consists of CMIO\(^1\) and informatics staff from pharmacy and nursing
- Reviews and makes order set revisions based on:
  - Physician suggestions, typically made through Clinical Councils\(^2\)
  - New clinical findings from third-party content provider
  - Regulatory requirements from Quality or Compliance departments

### Defined Order Set Revision Prioritization Criteria

1. Documented patient risk (confirmed by Patient Safety Officer)
2. Regulatory compliance (confirmed by Compliance Officer)
3. Evidence-based care change (confirmed by Quality Officer)
4. ROI/financial benefit (confirmed by financial analyst)
5. Workflow improvement

---

\(^1\) Chief Medical Informatics Officer

\(^2\) Includes Clinical Councils for adult medicine, surgery, obstetrics and gynecology, orthopedics, neurology, heart care, pediatrics, ED, spine, behavioral health, radiology, and critical care. Suggestions also made by pharmacy, nursing, lab, and other ancillary groups.

Source: HealthEast Care System, St. Paul, MN; Physician Executive Council interviews and analysis.
Lesson #3: Leverage Noncompliance to Drive Guideline Evolution

Leave Room for Positive Variation

Organizations are likelier to garner the trust of physicians, and provide better care to patients if they use guideline deviations as an opportunity for learning. To that end, the third lesson is leveraging noncompliance to drive guideline evolution.

While most organizations strive to increase EBP adherence rates, the goal should not be 100% adherence. This would stifle innovation and cause potential harm to patients by limiting warranted variation. Adherence should fall in the “innovation-friendly” zone, between 70%-90%, suggesting physicians are consistently following the best practice standards but have flexibility for improvements and their own discretion.

Intermountain typifies what the “innovation-friendly” zone looks like in practice. Leaders track and analyze physician deviations from guidelines to determine whether deviations are yielding a better outcome than standard practice. If they are, leaders adjust the standard.

Intermountain benefits from a robust data infrastructure and dedicated group to run these analyses. Next, MultiCare offers a less resource-intensive option.
To capture the benefits of principled variation, the medical group at MultiCare Health System evaluates physician deviations from standards at a standing, physician-led quality committee meeting. Noncompliant physicians are given the opportunity to justify their actions before committee members. After evaluating the case, the committee takes one of three courses of action: adopt the outlier’s position and change the guideline, ask the physician to comply with the current guideline, or make a one-time exception.

Physicians may also proactively present a suggested improvement even if they are not called to the meeting as a noncompliant physician.

Though different in execution, the Intermountain and MultiCare tactics achieve the same goal—creating guidelines that actively respond to the innovations of the medical staff. With this approach, clinical executives acknowledge that while they cannot predict all of the on-the-ground realities of practice, they can build a system in which those realities inform guidelines.

### A Low-Tech Physician Feedback Mechanism

**Sources of Proposals**

- **Noncompliant Physicians**
  - Group identifies physicians deviating from standard; requests compliance or justification

- **Self-Selected Innovators**
  - Physician proactively offers own proposal for improvement

**Potential Outcomes**

1. Standard changed; improved by proposal
2. Physicians asked to comply with current standard
3. Principled exception made for extenuating circumstances

### Improvement Proposal Process at MultiCare

**Case in Brief: MultiCare Health System**

- 500-provider employed medical group based in Tacoma, Washington
- Internal medical group monitoring or Corporate Compliance Division provides medical group leadership with physician-level performance to identify noncompliant physicians
- Noncompliant physicians asked to adhere or present to physician quality committee with justification for noncompliance
- Provides venue for ongoing improvement; method for holding noncompliant physicians accountable

Source: MultiCare Health System, Tacoma, WA; Medical Group Strategy Council interviews and analysis. The Advisory Board Company; Physician Executive Council analysis.
Lesson #4: Ensure Guideline Use Is Path of Least Resistance

Make Adherence Easy for Physicians and Nonadherence a Bit Harder

Even if physicians entirely trust the validity of guidelines, they will not use them if they are hard to follow. The next lesson for promoting adherence is ensuring guideline use is the path of least resistance.

Shown here are three methods for minimizing the disruption EBP causes to physician workflow. Moving toward the upper right, the methods require greater physician involvement in workflow redesign, as well as greater changes in physician practice.

The first method involves shifting some of the responsibility for following protocols from physicians to non-physician providers. The second method is making the protocol the default option so that a physician has to expend extra effort to opt out. The third method is improving point-of-care technologies to facilitate evidence-based, real-time decision making. The third method is a hotbed of innovation, though most organizations are just at the brink of experimenting with these technologies.

The following case studies show two organizations that hardwired guideline use by applying the first two methods.
**Addressing Fragmentation in Surgical Care Episode**

In the first example, John Muir Health introduced a new standard of practice largely implemented by nurse practitioners. John Muir leaders uncovered consequential inconsistencies in pre-op care, including ineffective risk-stratification of patients and poor provider communication, which meant many patients were not benefiting from proven risk-reduction strategies.

In response, John Muir piloted a pre-op clinic. Nurse practitioners, under the supervision of a hospitalist, staff the clinic and assess patient risk using a standard checklist. The NPs notify the care team of any risks so they can introduce timely and targeted risk-reduction techniques.

### Challenges in Pre-Op Assessment Status Quo

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ineffective Risk Stratification</strong></td>
<td>RN phone interviews and PCP evaluations not always flagging patients in need of further assessment</td>
</tr>
<tr>
<td><strong>Communication Breakdown</strong></td>
<td>Information collected during pre-op phase often failing to reach downstream care providers</td>
</tr>
<tr>
<td><strong>Underutilized Risk-Reduction Strategies</strong></td>
<td>Patients not connecting to appropriate care pathway with targeted and timely risk-reduction techniques</td>
</tr>
</tbody>
</table>

### Goals of John Muir’s Pre-Op Clinic Pilot

- Stratify patients based on surgical risk factors and initiate efforts to mitigate perioperative risk
- Uncover and communicate critical patient information to care providers
- Provide patient education on surgical process and medical management

### Outcomes Linked to Pre-Op Clinics

- Improved patient satisfaction and resource utilization
- Decreased length of stay, surgery delays, and cancellations

---

### Case in Brief: John Muir Health

- Two-hospital health system based in Walnut Creek, California
- John Muir leadership piloted pre-op clinic to standardize and increase accuracy of patient risk assessments, ensure initiation of appropriate risk-reduction strategies, and communicate key information to care team
- Six nurse practitioners staff the pre-op clinic, with one hospitalist always on staff
- Initially, pre-op clinic accepted hip and knee surgery patients; ambition is to expand to other surgical specialties
- Pre-op clinic designed to become the epicenter for organizing surgical care plan for each patient; long-term goal is to create robust care pathway across entire surgical episode of care, which will emphasize multidisciplinary comanagement of patient, codified evidence-based clinical actions, and communication exchange

---

1) Access John Muir’s Pre-Op Assessment NP Checklist at: advisory.com/PEC/2013meetingresources

Minimizing Change Burden on Physicians

Because of the reliance on NPs, John Muir hardwired standard practice while limiting the impact on physicians.

The main change for the broader medical staff is an expectation to refer high-risk surgical patients to the clinic. Physician champions, in this case hospitalists and anesthesiologists, play a larger role in rollout and ongoing maintenance of the clinic. They helped develop the standard pre-op assessment and educated the medical staff about the benefits of the clinic. Additionally, a hospitalist supervises the NPs at the clinic. This approach avoids having to convince an entire medical staff to adopt a new pre-op checklist.

The clinic NPs are largely responsible for adherence to the new pre-op assessment protocols. To do this effectively, the clinic NPs must be experienced in flagging subtle risk factors. John Muir largely staffs the clinic with NPs from the ICU, PACU, or ED.

An additional benefit of this approach is finding new opportunities to leverage the care team at top of license.

New Activities Associated with John Muir’s Pre-Op Clinic

By Stakeholder Type

Broader Medical Staff
- Refer suspected high-risk patients to clinic
- Act on information provided by clinic NPs

Physician Champions
- Provided input into pre-op assessment, encourage broad physician buy-in
- Hospitalist and anesthesiologists offer guidance to pre-op NPs

Clinic NPs
- Staff clinic and perform pre-op assessments using checklist, order needed labs and diagnostics
- Aggregate relevant patient information and communicate risk factors to PCPs, anesthesiologists, and surgeons

Impact of Change

Source: John Muir Health, Walnut Creek, CA; Physician Executive Council interviews and analysis.
In most EBP cases, organizations do have to influence practice changes across the broad medical staff. To reduce change burden, organizations should embed cues within the workflow to encourage the desired practices. Cues can range from instructive (e.g., a recommended course of action) to mandatory (e.g., a hard-stop prompt to secure permission for an order). The stronger the evidence for the practice, the more difficult the cue should be to bypass.

Intermountain Healthcare uses an appropriate-use criteria documentation form—a mandatory cue—to promote appropriate utilization of tests or procedures with typically high rates of overutilization (e.g., echocardiograms, PCI, pacemaker). The ICD\(^2\) form is shown here and lists all the medical criteria that would justify an ICD. If a patient meets the criteria, the physician can order an ICD by checking the appropriate box. If the patient does not meet the criteria, the physician must receive sign-off from the chief of cardiology and CFO. This extra step ensures physicians order ICDs only when clinically necessary, and allows Intermountain to regulate overrides.

### Case in Brief: Intermountain Healthcare
- 22-hospital, not-for-profit system headquartered in Salt Lake City, Utah.
- Clinical programs create appropriate use criteria (AUC) documentation forms for commonly overutilized procedures or tests within their specialty. The form includes a list of evidence-based indications for ordering the procedure or test. To make an order, physicians may check a box with the corresponding indication. If a physician wants to make an order for a reason outside of the listed indications, the physician must submit the rationale to a physician leader (e.g., the chief of cardiology) for review. The physician can expect a response within three days.
- As part of this initiative, Intermountain created simplified AUC forms for percutaneous coronary interventions, ICD, and pacemaker, along with a one-page, streamlined AUC echocardiogram and nuclear stress test ordering form.

---

1) Appropriate use criteria.
2) Implantable Cardioverter Defibrillator

Source: Intermountain Healthcare, Salt Lake City, UT; Physician Executive Council interviews and analysis.
In addition to making it harder to override EBP prompts and cues, organizations should make the practices themselves easy to follow. According to the Evidence-Based Practice Leadership Audit, organizations rarely consult workflow redesign experts when implementing clinical guidelines. This is a significant missed opportunity—EBP rollout should be done in conjunction with process redesign because conflicts with workflow preclude uniform adoption.

Two groups are critical for workflow impact insight—frontline physicians and process improvement experts. Sentara Healthcare uses members of its Physician Advisory Group as super users for new processes to check for any flaws. Luther Midelfort has redesign teams comprised of frontline staff that have completed process improvement training. They partner with clinical content experts to ensure guidelines complement unit workflow.

**Two Models for Enlisting Redesign Expert Help**

**Physician Advisory Group at Sentara**
- Physician advisory group provides input on workflow redesign, ways to minimize disruption for staff
- Advisory group members act as super users for new processes

**Redesign Expert Teams at Luther Midelfort**
- Multidisciplinary frontline staff attend specialized process improvement training, join “process management teams”
- Teams support work of clinical content expert teams; drive continuous workflow optimization on units

**Case in Brief: Sentara Healthcare**
- 10-hospital health system based in Norfolk, VA
- Developed a Physician Advisory Group to assist with process redesign efforts across the system
- Group offers input on workflow redesign and acts as super users for new processes
- Dedicated IT liaison (one per hospital) interfaces with physicians to address technical problems post-process redesign

**Case in Brief: Luther Midelfort**
- 305-bed hospital located in Eau Claire, Wisconsin; part of the Mayo Clinic Health System
- Developed dedicated clinical process management infrastructure with specialized care teams responsible for the implementation of workflow redesign across the system

Source: Sentara Healthcare, Norfolk, VA; Luther Midelfort, Claire, WI; “The New Quality Compact,” 2012, Physician Executive Council.
Once organizations remove “ease of use” as a barrier, performance data on adherence becomes valuable because it more accurately reflects physician opt-outs rather than systemic barriers. Performance transparency benefits everyone—those who are doing well are recognized, those who are doing poorly are motivated, and those in the middle have examples to emulate—and to avoid.

However, data should be used as an improvement tool, not punishment. The goal is for organizations to migrate toward a culture that embraces performance transparency as the norm, in which physicians proactively seek out data rather than having it forced upon them.

Most organizations have not made this culture shift. Three tactics for tracking and sharing adherence performance data ended up in the bottom five least-used tactics from the EBP Leadership Audit. Physician leaders know sharing data is critical to promoting performance improvement, but common barriers often stand in the way, such as physician attribution issues and a reluctance to have uncomfortable performance conversations.

**Lesson #5: Refine Data-Sharing Approaches to Maximize Efficacy**

**Barriers to Data Sharing an Industry-Wide Problem**

**Known Improvement Lever Requires Clearing Many Hurdles**

Performance Data-Sharing Tactics Are on EBP Leadership Audit Least-Used List…

1. Physician opt-outs of clinical guidelines are tracked and analyzed so that appropriate adjustments to guidelines can be made
2. Experts in workflow efficiency vet clinical guidelines to ensure they can be practically incorporated into clinician workflow
3. Physician performance or OPPE assessments include metrics tracking the physician’s adherence to clinical guidelines
4. Physicians receive data on their own individual-level clinical guideline adherence
5. Individual physicians who have patterns of unwarranted variation receive follow-up communications and corrective actions

…Likely Due to Common Hurdles

- Physicians distrust individual performance data
- Physician leaders avoid performance conversations
- Physicians ignore data and fail to adopt desired behavior

Keys to Data-Sharing Success

Secure Physician Trust in Data
- Audit and improve attribution policy
- Effectively communicate value of individual-level data
- Offer drill-down functionality

Make Principled Migration to Transparency
- Acclimate physicians to transparency through gradual unblinding of individual performance data

Build Personal Accountability
- Implement escalating intervention protocol for physician underperformance
- Recognize top performers
- Link adherence to physician financial incentives

Aspiring to Transparency as the Norm

For data to have a meaningful impact on performance, physician leaders should follow the three steps shown here.

First, foster physician trust in the data by addressing concerns about attribution and letting physicians drill down into the data.

Second, make a principled migration to transparency. Do not immediately jump into unblinded data sharing. Instead, acclimate physicians to performance data by gradually introducing new levels of transparency across time.

Third, promote personal accountability among physicians for adherence through rewards and fair consequences.

For more information on the first two steps, see the publications referenced here. The following tactics offer an in-depth look at building personal accountability.

PEC Publications on Physician Data-Sharing:
Access New Quality Compact, Physician Attribution Playbook, and The Accountability Moment at: advisory.com/PEC/2013meetingresources

Source: Physician Executive Council interviews and analysis.
To build personal accountability for following EBP, Gundersen Health incorporates the expectation of EBP use into their medical staff compact. One of the responsibilities is, “Practice evidence-based, high-quality medicine.” A group of physicians created the compact, which secured broad physician buy-in and mutual responsibility for practicing in accordance with the compact. Each employed physician’s performance at upholding the compact is evaluated during their annual performance review.

**Gundersen Health System’s Medical Staff Compact**

**Medical Staff Responsibilities**

- Focus on Superior Patient Care
  - Practice evidence-based, high-quality medicine
  - Encourage increased patient understanding, involvement in care, and treatment decisions
  - Achieve and maintain optimal patient access
  - Insist on departmental focus on superior patient service
  - Work in collaboration with other physicians, support staff and management across the system in both service and patient care improvements

**Annual Physician Performance Evaluation**

Physicians provide self-evaluation during annual review and must reflect on compliance with compact.

---

**Case in Brief: Gundersen Health System**

- System with one acute-care hospital and three critical access centers headquartered in La Crosse, Wisconsin with facilities located throughout Wisconsin, Iowa, and Minnesota
- Medical group with 48 physician offices; includes 20 medical clinics, 12 eye clinics, eight behavioral health clinics, four podiatry clinics, and two sports medicine clinics
- Medical Staff Compact outlines physician behavioral competencies and commitments; “Practice evidence-based, high-quality medicine” is a requirement under the Medical Staff Compact, signaling to physicians that EBP is system-wide expectation
- The citizenship section of medical staff performance evaluations assesses (on a three-point scale) each physician’s conduct in accordance with the Medical Staff Compact

---

Source: Gundersen Health System, La Crosse, WI; Physician Executive Council interviews and analysis.
Incorporating Guideline Adherence into OPPE, FPPE

More Hospitals Evaluating Adherence Alongside Other Performance Metrics

Some organizations with mixed medical staffs are beginning to embed performance expectations related to EBP into the OPPE process. Sample adherence-related metrics are shown here.

The appropriate weighting to give EBP-related metrics remains an open question. But including adherence metrics as part of OPPE sends a strong signal about the importance of EBP.

Sample Clinical Practice Guidelines Included in OPPE

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Sample Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensive Medicine</td>
<td>Compliance to ventilator bundle interventions to reduce VAP</td>
</tr>
<tr>
<td>Orthosurgery</td>
<td>Compliance with prophylactic antibiotics within 0-60 minutes of incision</td>
</tr>
<tr>
<td>Radiology</td>
<td>Episodes of noncompliance with central line insertion bundle</td>
</tr>
</tbody>
</table>

Incorporating Guideline Adherence into OPPE and FPPE metric sets signals importance of EBP adoption

Publication in Brief: The Accountability Moment

Access 10 principles for moving beyond OPPE to a rigorous, credible physician PI framework at: advisory.com/PEC/2013meetingresources

1) Ongoing professional practice evaluation—information from OPPE is used to determine whether to continue, limit, or revoke any existing privilege(s).
2) Focused Professional Practice Evaluation.

Source: Physician Executive Council interviews and analysis.
Regardless of the formal incorporation of adherence metrics into OPPE or physician performance evaluations, organizations should link EBP non-adherence to escalating consequences.

Johnston Memorial Hospital manages underperformers through a transparent, escalating intervention process. First, a noncompliant physician will receive a written notification communicating the case for guideline adherence. If the behavior continues, a physician quality champion meets with the colleague to review performance data, answer questions, and again encourage compliance. The meeting is entirely collegial and informal. If the physician still does not improve, the interventions become more formalized and involve meetings with medical staff leaders and ultimately the CMO. These targeted conversations typically provide powerful motivation, and the escalating intervention model ensures physician executive time is reserved for the most-critical conversations.

**Escalating Peer Intervention Protocol**

**Case in Brief: Johnston Memorial Hospital**
- 135-bed hospital based in Abingdon, Virginia
- CMO holds one-on-one conversations only with those physicians who have not responded to previous interventions

**Formal Intervention Scale for Physician Underperformance**

- **Written Notification**
  - Hospital provides notice about importance of following EBP

- **Informal Peer Meeting**
  - PI champion meets with low-performing colleague to make case for adherence

- **Formal Follow-Up**
  - PI champion or VPMA convenes more formal meeting to discuss corrective steps

- **CMO Interview**
  - CMO leads formal meeting and frames correction in terms of negative consequences

Source: Johnston Memorial Hospital, Abingdon, VA; Physician Executive Council interviews and analysis.
**CI¹ Network Membership Requires EBP Adherence**

Organizations sharing financial risk with physicians under value-based payment models can take consequences for nonadherence a step further—the financial viability of the network depends on improving quality and becoming more efficient. In other words, while EBP is important for all organizations now, it becomes a necessary core competency once organizations and physicians are sharing performance risk.

At Vienna Health Care, a pseudonym, leaders of the clinical integration network assign physicians a “CI score” based on performance measures, which include protocol compliance. Physicians missing the threshold CI score have a year to improve or they are removed from the network.

As more organizations adopt risk-based contracts, success will depend in part on finding ways to instill EBP adherence as a standard physician competency. The good news is, as physicians financially align with health care organizations, they are likelier to lead and be fully engaged in EBP adoption efforts.

---

**EBP Adherence Critical to Meet CI Incentives for Improved Cost, Quality**

- Peripheral players not fully committed to network
- Characterized by unwillingness to coordinate care, join hospital’s EMR platform
- Physicians must meet minimal threshold on Vienna’s “CI score,” which includes EBP adherence metrics
- Physicians who score below minimum threshold placed on probation for one year

---

**CI Score**

- In 2011, score included 149 different metrics, of which any given group was accountable for 10-25
- Metrics include patient registry usage, effective use of hospital resources, clinical outcomes, *adherence to screening protocols*

---

**Case in Brief: Vienna Physician Network²**

- Clinically integrated physician network affiliated with six Vienna Health Care hospitals in the Southwest
- Instituted CI score, non-negotiable membership requirements to improve unity, quality of physician partners in network

---

¹) Clinical integration.
²) Pseudonym.

Source: Health Care Advisory Board interviews and analysis; Physician Executive Council interviews and analysis.
Recognizing Top Performance a Proven Engagement Driver

“This organization recognizes clinicians for excellent work.”

n=3,711 economically affiliated physicians

Agreement with this statement directly correlates to physician engagement with an $r^2$ of 0.565

Unlike scores for practice support, autonomy, and reputation, score for recognition low across all specialties

Advisory Board Survey Solutions: Physician Engagement Initiative

- Best-in-class survey platform with a suite of change management supports to advance physician engagement and equip physicians to pursue organizational strategic goals
- To learn more, please email Megan Grant at grantm@advisory.com

1) Includes physicians who answered “Agree” or “Strongly Agree” for this driver.
2) Includes physicians who answered “Tend to Agree”, “Tend to Disagree”, “Disagree”, “Strongly Disagree” for this driver.

Source: Advisory Board Survey Solutions’ national physician database, 2013; Physician Executive Council interviews and analysis.
There are many ways organizations could celebrate EBP adoption and recognize top clinical performance. Shown here is a simple but effective recognition tactic from Intermountain.

The CMO receives an unblinded physician report on blood utilization since one of their major initiatives is correcting blood overuse. Each physician receives the same report, but all of the names are blinded, with the exception of the top performers and the physician’s own data. This publicly acknowledges top performers, promotes a healthy dose of competition, and allows other physicians to seek advice from top performers. Additionally, this method does not shame underperformers.

### Case in Brief: Intermountain Healthcare

- 22-hospital, not-for-profit system headquartered in Salt Lake City, Utah
- System-level analytics department develops physician-level adherence and utilization reports (e.g., blood utilization)
- Executive leadership receives unblinded reports
- Individual physicians receive report with blinded data, though their personal data is highlighted; viewing performance in comparison to peers sparks competitive drive
- To recognize top performers, some of the reports unblind the top five performing physicians

#### Blood Utilization Reports

<table>
<thead>
<tr>
<th>Physician</th>
<th>Units per Patient</th>
<th># of Patients</th>
<th>Unit Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Arcade</td>
<td>2.50</td>
<td>2</td>
<td>.71</td>
</tr>
<tr>
<td>Dr. House</td>
<td>2.67</td>
<td>6</td>
<td>.82</td>
</tr>
<tr>
<td>Dr. Fleet</td>
<td>2.75</td>
<td>4</td>
<td>.96</td>
</tr>
<tr>
<td>Dr. Swift</td>
<td>3.00</td>
<td>7</td>
<td>1.91</td>
</tr>
<tr>
<td>Dr. Sail</td>
<td>4.50</td>
<td>16</td>
<td>2.73</td>
</tr>
<tr>
<td>Dr. Sun</td>
<td>6.10</td>
<td>30</td>
<td>5.50</td>
</tr>
<tr>
<td>Dr. Wood</td>
<td>8.27</td>
<td>22</td>
<td>9.75</td>
</tr>
<tr>
<td>Dr. Rose</td>
<td>11.00</td>
<td>2</td>
<td>12.73</td>
</tr>
</tbody>
</table>

#### Sample Leadership Report

- CMO reviews individual physician utilization

#### Sample Individual Physician Report

- Top five names not blinded to recognize performance, encourage lower performers to seek mentorship from top performers
- Each physician receives report with his or her performance highlighted

---

1) All names are illustrative.
2) This feature is on some, but not all, reports.

Source: Intermountain Healthcare, Salt Lake City, UT; Physician Executive Council interviews and analysis.
Leveraging Group Accountability to Raise Adherence

Though not currently a widespread practice, linking EBP adherence to physician compensation will likely become more common as the industry shifts away from productivity-based plans to rewarding value.

At Memorial Hermann Healthcare System, physician incentives are linked to compliance with order sets, but not individual compliance. Incentive payouts depend on physicians at an entire campus—across all specialties—adhering to order sets for six high-volume, high-cost DRGs. For any single physician to receive a payout, physicians must collectively achieve 60% compliance.

Memorial Hermann sends out monthly compliance reports with individual physician compliance. This ensures the goal stays top of mind, and informs physicians if their compliance rates are dragging down the group rate. It promotes collective accountability—a physician may encourage a peer to comply if they are consistently deviating from the standard order set.

Just six months into the program, compliance increased across facilities. The system realized reductions in cost and length of stay from increased order set use.

**Showing Individual Performance in Context of Campus-Wide Goal Prompts Gains**

**Memorial Hermann Financial Incentive Program for Order Set Compliance**

 Campus-wide order set compliance must reach 60% for any campus physician to receive incentive payout

**Order Set Compliance Across Memorial Hermann Campuses In 2011**

<table>
<thead>
<tr>
<th>Campus</th>
<th>January</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar Land</td>
<td>77%</td>
<td>91%</td>
</tr>
<tr>
<td>Northeast</td>
<td>81%</td>
<td>90%</td>
</tr>
<tr>
<td>The Woodlands</td>
<td>48%</td>
<td>60%</td>
</tr>
</tbody>
</table>

**Efficiency Gains After Six Months**

<table>
<thead>
<tr>
<th>Component</th>
<th>Reductions attributed to order set adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Costs</td>
<td>16%</td>
</tr>
<tr>
<td>Length of Stay</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Case in Brief: Memorial Hermann Healthcare System**

- 13-hospital health system with 3,500-physician CI network based in Houston, Texas
- To drive group-level quality performance, portion of physician financial incentive tied to campus-wide compliance with six high-volume DRG order sets; physicians gain understanding that decision to not follow care standards affects peers in the network
- Incentives improved order set compliance and yielded significant cost reductions

---

1) Order sets include community-acquired pneumonia, CHF, COPD, chest pain, GI hemorrhage, and sepsis.

Despite System Efforts, Sepsis Still a Big Challenge

The five lessons covered thus far illustrate that there is no single solution for overcoming the adherence challenge. It takes pursuing a culture of adherence, which requires a multifaceted strategy of EBP supports such as messaging, workflow support, data, and incentives.

The next case study from Inova Health System provides a real-world example of how using all of the EBP support principles benefits a specific initiative.

In 2012, Inova rolled out a system-wide sepsis campaign that seemed to have all the makings of a successful initiative. Leaders had identified a high-ROI opportunity, educated physicians, created order sets, and reported compliance data to facilities. Despite these efforts, Inova did not realize performance gains.

Adherence Case Study: Inova Mount Vernon Hospital

A Targeted System Campaign…

- Identified sepsis as a system priority through LOS, mortality data
- Provided physician education on sepsis guidelines
- Created sepsis bundle order set
- Provided facilities with monthly data reports

…Without a Clear Impact

Before Campaign

After Campaign

Case in Brief: Inova Mount Vernon Hospital and Inova Alexandria Hospital

- Inova Mount Vernon Hospital (IMVH) and Inova Alexandria Hospital (IAH) are 237-bed and 318-bed community hospitals, respectively
- Both hospitals are part of a five-hospital, not-for-profit health system located in Northern Virginia
- In 2012, the VPMA at IMVH and CMO at Inova Alexandria, Dr. Donald Brideau and Dr. Jack Audette, piloted an ED sepsis initiative which leveraged real-time tracking and analysis to identify and remove barriers to adherence
- Preliminary results at IMVH and IAH include:
  - Reduced time of bundle completion from 142 to 97 minutes (IMVH) and 125 to 80 minutes (IAH)
  - Increased sepsis bundle adherence rate from 20% to 64% (IMVH) and 23% to 38% (IAH)
  - Reduced LOS from 8.3 to 6.1 days (IMVH) and 9.6 to 7.9 days (IAH)

Source: Inova Mount Vernon Hospital, Falls Church, VA; Physician Executive Council interviews and analysis.
Data Rich but Information Poor

The CMO at Inova Alexandria Hospital convened a multidisciplinary team from pharmacy, the ED, and infectious disease to determine why the system initiative was not producing the desired practice change. They determined the system’s monthly data reports were not providing physicians with actionable, timely data. The reports were very long and tracked adherence to over 20 sepsis metrics for every patient. The reports were also provided six to eight weeks after the patient encounter. Even if physicians wanted to act on this data, it was extremely difficult to remember the particular cases and reflect on the care they provided.

In response, the multidisciplinary team decided to pilot a new approach in the ED, since this where the majority of sepsis cases present. The ED pilot team made two big changes. First, they made it very clear to physicians what were the highest-impact steps. Second, they helped them learn from care breakdowns quickly. These changes are outlined in detail on the following pages.

Three Data Shortfalls Inhibit Sepsis Practice Change

<table>
<thead>
<tr>
<th>Too Many Metrics</th>
<th>Data Not Physician Specific</th>
<th>Delayed Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians receive long spreadsheet detailing 20 metrics on sepsis protocol adherence</td>
<td>Patient-specific data provided in aggregate report, but not organized by physician</td>
<td>Adherence data reports provided six to eight weeks after patient encounter</td>
</tr>
</tbody>
</table>

Non-actionable Data

- Physicians largely ignore reports
- Physicians do not feel accountable for adherence
- Facilities cannot determine root causes of nonadherence because of time lag

Source: Inova Mount Vernon Hospital, Falls Church, VA: Physician Executive Council interviews and analysis.
Crafting a Time-Sensitive Sepsis Bundle Goal

Inova did not change the system evidence-based sepsis protocol, but they did double-down on adherence to select, highest-priority components of the sepsis bundle. The ED pilot team set a goal for clinicians to complete the four bundle components listed here. Importantly, they set the expectation that all four care activities be completed within an hour for every patient diagnosed with sepsis. The goal has changed clinician behavior because it is easy to remember and clinicians can be held accountable for it.

Imperative: Complete Care Steps in Critical Time Window

Simplified ED Pilot Sepsis Bundle Goal

1. Measure lactate levels
2. Obtain blood cultures
3. Administer antibiotics
4. Give intravenous fluids

Target: Complete all four care activities within one hour of diagnosis

Source: Inova Mount Vernon Hospital, Falls Church, VA; Physician Executive Council interviews and analysis.
Improving Data Timelines

In addition to streamlining the sepsis goal, the ED pilot team aimed to generate actionable insights in real time so that all clinical staff could learn from their mistakes and improve performance. This required the team to change its approach to data collection.

Every day a sepsis patient admits to the ED, a pharmacist manually aggregates sepsis bundle adherence data from the EMR into a report. This report is shared with ED leaders the very next day.

### IMV’s¹ Data Strategy to Track Sepsis Bundle Adherence Daily

<table>
<thead>
<tr>
<th>What is our purpose for collecting data?</th>
<th>What type of data do we need to collect?</th>
<th>How do we collect this data?</th>
<th>How often do we need to collect the data?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely Analysis and Improvements</td>
<td>Adherence Data</td>
<td>Manual EMR Data Pulls</td>
<td>Daily Tracking</td>
</tr>
<tr>
<td>• Immediately uncover workflow barriers to noncompliance for specific cases</td>
<td>• Track four sepsis metrics and time of completion (blood culture, lactic acid, IVF, antibiotics)</td>
<td>• Pharmacist reviews patient registry for current sepsis patients</td>
<td>• Pharmacist creates daily report, gives to ED clinical leader the next morning</td>
</tr>
<tr>
<td>• Promote accountability by providing real-time, physician-specific feedback on performance</td>
<td>• Track outcomes (sepsis mortality, LOS)</td>
<td>• Pharmacist aggregates sepsis bundle adherence data from EMR</td>
<td>• Daily tracking feasible given small volume of sepsis patients (14-20 per month in ED)</td>
</tr>
</tbody>
</table>

---

¹: Inova Mount Vernon Hospital.

Source: Inova Mount Vernon Hospital, Falls Church, VA. Physician Executive Council interviews and analysis.
The day after treating a septic patient in the ED, key ED clinicians huddle to review the performance report and investigate any sepsis cases falling short of the four-part sepsis goal. The huddle participants may discuss the cases with the entire care team to determine the root cause for noncompliance and address relevant barriers.

The next-day adherence data is the linchpin component of the huddle. The team immediately feels the consequences of not hitting the goal, and they can fix process breakdowns because the cases are fresh in clinicians’ minds.
Targeted Approach Yields Efficiency, Quality Gains

Inova Mount Vernon’s focus on the four-part bundle and next-day assessments has yielded positive results, including improved adherence, reduced time to complete the bundle, and reduced length of stay.¹

This case study illustrates the tremendous impact wraparound support—clear goals, timely data, and shared responsibility—can have on promoting adherence to a known, effective guideline, and ultimately improving outcomes.

Pre- and Post-ED Pilot Sepsis Outcomes at IMVH² and IAH³

Improving Adherence Without Changing the Guideline

“We’re going to narrow our focus to the ED and four major metrics. When a patient comes in with sepsis they are going to get all those interventions, and we are going to track it and look at the data the very next day. That’s the thing that changed. There was no change in the guidelines. The guidelines were from the system-wide initiative. But, how physicians reacted to the data was much more personalized when we took it in-house rather than having all this data poured out to them with no direction on how to use it.”

Dr. Donald Brideau, CMO, Inova Mount Vernon Hospital

1) As of publication, Inova Mount Vernon and Inova Alexandria did not have a sufficient number of sepsis cases to report mortality rates.
2) Inova Mount Vernon Hospital
3) Inova Alexandria Hospital.

Source: Inova Mount Vernon Hospital, Falls Church, VA; Physician Executive Council interviews and analysis.
Before moving on to more discussion of fostering EBP, please note that many hospitals have an opportunity to improve mortality outcomes and reduce cost per case by hardwiring evidence-based sepsis care.

The Physician Executive Council has extensive resources to guide hospitals in building a system of care that coordinates care team responsibilities and delivers timely treatment for every sepsis patient.
Currently, clinical guidelines tend to define a standard practice that optimizes quality. However, most guidelines are not particularly effective in curbing unnecessary (and often expensive) utilization. For instance, physicians may follow an order set, but still order additional tests. Many factors contribute to excess utilization, including a proliferation of new technologies, the ease of electronic ordering, and fear of malpractice.

Curbing unnecessary utilization is critical both for reducing cost per case and managing total costs of care. It requires a shift from the conventional quality focus of EBP to guidelines that promote both quality and resource stewardship.

Organizations pushing forward most effectively with reducing unnecessary utilization are careful not to prioritize cost reduction over quality—reducing utilization must never come at the expense of patient care. Instead, these organizations are focusing on how to provide the right care, and the right amount of care, to patients. This vision resonates with physicians and is one reason Danbury Hospital in Connecticut has successfully engaged physicians in these efforts.
**Physicians Must Lead the Charge**

Danbury Hospital models the sixth and final lesson on adherence: make physicians the trailblazers of rationalizing resource use.

A few years ago, Danbury Hospital launched a comprehensive efficiency initiative to reduce variation for eight high-cost, high-volume DRGs. The CMO knew physician engagement was critical for any meaningful progress, so he involved physicians from the outset. A physician champion was assigned to each DRG and paired with a data analyst to review physician performance data. Together they created dashboards, like the one shown here, with utilization targets and action steps to curb overutilization of resources such as echocardiograms, telemetry, and blood. These utilization targets typically do not exist in the literature, so the physicians set them based on clinical experience and consensus. Danbury also ensured physician and data analysts have the analytic capabilities to track and report performance.

**Physician Champions Create, Promote Utilization Targets Among Peers**

**Partnership Between Data Analysts and Physician Champions**

- Physician champion, data analyst pairs dedicated to specific DRG evaluate utilization trends, identify improvement opportunities
- Physicians and analysts work together to create an “opportunity dashboard” with explicit goals for improving utilization
- Goals established based on evidence and clinical consensus

**Representative Opportunities Dashboard (CHF)**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Rationale</th>
<th>Action Plan</th>
<th>Current Utilization</th>
<th>Utilization Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echo</td>
<td>Not needed if recent study or well identified</td>
<td>Educate house staff, hospitalists; track trends</td>
<td>43%</td>
<td>35%</td>
</tr>
<tr>
<td>Telemetry for over 48 hours</td>
<td>Not indicated in uncomplicated heart failure</td>
<td>Educate house staff, hospitalists; track trends; change order set</td>
<td>42%</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Case in Brief: Danbury Hospital**

- 370-bed teaching hospital in Danbury, Connecticut
- Using the Crimson platform, launched a DRG efficiency initiative to reduce unnecessary costs and variation in care without compromising quality
- The initiative yielded a $2.9 million reduction in charges over FY 2009-2010

Source: Danbury Hospital, Danbury, CT; Physician Executive Council interviews and analysis.
Committee Uses Multiple Tactics to Reduce Unnecessary Utilization

**DRG Committee Members**
- Chaired by CMO
- Physician champions (department chairs/chiefs)
- Nursing CPOE direct
- Service line directors
- Data analyst

**Tactics to Encourage Reduction in Unnecessary Utilization**

**Hardwired Guidelines**
- Modified order sets and implemented CPOE-based alerts
- Created rounding checklist (e.g., review orders for telemetry, foley)

**Ongoing Education**
- Developed online mandatory educational seminars, testing
- Presented performance data at service line committees and hospitalist meetings

**Accountability Mechanisms**
- Discuss utilization targets during daily rounds: “Why did you order that?”
- Require specialist approval before ordering certain tests
- Enforce restrictions for certain high-cost, high-risk items

Source: Danbury Hospital, Danbury, CT; Physician Executive Council interviews and analysis.
A Closer Look at Rationalizing Use Within a Specific Clinical Area

Drivers of High Telemetry Use at Danbury

- House-wide availability of telemetry beds
- Inconsistent adherence to established criteria for use
- Failure to discontinue telemetry order as appropriate

Targeted Tactics to Reduce Utilization

- Reduced number of telemetry beds on med-surg floors
- Educated ED physicians on criteria for telemetry orders
- Option to discontinue telemetry order included in daily rounding checklist

The impact of these tactics is evident through Danbury team leads’ work to right-size telemetry use.

Leaders pinpointed three reasons for high telemetry use at Danbury—abundance of telemetry beds, inconsistent physician adherence to use criteria, and failure to discontinue telemetry orders. They addressed each problem driver directly—reducing number of beds, educating clinicians, and evaluating the telemetry order in the daily rounding checklist.

These steps cut the percentage of patients on telemetry in half, and significantly reduced the percentage of patients on telemetry for over 48 hours.

Across all of its initiatives, Danbury Hospital achieved roughly $2.9 million in charge reductions over one fiscal year. The team continues to pursue enhanced quality and efficiency through these types of initiatives.
Chapter 3

Capitalizing on System Advantage

Lesson #7: Use a Centralized, Data-Driven Approach to Prioritize System-Wide Opportunities
Lesson #8: Hold Executive Leaders Directly Accountable for Advancing EBP
Lesson #9: Scale Best Practices System-Wide
Hospitals have been using mergers and acquisitions as a growth lever for decades, but the goals behind M&A strategy are changing. Traditionally, M&A was used to realize financial and operational efficiencies. However, now organizations are using M&A to realize clinical and geographic scale.

The final chapter of this publication focuses on clinical scale. To achieve this, organizations must embed evidence-based practice across all its services and sites as efficiently as possible.

Though physician executives tend to share this common vision, execution has been inconsistent. Results from the Evidence-Based Practice Leadership Audit found that most organizations are successful in building an evidence-based unit or service line, but have not scaled those efforts to build an evidence-based organization.
System-Wide Performance Variation Persists, Despite Known Best Practice

A best practice standard of care typically exists within an organization, but has not been scaled across hospitals.

The graph shows the readmission rates for six hospitals of a health system. Performance varies significantly, which is typical of most systems that have not adopted a standard, best practice approach. Of course, confounding factors may come into play, but a standard approach can contribute to reducing this performance variation.

However, at most systems, performance variation remains because of significant barriers to implementing a system-wide clinical standard, including, but not limited to, geographic dispersion, unique facility cultures, clinical skill mix, and available resources.

Pneumonia Readmission Rates Across Hospitals of Walnut Field Health System

```
<table>
<thead>
<tr>
<th>Hospital</th>
<th>Readmission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>19%</td>
</tr>
<tr>
<td>B</td>
<td>23%</td>
</tr>
<tr>
<td>C</td>
<td>16%</td>
</tr>
<tr>
<td>D</td>
<td>18%</td>
</tr>
<tr>
<td>E</td>
<td>20%</td>
</tr>
<tr>
<td>F</td>
<td>22%</td>
</tr>
</tbody>
</table>
```

Hard to Ensure Even EBP Support Across Sites

“We’re doing well at our hospital, but we just acquired a couple other hospitals and I’m not sure what they do. We don’t have an established way of coming to consensus on the best approach. And it doesn’t seem to be on the top of anyone’s priority list.”

Facility CMO

Source: Medicare Hospital Compare Quality of Care; Physician Executive Council interviews and analysis.
Even Standalone Hospitals Are Systems

The challenges of achieving clinical scale are also present in individual hospitals. Like any health care system, a hospital has many siloes to navigate: physician specialties and contracts, organizational structure siloes, staff siloes, and initiatives.

The following three lessons in this chapter help clinical executives advance scale across all siloes, whether in a single hospital or across a system.

Challenging to Migrate to One Standard

Many Potential Clinical Siloes Within a Single Facility

<table>
<thead>
<tr>
<th>Physician Types and Groups</th>
<th>Hospital Organizational Structure</th>
<th>Workforce Groups</th>
<th>Individual Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Independent physicians</td>
<td>• Service lines</td>
<td>• Mid-level providers</td>
<td></td>
</tr>
<tr>
<td>• Employed medical group</td>
<td>• Inpatient units</td>
<td>• Pharmacy</td>
<td></td>
</tr>
<tr>
<td>• Affiliated physicians</td>
<td>• ED</td>
<td>• Nursing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quality department</td>
<td>• PT/OT/RT</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Case management</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Social work</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Post-acute care</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>transitions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reducing CAUTIs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ED sepsis bundle</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Coding and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>documentation</td>
<td></td>
</tr>
</tbody>
</table>

Source: “The New Breed Health System,” The Advisory Board Company; Physician Executive Council interviews and analysis.
Lesson #7: Use a Centralized, Data-Driven Approach to Prioritize System-Wide Opportunities

EBP Often Lacks a Principled Prioritization Process

While most organizations are structured as systems, they are not using the system purview to prioritize EBP efforts. This means they are not unearthing system-wide improvement opportunities with the greatest potential for cost and quality improvement.

The four hurdles outlined here hinder effective, system-wide prioritization of EBP initiatives. The most common are the two on the left. First, some organizations favor decentralized decision making to enfranchise physicians in the process. However, this can lead to highly localized, and often redundant or low-ROI, efforts to create guidelines. Second, organizations may make opportunistic selections based on factors such as availability of a physician champion or a path of least resistance.

All of these approaches suffer from the same pitfall—they allow pockets of EBP to sprout rather than strategically selecting which projects will generate the greatest return for the entire organization.

The seventh lesson proposes an alternative—use a centralized, data-driven approach to prioritize system-wide opportunities.

Example Hurdles to Strategic EBP Initiative Prioritization

- **Decentralized Decision Making**
  *Key example:* OB-GYN group decides to focus on new intervention without proven ROI after attending conference

- **An Overabundance of Options**
  *Key example:* CMO relies on bottom-up innovation due to expansive list of potential stakeholders and areas of focus

- **Opportunistic Selections**
  *Key example:* Organization focuses on ED frequent fliers because ED physicians are engaged

- **Lack of Continuous Monitoring**
  *Key example:* System maintains sepsis as priority for three years without analysis of new opportunities

Yields nonoptimal selection of projects and duplication of work

Source: Physician Executive Council interviews and analysis.
Optimal prioritization of EBP efforts includes the three components, shown here.

First, dedicate a group or process at the system-level to evaluate and set EBP priorities. Second, use uniform criteria to evaluate each opportunity, so that system-wide initiatives are selected based on a common standard. Third, make prioritization an ongoing, rather than a one-off, process, so that regular data monitoring catches new variation opportunities when they emerge.

The centralized group should be on the lookout for performance variation between facilities, which could signal the need for scaling an existing best practice rather than a complete system overhaul.

On the whole, organizations should shift toward analyzing variation data and setting EBP priorities at the system level. But this should not come at the expense of local innovation or execution. Top-down ideas can seem less relevant or be resisted at care sites. To guard against this, organizations should encourage principled frontline innovation in those areas without a defined standard of care.
Banner Health, a 24-hospital system, strikes the right balance between centralized prioritization (which ensures that EBP efforts are focused on the most impactful opportunities) and specialty-led execution (which ensures that standards of care are relevant and credible). Rather than having one entity try to accomplish both goals, they established two separate but complementary efforts.

The Clinical Performance Groups (CP Groups) are wholly dedicated to uncovering variation in the system, quantifying it, and using those insights to prioritize opportunities. Based on this analysis, they define the areas for which Banner should create guidelines.

These insights inform the work of the Clinical Consensus Groups (CCGs). These are system-level groups, organized by clinical area, that develop the standards of care in the areas identified by the CP Groups.

Many systems use groups like the CCGs—specialty groups that create guidelines. But by having different teams focus on prioritization, Banner ensures the very resource-intensive efforts of the CCGs are directed against the biggest opportunities.

**System-Level Group Conducts EBP Prioritization Analysis at Banner Health**

<table>
<thead>
<tr>
<th>17 Clinical Consensus Groups (CCGs)</th>
<th></th>
<th>Five Clinical Performance Groups (CP Groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Suggest high-ROI cross-system opportunities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Devise and disseminate evidence-based practice system-wide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each CP Group staffed by physician lead¹, RN, and process engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CP Group uses data-driven approach to compare system-wide standardization opportunities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CP Group vets each opportunity against set cost and quality criteria</td>
</tr>
</tbody>
</table>

**Case in Brief: Banner Health**

- 24-hospital, not-for-profit system headquartered in Phoenix, Arizona
- Facilities located throughout Arizona, Alaska, California, Colorado, Nevada, Nebraska, Utah, and Wyoming
- In 2009, Banner introduced Clinical Consensus Groups (CCGs) dedicated to defining, designing, and implementing evidence-based practice; currently 17 CCGs operating
- Created five Clinical Performance Groups responsible for uncovering top system opportunities to minimize variation

---

¹ Spends a quarter of time on CP Group work.

Source: Banner Health, Phoenix, AZ; Physician Executive Council interviews and analysis.
Physicians Add Clinical Credibility to CP Groups

The table shown here outlines defining characteristics of the Clinical Performance Groups and Clinical Consensus Groups.

Banner used two tactics to successfully position the CP Groups so the CCGs, comprised of many influential clinicians, would follow the recommendations of the much smaller CP Groups.

First, the CP Groups are led by a well-respected physician who dedicates a quarter of his or her time to the group. This add clinical credibility to what would otherwise be a data-centric team.

Second, the CP Groups follow consistent criteria to evaluate any variation opportunity, eliminating any potential bias.

Features of System-Level EBP Groups at Banner Health

<table>
<thead>
<tr>
<th>System-Level EBP Group</th>
<th>Function</th>
<th>Leadership</th>
<th>Membership</th>
<th>Number, Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Performance Groups (CP Groups)</td>
<td>Take a data-driven approach to evaluating and prioritizing system-wide opportunities to minimize variation; suggest opportunities for CCGs to build clinical guidelines</td>
<td>• Physician lead</td>
<td>• Physician lead (25% time)</td>
<td>• Five CP Groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clinician lead (typically an RN)</td>
<td>• Clinician lead (full time)</td>
<td>• Each CP Group partners with specific CCGs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Process engineer (full time)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Consensus Groups (CCGs)</td>
<td>Develop and implement care processes across the system based on best available evidence and consensus</td>
<td>• Physician lead</td>
<td>Multidisciplinary, cross-system teams:</td>
<td>• 17 CCGs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clinician lead</td>
<td>• Bedside clinicians, physicians</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facility CMO</td>
<td>• Clinical Informatics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Regional CMO</td>
<td>• Pharmacy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Supply chain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Therapy (occupational, respiratory, physical)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Banner Health, Phoenix, AZ; Physician Executive Council interviews and analysis.
Shown here are the five criteria CP Groups use to vet every EBP initiative they consider. They quantify (or qualitatively assess) the impact of each EBP initiative within each of these areas, and use that analysis to force-rank initiatives by estimated return. Those at the top are passed along to the CCGs to develop a standard of care to reduce the identified variation.

Of note, clinical quality is first, not cost. Physician leaders at Banner noted that this prioritization scheme maintains the credibility of the program with their physicians.

Criteria for Prioritizing Standardization Opportunities at Banner Health

1. Clinical Quality
2. Safety
3. Cost
4. Patient Experience
5. Physician Champion Cultivation

Standard Cost Analysis Methodology

<table>
<thead>
<tr>
<th>Cost Layer</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1: Variable</td>
<td>Supplies, medications</td>
</tr>
<tr>
<td>Layer 2: Semi-variable</td>
<td>Direct hourly nursing, respirator therapists, etc.</td>
</tr>
<tr>
<td>Layer 3: Semi-fixed</td>
<td>Equipment, operating room, time, physician salaries</td>
</tr>
<tr>
<td>Layer 4: Fixed</td>
<td>Billing, organizational overhead, finance</td>
</tr>
</tbody>
</table>

“Although the Clinical Consensus Groups know effective standardization is dependent on balancing clinical quality, safety, cost, and patient experience, they are still most focused on clinical quality—that is our physician culture.”

Dr. Marjorie Bessel
Regional Medical Officer, Banner Health

1) Adapted from a framework in the New England Journal of Medicine.
Assessing Initiative ROI

When selecting clinical areas to develop guidelines for, physician leaders typically do not consider the ROI calculation associated with reducing variation. In contrast, University Hospitals in Cleveland cultivates a cost-consciousness among their physician leaders by having them quantify the expected ROI of any EBP initiative before the system will resource it. The leaders then have to prove they are achieving the expected return by presenting monthly progress reports to clinical leaders. After 90 days, they are expected to demonstrate hard ROI. This selection process ensures system resources go to the highest-potential projects. And, physicians gain greater understanding into the cost dimension of care, which is a desirable competency for physician leadership within the current value-based market.

Physicians Calculate and Pitch ROI During Initiative Selection Process

Initiative Selection Process at University Hospitals

- **Quantify Expected ROI**
  - Every initiative leader must quantify expected ROI based on LOS, cost per case, and mortality

- **Share Monthly Progress Updates**
  - Clinical leaders host monthly meeting to track progress made on specific initiatives

- **Demonstrate ROI Results**
  - Initiative leaders present findings to the board and aim to demonstrate results within 90-120 days

**Case in Brief: University Hospitals**

- 10-hospital system based in Cleveland, Ohio
- Implemented a strategic selection process for vetting possible EBP projects
- Each initiative leader must quantify the initiative’s expected ROI and aim to realize it within 90 to 120 days
- The system has been able to remove $150 million in costs over the past three years

Source: University Hospitals, Cleveland, OH; Physician Executive Council interviews and analysis.
PEC Tool Quantifies Variation Opportunities

The Physician Executive Council offers a tool, the Physician Care Variation Assessment, to provide a starting point for organizations to quantify and prioritize variation opportunities.

The Assessment generates a custom analysis of performance variation at the member’s organization. The Assessment analyzes Medicare data and quantifies the opportunity (in cost and days saved) if outlier physician performance is brought to the average. This data helps physician executives pinpoint where standardization of practice would offer significant gains.

For PEC members with Crimson Continuum of Care, this assessment is a companion analysis offering an overview of your opportunities, but Crimson can offer additional drill-down analyses.

### Sample Excerpt from the Physician Executive Council’s Physician Care Variation Assessment

#### Key Functionalities
- Identifies physicians with statistically significant variations in cost and LOS
- Quantifies potential savings from moving outlier costs to average
- Breaks down opportunities by physician, specialty

#### Tool in Brief: Physician Care Variation Assessment
- Assessment includes custom analysis of performance variation and improvement opportunities
- Assessment uses a proprietary algorithm to analyze hospital’s Medicare data to identify physicians with statistically significant variations in cost and length of stay performance
- Assessment quantifies each variation opportunity in terms of cost and days saved through reduced LOS
- Executives can schedule an action-planning session with Physician Executive Council researchers to discuss relevant resources and strategies to address opportunity areas
- Available at: advisory.com/PEC/2013meetingresources

#### Sample Data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>5</td>
<td>5</td>
<td>$434,527</td>
<td>47</td>
<td>5.53%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>General Practice</td>
<td>6</td>
<td>6</td>
<td>$868,352</td>
<td>124</td>
<td>11.06%</td>
</tr>
<tr>
<td>General Surgery</td>
<td>5</td>
<td>4</td>
<td>$636,124</td>
<td>138</td>
<td>8.10%</td>
</tr>
<tr>
<td>Gynecology</td>
<td>1</td>
<td>1</td>
<td>$59,731</td>
<td>1</td>
<td>0.76%</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>25</td>
<td>26</td>
<td>$3,652,531</td>
<td>672</td>
<td>46.50%</td>
</tr>
</tbody>
</table>

---

1. Provides blinded physician-specific data.

Source: Physician Executive Council interviews and analysis.
Lesson #8: Hold Executive Leaders Directly Accountable for Advancing EBP

Rewarding Leaders for System-Wide Performance

Once organizations select the right EBP priorities, it will take effort and attention from the leadership base to execute them on a broad scale. Lesson eight offers two models, from Intermountain Healthcare and Banner Health, on how to hold executive leaders directly accountable for advancing EBP.

Intermountain maintains system-wide goal-alignment, as evidenced by their financial incentive program. A high-level overview of the incentive plan for system executives, physician leaders, and administrative leaders is shown here. Each group has a fairly significant portion of at-risk pay linked to Intermountain’s “dimensions of care” goals, including clinical excellence.

Admittedly, this structure is not particularly novel. Most hospital executives are incented on clinical quality performance. However, the discrete goals at Intermountain within the “Clinical Excellence” dimension are more impactful in driving EBP than those at most other organizations.

### Intermountain Leadership Incentive Opportunity

**Incentive as a Percentage of Base Pay**

<table>
<thead>
<tr>
<th>Role</th>
<th>Incentive as a Percentage of Base Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Executives</td>
<td>25%</td>
</tr>
<tr>
<td>Clinical Program Physician Leader</td>
<td>5%-10%</td>
</tr>
<tr>
<td>Admin/Ops Leadership</td>
<td>5%-20%</td>
</tr>
</tbody>
</table>

**“Dimensions of Care” Goals Linked to Incentives**

- Clinical Excellence
- Patient Engagement
- Physician Engagement
- Operational Effectiveness
- Employee Engagement
- Community Stewardship

### Case in Brief: Intermountain Healthcare

- 22-hospital, not-for-profit system headquartered in Salt Lake City, Utah, with facilities located throughout Utah and southeastern Idaho
- Created eight system-level Clinical Programs to create and implement evidence-based practice system-wide
- Each year, Clinical Program leaders suggest a goal related to advancing EBP within their specialty; system executives and board members review and sign-off on a single goal for each Clinical Program, which is adopted as a system-wide “board goal”
- All system executives, Clinical Program leaders, and administrative and operational leaders have financial incentives to achieve all Clinical Program goals; this promotes system-wide, shared accountability for advancing EBP across specialties

---

1) Percentages are represented as ranges because incentive opportunity differs between some positions.
2) Includes system Chief Medical Officer.
3) Administrative and operational leadership includes hospital administrators, operations officers, and regional VPs.

Source: Intermountain Healthcare, Salt Lake City, UT; Physician Executive Center interviews and analysis.
Within the “Clinical Excellence” domain, Intermountain sets annual goals that directly measure whether or not the entire organization is following evidence-based guidelines. Additionally, these goals are set for every clinical program so EBP permeates the entire medical staff.

For example, the chart outlines past goals for intensive medicine. Intermountain leaders set a high bar for compliance to specific evidence-based protocols, such as the sepsis bundle.

An excerpt of Intermountain’s 2013 clinical goals is shown on the right (the full version is available online). Each goal is a specific action item to advance standardized practice, such as implementing national guidelines or incorporating evidence-based practices into CPOE.

Achieving these goals is not just the responsibility of the relevant specialists. As mentioned earlier, these goals are linked to the financial incentive of every physician and administrative leader, so they are all invested in building the support systems that will advance EBP adoption in these specific, measurable ways.

---

### Past System-Wide Goals for Intensive Medicine

<table>
<thead>
<tr>
<th>Goal</th>
<th>Baseline Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase proportion of eligible stroke patients receiving five measures of appropriate care</td>
<td>70% compliance</td>
</tr>
<tr>
<td>Increase compliance to ventilator bundle interventions to reduce VAP</td>
<td>80% compliance • &lt;6.65 cases per 1,000 ventilator days</td>
</tr>
<tr>
<td>Increase compliance with 11 elements of sepsis bundle</td>
<td>60% compliance</td>
</tr>
</tbody>
</table>

### 2013 System-Wide Clinical Goals Summary

**Pediatric Specialties Clinical Program:** Implement newly established national guidelines for the treatment of community acquired pneumonia in children

**Surgical Services Clinical Program:** Reduce clinically unnecessary transfusions

**Intensive Medicine Clinical Program:** Implement a disease-specific computerized order entry system to guide evidence-based care

**Cardiovascular Clinical Program:** Integrate the treatment of heart failure patients across the continuum of care

---

Access the full version of Intermountain’s System-Wide Clinical Goals at: advisory.com/PEC/2013meetingresources

---

Intermountain uses the three-step process shown here to set system-wide clinical goals.

Similar to Banner Health, Intermountain prioritizes system-wide variation opportunities based on the anticipated cost and quality impact. With this information, clinical program leaders develop a draft of the goals, which are then vetted by system leaders and board members. This ensures clinical programs, whose members are responsible for crafting guidelines, are focusing on system-endorsed goals rather than pet projects.

Additionally, board oversight provides additional motivation to system leaders for achieving EBP-related, clinical goals.
System Goal Tackles Unnecessary Utilization

The success of Intermountain’s targeted EBP goals is illustrated through the CV and imaging 2012 joint goal to reduce patient exposure to radiation.

To support clinicians in achieving this goal, clinical program leaders implemented formal tactics. They introduced 10 appropriate use guidelines, shared system-wide data on radiation exposure with staff, and educated physicians.

Interestingly, these efforts, particularly the facility-level data, spawned a “halo effect” of healthy competition across facilities. The facilities started to come up with inventive ways to reduce radiation exposure.

They achieved significant reductions in radiation exposure across a number of tests and procedures. The outsized impact of this initiative is a testament to how system-directed goals can guide and enhance facility-level innovation. In addition to holding leaders accountable for driving EBP system-wide, the EBP goals at Intermountain send a powerful signal to the entire medical and hospital staff that EBP is a top organizational priority.

Engaging Staff in Rightsizing Utilization Drives Results

Intermountain’s 2012 Joint Board Goal for Cardiovascular and Imaging Clinical Programs:

Reduce patient exposure to radiation from medical tests and procedures.

CV and Imaging Formal Clinical Program Initiatives

- Implement 10 appropriate use guidelines to guide ordering, based on professional society criteria
- Report collective radiation exposure in patient EHR and share diagnostic, procedure use data across hospitals
- Provide physicians education on how to balance necessity of intervention with radiation exposure

Halo Effect Facility Innovations

- Facility staff notice significant differences in radiation from same test, decide to buy radiation-reducing add-on for CT scans
- Facilities compete to implement most innovative reduction technique (e.g., using GPS to track catheter)

Radiation Reduction Results at Intermountain Healthcare

- 25% Reduction in unnecessary CT pulmonary angiograms and nuclear stress tests
- 80% Reduction in radiation for atrial fibrillation and ventricular tachycardia ablation procedures
- 0 More procedures now being performed with zero radiation using GPS catheter tracking

Clear System Ambition Catalyzes Performance Improvement

“Don’t punish people with a goal. You have to engage them, and resource them. When you do that, it’s amazing what they’ll accomplish that you can’t do with just a small group on a single task.”

Dr. Donald Lappe
Chief of Cardiology
Intermountain Healthcare

Source: Intermountain Healthcare, Salt Lake City, UT; Physician Executive Center interviews and analysis.
Tapping Facility CMOs as System EBP Allies

Banner takes a different approach to leadership accountability for advancing EBP. The facility CMO role has formal EBP responsibilities.

Each facility CMO is expected to spend 80% of their time on traditional, facility responsibilities, and 20% of their time overseeing one of the Clinical Consensus Groups (system-level, specialty-specific groups that standardize clinical practice).

This approach drives EBP adoption in three ways. First, every CMO has to create and implement guidelines, which means they are skillful in building guidelines that account for frontline operational considerations. Second, the CMO peer dynamic keeps the quality of guidelines high because if there are problems, the other CMOs will point them out. Third, putting facility CMOs in charge of the CCGs boosts credibility and signals that Banner expects every facility to partake in system-wide clinical standardization.

At Banner and Intermountain, executive accountability for EBP has real impact. It influences how leaders talk about EBP to physicians and staff, and how much time they dedicate to improving the process.

Banner Health, Phoenix, AZ; Physician Executive Council interviews and analysis.

1. Complementary Roles

As Facility CMO: oversees implementation of guidelines from all CCGs at own facility

As a system-wide EBP group sponsor: creates guidelines that all facilities must adopt

CMO oversees single EBP group, but implements standard practices from all groups; peer dynamic keeps quality high

Facility CMOs’ accountability to system-level EBP group signals facility alignment with system’s EBP efforts

Case in Brief: Banner Health

- 24-hospital, not-for-profit system headquartered in Phoenix, Arizona
- Each facility CMO spends 20% of his or her time working with Clinical Consensus Group (CCG)
- Dual CMO role builds peer accountability for designing system-wide guidelines since CMOs will aim to send out work as high-quality as they would like to receive from a peer
- CMOs’ executive sponsor role on CCGs signals organizational commitment to building a system-wide standard of practice

1) Clinical Consensus Groups.

Source: Banner Health, Phoenix, AZ; Physician Executive Council interviews and analysis.
The final lesson for capitalizing on system advantage is to scale best practices system-wide. To do this, organizations need a process to translate pilot efforts into a full-scale rollout. Shown here are five critical steps for scaling a pilot.

First, make sure the ambition for scale is clear from the outset. Then, support pilot teams and enable performance comparisons by creating a consistent structure (e.g., data tracking and reporting, executive sponsors). Methodically assess which pilots to scale so the organization can shift its attention from innovation to the equally (if not more) challenging task of implementation. Reward early adopters. And finally, evaluate lessons learned to inform future rollouts.

None of these steps are particularly novel, but organizations rarely use a consistent, standard approach.
Alegent Health developed a standard process to scale facility-specific care pathways across its 10-hospital system.

At the outset of this initiative, Alegent analyzed system-level data and identified 20 diagnoses accounting for 90% of care in the system (e.g., heart failure, stroke, pneumonia, etc.). To build a standard of care for each DRG, they created a system-wide pilot initiative.

System leaders assigned one DRG to each campus. They charged each multidisciplinary campus team with creating a new standard care pathway in 100 days. This approach focused facilities on high-priority DRGs, enfranchised frontline staff, and safeguarded against duplicative work.

Promoting Principled System-Wide Innovation

Care Teams Pilot Pathways for System-Wide High-Variation DRGs

System Analysis Yields Top Variation Opportunities

- High-volume, high-cost DRGs
- Greatest performance variability (e.g., charges, LOS, readmissions)
- Tied to core quality measures

Each Facility Assigned a 100-Day Care Redesign Project

DRG-Campus Match

- Each campus tackles one DRG care redesign project per 100-day cycle
- Preexisting initiatives, team interests drive selections

Campus Team Members

- Physicians
- Administrators
- Nurses and NPs
- Project managers
- LEAN experts

20 diagnoses represent 90% of total care across the system (e.g., HF, stroke, pneumonia, psychosis)

Case in Brief: Alegent Health

- 10-acute care hospital system headquartered in Omaha, Nebraska; affiliated with Catholic Health Initiatives
- System-level steering committee analyzed data to uncover highest-volume, highest-cost DRGs
- Leaders at each campus have 100 days to implement an initiative that addresses one assigned opportunity uncovered by the steering committee; leaders present initiative details and results to system peers at trade show; cross-system facilities expected to implement successful strategies
- Care redesign resulted in total estimated savings of $2,732,546


1) Based upon change in margin average per case for nine DRG groupings.
At the outset of the pilot initiative, system leaders set the expectation that each care pathway eventually be scaled system-wide. By the 100-day mark, every initiative leader was expected to teach their new care pathway at a system-wide “trade show” to their peers from all the other campuses. This ensured campus teams were mindful to create a new pathway that addressed the barriers to care across the system, not just at their own organization. Additionally, campus teams were responsible for creating EBP support tactics that would be rolled out system-wide, such as protocols, order sets, and patient education materials.
Pilot Report Card Provides Focus and Motivation

Alegent also increased the chances of success of each pilot by having the campus teams report on their progress every 30 days to system leadership. These check-ins were structured around a project plan template. The template prompted campus teams to thoughtfully consider all critical elements, such as key stakeholders, business case, current and future states, work-plan timeline, and success metrics. This built-in structure helped fast-track the pilots since each team had a blueprint to work from. And it helped system leaders assess the progress and potential of each pilot in a consistent way.

Alegent’s 30-Day Report Template

I. Key Stakeholders:
List those responsible for achieving the future state or those directly impacted by future state.

II. Business Case:
• Importance of the problem
• Note relevant background information necessary to fully understand the issue
• Consider the size and scope of the problem
• Include data

III. Current State:
• Diagram/Description of the current process
• Label the diagram so that anyone could understand
• Note major problems
• Include quantified measures of the extent of the problem

IV. Desired (Future) State:
• Diagram/Description of the desired process
• List of countermeasure(s) that will address the root cause(s) identified
• Include measurable targets (quantity, time)

V. Implementation Plan

<table>
<thead>
<tr>
<th>What?</th>
<th>Who?</th>
<th>When?</th>
<th>Where?</th>
</tr>
</thead>
</table>

VI. Success Measures

<table>
<thead>
<tr>
<th>Plan</th>
<th>Actual Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How will you check the effects?</td>
<td>• Date check done Results</td>
</tr>
<tr>
<td>• When will you check them?</td>
<td>• Compare to predicted</td>
</tr>
</tbody>
</table>

Concise implementation plan distills critical pilot elements to facilitate bringing pilot to scale

Clearly defined success measures motivate team to pursue outcomes and allow leadership to evaluate if pilot should be scaled

Alegent’s full 30-Day Report Template can be accessed at: advisory.com/PEC/2013meetingresources

Source: Alegent Health, Omaha, NE; Physician Executive Council interviews and analysis.
The Alegent pilots successfully transitioned into system-wide care pathways, realizing system-wide savings of $2.7 million in 18 months.

### Redesign Initiatives Capture Savings

### Cost-Savings from DRG Initiatives at Alegent Health

<table>
<thead>
<tr>
<th>DRG Initiatives at Alegent Health</th>
<th>Change in Margin Average per Case</th>
<th>Change in Margin Overall YTD¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ischemic Stroke</td>
<td>($1,270)</td>
<td>($21,590)</td>
</tr>
<tr>
<td>Hemorrhagic Stroke</td>
<td>$65</td>
<td>$17,987</td>
</tr>
<tr>
<td>Simple Pneumonia &amp; Pleurisy w/MCC</td>
<td>($832)</td>
<td>($101,560)</td>
</tr>
<tr>
<td>Simple Pneumonia &amp; Pleurisy w/o MCC</td>
<td>$98</td>
<td>$37,179</td>
</tr>
<tr>
<td>Heart Failure &amp; Shock</td>
<td>$781</td>
<td>$356,983</td>
</tr>
<tr>
<td>Revision of Knee Replacement</td>
<td>$977</td>
<td>$94,791</td>
</tr>
<tr>
<td>Total Knee Replacement</td>
<td>$1,994</td>
<td>$1,456,293</td>
</tr>
<tr>
<td>Vaginal Delivery w/o CC</td>
<td>$67</td>
<td>$779,726</td>
</tr>
<tr>
<td>Behavioral, Psychosis</td>
<td>$325</td>
<td>$779,726</td>
</tr>
<tr>
<td><strong>Total System-Wide Estimated Savings</strong></td>
<td></td>
<td><strong>$2,732,546</strong></td>
</tr>
</tbody>
</table>

¹ As of May 2012.

Source: Alegent Health, Omaha, NE; Crimson Continuum of Care interviews and analysis.
Rewarding Fast Followers

Alegent made every facility an innovator. But getting EBP to scale requires that most people be followers, which can be a tougher sell.

Christus Health’s recognition approach rewards innovation and, importantly, the replication of good ideas. They have “Touchstone” awards for innovators in quality and safety. But they also give “Spirit Exchange” awards to the fast followers—hospitals that successfully implement an evidence-based practice developed elsewhere in the system. The award acknowledges the work going into the uptake process, which can otherwise feel thankless for those altering their processes to match someone else’s model. It also sends a powerful signal that the system values adoption of a standard of care as much as creating that standard.

Recognizing Successful Exchange

**Reasons Best Practices Are Not Disseminated**
- Incentives favor innovation
- Internal politics may discourage widespread adoption
- Considerable work to adapt and implement practice often required

**Christus Health’s Recognition Programs**
- Touchstone Award is granted to hospitals and regions that document and submit replicable best practices
- Spirit Exchange Award is granted to hospitals and regions that most successfully implement a best practice developed by another region within the system

**Case in Brief: Christus Health**
- 35-hospital system located in seven states and Mexico
- System encourages best practice sharing by rewarding innovators and fast followers

Source: Christus Health, Irving, TX; Physician Executive Council interviews and analysis.
When a pilot rollout is successful, the temptation is for leaders to move on to the next pilot right away. But a good initiative is about more than just its results—there are also lessons learned that can benefit future efforts. To make the pilot rollout process more efficient over time, organizations should conduct a post-initiative debrief and apply new institutional knowledge to future efforts.

The debrief meeting should largely focus on organizational learning resulting from the pilot, rather than evaluating the performance of specific individuals. Members can access a ready-made discussion guide online.

### Key Features of Post-Initiative Assessment

**Discuss Leadership Effectiveness**
Initiative leader(s) and executive sponsor(s) discuss what worked well and how they can work together more effectively in the future.

**Share Lessons Learned**
Initiative leader shares lessons learned to be passed to other leaders.

**Reflect on Team Performance**
Physician leader reflects on individual and team performance, and identifies high-potential team members who can lead a future initiative.

**Identify Additional Improvement Opportunities**
Initiative leader and executive sponsor discuss organizational challenges uncovered by this initiative to be addressed by future initiatives.

Productive Learning Discussion Guide available at: advisory.com/PEC/2013meetingresources

Source: Physician Executive Council interviews and analysis.
A Foot in Two Boats
This publication has largely focused on driving EBP adoption in the inpatient setting. But physician executives are increasingly turning their attention to ambulatory care.

Like health systems, physician and quality leaders have a “foot in two boats.” They are taking on emerging, cross-continuum responsibilities on top of their more traditional inpatient roles.

In 2009, the average CMO reported spending 37% of his or her time on ambulatory care responsibilities. This figure rose to 48% in 2012 and CMOs expect it to rise to 61% by 2015.

The shift to risk-based reimbursement explains this shift in focus. Organizations are figuring out how to build the clinical and operational capacity to manage populations. The ambulatory space is a hotbed of innovation, which pushes organizations, and the roles of clinical executives, to evolve. However, this shift outside the four walls of the hospital raises some tensions.

Survey in Brief: 2012 Physician Executive Survey
• Survey examines the evolving role of the CMO
• Survey and analysis available at: advisory.com/PEC/2013meetingresources

1) Ambulatory settings of care are defined as hospital outpatient and physician network settings. Responses include CMO and VPMA responses to the survey question, “Approximately what percentage of your time do you spend on management responsibilities related to each of the settings of care listed below: hospital inpatient, hospital outpatient, and physician network?”

Source: 2012 Physician Executive Survey; Physician Executive Council interviews and analysis.
Increasing Focus on Building Population Health Management Capacity

Easy to See Why Outpatient Care Is Top of Mind

On one hand, most health systems are placing big bets on redesigning or rethinking outpatient services for a value-based care strategy. Physician and quality executives are more-than-logical participants in these conversations.

On the other hand, this outpatient focus risks diluting organizational focus on the critical work still remaining on the inpatient side. In fact, the mantra that "population management is all about primary care" probably undersells how much innovation is still needed on the inpatient side. Yes, organizations need to avoid hospitalizations. But, there is a lot organizations can still do to reduce the cost, and improve the care, of those hospitalizations.

As the industry’s attention turns to the important challenge of running an ambulatory-centered enterprise, clinical leaders should continue to advance on inpatient EBP because most hospitals are not yet evidence-based organizations. And, building an inpatient culture of EBP will produce transferable knowledge and competencies to ultimately support care integration across the continuum.

Source: Health Care Advisory Board interviews and analysis; Physician Executive Council interviews and analysis.
Key Questions for Physician Leaders

Defining and adopting a standard of care is hugely challenging because it is a moving target. As the evidence base grows and evolves, and the market pushes more organizations to find innovative ways to curb unnecessary utilization, the “right answer” to care may look completely different in the future. To that end, the Physician Executive Council expects to partner with physician executives on this topic in coming years. But, to succeed in a value-based market, it is critically important to build the infrastructure and processes now that will support evolving guidelines into the future.

Here are key questions to guide physician executives in these efforts. On the left, questions to prompt discussion on how to enhance an organization’s existing work to advance EBP. On the right, questions to prepare for future challenges. PEC researchers encourage physician executives to use these questions to prompt conversation among the broader physician leadership team about how to tackle EBP challenges in a proactive and collaborative way.

**Capitalizing on Today’s Opportunities**

- Do system leaders articulate a common vision for adopting evidence-based practice? Is evidence-based practice a core value among the medical staff?
- What are our next steps to bolster the underleveraged EBP support tactics identified in the EBP Leadership Audit?
- Do we have a standard method for determining highest-ROI EBP initiatives to pursue organization-wide?
- Are we enfranchising physicians to promote practices that follow the evidence and are cost-effective, in order to reduce unnecessary utilization?
- Do we have sufficient coordination across our care sites to promote the standardization and dissemination of proven clinical practices?

**Preparing for Future Challenges**

- Are we developing leadership structures and communication methods to promote consistent priorities and messaging across the mixed medical staff?
- Are we considering how to standardize the care experience for comorbid patients, both from a clinical and care coordination perspective?
- Do we have formal mechanisms to promote collaboration between clinical leadership in the inpatient and outpatient space? Are we translating “lessons learned” from EBP adoption in the inpatient setting to other care settings?
- Are we starting to convene cross-continuum stakeholders to build care pathways that offer consistent, coordinated transitions between care settings?

Source: Physician Executive Council interviews and analysis.